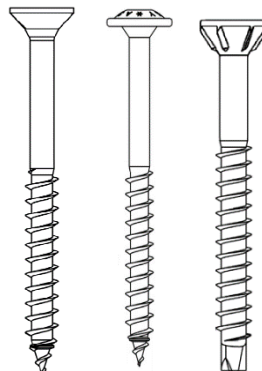
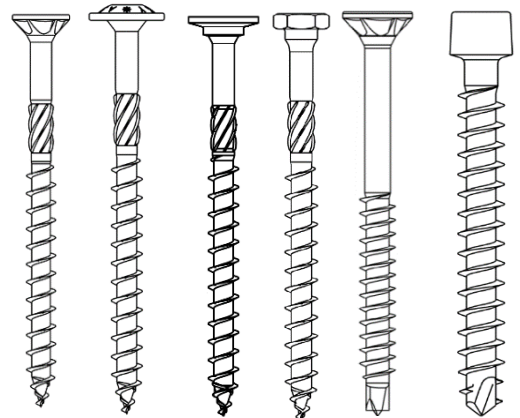
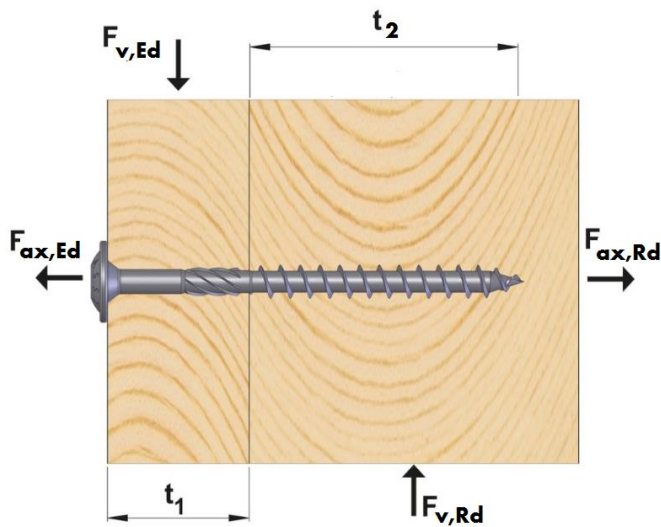


# AXIAL/SHEARING VALUE TABLE

## FOR ASSY® SCREWS


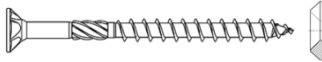
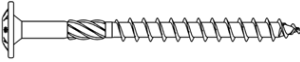


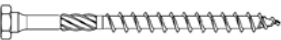
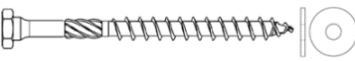

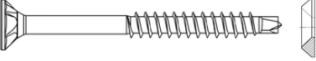


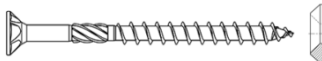

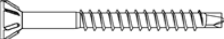
### SOFTWOOD-SOFTWOOD



A2

**CONNECTS THE WOOD -  
INSTEAD OF SPLITTING IT**

## CONTENTS FOR AXIAL/SHEARING VALUE TABLE SOFTWOOD-SOFTWOOD

<b>Determining values</b>		Page 3
<b>Using the table values</b>		Page 5
<b>Diagram for fast measurements</b>		Page 6
<b>Legend</b>		Page 8
<b>ASSY 3.0</b>		Page 9
<b>ASSY 3.0 + washer</b>		Page 31
<b>ASSY 3.0 SK</b>		Page 45
<b>ASSY 3.0 SK II</b>		Page 67
<b>ASSY 3.0 SK II + washer</b>		Page 71
<b>ASSY 3.0 Combi</b>		Page 75
<b>ASSY 3.0 Combi + washer</b>		Page 89
<b>ASSY plus</b>		Page 103
<b>ASSY plus + washer</b>		Page 111
<b>ASSY plus VG</b>		Page 117
<b>ASSY 3.0 A2</b>		Page 139
<b>ASSY 3.0 A2 + washer</b>		Page 149
<b>ASSY 3.0 SK A2</b>		Page 159
<b>ASSY 3.0 plus A2</b>		Page 165

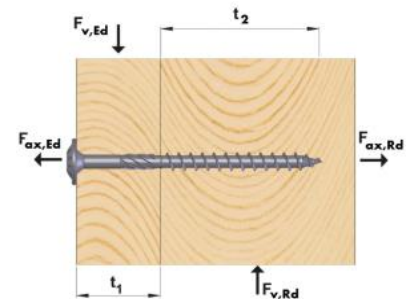
## DETERMINING THE TABLE VALUES FOR ASSY SCREWS

### Boundary conditions

The example calculation is based on ETA-11/0190 and DIN EN 1995-1-1. This example assumes a connection between C24 wood and C24 wood that exerts a shearing and pullout force on a fastener in the non-predrilled state. The analyzed fastener is a Würth ASSY 3.0 SK 8x100mm.

**Component 1** Thickness = 40 mm  
**Wood** Height = 200 mm  
 $\rho_{k,1}$  = 350 kg/m<sup>3</sup>  
 $t_1$  = 40 mm

**Component 2** Thickness = 80 mm  
**Wood** Height = 200 mm  
 $\rho_{k,2}$  = 350 kg/m<sup>3</sup>  
 $t_2$  = 60 mm



### Würth ASSY 3.0 SK partial thread Ø8x100mm

$d$ =	8 mm	"Screw diameter"
$l_g$ =	60 mm	"Thread length"
$d_h$ =	22 mm	"Head diameter"
$M_{y,Rk}$ =	20000 Nmm	"Characteristic yield moment [Annex 1 Table 1.1]"
$f_{ax,k}$ =	11 N/mm <sup>2</sup>	"Characteristic pull-out parameter [A.1.3.1]"
$f_{h,k,1}$ =	15.38 N/mm <sup>2</sup>	"Bearing strength [A.1.2.2] component 1"
$f_{h,k,2}$ =	15.38 N/mm <sup>2</sup>	"Bearing strength [A.1.2.2] component 2"
$\beta$ =	1,0	"Ratio of the two bearing strengths"

Data according to ETA-11/0190 and corresponding product details

### Pullout strength

$\alpha$ =	90°	"Angle between screw axis and direction of grain"
$k_{ax}$ =	1.00	Factor [A.1.3.1]
$f_{head,k}$ =	10 N/mm <sup>2</sup>	"Head pull-through parameter [A.1.3.2]"
$f_{tens,k}$ =	20000 N	"Characteristic tensile strength [Annex 1 Table 1.1]"
$l_{ef}$ =	60 mm	"Effective thread length in wood ( $t_2$ )"
$F_{ax,\alpha,Rk,1}$ =	5280 N	$= k_{ax} \times f_{ax,k} \times d \times l_{ef} \times \left(\frac{\rho_k}{350}\right)^{0,8}$
<b><math>F_{ax,\alpha,Rk,2}</math> = 4840 N</b>		$= F_{ax,\alpha,Rk,2} = f_{head,k} \times d_h^2 \times \left(\frac{\rho_k}{350}\right)^{0,8}$
$F_{ax,\alpha,Rk,3}$ =	20000 N	"Characteristic tensile strength [Annex 1 Table 1.1]"
<b><math>F_{ax,\alpha,Rk}</math> = 4840 N</b>		"Minimum pullout strength"

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## DETERMINING THE TABLE VALUES FOR ASSY SCREWS

### Calculation according to DIN EN 1995-1-1 8.2.2

$$a) \quad 4922 \text{ N} \quad = f_{h,1,k} \times t_1 \times d$$

$$b) \quad 7382 \text{ N} \quad = f_{h,2,k} \times t_2 \times d$$

$$c) \quad 3845 \text{ N} \quad = \frac{f_{h,1,k} \times t_1 \times d}{1 + \beta} \left[ \sqrt{\beta + 2\beta^2 \left[ 1 + \frac{t_2}{t_1} + \left( \frac{t_2}{t_1} \right)^2 \right] + \beta^3 \left( \frac{t_2}{t_1} \right)^2} - \beta \left( 1 + \frac{t_2}{t_1} \right) \right] + \frac{F_{ax,Rk}}{4}$$

$$d) \quad \mathbf{3423 \text{ N}} \quad = 1,05 \frac{f_{h,1,k} \times t_1 \times d}{2 + \beta} \left[ \sqrt{2\beta(1 + \beta) + \frac{4\beta(2 + \beta) \times M_{y,Rk}}{f_{h,1,k} \times d \times t_1^2}} - \beta \right] + \frac{F_{ax,Rk}}{4}$$

$$e) \quad 4133 \text{ N} \quad = 1,05 \frac{f_{h,1,k} \times t_2 \times d}{1 + 2\beta} \left[ \sqrt{2\beta^2 \times (1 + \beta) + \frac{4\beta(1 + 2\beta) \times M_{y,Rk}}{f_{h,2,k} \times d \times t_2^2}} - \beta \right] + \frac{F_{ax,Rk}}{4}$$

$$f) \quad 3761 \text{ N} \quad = 1,15 \sqrt{\frac{2\beta}{1 + \beta}} \sqrt{2M_{y,Rk} \times f_{h,1,k} \times d} + \frac{F_{ax,Rk}}{4}$$

$$\mathbf{F_{v,Rk} = 3423 \text{ N}}$$

### Design situation according to DIN EN 1995-1-1

Utilization class =	1	"Utilization class [2.3.1.3]"
KLED =	medium	"Load duration class [Table 2.2]"
$k_{mod}$ =	0,8	"Modification factor [Table 3.1]"
$\gamma_M$ =	1,3	"Part safety coefficient [Table 2.3]"
$F_{v,Rd}$ =	<b>2106 N</b>	<b>= 2.11 kN</b>
$F_{ax,Rd}$ =	<b>2978 N</b>	<b>= 2.98 kN</b>

$$= \frac{F_{v,Rk} \times k_{mod}}{1,3}$$

$$= \frac{F_{ax,Rk} \times k_{mod}}{1,3}$$

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## USING THE TABLE VALUES

### Example calculation

System:	Tensile splice
Beam:	w/h = 80 mm / 200 mm softwood, strength class C24 according to EN 338 ( $\rho_k = 350 \text{ kg/m}^3$ )
Side tab:	w/h = 40 mm / 200 mm, softwood, strength class C24 according to EN 338 ( $\rho_k = 350 \text{ kg/m}^3$ )
Basic for calculation:	Dimensioning: EC5 or DIN EN 1995-1-1:2010-12 and national German application document DIN 20000-6:2012-06; ETA 11/0190 ASSY wood screws.
Design force:	$F_{v,Ed} = 11.3 \text{ kN}$ (utilization class = 1, KLED = "medium")
Connection / design load	According to the table, each ASSY 3.0 SK 8.0x100mm screw has the following load-bearing capacity.
Design pullout value:	$F_{ax,Rd} = 2.98 \text{ kN}$
Design shearing value	$F_{v,Rd} = 2.11 \text{ kN}$

6 screws therefore have a load-bearing capacity of  $F_{v,Rd} = 12.66 \text{ kN}$ . The group effect may have to be taken into account depending on the arrangement variant.

	Axial tensile strength $F_{ax,Rk}$ or $F_{ax,Rd}$	Shear strength $F_{v,Rk}$ or $F_{v,Rd}$	
Characteristic	4,84	3,42	WITHOUT predrilled holes
		4,55	WITH predrilled holes
KLED_medium ( $k_{mod}=0.8$ )	2,98	2,11	WITHOUT predrilled holes
		2,80	WITH predrilled holes

Characteristic load-bearing capacity  $F_{v,Rk}$  and design load-bearing capacity values  $F_{v,Rd}$  (KLED="medium",  $k_{mod}=0.8$ ) for wood-wood (for utilization class 1 and 2 each).

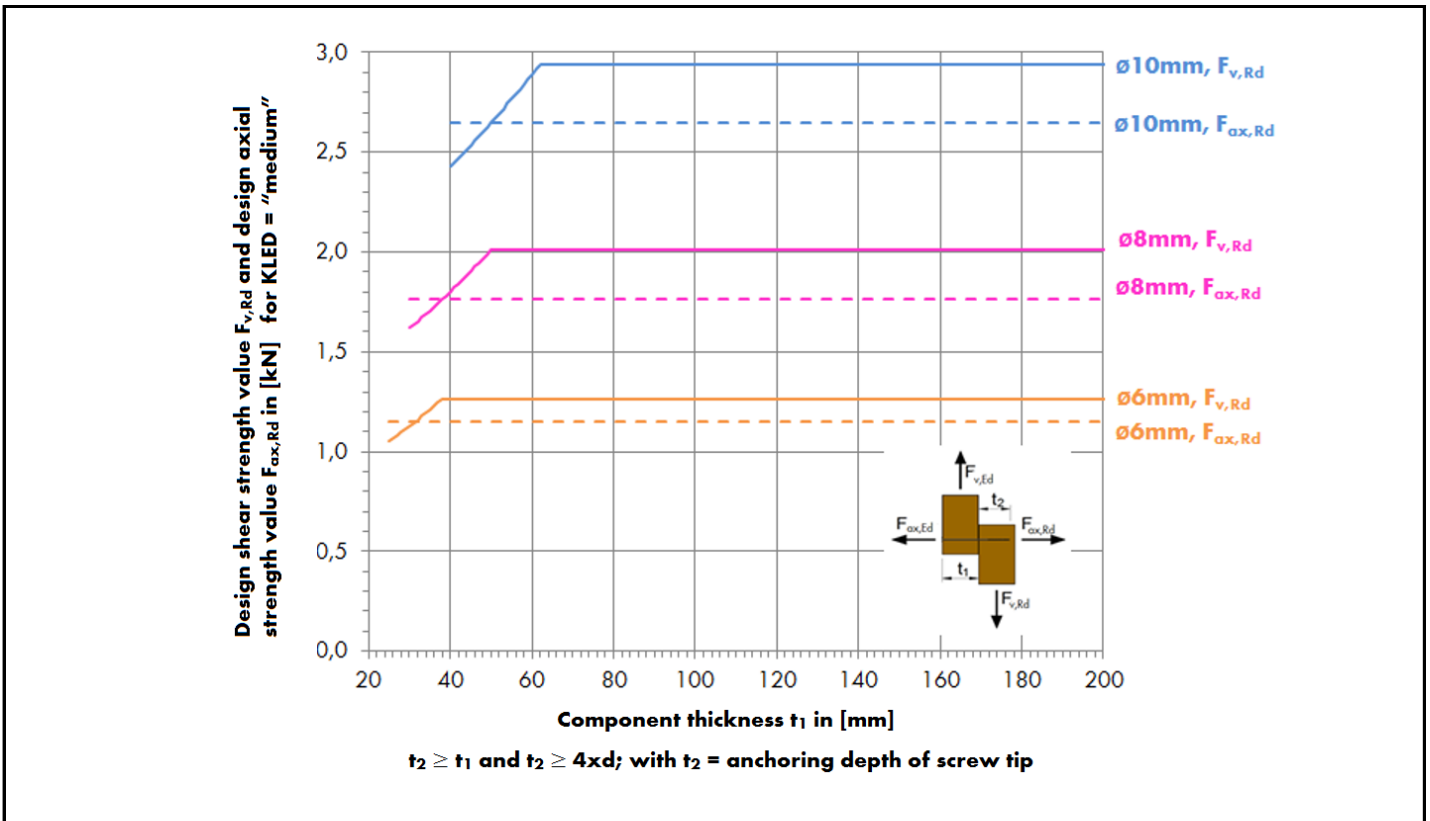
AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK													
Type d x l	Side wood thickness in [mm]												
	25*	30	35	40	45	50	60						
ASSY 3.0 SK 8x60 mm	3,08	3,38											
	1,90	2,08											
ASSY 3.0 SK 8x80 mm	4,40	3,71	4,40	3,02	3,96	3,05	3,52	2,92	3,08	2,83			
				3,97		4,15	4,22	4,22	3,93				
	2,71		2,71	1,86	2,44	1,88	2,17	1,80	1,90	1,74			
			2,44		2,55	2,60	2,60	2,42					
ASSY 3.0 SK 8x100 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,40	3,65	3,09
		3,82		4,08		4,37	4,55	4,55	4,44	4,44	3,52	4,22	
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,71	2,25	1,90
		2,35		2,51		2,69	2,80	2,80	2,80	2,80	2,73	2,60	2,60

Ø  
**8,0**  
mm

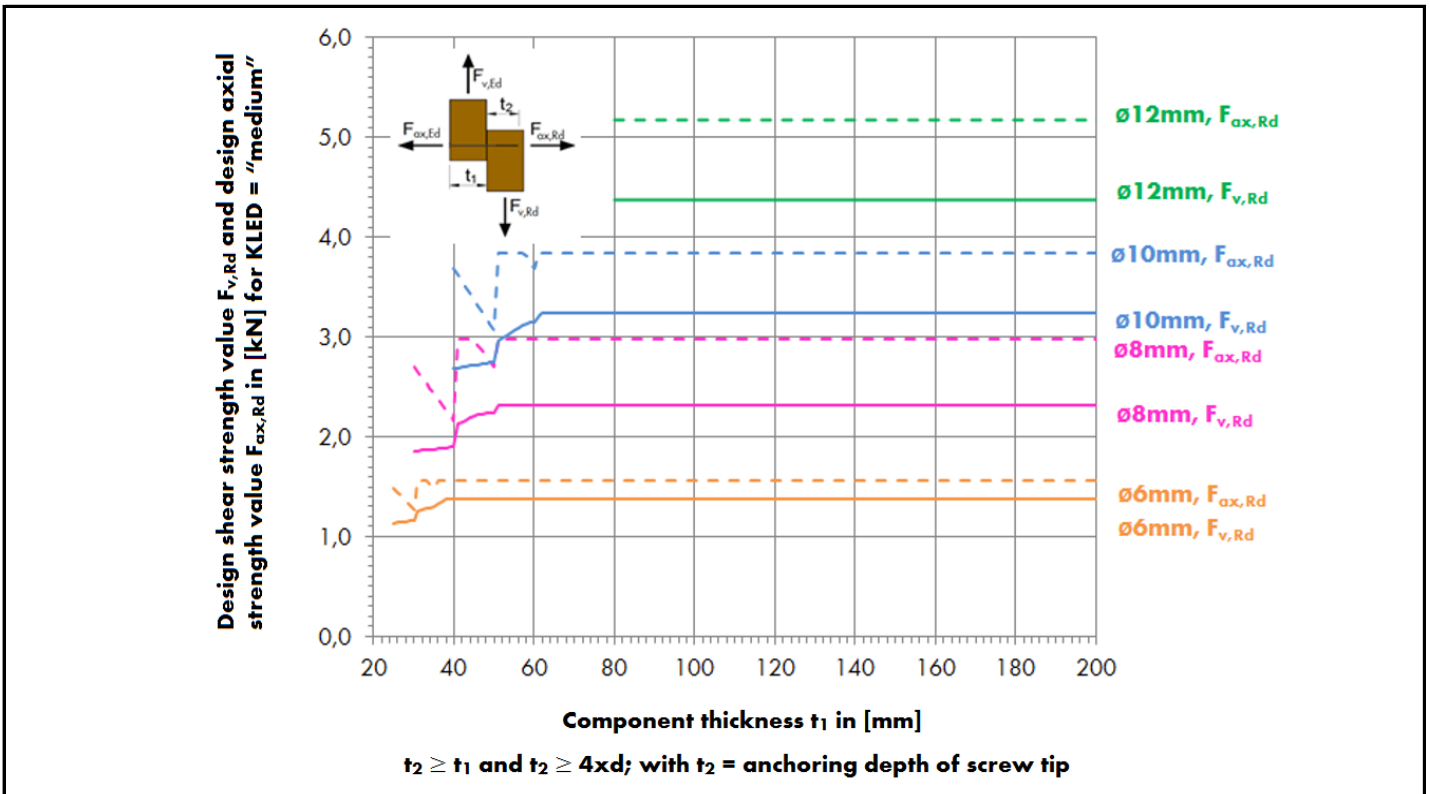
NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE DIAGRAMS WOOD-WOOD FOR QUICK REFERENCE

### ASSY 3.0



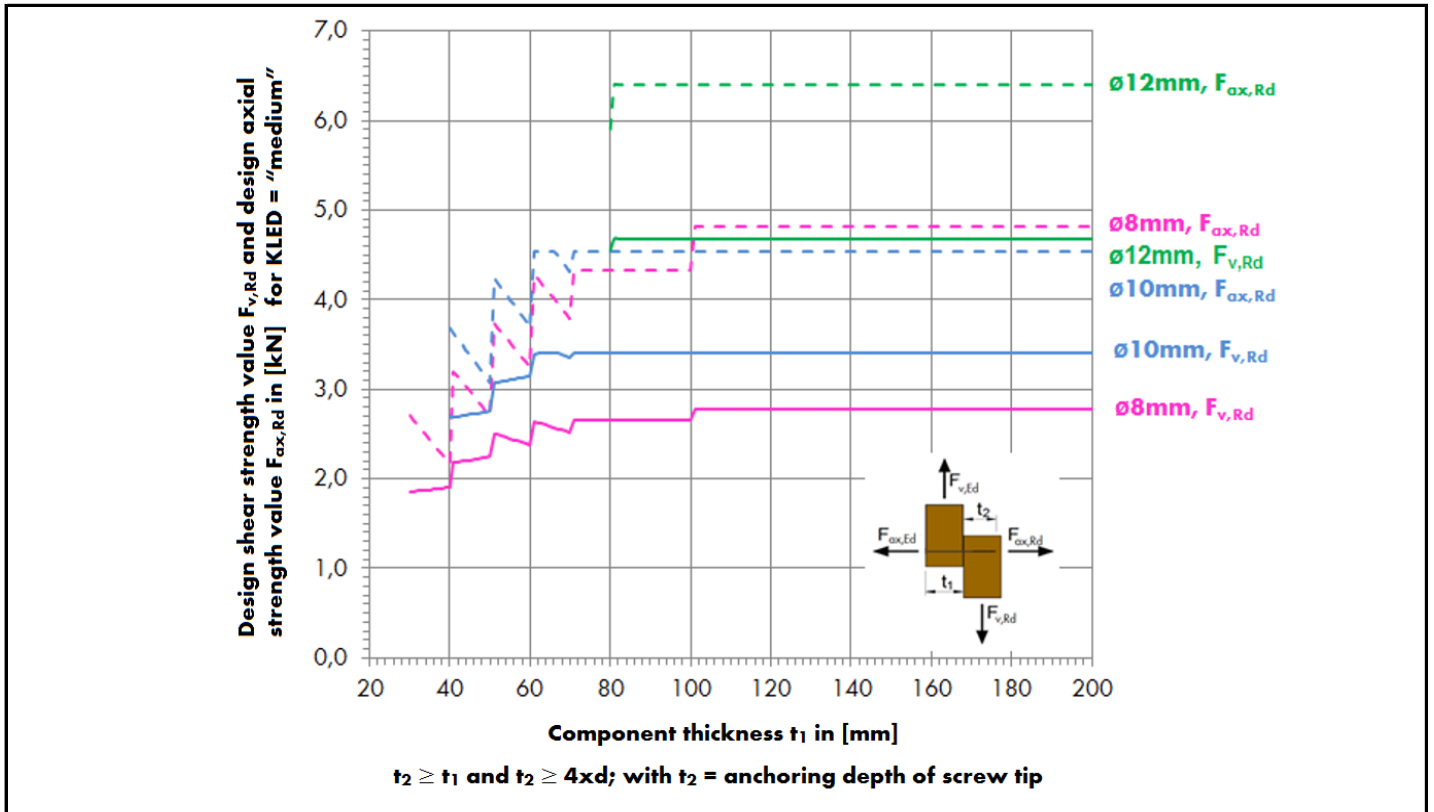
### ASSY 3.0 SK



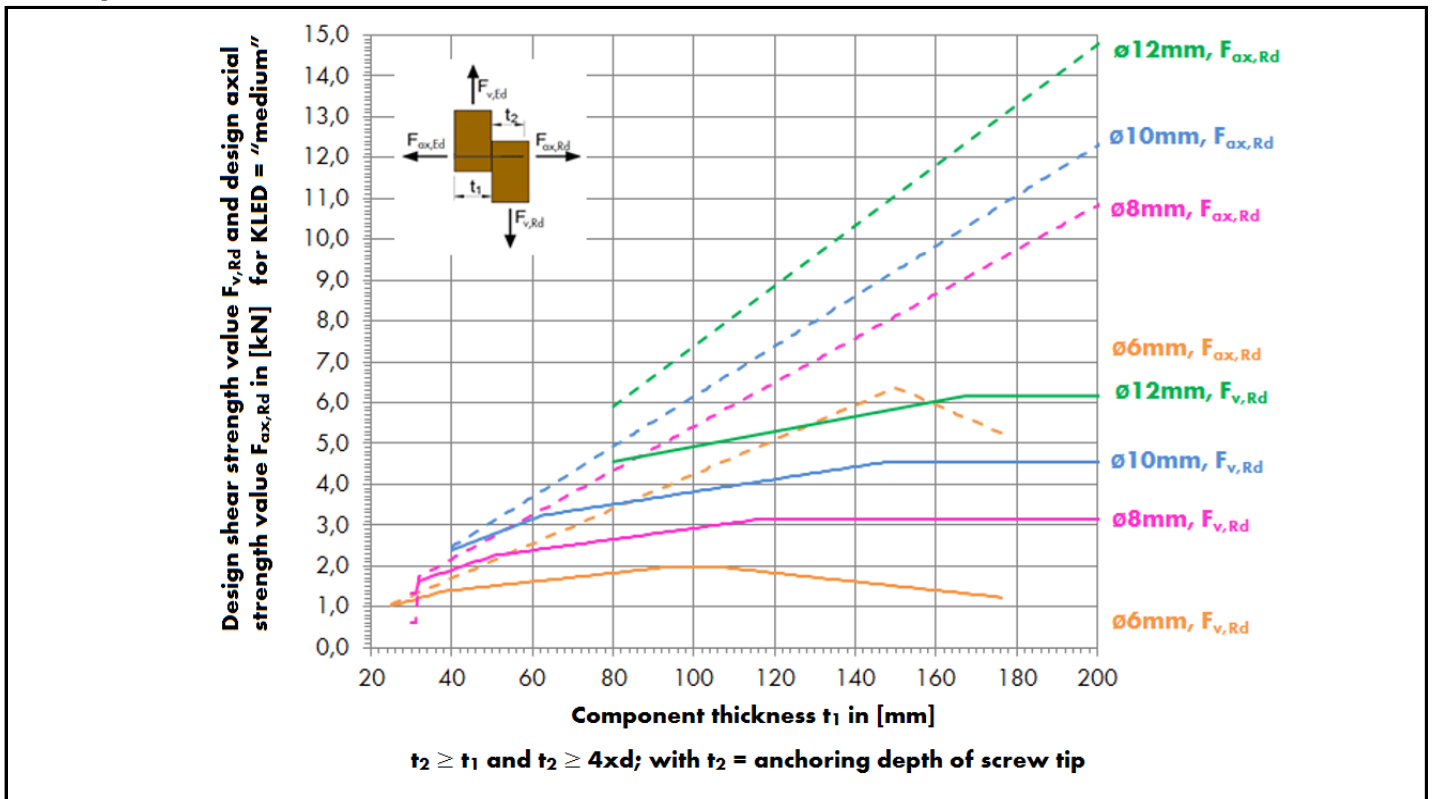
NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE DIAGRAMS WOOD-WOOD FOR QUICK REFERENCE

### ASSY 3.0 Combi



### ASSY plus VG

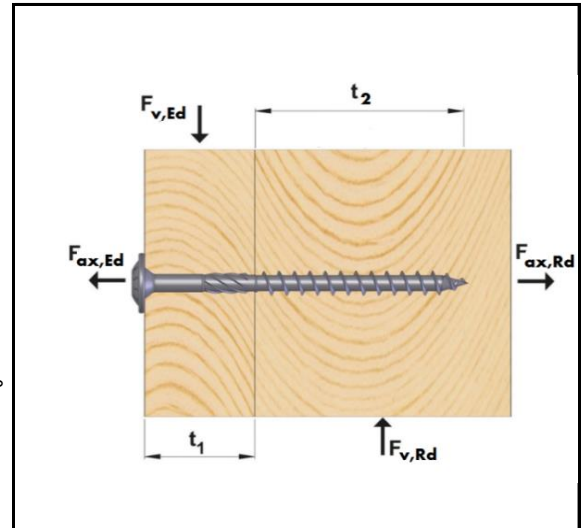


NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## LEGEND FOR AXIAL/SHEARING VALUE TABLES WOOD-WOOD

### Legend

- $F_{ax,Rk}$  Characteristic pullout strength in [kN] of a screw for an angle of  $90^\circ$  between direction of grain and screw axis.
- $F_{ax,Rd}$  Design pullout strength in [kN] of a screw for an angle of  $90^\circ$  between direction of grain and screw axis.
- $F_{v,Rk}$  Characteristic shearing strength in [kN] of a screw for an angle of  $0^\circ \div 90^\circ$  between direction of grain and force.
- $F_{v,Rd}$  Design shearing strength in [kN] of a screw for an angle of  $0^\circ \div 90^\circ$  between direction of grain and force.
- $\ell$  Screw length in [mm]
- $\ell_g$  Thread length anchored in wood ( $t_2$ ) in [mm]
- $d$  Nominal diameter / outer thread diameter of screw in [mm]
- $t_1$  Side wood thickness on screw head size in [mm]; the minimum component thickness is 24mm, see A1.4 ETA 11/0190
- $t_2$  Side wood thickness on screw tip side in [mm] with  $t_2 = \ell - t_1$



	Axial tensile strength $F_{ax,Rk}$ or $F_{ax,Rd}$		Shear strength $F_{v,Rk}$ or $F_{v,Rd}$
Characteristic	4,84	3,42	WITHOUT predrilled holes
		4,55	WITH predrilled holes
KLED_medium ( $k_{mod}=0.8$ )	2,98	2,11	WITHOUT predrilled holes
		2,80	WITH predrilled holes

Marked values apply ONLY to predrilled wood components (see ETA-11/0190 Table 1 and A1.4)

Minimum component thickness requirement fulfilled according to A1.4 ETA 0190

Type $d \times \ell$	25°		30°	
	ASSY 3.0 SK 8x80 mm	4,40		4,40
		3,71		3,97
2,71			2,71	1,86
		2,28		2,44

### Bases for calculation

DIN EN 1/1/1995:2010-12

DIN EN 1995-1-1/NA:2013-08

DIN 20000-6

ETA-11/0190

EN 14081-1

EN 338

Design of timber structures – Common rules and rules for buildings

National Annex – Nationally determined parameters

Application of construction products in structures – Part 6: Dowel-type fasteners and connectors

Würth self-tapping screws for use in timber constructions

Timber structures – General requirements

Structural timber – Strength classes

NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x ℓ	Side wood thickness in [mm]													
	20*		25		30		35		40		45		50	
<b>ASSY 3.0</b> <b>5x45 mm</b>	1,17		1,17	1,13										
		1,54		1,54										
	0,72		0,72	0,69										
		0,94		0,94										
<b>ASSY 3.0</b> <b>5x50 mm</b>	1,17		1,17	1,21	1,17	1,19								
		1,54		1,71		1,54								
	0,72		0,72	0,74	0,72	0,73								
		0,94		1,05		0,94								
<b>ASSY 3.0</b> <b>5x55 mm</b>	1,17		1,17	1,30	1,17	1,30	1,17	1,19						
		1,54		1,72		1,72		1,54						
	0,72		0,72	0,80	0,72	0,80	0,72	0,73						
		0,94		1,06		1,06		0,94						
<b>ASSY 3.0</b> <b>5x60 mm</b>	1,17		1,17	1,30	1,17	1,39	1,17	1,30	1,17	1,19				
		1,54		1,72		1,75		1,72		1,54				
	0,72		0,72	0,80	0,72	0,86	0,72	0,80	0,72	0,73				
		0,94		1,06		1,08		1,06		0,94				
<b>ASSY 3.0</b> <b>5x70 mm</b>	1,17		1,17	1,30	1,17	1,42	1,17	1,47	1,17	1,42	1,17	1,30	1,17	1,19
		1,54		1,72		1,75		1,75		1,75		1,72	1,17	1,54
	0,72		0,72	0,80	0,72	0,87	0,72	0,90	0,72	0,87	0,72	0,80	0,72	0,73
		0,94		1,06		1,08		1,08		1,08	0,72	1,06	0,72	0,94
<b>ASSY 3.0</b> <b>5x80 mm</b>	1,17		1,17	1,30	1,17	1,42	1,17	1,47	1,17	1,47	1,17	1,47	1,17	1,42
		1,54		1,72		1,75		1,75		1,75		1,75	1,17	1,75
	0,72		0,72	0,80	0,72	0,87	0,72	0,90	0,72	0,90	0,72	0,90	0,72	0,87
		0,94		1,06		1,08		1,08		1,08	0,72	1,08	0,72	1,08
<b>ASSY 3.0</b> <b>5x90 mm</b>	1,17		1,17	1,30	1,17	1,42	1,17	1,47	1,17	1,47	1,17	1,47	1,17	1,47
		1,54		1,72		1,75		1,75		1,75		1,75	1,17	1,75
	0,72		0,72	0,80	0,72	0,87	0,72	0,90	0,72	0,90	0,72	0,90	0,72	0,90
		0,94		1,06		1,08		1,08		1,08	0,72	1,08	0,72	1,08
<b>ASSY 3.0</b> <b>5x100 mm</b>	1,17		1,17	1,30	1,17	1,42	1,17	1,47	1,17	1,47	1,17	1,47	1,17	1,47
		1,54		1,72		1,75		1,75		1,75		1,75	1,17	1,75
	0,72		0,72	0,80	0,72	0,87	0,72	0,90	0,72	0,90	0,72	0,90	0,72	0,90
		0,94		1,06		1,08		1,08		1,08	0,72	1,08	0,72	1,08



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x ℓ	Side wood thickness in [mm]							
	60	80	100	120	140	160	180	
ASSY 3.0 5x45 mm								
ASSY 3.0 5x50 mm								
ASSY 3.0 5x55 mm								
ASSY 3.0 5x60 mm								
ASSY 3.0 5x70 mm								
ASSY 3.0 5x80 mm	1,17	1,19						
		1,54						
	0,72	0,73						
		0,94						
ASSY 3.0 5x90 mm	1,17	1,42						
		1,75						
	0,72	0,87						
		1,08						
ASSY 3.0 5x100 mm	1,17	1,47	1,17	1,19				
		1,75		1,54				
	0,72	0,90	0,72	0,73				
		1,08		0,94				



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

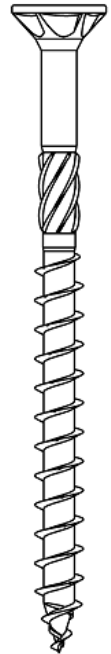
NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x ℓ	Side wood thickness in [mm]													
	20*		25		30		35		40		45		50	
<b>ASSY 3.0</b> <b>5x110 mm</b>	1,17		1,17	1,30	1,17	1,42	1,17	1,47	1,17	1,47	1,17	1,47	1,17	1,47
		1,54		1,72		1,75		1,75		1,75		1,75		1,75
	0,72		0,72	0,80	0,72	0,87	0,72	0,90	0,72	0,90	0,72	0,90	0,72	0,90
		0,94		1,06		1,08		1,08		1,08		1,08		1,08
<b>ASSY 3.0</b> <b>5x120 mm</b>	1,17		1,17	1,30	1,17	1,42	1,17	1,47	1,17	1,47	1,17	1,47	1,17	1,47
		1,54		1,72		1,75		1,75		1,75		1,75		1,75
	0,72		0,72	0,80	0,72	0,87	0,72	0,90	0,72	0,90	0,72	0,90	0,72	0,90
		0,94		1,06		1,08		1,08		1,08		1,08		1,08

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

∅  
**5,0**  
**mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x ℓ	Side wood thickness in [mm]													
	60		80		100		120		140		160		180	
<b>ASSY 3.0</b> <b>5x110 mm</b>	1,17	1,47	1,17	1,42										
		1,75		1,75										
<b>ASSY 3.0</b> <b>5x120 mm</b>	0,72	0,90	0,72	0,87										
		1,08		1,08										
<b>ASSY 3.0</b> <b>5x120 mm</b>	1,17	1,47	1,17	1,47	1,17	1,19								
		1,75		1,75		1,54								
<b>ASSY 3.0</b> <b>5x120 mm</b>	0,72	0,90	0,72	0,90	0,72	0,73								
		1,08		1,08		0,94								

∅  
**5,0**  
mm



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

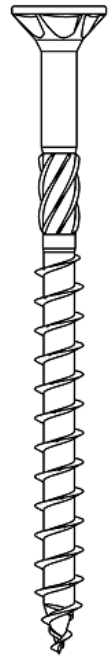
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x $\ell$	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
<b>ASSY 3.0</b> <b>6x50 mm</b>	1,73	1,47												
		2,11												
	1,06	0,91												
		1,30												
<b>ASSY 3.0</b> <b>6x55 mm</b>	1,87	1,62	1,73	1,59										
		2,26		2,22										
	1,15	1,00	1,06	0,98										
		1,39		1,37										
<b>ASSY 3.0</b> <b>6x60 mm</b>	1,87	1,71	1,87	1,72	1,73	1,67								
		2,26		2,48		2,22								
	1,15	1,05	1,15	1,06	1,06	1,03								
		1,39		1,53		1,37								
<b>ASSY 3.0</b> <b>6x70 mm</b>	1,87	1,71	1,87	1,83	1,87	1,93	1,87	1,83	1,73	1,67				
		2,26		2,48		2,48		2,48		2,22				
	1,15	1,05	1,15	1,13	1,15	1,19	1,15	1,13	1,06	1,03				
		1,39		1,53		1,53		1,53		1,37				
<b>ASSY 3.0</b> <b>6x80 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	1,97	1,87	1,83		
		2,26		2,48		2,48		2,48		2,48		2,48	2,48	2,48
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,21	1,15	1,13		
		1,39		1,53		1,53		1,53		1,53		1,53	1,53	1,53
<b>ASSY 3.0</b> <b>6x90 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	1,83
		2,26		2,48		2,48		2,48		2,48		2,48		2,48
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,13
		1,39		1,53		1,53		1,53		1,53		1,53		1,53
<b>ASSY 3.0</b> <b>6x100 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		2,48
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		1,53
<b>ASSY 3.0</b> <b>6x110 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		2,48
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		1,53

∅  
**6,0**  
mm



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

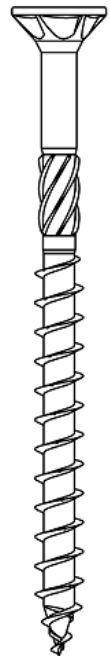
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x $\ell$	Side wood thickness in [mm]							
	80	100	120	140	160	180	200	
ASSY 3.0 6x50 mm								
ASSY 3.0 6x55 mm								
ASSY 3.0 6x60 mm								
ASSY 3.0 6x70 mm								
ASSY 3.0 6x80 mm								
ASSY 3.0 6x90 mm								
ASSY 3.0 6x100 mm								
ASSY 3.0 6x110 mm	1,87	1,83						
		2,48						
	1,15	1,13						
		1,53						

$\varnothing$   
**6,0**  
**mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x $\ell$	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
<b>ASSY 3.0</b> <b>6x120 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		
<b>ASSY 3.0</b> <b>6x130 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		
<b>ASSY 3.0</b> <b>6x140 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		
<b>ASSY 3.0</b> <b>6x150 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		
<b>ASSY 3.0</b> <b>6x160 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		
<b>ASSY 3.0</b> <b>6x180 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		
<b>ASSY 3.0</b> <b>6x200 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		
<b>ASSY 3.0</b> <b>6x220 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

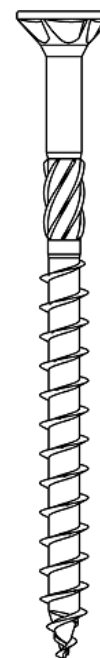
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0</b> <b>6x120 mm</b>	1,87	2,06												
		2,48												
	1,15	1,27												
		1,53												
<b>ASSY 3.0</b> <b>6x130 mm</b>	1,87	2,06	1,87	1,83										
		2,48		2,48										
	1,15	1,27	1,15	1,13										
		1,53		1,53										
<b>ASSY 3.0</b> <b>6x140 mm</b>	1,87	2,06	1,87	2,06										
		2,48		2,48										
	1,15	1,27	1,15	1,27										
		1,53		1,53										
<b>ASSY 3.0</b> <b>6x150 mm</b>	1,87	2,06	1,87	2,06	1,87	1,83								
		2,48		2,48		2,48								
	1,15	1,27	1,15	1,27	1,15	1,13								
		1,53		1,53		1,53								
<b>ASSY 3.0</b> <b>6x160 mm</b>	1,87	2,06	1,87	2,06	1,87	2,06								
		2,48		2,48		2,48								
	1,15	1,27	1,15	1,27	1,15	1,27								
		1,53		1,53		1,53								
<b>ASSY 3.0</b> <b>6x180 mm</b>	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06						
		2,48		2,48		2,48		2,48						
	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27						
		1,53		1,53		1,53		1,53						
<b>ASSY 3.0</b> <b>6x200 mm</b>	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06				
		2,48		2,48		2,48		2,48		2,48				
	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27				
		1,53		1,53		1,53		1,53		1,53				
<b>ASSY 3.0</b> <b>6x220 mm</b>	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06		
		2,48		2,48		2,48		2,48		2,48		2,48		
	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27		
		1,53		1,53		1,53		1,53		1,53		1,53		

∅  
**6,0**  
mm



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

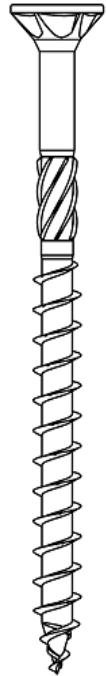
NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x ℓ	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
<b>ASSY 3.0</b> <b>6x240 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		
<b>ASSY 3.0</b> <b>6x260 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		
<b>ASSY 3.0</b> <b>6x280 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		
<b>ASSY 3.0</b> <b>6x300 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		

∅  
**6,0**  
**mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

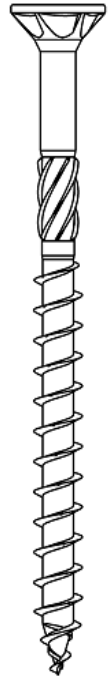
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0</b> <b>6x240 mm</b>	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,48		2,48		2,48		2,48		2,48		2,48		
	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,53		1,53		1,53		1,53		1,53		1,53		
<b>ASSY 3.0</b> <b>6x260 mm</b>	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,48		2,48		2,48		2,48		2,48		2,48		
	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,53		1,53		1,53		1,53		1,53		1,53		
<b>ASSY 3.0</b> <b>6x280 mm</b>	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,48		2,48		2,48		2,48		2,48		2,48		
	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,53		1,53		1,53		1,53		1,53		1,53		
<b>ASSY 3.0</b> <b>6x300 mm</b>	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,48		2,48		2,48		2,48		2,48		2,48		
	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,53		1,53		1,53		1,53		1,53		1,53		

∅  
**6,0**  
mm



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0

Type d x l	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
<b>ASSY 3.0</b> <b>7x80 mm</b>	2,49	2,12	2,49	2,25	2,49	2,39	2,49	2,48	2,49	2,39	2,42	2,23		
		2,80				3,05				3,25				
	1,53	1,31	1,53	1,38	1,53	1,47	1,53	1,53	1,53	1,47	1,49	1,37		
		1,72				1,88				2,00				
<b>ASSY 3.0</b> <b>7x90 mm</b>	2,49	2,12	2,49	2,25	2,49	2,39	2,49	2,54	2,49	2,66	2,49	2,54	2,42	2,23
		2,80				3,05				3,25				
	1,53	1,31	1,53	1,38	1,53	1,47	1,53	1,56	1,53	1,64	1,53	1,56	1,49	1,37
		1,72				1,88				2,00				
<b>ASSY 3.0</b> <b>7x100 mm</b>	2,49	2,12	2,49	2,25	2,49	2,39	2,49	2,54	2,49	2,66	2,49	2,66	2,49	2,54
		2,80				3,05				3,25				
	1,53	1,31	1,53	1,38	1,53	1,47	1,53	1,56	1,53	1,64	1,53	1,64	1,53	1,56
		1,72				1,88				2,00				
<b>ASSY 3.0</b> <b>7x120 mm</b>	2,49	2,12	2,49	2,25	2,49	2,39	2,49	2,54	2,49	2,66	2,49	2,66	2,49	2,66
		2,80				3,05				3,25				
	1,53	1,31	1,53	1,38	1,53	1,47	1,53	1,56	1,53	1,64	1,53	1,64	1,53	1,64
		1,72				1,88				2,00				
<b>ASSY 3.0</b> <b>7x140 mm</b>	2,49	2,12	2,49	2,25	2,49	2,39	2,49	2,54	2,49	2,66	2,49	2,66	2,49	2,66
		2,80				3,05				3,25				
	1,53	1,31	1,53	1,38	1,53	1,47	1,53	1,56	1,53	1,64	1,53	1,64	1,53	1,64
		1,72				1,88				2,00				
<b>ASSY 3.0</b> <b>7x160 mm</b>	2,49	2,12	2,49	2,25	2,49	2,39	2,49	2,54	2,49	2,66	2,49	2,66	2,49	2,66
		2,80				3,05				3,25				
	1,53	1,31	1,53	1,38	1,53	1,47	1,53	1,56	1,53	1,64	1,53	1,64	1,53	1,64
		1,72				1,88				2,00				
<b>ASSY 3.0</b> <b>7x180 mm</b>	2,49	2,12	2,49	2,25	2,49	2,39	2,49	2,54	2,49	2,66	2,49	2,66	2,49	2,66
		2,80				3,05				3,25				
	1,53	1,31	1,53	1,38	1,53	1,47	1,53	1,56	1,53	1,64	1,53	1,64	1,53	1,64
		1,72				1,88				2,00				
<b>ASSY 3.0</b> <b>7x200 mm</b>	2,49	2,12	2,49	2,25	2,49	2,39	2,49	2,54	2,49	2,66	2,49	2,66	2,49	2,66
		2,80				3,05				3,25				
	1,53	1,31	1,53	1,38	1,53	1,47	1,53	1,56	1,53	1,64	1,53	1,64	1,53	1,64
		1,72				1,88				2,00				
<b>ASSY 3.0</b> <b>7x220 mm</b>	2,49	2,12	2,49	2,25	2,49	2,39	2,49	2,54	2,49	2,66	2,49	2,66	2,49	2,66
		2,80				3,05				3,25				
	1,53	1,31	1,53	1,38	1,53	1,47	1,53	1,56	1,53	1,64	1,53	1,64	1,53	1,64
		1,72				1,88				2,00				



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 7x80 mm														
ASSY 3.0 7x90 mm														
ASSY 3.0 7x100 mm														
ASSY 3.0 7x120 mm	2,49	2,54 3,25												
	1,53	1,56 2,00												
ASSY 3.0 7x140 mm	2,49	2,66 3,25	2,49	2,54 3,25										
	1,53	1,64 2,00	1,53	1,56 2,00										
ASSY 3.0 7x160 mm	2,49	2,66 3,25	2,49	2,66 3,25	2,49	2,54 3,25								
	1,53	1,64 2,00	1,53	1,64 2,00	1,53	1,56 2,00								
ASSY 3.0 7x180 mm	2,49	2,66 3,25	2,49	2,66 3,25	2,49	2,66 3,25	2,49	2,54 3,25						
	1,53	1,64 2,00	1,53	1,64 2,00	1,53	1,64 2,00	1,53	1,56 2,00						
ASSY 3.0 7x200 mm	2,49	2,66 3,25	2,49	2,66 3,25	2,49	2,66 3,25	2,49	2,66 3,25	2,49	2,54 3,25				
	1,53	1,64 2,00	1,53	1,64 2,00	1,53	1,64 2,00	1,53	1,64 2,00	1,53	1,56 2,00				
ASSY 3.0 7x220 mm	2,49	2,66 3,25	2,49	2,66 3,25	2,49	2,66 3,25	2,49	2,66 3,25	2,49	2,66 3,25	2,49	2,54 3,25		
	1,53	1,64 2,00	1,53	1,64 2,00	1,53	1,64 2,00	1,53	1,64 2,00	1,53	1,64 2,00	1,53	1,56 2,00		



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

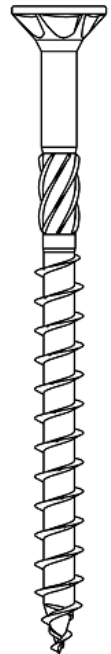
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0

Type d x l	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
<b>ASSY 3.0</b> <b>7x240 mm</b>	2,49	2,12	2,49	2,25	2,49	2,39	2,49	2,54	2,49	2,66	2,49	2,66	2,49	2,66
		2,80				3,05				3,25				3,25
	1,53	1,31	1,53	1,38	1,53	1,47	1,53	1,56	1,53	1,64	1,53	1,64	1,53	1,64
		1,72				1,88				2,00				2,00
<b>ASSY 3.0</b> <b>7x260 mm</b>	2,49	2,12	2,49	2,25	2,49	2,39	2,49	2,54	2,49	2,66	2,49	2,66	2,49	2,66
		2,80				3,05				3,25				3,25
	1,53	1,31	1,53	1,38	1,53	1,47	1,53	1,56	1,53	1,64	1,53	1,64	1,53	1,64
		1,72				1,88				2,00				2,00
<b>ASSY 3.0</b> <b>7x280 mm</b>	2,49	2,12	2,49	2,25	2,49	2,39	2,49	2,54	2,49	2,66	2,49	2,66	2,49	2,66
		2,80				3,05				3,25				3,25
	1,53	1,31	1,53	1,38	1,53	1,47	1,53	1,56	1,53	1,64	1,53	1,64	1,53	1,64
		1,72				1,88				2,00				2,00
<b>ASSY 3.0</b> <b>7x300 mm</b>	2,49	2,12	2,49	2,25	2,49	2,39	2,49	2,54	2,49	2,66	2,49	2,66	2,49	2,66
		2,80				3,05				3,25				3,25
	1,53	1,31	1,53	1,38	1,53	1,47	1,53	1,56	1,53	1,64	1,53	1,64	1,53	1,64
		1,72				1,88				2,00				2,00

∅  
**7,0**  
**mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

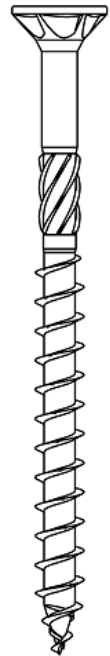
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0</b> <b>7x240 mm</b>	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,54
		3,25		3,25		3,25		3,25		3,25				
	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,56
		2,00		2,00		2,00		2,00		2,00				
<b>ASSY 3.0</b> <b>7x260 mm</b>	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66
		3,25		3,25		3,25		3,25		3,25				
	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64
		2,00		2,00		2,00		2,00		2,00				
<b>ASSY 3.0</b> <b>7x280 mm</b>	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66
		3,25		3,25		3,25		3,25		3,25				
	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64
		2,00		2,00		2,00		2,00		2,00				
<b>ASSY 3.0</b> <b>7x300 mm</b>	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66	2,49	2,66
		3,25		3,25		3,25		3,25		3,25				
	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64	1,53	1,64
		2,00		2,00		2,00		2,00		2,00				

∅  
**7,0**  
**mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY 3.0 8x80 mm	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,76 4,06	2,87	2,77 3,87				
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,70 2,50	1,76	1,71 2,38				
ASSY 3.0 8x100 mm	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,26 4,06	2,87	2,93 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	1,80 2,50
ASSY 3.0 8x120 mm	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50
ASSY 3.0 8x140 mm	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50
ASSY 3.0 8x160 mm	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50
ASSY 3.0 8x180 mm	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50
ASSY 3.0 8x200 mm	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50
ASSY 3.0 8x220 mm	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50
ASSY 3.0 8x240 mm	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50

∅  
**8,0**  
mm



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 8x80 mm														
ASSY 3.0 8x100 mm														
ASSY 3.0 8x120 mm	2,87	2,93												
		4,06												
	1,76	1,80												
		2,50												
ASSY 3.0 8x140 mm	2,87	3,27	2,87	2,93										
		4,06		4,06										
	1,76	2,01	1,76	1,80										
		2,50		2,50										
ASSY 3.0 8x160 mm	2,87	3,27	2,87	3,27	2,87	2,93								
		4,06		4,06		4,06								
	1,76	2,01	1,76	2,01	1,76	1,80								
		2,50		2,50		2,50								
ASSY 3.0 8x180 mm	2,87	3,27	2,87	3,27	2,87	3,27	2,87	2,93						
		4,06		4,06		4,06		4,06						
	1,76	2,01	1,76	2,01	1,76	2,01	1,76	1,80						
		2,50		2,50		2,50		2,50						
ASSY 3.0 8x200 mm	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	2,93				
		4,06		4,06		4,06		4,06		4,06				
	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	1,80				
		2,50		2,50		2,50		2,50		2,50				
ASSY 3.0 8x220 mm	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	2,93		
		4,06		4,06		4,06		4,06		4,06		4,06		
	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	1,80		
		2,50		2,50		2,50		2,50		2,50		2,50		
ASSY 3.0 8x240 mm	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	2,93
		4,06		4,06		4,06		4,06		4,06		4,06		4,06
	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	1,80
		2,50		2,50		2,50		2,50		2,50		2,50		2,50



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
<b>ASSY 3.0</b> <b>8x260 mm</b>	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50
<b>ASSY 3.0</b> <b>8x280 mm</b>	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50
<b>ASSY 3.0</b> <b>8x300 mm</b>	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50
<b>ASSY 3.0</b> <b>8x320 mm</b>	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50
<b>ASSY 3.0</b> <b>8x340 mm</b>	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50
<b>ASSY 3.0</b> <b>8x360 mm</b>	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50
<b>ASSY 3.0 mm</b> <b>8x380</b>	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50
<b>ASSY 3.0 mm</b> <b>8x400</b>	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

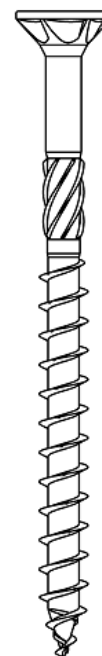
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0</b> <b>8x260 mm</b>	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27
		4,06				4,06				4,06				4,06
	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01
		2,50				2,50				2,50				2,50
<b>ASSY 3.0</b> <b>8x280 mm</b>	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27
		4,06				4,06				4,06				4,06
	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01
		2,50				2,50				2,50				2,50
<b>ASSY 3.0</b> <b>8x300 mm</b>	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27
		4,06				4,06				4,06				4,06
	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01
		2,50				2,50				2,50				2,50
<b>ASSY 3.0</b> <b>8x320 mm</b>	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27
		4,06				4,06				4,06				4,06
	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01
		2,50				2,50				2,50				2,50
<b>ASSY 3.0</b> <b>8x340 mm</b>	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27
		4,06				4,06				4,06				4,06
	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01
		2,50				2,50				2,50				2,50
<b>ASSY 3.0</b> <b>8x360 mm</b>	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27
		4,06				4,06				4,06				4,06
	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01
		2,50				2,50				2,50				2,50
<b>ASSY 3.0 mm</b> <b>8x380</b>	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27
		4,06				4,06				4,06				4,06
	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01
		2,50				2,50				2,50				2,50
<b>ASSY 3.0 mm</b> <b>8x400</b>	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27	2,87	3,27
		4,06				4,06				4,06				4,06
	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01	1,76	2,01
		2,50				2,50				2,50				2,50

∅  
**8,0**  
**mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

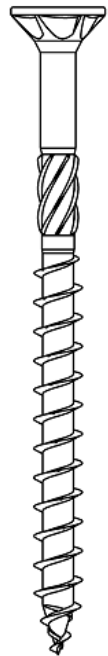
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x l	Side wood thickness in [mm]													
	25*		30*		35*		40		45		50		60	
ASSY 3.0 10x80 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,00	3,38 5,28						
	2,65	2,87	2,65	3,03	2,65	3,23	2,46	2,08 3,25						
ASSY 3.0 10x100 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,08 5,95	4,31	4,06 6,04	4,00	3,87 5,51
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,51 3,66	2,65	2,50 3,71	2,46	2,38 3,39
ASSY 3.0 10x120 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,65 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,86 3,71
ASSY 3.0 10x140 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71
ASSY 3.0 10x160 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71
ASSY 3.0 10x180 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71
ASSY 3.0 10x200 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71
ASSY 3.0 10x220 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71
ASSY 3.0 10x240 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71

∅  
**10,0  
mm**



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

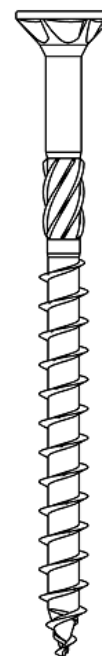
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 10x80 mm														
ASSY 3.0 10x100 mm														
ASSY 3.0 10x120 mm	4,00	3,87												
		5,51												
	2,46	2,38												
ASSY 3.0 10x140 mm														
	4,31	4,70	4,00	3,87										
		6,04		5,51										
ASSY 3.0 10x160 mm														
	2,65	2,89	2,46	2,38										
		3,71		3,39										
ASSY 3.0 10x180 mm														
	4,31	4,78	4,31	4,70	4,00	3,87								
		6,04		6,04		5,51								
ASSY 3.0 10x200 mm														
	2,65	2,94	2,65	2,89	2,46	2,38								
		3,71		3,71		3,39								
ASSY 3.0 10x220 mm														
	4,31	4,78	4,31	4,78	4,31	4,70	4,00	3,87						
		6,04		6,04		6,04		5,51						
ASSY 3.0 10x240 mm														
	2,65	2,94	2,65	2,94	2,65	2,89	2,46	2,38						
		3,71		3,71		3,71		3,39						

∅  
10,0  
mm



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x l	Side wood thickness in [mm]													
	25*		30*		35*		40		45		50		60	
<b>ASSY 3.0</b> 10x260 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71
<b>ASSY 3.0</b> 10x280 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71
<b>ASSY 3.0</b> 10x300 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71
<b>ASSY 3.0</b> 10x320 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71
<b>ASSY 3.0</b> 10x340 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71
<b>ASSY 3.0</b> 10x360 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71
<b>ASSY 3.0</b> 10x380 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71
<b>ASSY 3.0</b> 10x400 mm	4,31	4,66	4,31	4,93	4,31	5,24	4,31	3,94 5,58	4,31	4,12 5,95	4,31	4,30 6,04	4,31	4,70 6,04
	2,65	2,87	2,65	3,03	2,65	3,23	2,65	2,43 3,44	2,65	2,53 3,66	2,65	2,65 3,71	2,65	2,89 3,71



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

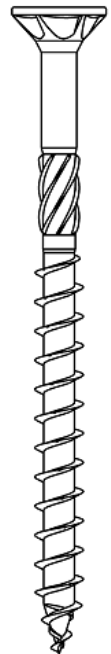
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0</b> 10x260 mm	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,70
		6,04		6,04		6,04		6,04		6,04		6,04		6,04
	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,89
		3,71		3,71		3,71		3,71		3,71		3,71		3,71
<b>ASSY 3.0</b> 10x280 mm	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78
		6,04		6,04		6,04		6,04		6,04		6,04		6,04
	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94
		3,71		3,71		3,71		3,71		3,71		3,71		3,71
<b>ASSY 3.0</b> 10x300 mm	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78
		6,04		6,04		6,04		6,04		6,04		6,04		6,04
	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94
		3,71		3,71		3,71		3,71		3,71		3,71		3,71
<b>ASSY 3.0</b> 10x320 mm	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78
		6,04		6,04		6,04		6,04		6,04		6,04		6,04
	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94
		3,71		3,71		3,71		3,71		3,71		3,71		3,71
<b>ASSY 3.0</b> 10x340	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78
		6,04		6,04		6,04		6,04		6,04		6,04		6,04
	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94
		3,71		3,71		3,71		3,71		3,71		3,71		3,71
<b>ASSY 3.0</b> 10x360 mm	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78
		6,04		6,04		6,04		6,04		6,04		6,04		6,04
	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94
		3,71		3,71		3,71		3,71		3,71		3,71		3,71
<b>ASSY 3.0</b> 10x380 mm	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78
		6,04		6,04		6,04		6,04		6,04		6,04		6,04
	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94
		3,71		3,71		3,71		3,71		3,71		3,71		3,71
<b>ASSY 3.0</b> 10x400 mm	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78	4,31	4,78
		6,04		6,04		6,04		6,04		6,04		6,04		6,04
	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94	2,65	2,94
		3,71		3,71		3,71		3,71		3,71		3,71		3,71

∅  
**10,0**  
mm



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

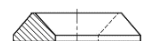
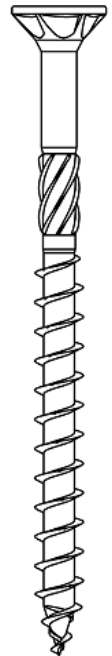
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x l	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
<b>ASSY 3.0 6x50 mm plus washer</b>														
<b>ASSY 3.0 6x55 mm plus washer</b>	1,76	1,49 2,13												
	1,08	0,92 1,31												
<b>ASSY 3.0 6x60 mm plus washer</b>	2,10	1,69 2,32	1,76	1,60 2,25										
	1,30	1,04 1,43	1,08	0,99 1,39										
<b>ASSY 3.0 6x70 mm plus washer</b>	2,79	1,94 2,49	2,45	1,98 2,63	2,10	1,90 2,54	1,76	1,69 2,25						
	1,72	1,19 1,53	1,51	1,22 1,62	1,30	1,17 1,56	1,08	1,04 1,39						
<b>ASSY 3.0 6x80 mm plus washer</b>	3,45	2,10 2,65	3,14	2,15 2,80	2,79	2,20 2,72	2,45	2,13 2,63	2,10	1,91 2,54	1,76	1,69 2,25		
	2,12	1,30 1,63	1,93	1,32 1,72	1,72	1,35 1,67	1,51	1,31 1,62	1,30	1,17 1,56	1,08	1,04 1,39		
<b>ASSY 3.0 6x90 mm plus washer</b>	3,45	2,10 2,65	3,45	2,23 2,88	3,45	2,37 2,88	3,14	2,37 2,80	2,79	2,29 2,72	2,45	2,13 2,63	1,76	1,69 2,25
	2,12	1,30 1,63	2,12	1,37 1,77	2,12	1,46 1,77	1,93	1,46 1,72	1,72	1,41 1,67	1,51	1,31 1,62	1,08	1,04 1,39
<b>ASSY 3.0 6x100 mm plus washer</b>	4,14	2,28 2,83	4,14	2,40 3,05	4,14	2,54 3,05	3,83	2,55 2,97	3,48	2,46 2,89	3,14	2,37 2,80	2,45	2,13 2,63
	2,55	1,40 1,74	2,55	1,48 1,88	2,55	1,56 1,88	2,36	1,57 1,83	2,14	1,51 1,78	1,93	1,46 1,72	1,51	1,31 1,62
<b>ASSY 3.0 6x110 mm plus washer</b>	4,83	2,45 3,00	4,83	2,57 3,22	4,83	2,71 3,22	4,52	2,72 3,15	4,17	2,63 3,06	3,83	2,55 2,97	3,14	2,37 2,80
	2,97	1,51 1,84	2,97	1,58 1,98	2,97	1,67 1,98	2,78	1,67 1,94	2,57	1,62 1,88	2,36	1,57 1,83	1,93	1,46 1,72

∅  
**6,0  
mm**



∅ ≥ 22mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x ℓ	Side wood thickness in [mm]						
	80	100	120	140	160	180	200
ASSY 3.0 6x50 mm plus washer							
ASSY 3.0 6x55 mm plus washer							
ASSY 3.0 6x60 mm plus washer							
ASSY 3.0 6x70 mm plus washer							
ASSY 3.0 6x80 mm plus washer							
ASSY 3.0 6x90 mm plus washer							
ASSY 3.0 6x100 mm plus washer							
ASSY 3.0 6x110 mm plus washer	1,76	1,69					
		2,25					
	1,08	1,04					
		1,39					

∅  
**6,0**  
mm



∅ ≥ 22mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

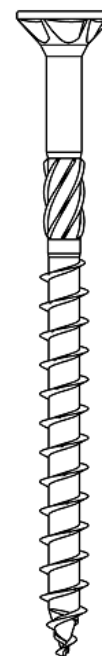
NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x l	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
<b>ASSY 3.0 6x120 mm plus washer</b>	4,83	2,45	4,83	2,57	4,83	2,71	4,83	2,80	4,83	2,80	4,52	2,72	3,83	2,55
		3,00		3,22		3,22		3,22		3,22		3,15		2,97
	2,97	1,51	2,97	1,58	2,97	1,67	2,97	1,72	2,97	1,72	2,78	1,67	2,36	1,57
		1,84		1,98		1,98		1,98		1,98		1,94		1,83
<b>ASSY 3.0 6x130 mm plus washer</b>	4,83	2,45	4,83	2,57	4,83	2,71	4,83	2,80	4,83	2,80	4,83	2,80	4,52	2,72
		3,00		3,22		3,22		3,22		3,22		3,22		3,15
	2,97	1,51	2,97	1,58	2,97	1,67	2,97	1,72	2,97	1,72	2,97	1,72	2,78	1,67
		1,84		1,98		1,98		1,98		1,98		1,98		1,94
<b>ASSY 3.0 6x140 mm plus washer</b>	4,83	2,45	4,83	2,57	4,83	2,71	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80
		3,00		3,22		3,22		3,22		3,22		3,22		3,22
	2,97	1,51	2,97	1,58	2,97	1,67	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72
		1,84		1,98		1,98		1,98		1,98		1,98		1,98
<b>ASSY 3.0 6x150 mm plus washer</b>	4,83	2,45	4,83	2,57	4,83	2,71	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80
		3,00		3,22		3,22		3,22		3,22		3,22		3,22
	2,97	1,51	2,97	1,58	2,97	1,67	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72
		1,84		1,98		1,98		1,98		1,98		1,98		1,98
<b>ASSY 3.0 6x160 mm plus washer</b>	4,83	2,45	4,83	2,57	4,83	2,71	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80
		3,00		3,22		3,22		3,22		3,22		3,22		3,22
	2,97	1,51	2,97	1,58	2,97	1,67	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72
		1,84		1,98		1,98		1,98		1,98		1,98		1,98
<b>ASSY 3.0 6x180 mm plus washer</b>	4,83	2,45	4,83	2,57	4,83	2,71	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80
		3,00		3,22		3,22		3,22		3,22		3,22		3,22
	2,97	1,51	2,97	1,58	2,97	1,67	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72
		1,84		1,98		1,98		1,98		1,98		1,98		1,98
<b>ASSY 3.0 6x200 mm plus washer</b>	4,83	2,45	4,83	2,57	4,83	2,71	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80
		3,00		3,22		3,22		3,22		3,22		3,22		3,22
	2,97	1,51	2,97	1,58	2,97	1,67	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72
		1,84		1,98		1,98		1,98		1,98		1,98		1,98
<b>ASSY 3.0 6x220 mm plus washer</b>	4,83	2,45	4,83	2,57	4,83	2,71	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80
		3,00		3,22		3,22		3,22		3,22		3,22		3,22
	2,97	1,51	2,97	1,58	2,97	1,67	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72
		1,84		1,98		1,98		1,98		1,98		1,98		1,98

∅  
**6,0  
mm**



∅ ≥ 22mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

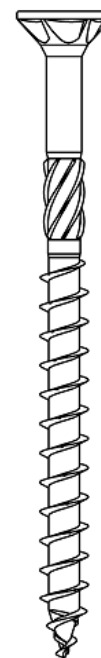
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 6x120 mm plus washer</b>	2,45	2,13												
		2,63												
	1,51	1,31												
		1,62												
<b>ASSY 3.0 6x130 mm plus washer</b>	3,14	2,37	1,76	1,69										
		2,80		2,25										
	1,93	1,46	1,08	1,04										
		1,72		1,39										
<b>ASSY 3.0 6x140 mm plus washer</b>	3,83	2,55	2,45	2,13										
		2,97		2,63										
	2,36	1,57	1,51	1,31										
		1,83		1,62										
<b>ASSY 3.0 6x150 mm plus washer</b>	4,52	2,72	3,14	2,37	1,76	1,69								
		3,15		2,80		2,25								
	2,78	1,67	1,93	1,46	1,08	1,04								
		1,94		1,72		1,39								
<b>ASSY 3.0 6x160 mm plus washer</b>	4,83	2,80	3,83	2,55	2,45	2,13								
		3,22		2,97		2,63								
	2,97	1,72	2,36	1,57	1,51	1,31								
		1,98		1,83		1,62								
<b>ASSY 3.0 6x180 mm plus washer</b>	4,83	2,80	4,83	2,80	3,83	2,55	2,45	2,13						
		3,22		3,22		2,97		2,63						
	2,97	1,72	2,97	1,72	2,36	1,57	1,51	1,31						
		1,98		1,98		1,83		1,62						
<b>ASSY 3.0 6x200 mm plus washer</b>	4,83	2,80	4,83	2,80	4,83	2,80	3,83	2,55	2,45	2,13				
		3,22		3,22		3,22		2,97		2,63				
	2,97	1,72	2,97	1,72	2,97	1,72	2,36	1,57	1,51	1,31				
		1,98		1,98		1,98		1,83		1,62				
<b>ASSY 3.0 6x220 mm plus washer</b>	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80	3,83	2,55	2,45	2,13		
		3,22		3,22		3,22		3,22		2,97		2,63		
	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72	2,36	1,57	1,51	1,31		
		1,98		1,98		1,98		1,98		1,83		1,62		

Ø  
**6,0  
mm**



Ø ≥ 22mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

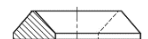
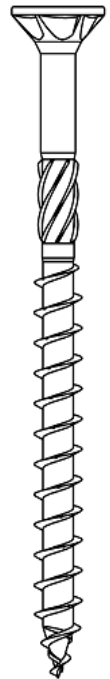
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x l	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
<b>ASSY 3.0 6x240 mm plus washer</b>	4,83	2,45 3,00	4,83	2,57 3,22	4,83	2,71 3,22	4,83	2,80 3,22	4,83	2,80 3,22	4,83	2,80 3,22	4,83	2,80 3,22
	2,97	1,51 1,84	2,97	1,58 1,98	2,97	1,67 1,98	2,97	1,72 1,98	2,97	1,72 1,98	2,97	1,72 1,98	2,97	1,72 1,98
<b>ASSY 3.0 6x260 mm plus washer</b>	4,83	2,45 3,00	4,83	2,57 3,22	4,83	2,71 3,22	4,83	2,80 3,22	4,83	2,80 3,22	4,83	2,80 3,22	4,83	2,80 3,22
	2,97	1,51 1,84	2,97	1,58 1,98	2,97	1,67 1,98	2,97	1,72 1,98	2,97	1,72 1,98	2,97	1,72 1,98	2,97	1,72 1,98
<b>ASSY 3.0 6x280 mm plus washer</b>	4,83	2,45 3,00	4,83	2,57 3,22	4,83	2,71 3,22	4,83	2,80 3,22	4,83	2,80 3,22	4,83	2,80 3,22	4,83	2,80 3,22
	2,97	1,51 1,84	2,97	1,58 1,98	2,97	1,67 1,98	2,97	1,72 1,98	2,97	1,72 1,98	2,97	1,72 1,98	2,97	1,72 1,98
<b>ASSY 3.0 6x300 mm plus washer</b>	4,83	2,45 3,00	4,83	2,57 3,22	4,83	2,71 3,22	4,83	2,80 3,22	4,83	2,80 3,22	4,83	2,80 3,22	4,83	2,80 3,22
	2,97	1,51 1,84	2,97	1,58 1,98	2,97	1,67 1,98	2,97	1,72 1,98	2,97	1,72 1,98	2,97	1,72 1,98	2,97	1,72 1,98

Ø  
**6,0  
mm**



Ø ≥ 22mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

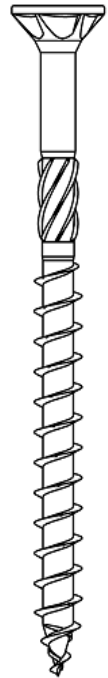
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 6x240 mm plus washer</b>	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80	3,83	2,55	2,45	2,13
		3,22		3,22		3,22		3,22		3,22		2,97		2,63
	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72	2,36	1,57	1,51	1,31
		1,98		1,98		1,98		1,98		1,98		1,83		1,62
<b>ASSY 3.0 6x260 mm plus washer</b>	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80	3,83	2,55
		3,22		3,22		3,22		3,22		3,22		2,97		2,97
	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72	2,36	1,57
		1,98		1,98		1,98		1,98		1,98		1,98		1,83
<b>ASSY 3.0 6x280 mm plus washer</b>	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80
		3,22		3,22		3,22		3,22		3,22		2,97		2,97
	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72
		1,98		1,98		1,98		1,98		1,98		1,98		1,98
<b>ASSY 3.0 6x300 mm plus washer</b>	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80	4,83	2,80
		3,22		3,22		3,22		3,22		3,22		2,97		2,97
	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72	2,97	1,72
		1,98		1,98		1,98		1,98		1,98		1,98		1,98

∅  
**6,0  
mm**



∅ ≥ 22mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

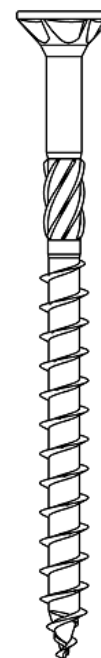
NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
<b>ASSY 3.0 8x80 mm plus washer</b>	4,40		3,96	2,91	3,52	2,80	3,08	2,69						
		3,71		3,86		4,04		3,93						
	2,71		2,44	1,79	2,17	1,72	1,90	1,65						
		2,28		2,38		2,48		2,42						
<b>ASSY 3.0 8x100 mm plus washer</b>	5,28		5,28	3,24	5,28	3,38	4,84	3,42	4,40	3,48	3,96	3,37	3,08	2,83
		3,93		4,19		4,48		4,55		4,44		4,33		3,93
	3,25		3,25	1,99	3,25	2,08	2,98	2,11	2,71	2,14	2,44	2,07	1,90	1,74
		2,42		2,58		2,75		2,80		2,73		2,67		2,42
<b>ASSY 3.0 8x120 mm plus washer</b>	7,04		7,04	3,68	7,04	3,82	6,60	3,86	6,16	3,92	5,72	3,98	4,84	3,76
		4,37		4,63		4,92		4,99		4,88		4,77		4,55
	4,33		4,33	2,26	4,33	2,35	4,06	2,38	3,79	2,41	3,52	2,45	2,98	2,31
		2,69		2,85		3,03		3,07		3,00		2,94		2,80
<b>ASSY 3.0 8x140 mm plus washer</b>	7,04		7,04	3,68	7,04	3,82	7,04	3,97	7,04	4,14	7,04	4,31	6,60	4,20
		4,37		4,63		4,92		5,10		5,10		5,10		5,10
	4,33		4,33	2,26	4,33	2,35	4,33	2,44	4,33	2,55	4,33	2,65	4,06	2,59
		2,69		2,85		3,03		3,14		3,14		3,14		3,07
<b>ASSY 3.0 8x160 mm plus washer</b>	7,04		7,04	3,68	7,04	3,82	7,04	3,97	7,04	4,14	7,04	4,31	7,04	4,31
		4,37		4,63		4,92		5,10		5,10		5,10		5,10
	4,33		4,33	2,26	4,33	2,35	4,33	2,44	4,33	2,55	4,33	2,65	4,33	2,65
		2,69		2,85		3,03		3,14		3,14		3,14		3,14
<b>ASSY 3.0 8x180 mm plus washer</b>	7,04		7,04	3,68	7,04	3,82	7,04	3,97	7,04	4,14	7,04	4,31	7,04	4,31
		4,37		4,63		4,92		5,10		5,10		5,10		5,10
	4,33		4,33	2,26	4,33	2,35	4,33	2,44	4,33	2,55	4,33	2,65	4,33	2,65
		2,69		2,85		3,03		3,14		3,14		3,14		3,14
<b>ASSY 3.0 8x200 mm plus washer</b>	7,04		7,04	3,68	7,04	3,82	7,04	3,97	7,04	4,14	7,04	4,31	7,04	4,31
		4,37		4,63		4,92		5,10		5,10		5,10		5,10
	4,33		4,33	2,26	4,33	2,35	4,33	2,44	4,33	2,55	4,33	2,65	4,33	2,65
		2,69		2,85		3,03		3,14		3,14		3,14		3,14
<b>ASSY 3.0 8x220 mm plus washer</b>	8,80		8,80	3,69	8,80	4,11	8,80	4,41	8,80	4,58	8,80	4,75	8,80	4,75
		4,81		5,07		5,36		5,54		5,54		5,54		5,54
	5,42		5,42	2,27	5,42	2,53	5,42	2,72	5,42	2,82	5,42	2,92	5,42	2,92
		2,96		3,12		3,30		3,41		3,41		3,41		3,41
<b>ASSY 3.0 8x240 mm plus washer</b>	8,80		8,80	3,69	8,80	4,11	8,80	4,41	8,80	4,58	8,80	4,75	8,80	4,75
		4,81		5,07		5,36		5,54		5,54		5,54		5,54
	5,42		5,42	2,27	5,42	2,53	5,42	2,72	5,42	2,82	5,42	2,92	5,42	2,92
		2,96		3,12		3,30		3,41		3,41		3,41		3,41

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

Ø  
**8,0  
mm**



Ø ≥ 25mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

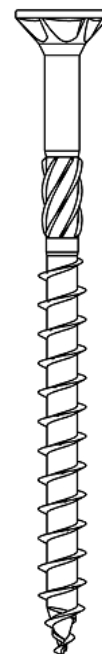
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 8x80 mm plus washer</b>														
<b>ASSY 3.0 8x100 mm plus washer</b>														
<b>ASSY 3.0 8x120 mm plus washer</b>	3,08	2,83												
		3,93												
<b>ASSY 3.0 8x140 mm plus washer</b>	1,90	1,74												
		2,42												
<b>ASSY 3.0 8x140 mm plus washer</b>	4,84	3,76	3,08	2,83										
		4,55		3,93										
<b>ASSY 3.0 8x140 mm plus washer</b>	2,98	2,31	1,90	1,74										
		2,80		2,42										
<b>ASSY 3.0 8x160 mm plus washer</b>	6,60	4,20	4,84	3,76	3,08	2,83								
		4,99		4,55		3,93								
<b>ASSY 3.0 8x160 mm plus washer</b>	4,06	2,59	2,98	2,31	1,90	1,74								
		3,07		2,80		2,42								
<b>ASSY 3.0 8x180 mm plus washer</b>	7,04	4,31	6,60	4,20	4,84	3,76	3,08	2,83						
		5,10		4,99		4,55		3,93						
<b>ASSY 3.0 8x180 mm plus washer</b>	4,33	2,65	4,06	2,59	2,98	2,31	1,90	1,74						
		3,14		3,07		2,80		2,42						
<b>ASSY 3.0 8x200 mm plus washer</b>	7,04	4,31	7,04	4,31	6,60	4,20	4,84	3,76	3,08	2,83				
		5,10		5,10		4,99		4,55		3,93				
<b>ASSY 3.0 8x200 mm plus washer</b>	4,33	2,65	4,33	2,65	4,06	2,59	2,98	2,31	1,90	1,74				
		3,14		3,14		3,07		2,80		2,42				
<b>ASSY 3.0 8x220 mm plus washer</b>	8,80	4,75	8,80	4,75	8,36	4,64	6,60	4,20	4,84	3,76	3,08	2,83		
		5,54		5,54		5,43		4,99		4,55		3,93		
<b>ASSY 3.0 8x220 mm plus washer</b>	5,42	2,92	5,42	2,92	5,14	2,86	4,06	2,59	2,98	2,31	1,90	1,74		
		3,41		3,41		3,34		3,07		2,80		2,42		
<b>ASSY 3.0 8x240 mm plus washer</b>	8,80	4,75	8,80	4,75	8,80	4,75	8,36	4,64	6,60	4,20	4,84	3,76	3,08	2,83
		5,54		5,54		5,54		5,43		4,99		4,55		3,93
<b>ASSY 3.0 8x240 mm plus washer</b>	5,42	2,92	5,42	2,92	5,42	2,92	5,14	2,86	4,06	2,59	2,98	2,31	1,90	1,74
		3,41		3,41		3,41		3,34		3,07		2,80		2,42

∅  
**8,0**  
mm



∅ ≥ 25mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

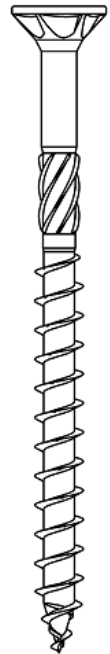
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY 3.0 8x260 mm plus washer	8,80	4,81	8,80	3,69 5,07	8,80	4,11 5,36	8,80	4,41 5,54	8,80	4,58 5,54	8,80	4,75 5,54	8,80	4,75 5,54
	5,42	2,96	5,42	2,27 3,12	5,42	2,53 3,30	5,42	2,72 3,41	5,42	2,82 3,41	5,42	2,92 3,41	5,42	2,92 3,41
ASSY 3.0 8x280 mm plus washer	8,80	4,81	8,80	3,69 5,07	8,80	4,11 5,36	8,80	4,41 5,54	8,80	4,58 5,54	8,80	4,75 5,54	8,80	4,75 5,54
	5,42	2,96	5,42	2,27 3,12	5,42	2,53 3,30	5,42	2,72 3,41	5,42	2,82 3,41	5,42	2,92 3,41	5,42	2,92 3,41
ASSY 3.0 8x300 mm plus washer	8,80	4,81	8,80	3,69 5,07	8,80	4,11 5,36	8,80	4,41 5,54	8,80	4,58 5,54	8,80	4,75 5,54	8,80	4,75 5,54
	5,42	2,96	5,42	2,27 3,12	5,42	2,53 3,30	5,42	2,72 3,41	5,42	2,82 3,41	5,42	2,92 3,41	5,42	2,92 3,41
ASSY 3.0 8x320 mm plus washer	8,80	4,81	8,80	3,69 5,07	8,80	4,11 5,36	8,80	4,41 5,54	8,80	4,58 5,54	8,80	4,75 5,54	8,80	4,75 5,54
	5,42	2,96	5,42	2,27 3,12	5,42	2,53 3,30	5,42	2,72 3,41	5,42	2,82 3,41	5,42	2,92 3,41	5,42	2,92 3,41
ASSY 3.0 8x340 mm plus washer	8,80	4,81	8,80	3,69 5,07	8,80	4,11 5,36	8,80	4,41 5,54	8,80	4,58 5,54	8,80	4,75 5,54	8,80	4,75 5,54
	5,42	2,96	5,42	2,27 3,12	5,42	2,53 3,30	5,42	2,72 3,41	5,42	2,82 3,41	5,42	2,92 3,41	5,42	2,92 3,41
ASSY 3.0 8x360 mm plus washer	8,80	4,81	8,80	3,69 5,07	8,80	4,11 5,36	8,80	4,41 5,54	8,80	4,58 5,54	8,80	4,75 5,54	8,80	4,75 5,54
	5,42	2,96	5,42	2,27 3,12	5,42	2,53 3,30	5,42	2,72 3,41	5,42	2,82 3,41	5,42	2,92 3,41	5,42	2,92 3,41
ASSY 3.0 8x380 mm plus washer	8,80	4,81	8,80	3,69 5,07	8,80	4,11 5,36	8,80	4,41 5,54	8,80	4,58 5,54	8,80	4,75 5,54	8,80	4,75 5,54
	5,42	2,96	5,42	2,27 3,12	5,42	2,53 3,30	5,42	2,72 3,41	5,42	2,82 3,41	5,42	2,92 3,41	5,42	2,92 3,41
ASSY 3.0 8x400 mm plus washer	8,80	4,81	8,80	3,69 5,07	8,80	4,11 5,36	8,80	4,41 5,54	8,80	4,58 5,54	8,80	4,75 5,54	8,80	4,75 5,54
	5,42	2,96	5,42	2,27 3,12	5,42	2,53 3,30	5,42	2,72 3,41	5,42	2,82 3,41	5,42	2,92 3,41	5,42	2,92 3,41

∅  
**8,0**  
mm



∅ ≥ 25mm

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

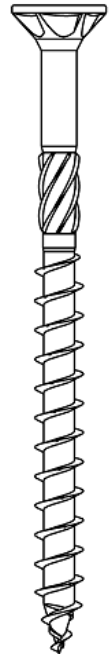
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 8x260 mm plus washer</b>	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,36	4,64	6,60	4,20	4,84	3,76
		5,54		5,54		5,54		5,54		5,43		4,99		4,55
	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,14	2,86	4,06	2,59	2,98	2,31
	3,41		3,41		3,41		3,41		3,34		3,07		2,80	
<b>ASSY 3.0 8x280 mm plus washer</b>	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,36	4,64	6,60	4,20
		5,54		5,54		5,54		5,54		5,54		5,43		4,99
	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,14	2,86	4,06	2,59
	3,41		3,41		3,41		3,41		3,41		3,34		3,07	
<b>ASSY 3.0 8x300 mm plus washer</b>	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,36	4,64
		5,54		5,54		5,54		5,54		5,54		5,54		5,43
	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,14	2,86
	3,41		3,41		3,41		3,41		3,41		3,41		3,34	
<b>ASSY 3.0 8x320 mm plus washer</b>	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75
		5,54		5,54		5,54		5,54		5,54		5,54		5,54
	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92
	3,41		3,41		3,41		3,41		3,41		3,41		3,41	
<b>ASSY 3.0 8x340 mm plus washer</b>	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75
		5,54		5,54		5,54		5,54		5,54		5,54		5,54
	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92
	3,41		3,41		3,41		3,41		3,41		3,41		3,41	
<b>ASSY 3.0 8x360 mm plus washer</b>	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75
		5,54		5,54		5,54		5,54		5,54		5,54		5,54
	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92
	3,41		3,41		3,41		3,41		3,41		3,41		3,41	
<b>ASSY 3.0 8x380 mm plus washer</b>	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75
		5,54		5,54		5,54		5,54		5,54		5,54		5,54
	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92
	3,41		3,41		3,41		3,41		3,41		3,41		3,41	
<b>ASSY 3.0 8x400 mm plus washer</b>	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75
		5,54		5,54		5,54		5,54		5,54		5,54		5,54
	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92
	3,41		3,41		3,41		3,41		3,41		3,41		3,41	

∅  
**8,0  
mm**



∅ ≥ 25mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

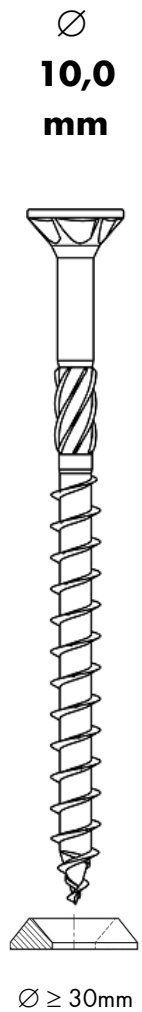
NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x l	Side wood thickness in [mm]													
	25*		30*		35*		40		45		50		60	
<b>ASSY 3.0</b> <b>10x80 mm</b> <b>plus</b> <b>washer</b>	4,80		4,30											
		4,78		4,93										
	2,95		2,65											
		2,94		3,03										
<b>ASSY 3.0</b> <b>10x100 mm</b> <b>plus</b> <b>washer</b>	6,00		6,00		5,80		5,30	4,14	4,80	3,97	4,30	3,86		
		5,08		5,35		5,62		5,83		6,07		5,80		
	3,69		3,69		3,57		3,26	2,55	2,95	2,44	2,65	2,37		
		3,13		3,29		3,46		3,59		3,73		3,57		
<b>ASSY 3.0</b> <b>10x120 mm</b> <b>plus</b> <b>washer</b>	8,00		8,00		7,80		7,30	4,69	6,80	4,74	6,30	4,80	5,30	4,66
		5,58		5,85		6,12		6,33		6,57		6,53		6,28
	4,92		4,92		4,80		4,49	2,89	4,18	2,92	3,88	2,95	3,26	2,87
		3,43		3,60		3,76		3,90		4,04		4,02		3,87
<b>ASSY 3.0</b> <b>10x140 mm</b> <b>plus</b> <b>washer</b>	8,00		8,00		8,00		8,00	4,87	8,00	5,04	8,00	5,22	7,30	5,45
		5,58		5,85		6,17		6,51		6,87		6,96		6,78
	4,92		4,92		4,92		4,92	3,00	4,92	3,10	4,92	3,21	4,49	3,35
		3,43		3,60		3,79		4,00		4,23		4,28		4,17
<b>ASSY 3.0</b> <b>10x160 mm</b> <b>plus</b> <b>washer</b>	10,00		10,00		10,00		10,00	5,37	10,00	5,54	10,00	5,72	9,30	5,95
		6,08		6,35		6,67		7,01		7,37		7,46		7,28
	6,15		6,15		6,15		6,15	3,30	6,15	3,41	6,15	3,52	5,72	3,66
		3,74		3,91		4,10		4,31		4,53		4,59		4,48
<b>ASSY 3.0</b> <b>10x180 mm</b> <b>plus</b> <b>washer</b>	10,00		10,00		10,00		10,00	5,37	10,00	5,54	10,00	5,72	10,00	6,12
		6,08		6,35		6,67		7,01		7,37		7,46		7,46
	6,15		6,15		6,15		6,15	3,30	6,15	3,41	6,15	3,52	6,15	3,77
		3,74		3,91		4,10		4,31		4,53		4,59		4,59
<b>ASSY 3.0</b> <b>10x200 mm</b> <b>plus</b> <b>washer</b>	10,00		10,00		10,00		10,00	5,37	10,00	5,54	10,00	5,72	10,00	6,12
		6,08		6,35		6,67		7,01		7,37		7,46		7,46
	6,15		6,15		6,15		6,15	3,30	6,15	3,41	6,15	3,52	6,15	3,77
		3,74		3,91		4,10		4,31		4,53		4,59		4,59
<b>ASSY 3.0</b> <b>10x220 mm</b> <b>plus</b> <b>washer</b>	10,00		10,00		10,00		10,00	5,37	10,00	5,54	10,00	5,72	10,00	6,12
		6,08		6,35		6,67		7,01		7,37		7,46		7,46
	6,15		6,15		6,15		6,15	3,30	6,15	3,41	6,15	3,52	6,15	3,77
		3,74		3,91		4,10		4,31		4,53		4,59		4,59
<b>ASSY 3.0</b> <b>10x240 mm</b> <b>plus</b> <b>washer</b>	10,00		10,00		10,00		10,00	5,37	10,00	5,54	10,00	5,72	10,00	6,12
		6,08		6,35		6,67		7,01		7,37		7,46		7,46
	6,15		6,15		6,15		6,15	3,30	6,15	3,41	6,15	3,52	6,15	3,77
		3,74		3,91		4,10		4,31		4,53		4,59		4,59

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

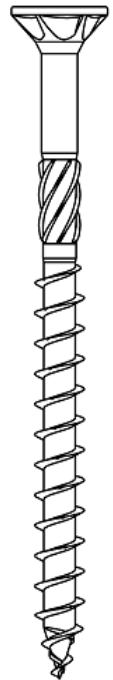
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0</b> <b>10x80 mm</b> <b>plus</b> <b>washer</b>														
<b>ASSY 3.0</b> <b>10x100 mm</b> <b>plus</b> <b>washer</b>														
<b>ASSY 3.0</b> <b>10x120 mm</b> <b>plus</b> <b>washer</b>														
<b>ASSY 3.0</b> <b>10x140 mm</b> <b>plus</b> <b>washer</b>	5,30	4,66 6,28												
	3,26	2,87 3,87												
<b>ASSY 3.0</b> <b>10x160 mm</b> <b>plus</b> <b>washer</b>	7,30	5,53 6,78	5,30	4,66 6,28										
	4,49	3,40 4,17	3,26	2,87 3,87										
<b>ASSY 3.0</b> <b>10x180 mm</b> <b>plus</b> <b>washer</b>	9,30	6,03 7,28	7,30	5,53 6,78	5,30	4,66 6,28								
	5,72	3,71 4,48	4,49	3,40 4,17	3,26	2,87 3,87								
<b>ASSY 3.0</b> <b>10x200 mm</b> <b>plus</b> <b>washer</b>	10,00	6,20 7,46	9,30	6,03 7,28	7,30	5,53 6,78	5,30	4,66 6,28						
	6,15	3,82 4,59	5,72	3,71 4,48	4,49	3,40 4,17	3,26	2,87 3,87						
<b>ASSY 3.0</b> <b>10x220 mm</b> <b>plus</b> <b>washer</b>	10,00	6,20 7,46	10,00	6,20 7,46	9,30	6,03 7,28	7,30	5,53 6,78	5,30	4,66 6,28				
	6,15	3,82 4,59	6,15	3,82 4,59	5,72	3,71 4,48	4,49	3,40 4,17	3,26	2,87 3,87				
<b>ASSY 3.0</b> <b>10x240 mm</b> <b>plus</b> <b>washer</b>	10,00	6,20 7,46	10,00	6,20 7,46	10,00	6,20 7,46	9,30	6,03 7,28	7,30	5,53 6,78	5,30	4,66 6,28		
	6,15	3,82 4,59	6,15	3,82 4,59	6,15	3,82 4,59	5,72	3,71 4,48	4,49	3,40 4,17	3,26	2,87 3,87		

∅  
**10,0**  
**mm**



∅ ≥ 30mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

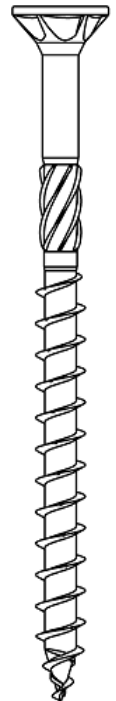
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x l	Side wood thickness in [mm]													
	25*		30*		35*		40		45		50		60	
<b>ASSY 3.0 10x260 mm plus washer</b>	10,00	6,08	10,00	6,35	10,00	6,67	10,00	5,37 7,01	10,00	5,54 7,37	10,00	5,72 7,46	10,00	6,12 7,46
	6,15	3,74	6,15	3,91	6,15	4,10	6,15	3,30 4,31	6,15	3,41 4,53	6,15	3,52 4,59	6,15	3,77 4,59
<b>ASSY 3.0 10x280 mm plus washer</b>	10,00	6,08	10,00	6,35	10,00	6,67	10,00	5,37 7,01	10,00	5,54 7,37	10,00	5,72 7,46	10,00	6,12 7,46
	6,15	3,74	6,15	3,91	6,15	4,10	6,15	3,30 4,31	6,15	3,41 4,53	6,15	3,52 4,59	6,15	3,77 4,59
<b>ASSY 3.0 10x300 mm plus washer</b>	10,00	6,08	10,00	6,35	10,00	6,67	10,00	5,37 7,01	10,00	5,54 7,37	10,00	5,72 7,46	10,00	6,12 7,46
	6,15	3,74	6,15	3,91	6,15	4,10	6,15	3,30 4,31	6,15	3,41 4,53	6,15	3,52 4,59	6,15	3,77 4,59
<b>ASSY 3.0 10x320 mm plus washer</b>	12,00	6,46	12,00	6,85	12,00	7,17	12,00	5,74 7,51	12,00	6,04 7,87	12,00	6,22 7,96	12,00	6,62 7,96
	7,38	3,97	7,38	4,22	7,38	4,41	7,38	3,53 4,62	7,38	3,72 4,84	7,38	3,83 4,90	7,38	4,07 4,90
<b>ASSY 3.0 10x340 mm plus washer</b>	12,00	6,46	12,00	6,85	12,00	7,17	12,00	5,74 7,51	12,00	6,04 7,87	12,00	6,22 7,96	12,00	6,62 7,96
	7,38	3,97	7,38	4,22	7,38	4,41	7,38	3,53 4,62	7,38	3,72 4,84	7,38	3,83 4,90	7,38	4,07 4,90
<b>ASSY 3.0 10x360 mm plus washer</b>	12,00	6,46	12,00	6,85	12,00	7,17	12,00	5,74 7,51	12,00	6,04 7,87	12,00	6,22 7,96	12,00	6,62 7,96
	7,38	3,97	7,38	4,22	7,38	4,41	7,38	3,53 4,62	7,38	3,72 4,84	7,38	3,83 4,90	7,38	4,07 4,90
<b>ASSY 3.0 10x380 mm plus washer</b>	12,00	6,46	12,00	6,85	12,00	7,17	12,00	5,74 7,51	12,00	6,04 7,87	12,00	6,22 7,96	12,00	6,62 7,96
	7,38	3,97	7,38	4,22	7,38	4,41	7,38	3,53 4,62	7,38	3,72 4,84	7,38	3,83 4,90	7,38	4,07 4,90
<b>ASSY 3.0 10x400 mm plus washer</b>	12,00	6,46	12,00	6,85	12,00	7,17	12,00	5,74 7,51	12,00	6,04 7,87	12,00	6,22 7,96	12,00	6,62 7,96
	7,38	3,97	7,38	4,22	7,38	4,41	7,38	3,53 4,62	7,38	3,72 4,84	7,38	3,83 4,90	7,38	4,07 4,90

Ø  
**10,0  
mm**



Ø ≥ 30mm

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

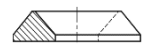
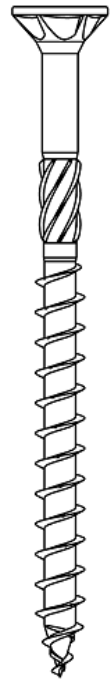
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE WOOD-WOOD ASSY 3.0 - ASSY 3.0 ZINI + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0</b> <b>10x260 mm</b> <b>plus</b> <b>washer</b>	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	9,30	6,03	7,30	5,53	5,30	4,66
		7,46		7,46		7,46		7,46		7,28		6,78		6,28
	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82	5,72	3,71	4,49	3,40	3,26	2,87
		4,59		4,59		4,59		4,59		4,48		4,17		3,87
<b>ASSY 3.0</b> <b>10x280 mm</b> <b>plus</b> <b>washer</b>	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	9,30	6,03	7,30	5,53
		7,46		7,46		7,46		7,46		7,28		6,78		6,28
	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82	5,72	3,71	4,49	3,40
		4,59		4,59		4,59		4,59		4,59		4,48		4,17
<b>ASSY 3.0</b> <b>10x300 mm</b> <b>plus</b> <b>washer</b>	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	9,30	6,03
		7,46		7,46		7,46		7,46		7,28		6,78		6,28
	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82	5,72	3,71	4,49	3,40
		4,59		4,59		4,59		4,59		4,59		4,48		4,17
<b>ASSY 3.0</b> <b>10x320 mm</b> <b>plus</b> <b>washer</b>	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	11,30	6,53
		7,96		7,96		7,96		7,96		7,96		7,96		7,78
	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	6,95	4,02
		4,90		4,90		4,90		4,90		4,90		4,90		4,79
<b>ASSY 3.0</b> <b>10x340 mm</b> <b>plus</b> <b>washer</b>	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70
		7,96		7,96		7,96		7,96		7,96		7,96		7,96
	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12
		4,90		4,90		4,90		4,90		4,90		4,90		4,90
<b>ASSY 3.0</b> <b>10x360 mm</b> <b>plus</b> <b>washer</b>	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70
		7,96		7,96		7,96		7,96		7,96		7,96		7,96
	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12
		4,90		4,90		4,90		4,90		4,90		4,90		4,90
<b>ASSY 3.0</b> <b>10x380 mm</b> <b>plus</b> <b>washer</b>	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70
		7,96		7,96		7,96		7,96		7,96		7,96		7,96
	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12
		4,90		4,90		4,90		4,90		4,90		4,90		4,90
<b>ASSY 3.0</b> <b>10x400 mm</b> <b>plus</b> <b>washer</b>	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70	12,00	6,70
		7,96		7,96		7,96		7,96		7,96		7,96		7,96
	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12	7,38	4,12
		4,90		4,90		4,90		4,90		4,90		4,90		4,90

∅  
**10,0**  
**mm**



∅ ≥ 30mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x ℓ	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
ASSY 3.0 SK 5x50 mm	1,50	1,29												
	0,92	0,80												
ASSY 3.0 SK 5x60 mm	1,87	1,47	1,80	1,55	1,50	1,38								
	1,15	0,91	1,11	0,95	0,92	0,85								
ASSY 3.0 SK 5x70 mm	1,87	1,47	1,87	1,59	1,87	1,59	1,80	1,55	1,50	1,38				
	1,15	0,91	1,15	0,98	1,15	0,98	1,11	0,95	0,92	0,85				
ASSY 3.0 SK 5x80 mm	1,87	1,47	1,87	1,59	1,87	1,59	1,87	1,59	1,87	1,59	1,80	1,55		
	1,15	0,91	1,15	0,98	1,15	0,98	1,15	0,98	1,15	0,98	1,11	0,95		
ASSY 3.0 SK 5x90 mm	1,87	1,47	1,87	1,59	1,87	1,59	1,87	1,59	1,87	1,59	1,87	1,59	1,80	1,55
	1,15	0,91	1,15	0,98	1,15	0,98	1,15	0,98	1,15	0,98	1,15	0,98	1,11	0,95
ASSY 3.0 SK 5x100 mm	1,87	1,47	1,87	1,59	1,87	1,59	1,87	1,59	1,87	1,59	1,87	1,59	1,87	1,59
	1,15	0,91	1,15	0,98	1,15	0,98	1,15	0,98	1,15	0,98	1,15	0,98	1,15	0,98
ASSY 3.0 SK 5x110 mm	1,87	1,47	1,87	1,59	1,87	1,59	1,87	1,59	1,87	1,59	1,87	1,59	1,87	1,59
	1,15	0,91	1,15	0,98	1,15	0,98	1,15	0,98	1,15	0,98	1,15	0,98	1,15	0,98
ASSY 3.0 SK 5x120 mm	1,87	1,47	1,87	1,59	1,87	1,59	1,87	1,59	1,87	1,59	1,87	1,59	1,87	1,59
	1,15	0,91	1,15	0,98	1,15	0,98	1,15	0,98	1,15	0,98	1,15	0,98	1,15	0,98



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x ℓ	Side wood thickness in [mm]							
	80	100	120	140	160	180	200	
ASSY 3.0 SK 5x50 mm								
ASSY 3.0 SK 5x60 mm								
ASSY 3.0 SK 5x70 mm								
ASSY 3.0 SK 5x80 mm								
ASSY 3.0 SK 5x90 mm								
ASSY 3.0 SK 5x100 mm								
ASSY 3.0 SK 5x110 mm	1,80	1,55						
		1,91						
	1,11	0,95						
		1,17						
ASSY 3.0 SK 5x120 mm	1,87	1,59						
		1,93						
	1,15	0,98						
		1,19						



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

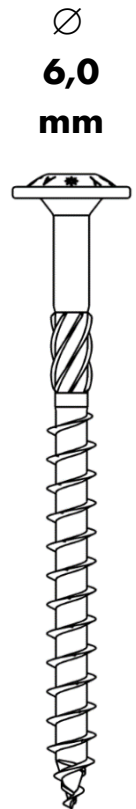
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
ASSY 3.0 SK 6x60 mm	2,42	1,85	2,07	1,77	1,73	1,67								
		2,39				2,53		2,22						
ASSY 3.0 SK 6x70 mm	1,49	1,14	1,27	1,09	1,06	1,03								
		1,47				1,56		1,37						
ASSY 3.0 SK 6x80 mm	2,55	1,88	2,55	2,00	2,42	2,06	2,07	1,88	1,73	1,67				
		2,43				2,65				2,62		2,53		2,22
ASSY 3.0 SK 6x90 mm	1,57	1,16	1,57	1,23	1,49	1,27	1,27	1,16	1,06	1,03				
		1,49				1,63				1,61		1,56		1,37
ASSY 3.0 SK 6x100 mm	2,55	1,88	2,55	2,00	2,55	2,14	2,55	2,23	2,42	2,11	2,07	1,88		
		2,43				2,65				2,65			2,65	
ASSY 3.0 SK 6x110 mm	1,57	1,16	1,57	1,23	1,57	1,32	1,57	1,37	1,49	1,30	1,27	1,16		
		1,49				1,63				1,63			1,63	
ASSY 3.0 SK 6x120 mm	2,55	1,88	2,55	2,00	2,55	2,14	2,55	2,23	2,55	2,23	2,55	2,23		
		2,43				2,65				2,65			2,65	
ASSY 3.0 SK 6x140 mm	1,57	1,16	1,57	1,23	1,57	1,32	1,57	1,37	1,57	1,37	1,57	1,37		
		1,49				1,63				1,63			1,63	



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

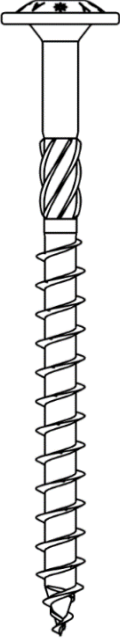
Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x ℓ	Side wood thickness in [mm]								
	80	100	120	140	160	180	200		
ASSY 3.0 SK 6x60 mm									<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 5px;">∅</div> <div style="margin-bottom: 5px;"><b>6,0</b></div> <div style="margin-bottom: 5px;"><b>mm</b></div>  </div>
ASSY 3.0 SK 6x70 mm									
ASSY 3.0 SK 6x80 mm									
ASSY 3.0 SK 6x90 mm									
ASSY 3.0 SK 6x100 mm									
ASSY 3.0 SK 6x110 mm	2,07	1,88							
		2,53							
	1,27	1,16							
1,56									
ASSY 3.0 SK 6x120 mm	2,55	2,23							
		2,65							
	1,57	1,37							
		1,63							
ASSY 3.0 SK 6x140 mm	2,55	2,23	2,55	2,23					
		2,65							
	1,57	1,37	1,57	1,37					
		1,63							

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]														
	25		30		35		40		45		50		60		
<b>ASSY 3.0 SK</b> <b>6x160 mm</b>	2,55	1,88	2,55	2,00	2,55	2,14	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23	
		2,43		2,65		2,65		2,65		2,65		2,65			
	1,57	1,16	1,57	1,23	1,57	1,32	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37	
		1,49		1,63		1,63		1,63		1,63		1,63			
	<b>ASSY 3.0 SK</b> <b>6x180 mm</b>	2,55	1,88	2,55	2,00	2,55	2,14	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23
			2,43		2,65		2,65		2,65		2,65		2,65		
1,57		1,16	1,57	1,23	1,57	1,32	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37	
		1,49		1,63		1,63		1,63		1,63		1,63			
<b>ASSY 3.0 SK</b> <b>6x200 mm</b>		2,55	1,88	2,55	2,00	2,55	2,14	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23
			2,43		2,65		2,65		2,65		2,65		2,65		
	1,57	1,16	1,57	1,23	1,57	1,32	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37	
		1,49		1,63		1,63		1,63		1,63		1,63			
	<b>ASSY 3.0 SK</b> <b>6x220 mm</b>	2,55	1,88	2,55	2,00	2,55	2,14	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23
			2,43		2,65		2,65		2,65		2,65		2,65		
1,57		1,16	1,57	1,23	1,57	1,32	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37	
		1,49		1,63		1,63		1,63		1,63		1,63			
<b>ASSY 3.0 SK</b> <b>6x240 mm</b>		2,55	1,88	2,55	2,00	2,55	2,14	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23
			2,43		2,65		2,65		2,65		2,65		2,65		
	1,57	1,16	1,57	1,23	1,57	1,32	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37	
		1,49		1,63		1,63		1,63		1,63		1,63			
	<b>ASSY 3.0 SK</b> <b>6x260 mm</b>	2,55	1,88	2,55	2,00	2,55	2,14	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23
			2,43		2,65		2,65		2,65		2,65		2,65		
1,57		1,16	1,57	1,23	1,57	1,32	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37	
		1,49		1,63		1,63		1,63		1,63		1,63			
<b>ASSY 3.0 SK</b> <b>6x280 mm</b>		2,55	1,88	2,55	2,00	2,55	2,14	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23
			2,43		2,65		2,65		2,65		2,65		2,65		
	1,57	1,16	1,57	1,23	1,57	1,32	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37	
		1,49		1,63		1,63		1,63		1,63		1,63			
	<b>ASSY 3.0 SK</b> <b>6x300 mm</b>	2,55	1,88	2,55	2,00	2,55	2,14	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23
			2,43		2,65		2,65		2,65		2,65		2,65		
1,57		1,16	1,57	1,23	1,57	1,32	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37	
		1,49		1,63		1,63		1,63		1,63		1,63			



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

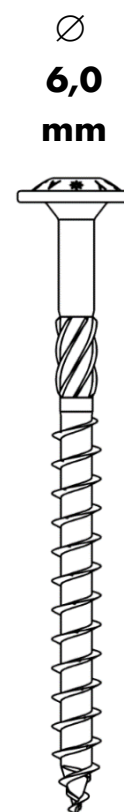
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x $\ell$	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 SK 6x160 mm	2,55	2,23	2,55	2,23	2,55	2,23								
		2,65				2,65		2,65						
ASSY 3.0 SK 6x180 mm	1,57	1,37	1,57	1,37	1,57	1,37								
		1,63				1,63		1,63						
ASSY 3.0 SK 6x200 mm	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23						
		2,65				2,65		2,65		2,65				
ASSY 3.0 SK 6x220 mm	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37						
		1,63				1,63		1,63		1,63				
ASSY 3.0 SK 6x240 mm	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23				
		2,65				2,65		2,65		2,65		2,65	2,55	2,23
ASSY 3.0 SK 6x260 mm	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37	2,55	2,23		
		1,63				1,63		1,63		1,63		1,63	1,57	1,37
ASSY 3.0 SK 6x280 mm	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23	2,55	2,23		
		2,65				2,65		2,65		2,65		2,65	2,55	2,23
ASSY 3.0 SK 6x300 mm	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37	1,57	1,37	2,55	2,23
		1,63				1,63		1,63		1,63		1,63	1,57	1,37



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

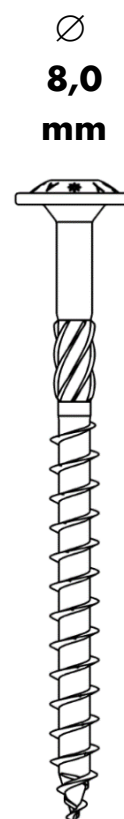
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY 3.0 SK 8x60 mm	3,08	3,38												
	1,90	2,08												
ASSY 3.0 SK 8x80 mm	4,40	3,71	4,40	3,02 3,97	3,96	3,05 4,15	3,52	2,92 4,22	3,08	2,83 3,93				
	2,71	2,28	2,71	1,86 2,44	2,44	1,88 2,55	2,17	1,80 2,60	1,90	1,74 2,42				
ASSY 3.0 SK 8x100 mm	4,84	3,82	4,84	3,13 4,08	4,84	3,27 4,37	4,84	3,42 4,55	4,84	3,59 4,55	4,40	3,65 4,44	3,52	3,09 4,22
	2,98	2,35	2,98	1,92 2,51	2,98	2,01 2,69	2,98	2,11 2,80	2,98	2,21 2,80	2,71	2,25 2,73	2,17	1,90 2,60
ASSY 3.0 SK 8x120 mm	4,84	3,82	4,84	3,13 4,08	4,84	3,27 4,37	4,84	3,42 4,55	4,84	3,59 4,55	4,84	3,76 4,55	4,84	3,76 4,55
	2,98	2,35	2,98	1,92 2,51	2,98	2,01 2,69	2,98	2,11 2,80	2,98	2,21 2,80	2,98	2,31 2,80	2,98	2,31 2,80
ASSY 3.0 SK 8x140 mm	4,84	3,82	4,84	3,13 4,08	4,84	3,27 4,37	4,84	3,42 4,55	4,84	3,59 4,55	4,84	3,76 4,55	4,84	3,76 4,55
	2,98	2,35	2,98	1,92 2,51	2,98	2,01 2,69	2,98	2,11 2,80	2,98	2,21 2,80	2,98	2,31 2,80	2,98	2,31 2,80
ASSY 3.0 SK 8x160 mm	4,84	3,82	4,84	3,13 4,08	4,84	3,27 4,37	4,84	3,42 4,55	4,84	3,59 4,55	4,84	3,76 4,55	4,84	3,76 4,55
	2,98	2,35	2,98	1,92 2,51	2,98	2,01 2,69	2,98	2,11 2,80	2,98	2,21 2,80	2,98	2,31 2,80	2,98	2,31 2,80
ASSY 3.0 SK 8x180 mm	4,84	3,82	4,84	3,13 4,08	4,84	3,27 4,37	4,84	3,42 4,55	4,84	3,59 4,55	4,84	3,76 4,55	4,84	3,76 4,55
	2,98	2,35	2,98	1,92 2,51	2,98	2,01 2,69	2,98	2,11 2,80	2,98	2,21 2,80	2,98	2,31 2,80	2,98	2,31 2,80
ASSY 3.0 SK 8x200 mm	4,84	3,82	4,84	3,13 4,08	4,84	3,27 4,37	4,84	3,42 4,55	4,84	3,59 4,55	4,84	3,76 4,55	4,84	3,76 4,55
	2,98	2,35	2,98	1,92 2,51	2,98	2,01 2,69	2,98	2,11 2,80	2,98	2,21 2,80	2,98	2,31 2,80	2,98	2,31 2,80
ASSY 3.0 SK 8x220 mm	4,84	3,82	4,84	3,13 4,08	4,84	3,27 4,37	4,84	3,42 4,55	4,84	3,59 4,55	4,84	3,76 4,55	4,84	3,76 4,55
	2,98	2,35	2,98	1,92 2,51	2,98	2,01 2,69	2,98	2,11 2,80	2,98	2,21 2,80	2,98	2,31 2,80	2,98	2,31 2,80



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

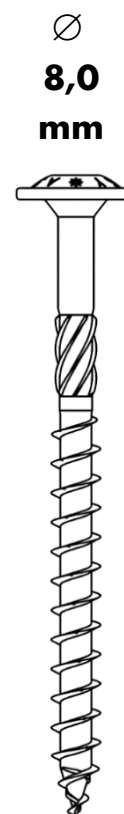
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 SK 8x60 mm														
ASSY 3.0 SK 8x80 mm														
ASSY 3.0 SK 8x100 mm														
ASSY 3.0 SK 8x120 mm	3,52	3,09												
		4,22												
	2,17	1,90												
ASSY 3.0 SK 8x140 mm	4,84	3,76	3,52	3,09										
		4,55		4,22										
	2,98	2,31	2,17	1,90										
ASSY 3.0 SK 8x160 mm	4,84	3,76	4,84	3,76	3,52	3,09								
		4,55		4,55		4,22								
	2,98	2,31	2,98	2,31	2,17	1,90								
ASSY 3.0 SK 8x180 mm	4,84	3,76	4,84	3,76	4,84	3,76	3,52	3,09						
		4,55		4,55		4,55		4,22						
	2,98	2,31	2,98	2,31	2,98	2,31	2,17	1,90						
ASSY 3.0 SK 8x200 mm	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	3,52	3,09				
		4,55		4,55		4,55		4,55		4,22				
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,17	1,90				
ASSY 3.0 SK 8x220 mm	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	3,52	3,09		
		4,55		4,55		4,55		4,55		4,55		4,22		
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,17	1,90		



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

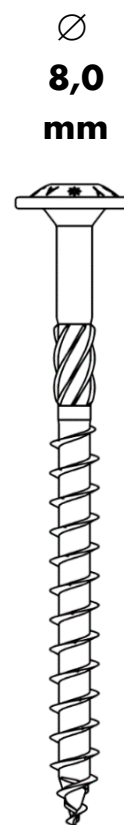
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY 3.0 SK 8x240 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x260 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x280 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x300 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x320 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x340 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x360 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x380 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x400 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

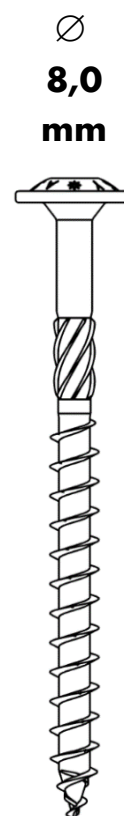
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 SK 8x240 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	3,52	3,09
		4,55		4,55		4,55		4,55		4,55		4,55		4,22
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,17	1,90
		2,80		2,80		2,80		2,80		2,80		2,80		2,60
<b>ASSY 3.0 SK 8x260 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		4,55
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		2,80
<b>ASSY 3.0 SK 8x280 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		4,55
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		2,80
<b>ASSY 3.0 SK 8x300 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		4,55
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		2,80
<b>ASSY 3.0 SK 8x320 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		4,55
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		2,80
<b>ASSY 3.0 SK 8x340 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		4,55
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		2,80
<b>ASSY 3.0 SK 8x360 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		4,55
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		2,80
<b>ASSY 3.0 SK 8x380 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		4,55
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		2,80
<b>ASSY 3.0 SK 8x400 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		4,55
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		2,80



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

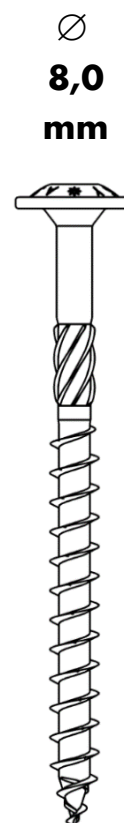
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
ASSY 3.0 SK 8x420 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x440 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x460 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x480 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x500 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x520 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x540 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80
ASSY 3.0 SK 8x560 mm	4,84		4,84	3,13	4,84	3,27	4,84	3,42	4,84	3,59	4,84	3,76	4,84	3,76
		3,82				4,08				4,37				4,55
	2,98		2,98	1,92	2,98	2,01	2,98	2,11	2,98	2,21	2,98	2,31	2,98	2,31
		2,35				2,51				2,69				2,80



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

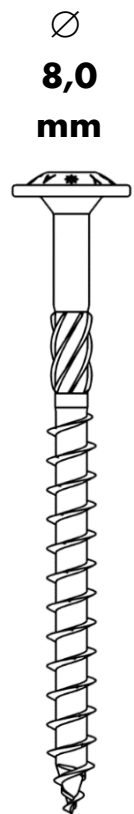
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 SK 8x420 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		
<b>ASSY 3.0 SK 8x440 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		
<b>ASSY 3.0 SK 8x460 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		
<b>ASSY 3.0 SK 8x480 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		
<b>ASSY 3.0 SK 8x500 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		
<b>ASSY 3.0 SK 8x520 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		
<b>ASSY 3.0 SK 8x540 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		
<b>ASSY 3.0 SK 8x560 mm</b>	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76	4,84	3,76
		4,55		4,55		4,55		4,55		4,55		4,55		
	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31	2,98	2,31
		2,80		2,80		2,80		2,80		2,80		2,80		



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

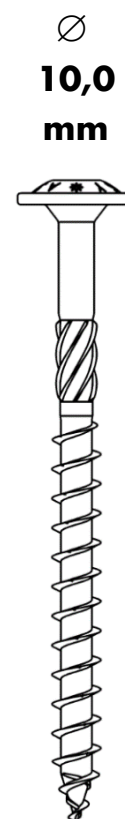
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	25*		30*		35*		40		45		50		60	
ASSY 3.0 SK 10x100 mm	6,00		6,00		6,00		6,00	4,37	5,50	4,38	5,00	4,23	4,00	3,87
		5,08		5,35		5,67		6,01		6,24		6,21		5,51
ASSY 3.0 SK 10x120 mm	3,69		3,69		3,69		3,69	2,69	3,38	2,70	3,08	2,60	2,46	2,38
		3,13		3,29		3,49		3,70		3,84		3,82		3,39
ASSY 3.0 SK 10x140 mm	6,25		6,25		6,25		6,25	4,43	6,25	4,60	6,25	4,79	6,00	5,07
		5,14		5,41		5,73		6,07		6,43		6,52		6,46
ASSY 3.0 SK 10x160 mm	3,85		3,85		3,85		3,85	2,73	3,85	2,83	3,85	2,95	3,69	3,12
		3,16		3,33		3,52		3,73		3,96		4,01		3,97
ASSY 3.0 SK 10x180 mm	6,25		6,25		6,25		6,25	4,43	6,25	4,60	6,25	4,79	6,25	5,18
		5,14		5,41		5,73		6,07		6,43		6,52		6,52
ASSY 3.0 SK 10x200 mm	3,85		3,85		3,85		3,85	2,73	3,85	2,83	3,85	2,95	3,85	3,19
		3,16		3,33		3,52		3,73		3,96		4,01		4,01
ASSY 3.0 SK 10x220 mm	6,25		6,25		6,25		6,25	4,43	6,25	4,60	6,25	4,79	6,25	5,18
		5,14		5,41		5,73		6,07		6,43		6,52		6,52
ASSY 3.0 SK 10x240 mm	3,85		3,85		3,85		3,85	2,73	3,85	2,83	3,85	2,95	3,85	3,19
		3,16		3,33		3,52		3,73		3,96		4,01		4,01



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

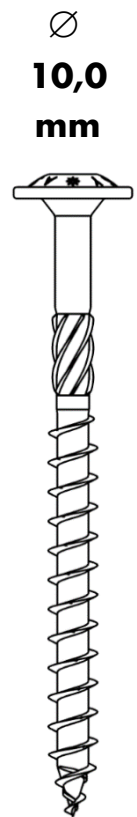
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 SK</b> 10x100 mm														
<b>ASSY 3.0 SK</b> 10x120 mm	4,00	3,87 5,51												
	2,46	2,38 3,39												
<b>ASSY 3.0 SK</b> 10x140 mm	6,00	5,12 6,46	4,00	3,87 5,51										
	3,69	3,15 3,97	2,46	2,38 3,39										
<b>ASSY 3.0 SK</b> 10x160 mm	6,25	5,26 6,52	6,00	5,12 6,46	4,00	3,87 5,51								
	3,85	3,24 4,01	3,69	3,15 3,97	2,46	2,38 3,39								
<b>ASSY 3.0 SK</b> 10x180 mm	6,25	5,26 6,52	6,25	5,26 6,52	6,00	5,12 6,46	4,00	3,87 5,51						
	3,85	3,24 4,01	3,85	3,24 4,01	3,69	3,15 3,97	2,46	2,38 3,39						
<b>ASSY 3.0 SK</b> 10x200 mm	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,00	5,12 6,46	4,00	3,87 5,51				
	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,69	3,15 3,97	2,46	2,38 3,39				
<b>ASSY 3.0 SK</b> 10x220 mm	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,00	5,12 6,46	4,00	3,87 5,51		
	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,69	3,15 3,97	2,46	2,38 3,39		
<b>ASSY 3.0 SK</b> 10x240 mm	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,00	5,12 6,46	4,00	3,87 5,51
	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,69	3,15 3,97	2,46	2,38 3,39



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

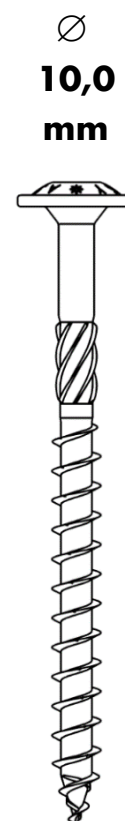
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	25*		30*		35*		40		45		50		60	
ASSY 3.0 SK 10x260 mm	6,25	5,14	6,25	5,41	6,25	5,73	6,25	4,43 6,07	6,25	4,60 6,43	6,25	4,79 6,52	6,25	5,18 6,52
	3,85	3,16	3,85	3,33	3,85	3,52	3,85	2,73 3,73	3,85	2,83 3,96	3,85	2,95 4,01	3,85	3,19 4,01
ASSY 3.0 SK 10x280 mm	6,25	5,14	6,25	5,41	6,25	5,73	6,25	4,43 6,07	6,25	4,60 6,43	6,25	4,79 6,52	6,25	5,18 6,52
	3,85	3,16	3,85	3,33	3,85	3,52	3,85	2,73 3,73	3,85	2,83 3,96	3,85	2,95 4,01	3,85	3,19 4,01
ASSY 3.0 SK 10x300 mm	6,25	5,14	6,25	5,41	6,25	5,73	6,25	4,43 6,07	6,25	4,60 6,43	6,25	4,79 6,52	6,25	5,18 6,52
	3,85	3,16	3,85	3,33	3,85	3,52	3,85	2,73 3,73	3,85	2,83 3,96	3,85	2,95 4,01	3,85	3,19 4,01
ASSY 3.0 SK 10x320 mm	6,25	5,14	6,25	5,41	6,25	5,73	6,25	4,43 6,07	6,25	4,60 6,43	6,25	4,79 6,52	6,25	5,18 6,52
	3,85	3,16	3,85	3,33	3,85	3,52	3,85	2,73 3,73	3,85	2,83 3,96	3,85	2,95 4,01	3,85	3,19 4,01
ASSY 3.0 SK 10x340 mm	6,25	5,14	6,25	5,41	6,25	5,73	6,25	4,43 6,07	6,25	4,60 6,43	6,25	4,79 6,52	6,25	5,18 6,52
	3,85	3,16	3,85	3,33	3,85	3,52	3,85	2,73 3,73	3,85	2,83 3,96	3,85	2,95 4,01	3,85	3,19 4,01
ASSY 3.0 SK 10x360 mm	6,25	5,14	6,25	5,41	6,25	5,73	6,25	4,43 6,07	6,25	4,60 6,43	6,25	4,79 6,52	6,25	5,18 6,52
	3,85	3,16	3,85	3,33	3,85	3,52	3,85	2,73 3,73	3,85	2,83 3,96	3,85	2,95 4,01	3,85	3,19 4,01
ASSY 3.0 SK 10x380 mm	6,25	5,14	6,25	5,41	6,25	5,73	6,25	4,43 6,07	6,25	4,60 6,43	6,25	4,79 6,52	6,25	5,18 6,52
	3,85	3,16	3,85	3,33	3,85	3,52	3,85	2,73 3,73	3,85	2,83 3,96	3,85	2,95 4,01	3,85	3,19 4,01
ASSY 3.0 SK 10x400 mm	6,25	5,14	6,25	5,41	6,25	5,73	6,25	4,43 6,07	6,25	4,60 6,43	6,25	4,79 6,52	6,25	5,18 6,52
	3,85	3,16	3,85	3,33	3,85	3,52	3,85	2,73 3,73	3,85	2,83 3,96	3,85	2,95 4,01	3,85	3,19 4,01



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 SK</b> <b>10x260 mm</b>	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,00	5,12
		6,52		6,52		6,52		6,52		6,52		6,52		6,46
	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,69	3,15
		4,01		4,01		4,01		4,01		4,01		3,97		
<b>ASSY 3.0 SK</b> <b>10x280 mm</b>	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26
		6,52		6,52		6,52		6,52		6,52		6,52		6,52
	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24
		4,01		4,01		4,01		4,01		4,01		4,01		
<b>ASSY 3.0 SK</b> <b>10x300 mm</b>	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26
		6,52		6,52		6,52		6,52		6,52		6,52		6,52
	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24
		4,01		4,01		4,01		4,01		4,01		4,01		
<b>ASSY 3.0 SK</b> <b>10x320 mm</b>	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26
		6,52		6,52		6,52		6,52		6,52		6,52		6,52
	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24
		4,01		4,01		4,01		4,01		4,01		4,01		
<b>ASSY 3.0 SK</b> <b>10x340 mm</b>	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26
		6,52		6,52		6,52		6,52		6,52		6,52		6,52
	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24
		4,01		4,01		4,01		4,01		4,01		4,01		
<b>ASSY 3.0 SK</b> <b>10x360 mm</b>	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26
		6,52		6,52		6,52		6,52		6,52		6,52		6,52
	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24
		4,01		4,01		4,01		4,01		4,01		4,01		
<b>ASSY 3.0 SK</b> <b>10x380 mm</b>	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26
		6,52		6,52		6,52		6,52		6,52		6,52		6,52
	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24
		4,01		4,01		4,01		4,01		4,01		4,01		
<b>ASSY 3.0 SK</b> <b>10x400 mm</b>	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26	6,25	5,26
		6,52		6,52		6,52		6,52		6,52		6,52		6,52
	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24	3,85	3,24
		4,01		4,01		4,01		4,01		4,01		4,01		



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

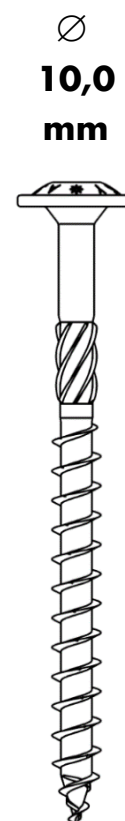
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	25*		30*		35*		40		45		50		60	
ASSY 3.0 SK 10x420 mm	6,25	5,14	6,25	5,41	6,25	5,73	6,25	4,43 6,07	6,25	4,60 6,43	6,25	4,79 6,52	6,25	5,18 6,52
	3,85	3,16	3,85	3,33	3,85	3,52	3,85	2,73 3,73	3,85	2,83 3,96	3,85	2,95 4,01	3,85	3,19 4,01
ASSY 3.0 SK 10x440 mm	6,25	5,14	6,25	5,41	6,25	5,73	6,25	4,43 6,07	6,25	4,60 6,43	6,25	4,79 6,52	6,25	5,18 6,52
	3,85	3,16	3,85	3,33	3,85	3,52	3,85	2,73 3,73	3,85	2,83 3,96	3,85	2,95 4,01	3,85	3,19 4,01
ASSY 3.0 SK 10x460 mm	6,25	5,14	6,25	5,41	6,25	5,73	6,25	4,43 6,07	6,25	4,60 6,43	6,25	4,79 6,52	6,25	5,18 6,52
	3,85	3,16	3,85	3,33	3,85	3,52	3,85	2,73 3,73	3,85	2,83 3,96	3,85	2,95 4,01	3,85	3,19 4,01
ASSY 3.0 SK 10x480 mm	6,25	5,14	6,25	5,41	6,25	5,73	6,25	4,43 6,07	6,25	4,60 6,43	6,25	4,79 6,52	6,25	5,18 6,52
	3,85	3,16	3,85	3,33	3,85	3,52	3,85	2,73 3,73	3,85	2,83 3,96	3,85	2,95 4,01	3,85	3,19 4,01
ASSY 3.0 SK 10x500 mm	6,25	5,14	6,25	5,41	6,25	5,73	6,25	4,43 6,07	6,25	4,60 6,43	6,25	4,79 6,52	6,25	5,18 6,52
	3,85	3,16	3,85	3,33	3,85	3,52	3,85	2,73 3,73	3,85	2,83 3,96	3,85	2,95 4,01	3,85	3,19 4,01

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

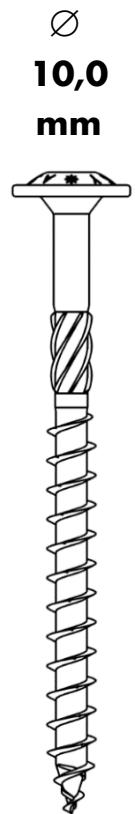
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 SK 10x420 mm	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52
	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01
ASSY 3.0 SK 10x440 mm	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52
	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01
ASSY 3.0 SK 10x460 mm	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52
	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01
ASSY 3.0 SK 10x480 mm	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52
	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01
ASSY 3.0 SK 10x500 mm	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52	6,25	5,26 6,52
	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01	3,85	3,24 4,01



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

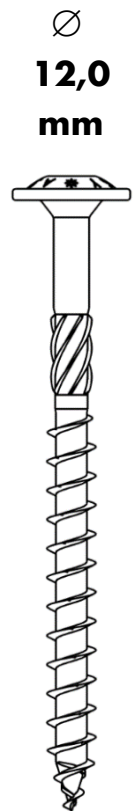
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	25*		30*		35*		40*		45*		50*		60*	
<b>ASSY 3.0 SK</b> 12x200 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49
<b>ASSY 3.0 SK</b> 12x220 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49
<b>ASSY 3.0 SK</b> 12x240 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49
<b>ASSY 3.0 SK</b> 12x260 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49
<b>ASSY 3.0 SK</b> 12x280 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49
<b>ASSY 3.0 SK</b> 12x300 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49
<b>ASSY 3.0 SK</b> 12x320 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 SK 12x200 mm	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	7,20	6,18 8,62						
	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	4,43	3,80 5,30						
ASSY 3.0 SK 12x220 mm	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	7,20	6,18 8,62				
	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	4,43	3,80 5,30				
ASSY 3.0 SK 12x240 mm	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	7,20	6,18 8,62		
	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	4,43	3,80 5,30		
ASSY 3.0 SK 12x260 mm	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	7,20	6,18 8,62
	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	4,43	3,80 5,30
ASSY 3.0 SK 12x280 mm	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92
	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49
ASSY 3.0 SK 12x300 mm	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92
	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49
ASSY 3.0 SK 12x320 mm	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92	8,41	7,11 8,92
	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49	5,18	4,38 5,49



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	25*		30*		35*		40*		45*		50*		60*	
<b>ASSY 3.0 SK</b> 12x340 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49
<b>ASSY 3.0 SK</b> 12x360 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49
<b>ASSY 3.0 SK</b> 12x380 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49
<b>ASSY 3.0 SK</b> 12x400 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49
<b>ASSY 3.0 SK</b> 12x440 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49
<b>ASSY 3.0 SK</b> 12x480 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49
<b>ASSY 3.0 SK</b> 12x520 mm	8,41		8,41		8,41		8,41		8,41		8,41		8,41	
		6,80		7,07		7,39		7,75		8,14		8,56		8,92
	5,18		5,18		5,18		5,18		5,18		5,18		5,18	
		4,18		4,35		4,55		4,77		5,01		5,27		5,49

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 SK</b> <b>12x340 mm</b>	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11
		8,92		8,92		8,92		8,92		8,92		8,92		8,92
	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38
		5,49		5,49		5,49		5,49		5,49		5,49		5,49
<b>ASSY 3.0 SK</b> <b>12x360 mm</b>	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11
		8,92		8,92		8,92		8,92		8,92		8,92		8,92
	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38
		5,49		5,49		5,49		5,49		5,49		5,49		5,49
<b>ASSY 3.0 SK</b> <b>12x380 mm</b>	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11
		8,92		8,92		8,92		8,92		8,92		8,92		8,92
	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38
		5,49		5,49		5,49		5,49		5,49		5,49		5,49
<b>ASSY 3.0 SK</b> <b>12x400 mm</b>	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11
		8,92		8,92		8,92		8,92		8,92		8,92		8,92
	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38
		5,49		5,49		5,49		5,49		5,49		5,49		5,49
<b>ASSY 3.0 SK</b> <b>12x440 mm</b>	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11
		8,92		8,92		8,92		8,92		8,92		8,92		8,92
	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38
		5,49		5,49		5,49		5,49		5,49		5,49		5,49
<b>ASSY 3.0 SK</b> <b>12x480 mm</b>	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11
		8,92		8,92		8,92		8,92		8,92		8,92		8,92
	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38
		5,49		5,49		5,49		5,49		5,49		5,49		5,49
<b>ASSY 3.0 SK</b> <b>12x520 mm</b>	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11	8,41	7,11
		8,92		8,92		8,92		8,92		8,92		8,92		8,92
	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38	5,18	4,38
		5,49		5,49		5,49		5,49		5,49		5,49		5,49

∅  
**12,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SKII

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY 3.0 SKII 8x80 mm	4,40		4,40	3,02	3,96	3,05	3,52	2,92	3,08	2,83				
		3,71		3,97		4,15		4,22		3,93				
	2,71		2,71	1,86	2,44	1,88	2,17	1,80	1,90	1,74				
		2,28		2,44		2,55		2,60		2,42				
ASSY 3.0 SKII 8x100 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	3,52	3,09
		3,71		3,97		4,26		4,44		4,44		4,44		4,22
	2,71		2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,17	1,90
		2,28		2,44		2,62		2,73		2,73		2,73		2,60
ASSY 3.0 SKII 8x120 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71		3,97		4,26		4,44		4,44		4,44		4,44
	2,71		2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
		2,28		2,44		2,62		2,73		2,73		2,73		2,73
ASSY 3.0 SKII 8x140 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71		3,97		4,26		4,44		4,44		4,44		4,44
	2,71		2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
		2,28		2,44		2,62		2,73		2,73		2,73		2,73
ASSY 3.0 SKII 8x160 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71		3,97		4,26		4,44		4,44		4,44		4,44
	2,71		2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
		2,28		2,44		2,62		2,73		2,73		2,73		2,73
ASSY 3.0 SKII 8x180 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71		3,97		4,26		4,44		4,44		4,44		4,44
	2,71		2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
		2,28		2,44		2,62		2,73		2,73		2,73		2,73
ASSY 3.0 SKII 8x200 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71		3,97		4,26		4,44		4,44		4,44		4,44
	2,71		2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
		2,28		2,44		2,62		2,73		2,73		2,73		2,73
ASSY 3.0 SKII 8x220 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71		3,97		4,26		4,44		4,44		4,44		4,44
	2,71		2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
		2,28		2,44		2,62		2,73		2,73		2,73		2,73
ASSY 3.0 SKII 8x240 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71		3,97		4,26		4,44		4,44		4,44		4,44
	2,71		2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
		2,28		2,44		2,62		2,73		2,73		2,73		2,73



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SKII

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 SKII 8x80 mm														
ASSY 3.0 SKII 8x100 mm														
ASSY 3.0 SKII 8x120 mm	3,52	3,09												
		4,22												
	2,17	1,90												
		2,60												
ASSY 3.0 SKII 8x140 mm	4,40	3,65	3,52	3,09										
		4,44		4,22										
	2,71	2,25	2,17	1,90										
		2,73		2,60										
ASSY 3.0 SKII 8x160 mm	4,40	3,65	4,40	3,65	3,52	3,09								
		4,44		4,44		4,22								
	2,71	2,25	2,71	2,25	2,17	1,90								
		2,73		2,73		2,60								
ASSY 3.0 SKII 8x180 mm	4,40	3,65	4,40	3,65	4,40	3,65	3,52	3,09						
		4,44		4,44		4,44		4,22						
	2,71	2,25	2,71	2,25	2,71	2,25	2,17	1,90						
		2,73		2,73		2,73		2,60						
ASSY 3.0 SKII 8x200 mm	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	3,52	3,09				
		4,44		4,44		4,44		4,44		4,22				
	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,17	1,90				
		2,73		2,73		2,73		2,60						
ASSY 3.0 SKII 8x220 mm	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	3,52	3,09		
		4,44		4,44		4,44		4,44		4,44		4,22		
	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,17	1,90		
		2,73		2,73		2,73		2,60						
ASSY 3.0 SKII 8x240 mm	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	3,52	3,09
		4,44		4,44		4,44		4,44		4,44		4,44		4,22
	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,17	2,25	2,17	1,90
		2,73		2,73		2,73		2,60						



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SKII

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY 3.0 SKII 8x260 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71				3,97				4,26				4,44
	2,71	1,78	2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
				2,28				2,44				2,62		
ASSY 3.0 SKII 8x280 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71				3,97				4,26				4,44
	2,71	1,78	2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
				2,28				2,44				2,62		
ASSY 3.0 SKII 8x300 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71				3,97				4,26				4,44
	2,71	1,78	2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
				2,28				2,44				2,62		
ASSY 3.0 SKII 8x320 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71				3,97				4,26				4,44
	2,71	1,78	2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
				2,28				2,44				2,62		
ASSY 3.0 SKII 8x340 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71				3,97				4,26				4,44
	2,71	1,78	2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
				2,28				2,44				2,62		
ASSY 3.0 SKII 8x360 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71				3,97				4,26				4,44
	2,71	1,78	2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
				2,28				2,44				2,62		
ASSY 3.0 SKII 8x380 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71				3,97				4,26				4,44
	2,71	1,78	2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
				2,28				2,44				2,62		
ASSY 3.0 SKII 8x400 mm	4,40		4,40	3,02	4,40	3,16	4,40	3,31	4,40	3,48	4,40	3,65	4,40	3,65
		3,71				3,97				4,26				4,44
	2,71	1,78	2,71	1,86	2,71	1,94	2,71	2,04	2,71	2,14	2,71	2,25	2,71	2,25
				2,28				2,44				2,62		



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SKII

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 SKII 8x260 mm	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65
		4,44		4,44		4,44		4,44		4,44		4,44		4,44
	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25
		2,73		2,73		2,73		2,73		2,73		2,73		2,73
ASSY 3.0 SKII 8x280 mm	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65
		4,44		4,44		4,44		4,44		4,44		4,44		4,44
	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25
		2,73		2,73		2,73		2,73		2,73		2,73		2,73
ASSY 3.0 SKII 8x300 mm	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65
		4,44		4,44		4,44		4,44		4,44		4,44		4,44
	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25
		2,73		2,73		2,73		2,73		2,73		2,73		2,73
ASSY 3.0 SKII 8x320 mm	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65
		4,44		4,44		4,44		4,44		4,44		4,44		4,44
	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25
		2,73		2,73		2,73		2,73		2,73		2,73		2,73
ASSY 3.0 SKII 8x340 mm	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65
		4,44		4,44		4,44		4,44		4,44		4,44		4,44
	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25
		2,73		2,73		2,73		2,73		2,73		2,73		2,73
ASSY 3.0 SKII 8x360 mm	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65
		4,44		4,44		4,44		4,44		4,44		4,44		4,44
	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25
		2,73		2,73		2,73		2,73		2,73		2,73		2,73
ASSY 3.0 SKII 8x380 mm	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65
		4,44		4,44		4,44		4,44		4,44		4,44		4,44
	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25
		2,73		2,73		2,73		2,73		2,73		2,73		2,73
ASSY 3.0 SKII 8x400 mm	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65	4,40	3,65
		4,44		4,44		4,44		4,44		4,44		4,44		4,44
	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25	2,71	2,25
		2,73		2,73		2,73		2,73		2,73		2,73		2,73



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

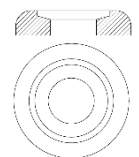
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SKII WITH WASHER

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY 3.0 SKII 8x80 mm + washer	4,84		4,40	3,02	3,96	3,05	3,52	2,92	3,08	2,83				
		3,82				3,97				4,15		4,22		3,93
ASSY 3.0 SKII 8x100 mm + washer	2,98		2,71	1,86	2,44	1,88	2,17	1,80	1,90	1,74				
		2,35				2,44				2,55		2,60		2,42
ASSY 3.0 SKII 8x120 mm + washer	5,28		5,28	3,24	5,28	3,38	5,28	3,53	4,84	3,59	4,40	3,65	3,52	3,09
		3,93				4,19				4,48				4,66
ASSY 3.0 SKII 8x140 mm + washer	3,25		3,25	1,99	3,25	2,08	3,25	2,17	2,98	2,21	2,71	2,25	2,17	1,90
		2,42				2,58				2,75				2,87
ASSY 3.0 SKII 8x160 mm + washer	7,04		7,04	3,68	7,04	3,82	7,04	3,97	6,60	4,03	6,16	4,09	5,28	3,87
		4,37				4,63				4,92				5,10
ASSY 3.0 SKII 8x180 mm + washer	4,33		4,33	2,26	4,33	2,35	4,33	2,44	4,06	2,48	3,79	2,52	3,25	2,38
		2,69				2,85				3,03				3,14
ASSY 3.0 SKII 8x200 mm + washer	7,04		7,04	3,68	7,04	3,82	7,04	3,97	7,04	4,14	7,04	4,31	7,04	4,31
		4,37				4,63				4,92				5,10
ASSY 3.0 SKII 8x220 mm + washer	4,33		4,33	2,26	4,33	2,35	4,33	2,44	4,33	2,55	4,33	2,65	4,33	2,65
		2,69				2,85				3,03				3,14
ASSY 3.0 SKII 8x240 mm + washer	7,04		7,04	3,68	7,04	3,82	7,04	3,97	7,04	4,14	7,04	4,31	7,04	4,31
		4,37				4,63				4,92				5,10
ASSY 3.0 SKII 8x220 mm + washer	4,33		4,33	2,26	4,33	2,35	4,33	2,44	4,33	2,55	4,33	2,65	4,33	2,65
		2,69				2,85				3,03				3,14
ASSY 3.0 SKII 8x220 mm + washer	8,80		8,80	3,69	8,80	4,11	8,80	4,41	8,80	4,58	8,80	4,75	8,80	4,75
		4,81				5,07				5,36				5,54
ASSY 3.0 SKII 8x240 mm + washer	5,42		5,42	2,27	5,42	2,53	5,42	2,72	5,42	2,82	5,42	2,92	5,42	2,92
		2,96				3,12				3,30				3,41
ASSY 3.0 SKII 8x240 mm + washer	8,80		8,80	3,69	8,80	4,11	8,80	4,41	8,80	4,58	8,80	4,75	8,80	4,75
		4,81				5,07				5,36				5,54
ASSY 3.0 SKII 8x240 mm + washer	5,42		5,42	2,27	5,42	2,53	5,42	2,72	5,42	2,82	5,42	2,92	5,42	2,92
		2,96				3,12				3,30				3,41

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).



Ø = 30 mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

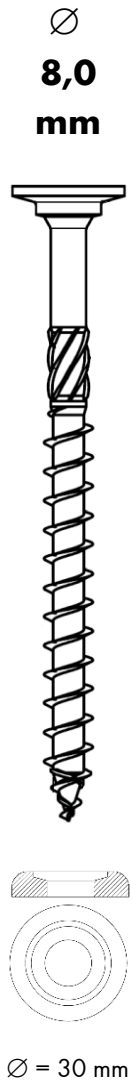
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SKII WITH WASHER

Type d x ℓ	Side wood thickness in [mm]													
	80	100	120	140	160	180	200							
<b>ASSY 3.0 SKII</b> <b>8x80 mm</b> <b>+ washer</b>														
<b>ASSY 3.0 SKII</b> <b>8x100 mm</b> <b>+ washer</b>														
<b>ASSY 3.0 SKII</b> <b>8x120 mm</b> <b>+ washer</b>	3,52	3,09												
		4,22												
	2,17	1,90												
		2,60												
<b>ASSY 3.0 SKII</b> <b>8x140 mm</b> <b>+ washer</b>	5,28	3,87	3,52	3,09										
		4,66		4,22										
	3,25	2,38	2,17	1,90										
		2,87		2,60										
<b>ASSY 3.0 SKII</b> <b>8x160 mm</b>	7,04	4,31	5,28	3,87	3,52	3,09								
		5,10		4,66		4,22								
	4,33	2,65	3,25	2,38	2,17	1,90								
		3,14		2,87		2,60								
<b>ASSY 3.0 SKII</b> <b>8x180 mm</b> <b>+ washer</b>	7,04	4,31	7,04	4,31	5,28	3,87	3,52	3,09						
		5,10		5,10		4,66		4,22						
	4,33	2,65	4,33	2,65	3,25	2,38	2,17	1,90						
		3,14		3,14		2,87		2,60						
<b>ASSY 3.0 SKII</b> <b>8x200 mm</b> <b>+ washer</b>	7,04	4,31	7,04	4,31	7,04	4,31	5,28	3,87	3,52	3,09				
		5,10		5,10		5,10		4,66		4,22				
	4,33	2,65	4,33	2,65	4,33	2,65	3,25	2,38	2,17	1,90				
		3,14		3,14		3,14		2,87		2,60				
<b>ASSY 3.0 SKII</b> <b>8x220 mm</b> <b>+ washer</b>	8,80	4,75	8,80	4,75	8,80	4,75	7,04	4,31	5,28	3,87	3,52	3,09		
		5,54		5,54		5,54		5,10		4,66		4,22		
	5,42	2,92	5,42	2,92	5,42	2,92	4,33	2,65	3,25	2,38	2,17	1,90		
		3,41		3,41		3,41		3,14		2,87		2,60		
<b>ASSY 3.0 SKII</b> <b>8x240 mm</b> <b>+ washer</b>	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	7,04	4,31	5,28	3,87	3,52	3,09
		5,54		5,54		5,54		5,54		5,10		4,66		4,22
	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	4,33	2,65	3,25	2,38	2,17	1,90
		3,41		3,41		3,41		3,41		3,14		2,87		2,60



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

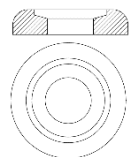
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SKII WITH WASHER

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
<b>ASSY 3.0 SKII 8x260 mm + washer</b>	8,80		8,80	3,69	8,80	4,11	8,80	4,41	8,80	4,58	8,80	4,75	8,80	4,75
		4,81		5,07		5,36		5,54		5,54		5,54		5,54
	5,42		5,42	2,27	5,42	2,53	5,42	2,72	5,42	2,82	5,42	2,92	5,42	2,92
		2,96		3,12		3,30		3,41		3,41		3,41		3,41
<b>ASSY 3.0 SKII 8x280 mm + washer</b>	8,80		8,80	3,69	8,80	4,11	8,80	4,41	8,80	4,58	8,80	4,75	8,80	4,75
		4,81		5,07		5,36		5,54		5,54		5,54		5,54
	5,42		5,42	2,27	5,42	2,53	5,42	2,72	5,42	2,82	5,42	2,92	5,42	2,92
		2,96		3,12		3,30		3,41		3,41		3,41		3,41
<b>ASSY 3.0 SKII 8x300 mm + washer</b>	8,80		8,80	3,69	8,80	4,11	8,80	4,41	8,80	4,58	8,80	4,75	8,80	4,75
		4,81		5,07		5,36		5,54		5,54		5,54		5,54
	5,42		5,42	2,27	5,42	2,53	5,42	2,72	5,42	2,82	5,42	2,92	5,42	2,92
		2,96		3,12		3,30		3,41		3,41		3,41		3,41
<b>ASSY 3.0 SKII 8x320 mm + washer</b>	8,80		8,80	3,69	8,80	4,11	8,80	4,41	8,80	4,58	8,80	4,75	8,80	4,75
		4,81		5,07		5,36		5,54		5,54		5,54		5,54
	5,42		5,42	2,27	5,42	2,53	5,42	2,72	5,42	2,82	5,42	2,92	5,42	2,92
		2,96		3,12		3,30		3,41		3,41		3,41		3,41
<b>ASSY 3.0 SKII 8x340 mm + washer</b>	8,80		8,80	3,69	8,80	4,11	8,80	4,41	8,80	4,58	8,80	4,75	8,80	4,75
		4,81		5,07		5,36		5,54		5,54		5,54		5,54
	5,42		5,42	2,27	5,42	2,53	5,42	2,72	5,42	2,82	5,42	2,92	5,42	2,92
		2,96		3,12		3,30		3,41		3,41		3,41		3,41
<b>ASSY 3.0 SKII 8x360 mm</b>	8,80		8,80	3,69	8,80	4,11	8,80	4,41	8,80	4,58	8,80	4,75	8,80	4,75
		4,81		5,07		5,36		5,54		5,54		5,54		5,54
	5,42		5,42	2,27	5,42	2,53	5,42	2,72	5,42	2,82	5,42	2,92	5,42	2,92
		2,96		3,12		3,30		3,41		3,41		3,41		3,41
<b>ASSY 3.0 SKII 8x380 mm + washer</b>	8,80		8,80	3,69	8,80	4,11	8,80	4,41	8,80	4,58	8,80	4,75	8,80	4,75
		4,81		5,07		5,36		5,54		5,54		5,54		5,54
	5,42		5,42	2,27	5,42	2,53	5,42	2,72	5,42	2,82	5,42	2,92	5,42	2,92
		2,96		3,12		3,30		3,41		3,41		3,41		3,41
<b>ASSY 3.0 SKII 8x400 mm + washer</b>	8,80		8,80	3,69	8,80	4,11	8,80	4,41	8,80	4,58	8,80	4,75	8,80	4,75
		4,81		5,07		5,36		5,54		5,54		5,54		5,54
	5,42		5,42	2,27	5,42	2,53	5,42	2,72	5,42	2,82	5,42	2,92	5,42	2,92
		2,96		3,12		3,30		3,41		3,41		3,41		3,41



Ø = 30 mm

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

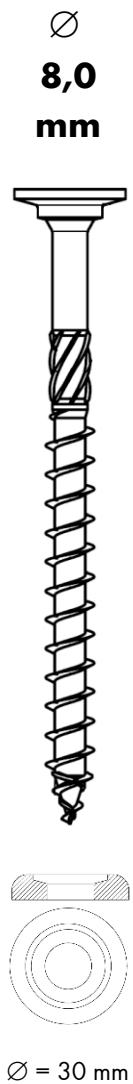
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SKII WITH WASHER

Type d x l	Side wood thickness in [mm]														
	80		100		120		140		160		180		200		
ASSY 3.0 SKII 8x260 mm + washer	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	7,04	4,31	5,28	3,87	
		5,54		5,54		5,54		5,54		5,10		4,66			
	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	4,33	2,65	3,25	2,38	
		3,41		3,41		3,41		3,41		3,14		2,87			
	ASSY 3.0 SKII 8x280 mm + washer	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	7,04	4,31
			5,54		5,54		5,54		5,54		5,10		5,10		
5,42		2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	4,33	2,65	
		3,41		3,41		3,41		3,41		3,41		3,14		3,14	
ASSY 3.0 SKII 8x300 mm + washer		8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75
			5,54		5,54		5,54		5,54		5,54		5,54		5,54
	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	
		3,41		3,41		3,41		3,41		3,41		3,41		3,41	
	ASSY 3.0 SKII 8x320 mm + washer	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75
			5,54		5,54		5,54		5,54		5,54		5,54		5,54
5,42		2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	
		3,41		3,41		3,41		3,41		3,41		3,41		3,41	
ASSY 3.0 SKII 8x340 mm + washer		8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75
			5,54		5,54		5,54		5,54		5,54		5,54		5,54
	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	
		3,41		3,41		3,41		3,41		3,41		3,41		3,41	
	ASSY 3.0 SKII 8x360 mm + washer	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75
			5,54		5,54		5,54		5,54		5,54		5,54		5,54
5,42		2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	
		3,41		3,41		3,41		3,41		3,41		3,41		3,41	
ASSY 3.0 SKII 8x380 mm + washer		8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75
			5,54		5,54		5,54		5,54		5,54		5,54		5,54
	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	
		3,41		3,41		3,41		3,41		3,41		3,41		3,41	
	ASSY 3.0 SKII 8x400 mm + washer	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75	8,80	4,75
			5,54		5,54		5,54		5,54		5,54		5,54		5,54
5,42		2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	5,42	2,92	
		3,41		3,41		3,41		3,41		3,41		3,41		3,41	



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY 3.0 Combi 8x80 mm	1,87	3,08	1,87	2,38 3,34	1,87	2,53 3,62	1,87	2,51 3,81	1,87	2,53 3,62				
	1,15	1,89	1,15	1,47 2,05	1,15	1,55 2,23	1,15	1,54 2,35	1,15	1,55 2,23				
ASSY 3.0 Combi 8x100 mm	1,87	3,08	1,87	2,38 3,34	1,87	2,53 3,62	1,87	2,68 3,81	1,87	2,85 3,81	1,87	3,02 3,81	1,87	2,68 3,81
	1,15	1,89	1,15	1,47 2,05	1,15	1,55 2,23	1,15	1,65 2,35	1,15	1,75 2,35	1,15	1,86 2,35	1,15	1,65 2,35
ASSY 3.0 Combi 8x120 mm	1,87	3,08	1,87	2,38 3,34	1,87	2,53 3,62	1,87	2,68 3,81	1,87	2,85 3,81	1,87	3,02 3,81	1,87	3,02 3,81
	1,15	1,89	1,15	1,47 2,05	1,15	1,55 2,23	1,15	1,65 2,35	1,15	1,75 2,35	1,15	1,86 2,35	1,15	1,86 2,35
ASSY 3.0 Combi 8x140 mm	1,87	3,08	1,87	2,38 3,34	1,87	2,53 3,62	1,87	2,68 3,81	1,87	2,85 3,81	1,87	3,02 3,81	1,87	3,02 3,81
	1,15	1,89	1,15	1,47 2,05	1,15	1,55 2,23	1,15	1,65 2,35	1,15	1,75 2,35	1,15	1,86 2,35	1,15	1,86 2,35
ASSY 3.0 Combi 8x160 mm	1,87	3,08	1,87	2,38 3,34	1,87	2,53 3,62	1,87	2,68 3,81	1,87	2,85 3,81	1,87	3,02 3,81	1,87	3,02 3,81
	1,15	1,89	1,15	1,47 2,05	1,15	1,55 2,23	1,15	1,65 2,35	1,15	1,75 2,35	1,15	1,86 2,35	1,15	1,86 2,35
ASSY 3.0 Combi 8x180 mm	1,87	3,08	1,87	2,38 3,34	1,87	2,53 3,62	1,87	2,68 3,81	1,87	2,85 3,81	1,87	3,02 3,81	1,87	3,02 3,81
	1,15	1,89	1,15	1,47 2,05	1,15	1,55 2,23	1,15	1,65 2,35	1,15	1,75 2,35	1,15	1,86 2,35	1,15	1,86 2,35
ASSY 3.0 Combi 8x200 mm	1,87	3,08	1,87	2,38 3,34	1,87	2,53 3,62	1,87	2,68 3,81	1,87	2,85 3,81	1,87	3,02 3,81	1,87	3,02 3,81
	1,15	1,89	1,15	1,47 2,05	1,15	1,55 2,23	1,15	1,65 2,35	1,15	1,75 2,35	1,15	1,86 2,35	1,15	1,86 2,35
ASSY 3.0 Combi 8x220 mm	1,87	3,08	1,87	2,38 3,34	1,87	2,53 3,62	1,87	2,68 3,81	1,87	2,85 3,81	1,87	3,02 3,81	1,87	3,02 3,81
	1,15	1,89	1,15	1,47 2,05	1,15	1,55 2,23	1,15	1,65 2,35	1,15	1,75 2,35	1,15	1,86 2,35	1,15	1,86 2,35
ASSY 3.0 Combi 8x240 mm	1,87	3,08	1,87	2,38 3,34	1,87	2,53 3,62	1,87	2,68 3,81	1,87	2,85 3,81	1,87	3,02 3,81	1,87	3,02 3,81
	1,15	1,89	1,15	1,47 2,05	1,15	1,55 2,23	1,15	1,65 2,35	1,15	1,75 2,35	1,15	1,86 2,35	1,15	1,86 2,35

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 Combi 8x80 mm														
ASSY 3.0 Combi 8x100 mm														
ASSY 3.0 Combi 8x120 mm	1,87	2,68												
		3,81												
	1,15	1,65												
		2,35												
ASSY 3.0 Combi 8x140 mm	1,87	3,02	1,87	2,68										
		3,81		3,81										
	1,15	1,86	1,15	1,65										
		2,35		2,35										
ASSY 3.0 Combi 8x160 mm	1,87	3,02	1,87	3,02	1,87	2,68								
		3,81		3,81		3,81								
	1,15	1,86	1,15	1,86	1,15	1,65								
		2,35		2,35		2,35								
ASSY 3.0 Combi 8x180 mm	1,87	3,02	1,87	3,02	1,87	3,02	1,87	2,68						
		3,81		3,81		3,81		3,81						
	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,65						
		2,35		2,35		2,35		2,35						
ASSY 3.0 Combi 8x200 mm	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	2,68				
		3,81		3,81		3,81		3,81		3,81				
	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,65				
		2,35		2,35		2,35		2,35		2,35				
ASSY 3.0 Combi 8x220 mm	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	2,68		
		3,81		3,81		3,81		3,81		3,81		3,81		
	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,65		
		2,35		2,35		2,35		2,35		2,35		2,35		
ASSY 3.0 Combi 8x240 mm	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	2,68
		3,81		3,81		3,81		3,81		3,81		3,81		3,81
	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,65
		2,35		2,35		2,35		2,35		2,35		2,35		2,35



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
<b>ASSY 3.0 Combi 8x260 mm</b>	1,87		1,87	2,38	1,87	2,53	1,87	2,68	1,87	2,85	1,87	3,02	1,87	3,02
		3,08		3,34		3,62		3,81		3,81		3,81		3,81
	1,15		1,15	1,47	1,15	1,55	1,15	1,65	1,15	1,75	1,15	1,86	1,15	1,86
		1,89		2,05		2,23		2,35		2,35		2,35		2,35
<b>ASSY 3.0 Combi 8x280 mm</b>	1,87		1,87	2,38	1,87	2,53	1,87	2,68	1,87	2,85	1,87	3,02	1,87	3,02
		3,08		3,34		3,62		3,81		3,81		3,81		3,81
	1,15		1,15	1,47	1,15	1,55	1,15	1,65	1,15	1,75	1,15	1,86	1,15	1,86
		1,89		2,05		2,23		2,35		2,35		2,35		2,35
<b>ASSY 3.0 Combi 8x300 mm</b>	1,87		1,87	2,38	1,87	2,53	1,87	2,68	1,87	2,85	1,87	3,02	1,87	3,02
		3,08		3,34		3,62		3,81		3,81		3,81		3,81
	1,15		1,15	1,47	1,15	1,55	1,15	1,65	1,15	1,75	1,15	1,86	1,15	1,86
		1,89		2,05		2,23		2,35		2,35		2,35		2,35

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 Combi 8x260 mm</b>	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02
		3,81		3,81		3,81		3,81		3,81		3,81		
	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86
		2,35		2,35		2,35		2,35		2,35		2,35		
<b>ASSY 3.0 Combi 8x280 mm</b>	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02
		3,81		3,81		3,81		3,81		3,81		3,81		
	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86
		2,35		2,35		2,35		2,35		2,35		2,35		
<b>ASSY 3.0 Combi 8x300 mm</b>	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02	1,87	3,02
		3,81		3,81		3,81		3,81		3,81		3,81		
	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86	1,15	1,86
		2,35		2,35		2,35		2,35		2,35		2,35		

∅  
**8,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]													
	25*		30*		35*		40		45		50		60	
ASSY 3.0 Combi 10x80 mm	2,93	4,31	2,93	4,58	2,93	4,90	2,93	3,11 5,01						
	1,80	2,65	1,80	2,82	1,80	3,01	1,80	1,92 3,08						
ASSY 3.0 Combi 10x100 mm	2,93	4,31	2,93	4,58	2,93	4,90	2,93	3,60 5,24	2,93	3,74 5,60	2,93	3,71 5,69	2,93	3,60 5,24
	1,80	2,65	1,80	2,82	1,80	3,01	1,80	2,22 3,22	1,80	2,30 3,45	1,80	2,28 3,50	1,80	2,22 3,22
ASSY 3.0 Combi 10x120 mm	2,93	4,31	2,93	4,58	2,93	4,90	2,93	3,60 5,24	2,93	3,77 5,60	2,93	3,95 5,69	2,93	4,31 5,69
	1,80	2,65	1,80	2,82	1,80	3,01	1,80	2,22 3,22	1,80	2,32 3,45	1,80	2,43 3,50	1,80	2,65 3,50
ASSY 3.0 Combi 10x140 mm	2,93	4,31	2,93	4,58	2,93	4,90	2,93	3,60 5,24	2,93	3,77 5,60	2,93	3,95 5,69	2,93	4,35 5,69
	1,80	2,65	1,80	2,82	1,80	3,01	1,80	2,22 3,22	1,80	2,32 3,45	1,80	2,43 3,50	1,80	2,68 3,50
ASSY 3.0 Combi 10x160 mm	2,93	4,31	2,93	4,58	2,93	4,90	2,93	3,60 5,24	2,93	3,77 5,60	2,93	3,95 5,69	2,93	4,35 5,69
	1,80	2,65	1,80	2,82	1,80	3,01	1,80	2,22 3,22	1,80	2,32 3,45	1,80	2,43 3,50	1,80	2,68 3,50
ASSY 3.0 Combi 10x180 mm	2,93	4,31	2,93	4,58	2,93	4,90	2,93	3,60 5,24	2,93	3,77 5,60	2,93	3,95 5,69	2,93	4,35 5,69
	1,80	2,65	1,80	2,82	1,80	3,01	1,80	2,22 3,22	1,80	2,32 3,45	1,80	2,43 3,50	1,80	2,68 3,50
ASSY 3.0 Combi 10x200 mm	2,93	4,31	2,93	4,58	2,93	4,90	2,93	3,60 5,24	2,93	3,77 5,60	2,93	3,95 5,69	2,93	4,35 5,69
	1,80	2,65	1,80	2,82	1,80	3,01	1,80	2,22 3,22	1,80	2,32 3,45	1,80	2,43 3,50	1,80	2,68 3,50
ASSY 3.0 Combi 10x220 mm	2,93	4,31	2,93	4,58	2,93	4,90	2,93	3,60 5,24	2,93	3,77 5,60	2,93	3,95 5,69	2,93	4,35 5,69
	1,80	2,65	1,80	2,82	1,80	3,01	1,80	2,22 3,22	1,80	2,32 3,45	1,80	2,43 3,50	1,80	2,68 3,50
ASSY 3.0 Combi 10x240 mm	2,93	4,31	2,93	4,58	2,93	4,90	2,93	3,60 5,24	2,93	3,77 5,60	2,93	3,95 5,69	2,93	4,35 5,69
	1,80	2,65	1,80	2,82	1,80	3,01	1,80	2,22 3,22	1,80	2,32 3,45	1,80	2,43 3,50	1,80	2,68 3,50



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 Combi 10x80 mm</b>														
<b>ASSY 3.0 Combi 10x100 mm</b>														
<b>ASSY 3.0 Combi 10x120 mm</b>	2,93	3,60 5,24												
	1,80	2,22 3,22												
<b>ASSY 3.0 Combi 10x140 mm</b>	2,93	4,35 5,69	2,93	3,60 5,24										
	1,80	2,68 3,50	1,80	2,22 3,22										
<b>ASSY 3.0 Combi 10x160 mm</b>	2,93	4,43 5,69	2,93	4,35 5,69	2,93	3,60 5,24								
	1,80	2,73 3,50	1,80	2,68 3,50	1,80	2,22 3,22								
<b>ASSY 3.0 Combi 10x180 mm</b>	2,93	4,43 5,69	2,93	4,43 5,69	2,93	4,35 5,69	2,93	3,60 5,24						
	1,80	2,73 3,50	1,80	2,73 3,50	1,80	2,68 3,50	1,80	2,22 3,22						
<b>ASSY 3.0 Combi 10x200 mm</b>	2,93	4,43 5,69	2,93	4,43 5,69	2,93	4,43 5,69	2,93	4,35 5,69	2,93	3,60 5,24				
	1,80	2,73 3,50	1,80	2,73 3,50	1,80	2,73 3,50	1,80	2,68 3,50	1,80	2,22 3,22				
<b>ASSY 3.0 Combi 10x220 mm</b>	2,93	4,43 5,69	2,93	4,43 5,69	2,93	4,43 5,69	2,93	4,43 5,69	2,93	4,35 5,69	2,93	3,60 5,24		
	1,80	2,73 3,50	1,80	2,73 3,50	1,80	2,73 3,50	1,80	2,73 3,50	1,80	2,68 3,50	1,80	2,22 3,22		
<b>ASSY 3.0 Combi 10x240 mm</b>	2,93	4,43 5,69	2,93	4,43 5,69	2,93	4,43 5,69	2,93	4,43 5,69	2,93	4,43 5,69	2,93	4,35 5,69	2,93	3,60 5,24
	1,80	2,73 3,50	1,80	2,73 3,50	1,80	2,73 3,50	1,80	2,73 3,50	1,80	2,73 3,50	1,80	2,68 3,50	1,80	2,22 3,22



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

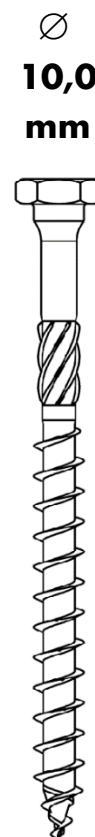
NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]													
	25*		30*		35*		40		45		50		60	
<b>ASSY 3.0 Combi</b> 10x260 mm	2,93		2,93		2,93		2,93	3,60	2,93	3,77	2,93	3,95	2,93	4,35
		4,31		4,58		4,90		5,24		5,60		5,69		5,69
	1,80		1,80		1,80		1,80	2,22	1,80	2,32	1,80	2,43	1,80	2,68
		2,65		2,82		3,01		3,22		3,45		3,50		3,50
<b>ASSY 3.0 Combi</b> 10x280 mm	2,93		2,93		2,93		2,93	3,60	2,93	3,77	2,93	3,95	2,93	4,35
		4,31		4,58		4,90		5,24		5,60		5,69		5,69
	1,80		1,80		1,80		1,80	2,22	1,80	2,32	1,80	2,43	1,80	2,68
		2,65		2,82		3,01		3,22		3,45		3,50		3,50
<b>ASSY 3.0 Combi</b> 10x300 mm	2,93		2,93		2,93		2,93	3,60	2,93	3,77	2,93	3,95	2,93	4,35
		4,31		4,58		4,90		5,24		5,60		5,69		5,69
	1,80		1,80		1,80		1,80	2,22	1,80	2,32	1,80	2,43	1,80	2,68
		2,65		2,82		3,01		3,22		3,45		3,50		3,50
<b>ASSY 3.0 Combi</b> 10x320 mm	2,93		2,93		2,93		2,93	3,60	2,93	3,77	2,93	3,95	2,93	4,35
		4,31		4,58		4,90		5,24		5,60		5,69		5,69
	1,80		1,80		1,80		1,80	2,22	1,80	2,32	1,80	2,43	1,80	2,68
		2,65		2,82		3,01		3,22		3,45		3,50		3,50
<b>ASSY 3.0 Combi</b> 10x340 mm	2,93		2,93		2,93		2,93	3,60	2,93	3,77	2,93	3,95	2,93	4,35
		4,31		4,58		4,90		5,24		5,60		5,69		5,69
	1,80		1,80		1,80		1,80	2,22	1,80	2,32	1,80	2,43	1,80	2,68
		2,65		2,82		3,01		3,22		3,45		3,50		3,50
<b>ASSY 3.0 Combi</b> 10x360 mm	2,93		2,93		2,93		2,93	3,60	2,93	3,77	2,93	3,95	2,93	4,35
		4,31		4,58		4,90		5,24		5,60		5,69		5,69
	1,80		1,80		1,80		1,80	2,22	1,80	2,32	1,80	2,43	1,80	2,68
		2,65		2,82		3,01		3,22		3,45		3,50		3,50
<b>ASSY 3.0 Combi</b> 10x380 mm	2,93		2,93		2,93		2,93	3,60	2,93	3,77	2,93	3,95	2,93	4,35
		4,31		4,58		4,90		5,24		5,60		5,69		5,69
	1,80		1,80		1,80		1,80	2,22	1,80	2,32	1,80	2,43	1,80	2,68
		2,65		2,82		3,01		3,22		3,45		3,50		3,50
<b>ASSY 3.0 Combi</b> 10x400 mm	2,93		2,93		2,93		2,93	3,60	2,93	3,77	2,93	3,95	2,93	4,35
		4,31		4,58		4,90		5,24		5,60		5,69		5,69
	1,80		1,80		1,80		1,80	2,22	1,80	2,32	1,80	2,43	1,80	2,68
		2,65		2,82		3,01		3,22		3,45		3,50		3,50

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

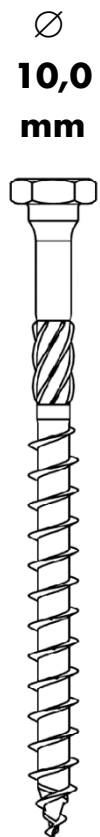
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 Combi 10x260 mm</b>	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,35
		5,69		5,69		5,69		5,69		5,69		5,69		
	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,68
		3,50		3,50		3,50		3,50		3,50		3,50		
<b>ASSY 3.0 Combi 10x280 mm</b>	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43
		5,69		5,69		5,69		5,69		5,69		5,69		
	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73
		3,50		3,50		3,50		3,50		3,50		3,50		
<b>ASSY 3.0 Combi 10x300 mm</b>	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43
		5,69		5,69		5,69		5,69		5,69		5,69		
	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73
		3,50		3,50		3,50		3,50		3,50		3,50		
<b>ASSY 3.0 Combi 10x320 mm</b>	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43
		5,69		5,69		5,69		5,69		5,69		5,69		
	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73
		3,50		3,50		3,50		3,50		3,50		3,50		
<b>ASSY 3.0 Combi 10x340 mm</b>	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43
		5,69		5,69		5,69		5,69		5,69		5,69		
	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73
		3,50		3,50		3,50		3,50		3,50		3,50		
<b>ASSY 3.0 Combi 10x360 mm</b>	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43
		5,69		5,69		5,69		5,69		5,69		5,69		
	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73
		3,50		3,50		3,50		3,50		3,50		3,50		
<b>ASSY 3.0 Combi 10x380 mm</b>	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43
		5,69		5,69		5,69		5,69		5,69		5,69		
	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73
		3,50		3,50		3,50		3,50		3,50		3,50		
<b>ASSY 3.0 Combi 10x400 mm</b>	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43	2,93	4,43
		5,69		5,69		5,69		5,69		5,69		5,69		
	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73	1,80	2,73
		3,50		3,50		3,50		3,50		3,50		3,50		



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]													
	25*		30*		35*		40*		45*		50*		60*	
ASSY 3.0 Combi 12x100 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,22		
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,44		
ASSY 3.0 Combi 12x120 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77
ASSY 3.0 Combi 12x140 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77
ASSY 3.0 Combi 12x160 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77
ASSY 3.0 Combi 12x180 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77
ASSY 3.0 Combi 12x180 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77
ASSY 3.0 Combi 12x200 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77
ASSY 3.0 Combi 12x220 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 Combi 12x100 mm</b>														
<b>ASSY 3.0 Combi 12x120 mm</b>														
<b>ASSY 3.0 Combi 12x140 mm</b>	3,76	5,32 7,76												
	2,31	3,27 4,77												
<b>ASSY 3.0 Combi 12x160 mm</b>	3,76	5,95 7,76	3,76	5,32 7,76										
	2,31	3,66 4,77	2,31	3,27 4,77										
<b>ASSY 3.0 Combi 12x180 mm</b>	3,76	5,95 7,76	3,76	5,95 7,76	3,76	5,32 7,76								
	2,31	3,66 4,77	2,31	3,66 4,77	2,31	3,27 4,77								
<b>ASSY 3.0 Combi 12x180 mm</b>	3,76	5,95 7,76	3,76	5,95 7,76	3,76	5,32 7,76								
	2,31	3,66 4,77	2,31	3,66 4,77	2,31	3,27 4,77								
<b>ASSY 3.0 Combi 12x200 mm</b>	3,76	5,95 7,76	3,76	5,95 7,76	3,76	5,95 7,76	3,76	5,32 7,76						
	2,31	3,66 4,77	2,31	3,66 4,77	2,31	3,66 4,77	2,31	3,27 4,77						
<b>ASSY 3.0 Combi 12x220 mm</b>	3,76	5,95 7,76	3,76	5,95 7,76	3,76	5,95 7,76	3,76	5,95 7,76	3,76	5,32 7,76				
	2,31	3,66 4,77	2,31	3,66 4,77	2,31	3,66 4,77	2,31	3,66 4,77	2,31	3,27 4,77				



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]													
	25*		30*		35*		40*		45*		50*		60*	
ASSY 3.0 Combi 12x240 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77
ASSY 3.0 Combi 12x260 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77
ASSY 3.0 Combi 12x280 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77
ASSY 3.0 Combi 12x300 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77
ASSY 3.0 Combi 12x320 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77
ASSY 3.0 Combi 12x340 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77
ASSY 3.0 Combi 12x360 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77
ASSY 3.0 Combi 12x380 mm	3,76	5,63	3,76	5,90	3,76	6,23	3,76	6,59	3,76	6,98	3,76	7,40	3,76	7,76
	2,31	3,47	2,31	3,63	2,31	3,83	2,31	4,05	2,31	4,30	2,31	4,55	2,31	4,77

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]														
	80		100		120		140		160		180		200		
ASSY 3.0 Combi 12x240 mm	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,32			
		7,76		7,76		7,76		7,76		7,76					
	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	3,27		
		4,77		4,77		4,77		4,77		4,77		4,77			
ASSY 3.0 Combi 12x260 mm	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,32	
		7,76		7,76		7,76		7,76		7,76		7,76		7,76	
	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	3,27	3,76	7,76
		4,77		4,77		4,77		4,77		4,77		4,77	4,77		
ASSY 3.0 Combi 12x280 mm	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	
		7,76		7,76		7,76		7,76		7,76		7,76		7,76	
	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	3,66	2,31	3,66
		4,77		4,77		4,77		4,77		4,77		4,77	4,77		
ASSY 3.0 Combi 12x300 mm	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	
		7,76		7,76		7,76		7,76		7,76		7,76		7,76	
	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	3,66	2,31	3,66
		4,77		4,77		4,77		4,77		4,77		4,77	4,77		
ASSY 3.0 Combi 12x320 mm	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	
		7,76		7,76		7,76		7,76		7,76		7,76		7,76	
	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	3,66	2,31	3,66
		4,77		4,77		4,77		4,77		4,77		4,77	4,77		
ASSY 3.0 Combi 12x340 mm	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	
		7,76		7,76		7,76		7,76		7,76		7,76		7,76	
	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	3,66	2,31	3,66
		4,77		4,77		4,77		4,77		4,77		4,77	4,77		
ASSY 3.0 Combi 12x360 mm	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	
		7,76		7,76		7,76		7,76		7,76		7,76		7,76	
	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	3,66	2,31	3,66
		4,77		4,77		4,77		4,77		4,77		4,77	4,77		
ASSY 3.0 Combi 12x380 mm	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	
		7,76		7,76		7,76		7,76		7,76		7,76		7,76	
	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	3,66	2,31	3,66
		4,77		4,77		4,77		4,77		4,77		4,77	4,77		



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]													
	25*		30*		35*		40*		45*		50*		60*	
<b>ASSY 3.0 Combi 12x400 mm</b>	3,76		3,76		3,76		3,76		3,76		3,76		3,76	
		5,63		5,90		6,23		6,59		6,98		7,40		7,76
<b>ASSY 3.0 Combi 12x440 mm</b>	2,31		2,31		2,31		2,31		2,31		2,31		2,31	
		3,47		3,63		3,83		4,05		4,30		4,55		4,77
<b>ASSY 3.0 Combi 12x480 mm</b>	3,76		3,76		3,76		3,76		3,76		3,76		3,76	
		5,63		5,90		6,23		6,59		6,98		7,40		7,76
<b>ASSY 3.0 Combi 12x480 mm</b>	2,31		2,31		2,31		2,31		2,31		2,31		2,31	
		3,47		3,63		3,83		4,05		4,30		4,55		4,77

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI

Type d x ℓ	Side wood thickness in [mm]														
	80		100		120		140		160		180		200		
<b>ASSY 3.0 Combi 12x400 mm</b>	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	
		7,76		7,76		7,76		7,76		7,76		7,76			
	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	
		4,77		4,77		4,77		4,77		4,77		4,77			
	<b>ASSY 3.0 Combi 12x440 mm</b>	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95
			7,76		7,76		7,76		7,76		7,76		7,76		
2,31		3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	
		4,77		4,77		4,77		4,77		4,77		4,77			
<b>ASSY 3.0 Combi 12x480 mm</b>		3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95	3,76	5,95
			7,76		7,76		7,76		7,76		7,76		7,76		
	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	2,31	3,66	
		4,77		4,77		4,77		4,77		4,77		4,77			



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

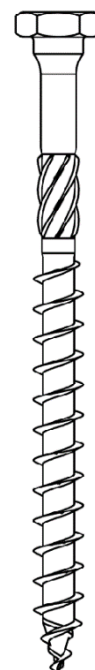


## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
<b>ASSY 3.0 Combi 8x80 mm plus washer</b>	4,40		4,40	3,02	3,96	3,05	3,52	2,92	3,08	2,83				
		3,71		3,97		4,15		4,22		3,93				
<b>ASSY 3.0 Combi 8x100 mm plus washer</b>	2,71		2,71	1,86	2,44	1,88	2,17	1,80	1,90	1,74				
		2,28		2,44		2,55		2,60		2,42				
<b>ASSY 3.0 Combi 8x120 mm plus washer</b>	5,28		5,28	3,24	5,28	3,38	5,28	3,53	4,84	3,59	4,40	3,65	3,52	3,09
		3,93		4,19		4,48		4,66		4,55		4,44		4,22
<b>ASSY 3.0 Combi 8x140 mm plus washer</b>	3,25		3,25	1,99	3,25	2,08	3,25	2,17	2,98	2,21	2,71	2,25	2,17	1,90
		2,42		2,58		2,75		2,87		2,80		2,73		2,60
<b>ASSY 3.0 Combi 8x160 mm plus washer</b>	7,04		7,04	3,68	7,04	3,82	7,04	3,97	6,60	4,03	6,16	4,09	5,28	3,87
		4,37		4,63		4,92		5,10		4,99		4,88		4,66
<b>ASSY 3.0 Combi 8x180 mm plus washer</b>	4,33		4,33	2,26	4,33	2,35	4,33	2,44	4,06	2,48	3,79	2,52	3,25	2,38
		2,69		2,85		3,03		3,14		3,07		3,00		2,87
<b>ASSY 3.0 Combi 8x200 mm plus washer</b>	7,04		7,04	3,68	7,04	3,82	7,04	3,97	7,04	4,14	7,04	4,31	7,04	4,31
		4,37		4,63		4,92		5,10		5,10		5,10		5,10
<b>ASSY 3.0 Combi 8x220 mm plus washer</b>	4,33		4,33	2,26	4,33	2,35	4,33	2,44	4,33	2,55	4,33	2,65	4,33	2,65
		2,69		2,85		3,03		3,14		3,14		3,14		3,14
<b>ASSY 3.0 Combi 8x240 mm plus washer</b>	7,04		7,04	3,68	7,04	3,82	7,04	3,97	7,04	4,14	7,04	4,31	7,04	4,31
		4,37		4,63		4,92		5,10		5,10		5,10		5,10
<b>ASSY 3.0 Combi 8x220 mm plus washer</b>	4,33		4,33	2,26	4,33	2,35	4,33	2,44	4,33	2,55	4,33	2,65	4,33	2,65
		2,69		2,85		3,03		3,14		3,14		3,14		3,14
<b>ASSY 3.0 Combi 8x240 mm plus washer</b>	7,84		7,84	3,69	7,84	4,02	7,84	4,17	7,84	4,34	7,84	4,51	7,84	4,51
		4,57		4,83		5,12		5,30		5,30		5,30		5,30
<b>ASSY 3.0 Combi 8x240 mm plus washer</b>	4,82		4,82	2,27	4,82	2,47	4,82	2,57	4,82	2,67	4,82	2,78	4,82	2,78
		2,81		2,97		3,15		3,26		3,26		3,26		3,26
<b>ASSY 3.0 Combi 8x240 mm plus washer</b>	7,84		7,84	3,69	7,84	4,02	7,84	4,17	7,84	4,34	7,84	4,51	7,84	4,51
		4,57		4,83		5,12		5,30		5,30		5,30		5,30
<b>ASSY 3.0 Combi 8x240 mm plus washer</b>	4,82		4,82	2,27	4,82	2,47	4,82	2,57	4,82	2,67	4,82	2,78	4,82	2,78
		2,81		2,97		3,15		3,26		3,26		3,26		3,26

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

∅  
**8,0**  
mm



∅ = 28mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

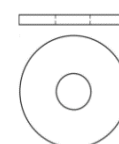
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	80	100	120	140	160	180	200							
<b>ASSY 3.0 Combi 8x80 mm plus washer</b>														
<b>ASSY 3.0 Combi 8x100 mm plus washer</b>														
<b>ASSY 3.0 Combi 8x120 mm plus washer</b>	3,52	3,09												
		4,22												
	2,17	1,90												
		2,60												
<b>ASSY 3.0 Combi 8x140 mm plus washer</b>	5,28	3,87	3,52	3,09										
		4,66		4,22										
	3,25	2,38	2,17	1,90										
		2,87		2,60										
<b>ASSY 3.0 Combi 8x160 mm plus washer</b>	7,04	4,31	5,28	3,87	3,52	3,09								
		5,10		4,66		4,22								
	4,33	2,65	3,25	2,38	2,17	1,90								
		3,14		2,87		2,60								
<b>ASSY 3.0 Combi 8x180 mm plus washer</b>	7,04	4,31	7,04	4,31	5,28	3,87	3,52	3,09						
		5,10		5,10		4,66		4,22						
	4,33	2,65	4,33	2,65	3,25	2,38	2,17	1,90						
		3,14		3,14		2,87		2,60						
<b>ASSY 3.0 Combi 8x200 mm plus washer</b>	7,04	4,31	7,04	4,31	7,04	4,31	5,28	3,87	3,52	3,09				
		5,10		5,10		5,10		4,66		4,22				
	4,33	2,65	4,33	2,65	4,33	2,65	3,25	2,38	2,17	1,90				
		3,14		3,14		3,14		2,87		2,60				
<b>ASSY 3.0 Combi 8x220 mm plus washer</b>	7,84	4,51	7,84	4,51	7,84	4,51	7,04	4,31	5,28	3,87	3,52	3,09		
		5,30		5,30		5,30		5,10		4,66		4,22		
	4,82	2,78	4,82	2,78	4,82	2,78	4,33	2,65	3,25	2,38	2,17	1,90		
		3,26		3,26		3,26		3,14		2,87		2,60		
<b>ASSY 3.0 Combi 8x240 mm plus washer</b>	7,84	4,51	7,84	4,51	7,84	4,51	7,84	4,51	7,04	4,31	5,28	3,87	3,52	3,09
		5,30		5,30		5,30		5,30		5,10		4,66		4,22
	4,82	2,78	4,82	2,78	4,82	2,78	4,82	2,78	4,33	2,65	3,25	2,38	2,17	1,90
		3,26		3,26		3,26		3,26		3,14		2,87		2,60

∅  
**8,0**  
mm



∅ = 28mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
<b>ASSY 3.0 Combi 8x260 mm plus washer</b>	7,84		7,84	3,69	7,84	4,02	7,84	4,17	7,84	4,34	7,84	4,51	7,84	4,51
		4,57		4,83		5,12		5,30		5,30		5,30		5,30
<b>ASSY 3.0 Combi 8x280 mm plus washer</b>	4,82		4,82	2,27	4,82	2,47	4,82	2,57	4,82	2,67	4,82	2,78	4,82	2,78
		2,81		2,97		3,15		3,26		3,26		3,26		3,26
<b>ASSY 3.0 Combi 8x300 mm plus washer</b>	7,84		7,84	3,69	7,84	4,02	7,84	4,17	7,84	4,34	7,84	4,51	7,84	4,51
		4,57		4,83		5,12		5,30		5,30		5,30		5,30
<b>ASSY 3.0 Combi 8x260 mm plus washer</b>	4,82		4,82	2,27	4,82	2,47	4,82	2,57	4,82	2,67	4,82	2,78	4,82	2,78
		2,81		2,97		3,15		3,26		3,26		3,26		3,26

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

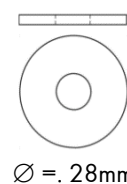
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 Combi 8x260 mm plus washer</b>	7,84	4,51	7,84	4,51	7,84	4,51	7,84	4,51	7,84	4,51	7,04	4,31	5,28	3,87
		5,30		5,30		5,30		5,30		5,10		4,66		
	4,82	2,78	4,82	2,78	4,82	2,78	4,82	2,78	4,82	2,78	4,33	2,65	3,25	2,38
		3,26		3,26		3,26		3,26		3,14		2,87		
<b>ASSY 3.0 Combi 8x280 mm plus washer</b>	7,84	4,51	7,84	4,51	7,84	4,51	7,84	4,51	7,84	4,51	7,84	4,51	7,04	4,31
		5,30		5,30		5,30		5,30		5,30		5,10		
	4,82	2,78	4,82	2,78	4,82	2,78	4,82	2,78	4,82	2,78	4,82	2,78	4,33	2,65
		3,26		3,26		3,26		3,26		3,26		3,14		
<b>ASSY 3.0 Combi 8x300 mm plus washer</b>	7,84	4,51	7,84	4,51	7,84	4,51	7,84	4,51	7,84	4,51	7,84	4,51	7,84	4,51
		5,30		5,30		5,30		5,30		5,30		5,30		
	4,82	2,78	4,82	2,78	4,82	2,78	4,82	2,78	4,82	2,78	4,82	2,78	4,82	2,78
		3,26		3,26		3,26		3,26		3,26		3,26		

∅  
**8,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

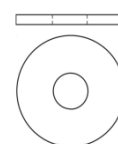
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x ℓ	Side wood thickness in [mm]														
	25*		30*		35*		40		45		50		60		
<b>ASSY 3.0 Combi 10x80 mm plus washer</b>	5,00		5,00		4,50		4,00	3,38							
		4,83		5,10		5,29		5,28							
	3,08		3,08		2,77		2,46	2,08							
		2,97		3,14		3,26		3,25							
<b>ASSY 3.0 Combi 10x100 mm plus washer</b>	6,00		6,00		6,00		6,00	4,37							
		5,08		5,35		5,67		6,01	5,50	4,38		5,00	4,23	4,00	3,87
	3,69		3,69		3,69		3,69	2,69				3,08	2,60	2,46	2,38
		3,13		3,29		3,49		3,70	3,38	2,70		3,08	2,60	2,46	2,38
										3,84		3,08	3,82		3,39
<b>ASSY 3.0 Combi 10x120 mm plus washer</b>	8,00		8,00		8,00		8,00	4,87							
		5,58		5,85		6,17		6,51	7,50	4,91		7,00	4,97	6,00	5,07
	4,92		4,92		4,92		4,92	3,00				4,31	3,06	3,69	3,12
		3,43		3,60		3,79		4,00	4,62	3,02		4,31	4,13	3,69	3,97
										4,15		4,31	4,13		3,97
<b>ASSY 3.0 Combi 10x140 mm plus washer</b>	10,00		10,00		10,00		10,00	5,37							
		6,08		6,35		6,67		7,01	9,50	5,41		9,00	5,47	8,00	5,62
	6,15		6,15		6,15		6,15	3,30				5,54	3,37	4,92	3,46
		3,74		3,91		4,10		4,31	5,85	3,33		5,54	4,44	4,92	4,28
										4,46		5,54	4,44		4,28
<b>ASSY 3.0 Combi 10x160 mm plus washer</b>	10,00		10,00		10,00		10,00	5,37							
		6,08		6,35		6,67		7,01	10,00	5,54		10,00	5,72	10,00	6,12
	6,15		6,15		6,15		6,15	3,30				6,15	3,52	6,15	3,77
		3,74		3,91		4,10		4,31	6,15	3,41		6,15	4,59	6,15	4,59
										4,53		6,15	4,59		4,59
<b>ASSY 3.0 Combi 10x180 mm plus washer</b>	10,00		10,00		10,00		10,00	5,37							
		6,08		6,35		6,67		7,01	10,00	5,54		10,00	5,72	10,00	6,12
	6,15		6,15		6,15		6,15	3,30				6,15	3,52	6,15	3,77
		3,74		3,91		4,10		4,31	6,15	3,41		6,15	4,59	6,15	4,59
										4,53		6,15	4,59		4,59
<b>ASSY 3.0 Combi 10x200 mm plus washer</b>	10,00		10,00		10,00		10,00	5,37							
		6,08		6,35		6,67		7,01	10,00	5,54		10,00	5,72	10,00	6,12
	6,15		6,15		6,15		6,15	3,30				6,15	3,52	6,15	3,77
		3,74		3,91		4,10		4,31	6,15	3,41		6,15	4,59	6,15	4,59
										4,53		6,15	4,59		4,59
<b>ASSY 3.0 Combi 10x220 mm plus washer</b>	10,00		10,00		10,00		10,00	5,37							
		6,08		6,35		6,67		7,01	10,00	5,54		10,00	5,72	10,00	6,12
	6,15		6,15		6,15		6,15	3,30				6,15	3,52	6,15	3,77
		3,74		3,91		4,10		4,31	6,15	3,41		6,15	4,59	6,15	4,59
										4,53		6,15	4,59		4,59
<b>ASSY 3.0 Combi 10x240 mm plus washer</b>	10,00		10,00		10,00		10,00	5,37							
		6,08		6,35		6,67		7,01	10,00	5,54		10,00	5,72	10,00	6,12
	6,15		6,15		6,15		6,15	3,30				6,15	3,52	6,15	3,77
		3,74		3,91		4,10		4,31	6,15	3,41		6,15	4,59	6,15	4,59
										4,53		6,15	4,59		4,59

∅  
**10,0 mm**



∅ = 34mm

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

According to ETA-11/0190, only one washer may be used with d < 32mm.

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

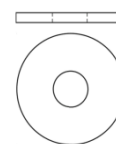
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	80	100	120	140	160	180	200							
<b>ASSY 3.0 Combi 10x80 mm plus washer</b>														
<b>ASSY 3.0 Combi 10x100 mm plus washer</b>														
<b>ASSY 3.0 Combi 10x120 mm plus washer</b>	4,00	3,87 5,51												
<b>ASSY 3.0 Combi 10x140 mm plus washer</b>	6,00	5,12 6,46	4,00	3,87 5,51										
<b>ASSY 3.0 Combi 10x160 mm plus washer</b>	8,00	5,70 6,96	6,00	5,12 6,46	4,00	3,87 5,51								
<b>ASSY 3.0 Combi 10x180 mm plus washer</b>	10,00	6,20 7,46	8,00	5,70 6,96	6,00	5,12 6,46	4,00	3,87 5,51						
<b>ASSY 3.0 Combi 10x200 mm plus washer</b>	10,00	6,20 7,46	10,00	6,20 7,46	8,00	5,70 6,96	6,00	5,12 6,46	4,00	3,87 5,51				
<b>ASSY 3.0 Combi 10x220 mm plus washer</b>	10,00	6,20 7,46	10,00	6,20 7,46	10,00	6,20 7,46	8,00	5,70 6,96	6,00	5,12 6,46	4,00	3,87 5,51		
<b>ASSY 3.0 Combi 10x240 mm plus washer</b>	10,00	6,20 7,46	10,00	6,20 7,46	10,00	6,20 7,46	10,00	6,20 7,46	8,00	5,70 6,96	6,00	5,12 6,46	4,00	3,87 5,51

∅  
**10,0 mm**



∅ = 34mm

According to ETA-11/0190, only one washer may be used with d < 32mm.

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

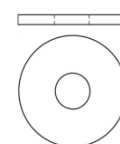
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	25*		30*		35*		40		45		50		60	
<b>ASSY 3.0 Combi 10x260 mm plus washer</b>	10,00	6,08	10,00	6,35	10,00	6,67	10,00	5,37 7,01	10,00	5,54 7,37	10,00	5,72 7,46	10,00	6,12 7,46
	6,15	3,74	6,15	3,91	6,15	4,10	6,15	3,30 4,31	6,15	3,41 4,53	6,15	3,52 4,59	6,15	3,77 4,59
<b>ASSY 3.0 Combi 10x280 mm plus washer</b>	10,00	6,08	10,00	6,35	10,00	6,67	10,00	5,37 7,01	10,00	5,54 7,37	10,00	5,72 7,46	10,00	6,12 7,46
	6,15	3,74	6,15	3,91	6,15	4,10	6,15	3,30 4,31	6,15	3,41 4,53	6,15	3,52 4,59	6,15	3,77 4,59
<b>ASSY 3.0 Combi 10x300 mm plus washer</b>	10,00	6,08	10,00	6,35	10,00	6,67	10,00	5,37 7,01	10,00	5,54 7,37	10,00	5,72 7,46	10,00	6,12 7,46
	6,15	3,74	6,15	3,91	6,15	4,10	6,15	3,30 4,31	6,15	3,41 4,53	6,15	3,52 4,59	6,15	3,77 4,59
<b>ASSY 3.0 Combi 10x320 mm plus washer</b>	10,24	6,14	10,24	6,41	10,24	6,73	10,24	5,43 7,07	10,24	5,60 7,43	10,24	5,78 7,52	10,24	6,18 7,52
	6,30	3,78	6,30	3,95	6,30	4,14	6,30	3,34 4,35	6,30	3,45 4,57	6,30	3,56 4,63	6,30	3,80 4,63
<b>ASSY 3.0 Combi 10x340 mm plus washer</b>	10,24	6,14	10,24	6,41	10,24	6,73	10,24	5,43 7,07	10,24	5,60 7,43	10,24	5,78 7,52	10,24	6,18 7,52
	6,30	3,78	6,30	3,95	6,30	4,14	6,30	3,34 4,35	6,30	3,45 4,57	6,30	3,56 4,63	6,30	3,80 4,63
<b>ASSY 3.0 Combi 10x360 mm plus washer</b>	10,24	6,14	10,24	6,41	10,24	6,73	10,24	5,43 7,07	10,24	5,60 7,43	10,24	5,78 7,52	10,24	6,18 7,52
	6,30	3,78	6,30	3,95	6,30	4,14	6,30	3,34 4,35	6,30	3,45 4,57	6,30	3,56 4,63	6,30	3,80 4,63
<b>ASSY 3.0 Combi 10x380 mm plus washer</b>	10,24	6,14	10,24	6,41	10,24	6,73	10,24	5,43 7,07	10,24	5,60 7,43	10,24	5,78 7,52	10,24	6,18 7,52
	6,30	3,78	6,30	3,95	6,30	4,14	6,30	3,34 4,35	6,30	3,45 4,57	6,30	3,56 4,63	6,30	3,80 4,63
<b>ASSY 3.0 Combi 10x400 mm plus washer</b>	10,24	6,14	10,24	6,41	10,24	6,73	10,24	5,43 7,07	10,24	5,60 7,43	10,24	5,78 7,52	10,24	6,18 7,52
	6,30	3,78	6,30	3,95	6,30	4,14	6,30	3,34 4,35	6,30	3,45 4,57	6,30	3,56 4,63	6,30	3,80 4,63

∅  
**10,0 mm**



∅ = 34mm

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

According to ETA-11/0190, only one washer may be used with d < 32mm.

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

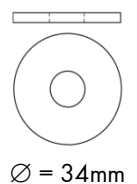
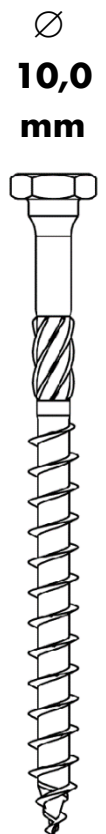
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x $\ell$	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 Combi 10x260 mm plus washer</b>	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	8,00	5,70	6,00	5,12
		7,46		7,46		7,46		7,46		7,46		6,96		6,46
<b>ASSY 3.0 Combi 10x280 mm plus washer</b>	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82	4,92	3,51	3,69	3,15
		4,59		4,59		4,59		4,59		4,59		4,28		3,97
<b>ASSY 3.0 Combi 10x300 mm plus washer</b>	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	8,00	5,70
		7,46		7,46		7,46		7,46		7,46		7,46		6,96
<b>ASSY 3.0 Combi 10x320 mm plus washer</b>	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82	4,92	3,51
		4,59		4,59		4,59		4,59		4,59		4,59		4,28
<b>ASSY 3.0 Combi 10x340 mm plus washer</b>	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20	10,00	6,20
		7,46		7,46		7,46		7,46		7,46		7,46		7,46
<b>ASSY 3.0 Combi 10x360 mm plus washer</b>	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82	6,15	3,82
		4,59		4,59		4,59		4,59		4,59		4,59		4,59
<b>ASSY 3.0 Combi 10x380 mm plus washer</b>	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26
		7,52		7,52		7,52		7,52		7,52		7,52		7,52
<b>ASSY 3.0 Combi 10x400 mm plus washer</b>	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85
		4,63		4,63		4,63		4,63		4,63		4,63		4,63
<b>ASSY 3.0 Combi 10x320 mm plus washer</b>	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26
		7,52		7,52		7,52		7,52		7,52		7,52		7,52
<b>ASSY 3.0 Combi 10x340 mm plus washer</b>	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85
		4,63		4,63		4,63		4,63		4,63		4,63		4,63
<b>ASSY 3.0 Combi 10x360 mm plus washer</b>	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26
		7,52		7,52		7,52		7,52		7,52		7,52		7,52
<b>ASSY 3.0 Combi 10x380 mm plus washer</b>	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85
		4,63		4,63		4,63		4,63		4,63		4,63		4,63
<b>ASSY 3.0 Combi 10x400 mm plus washer</b>	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26	10,24	6,26
		7,52		7,52		7,52		7,52		7,52		7,52		7,52
<b>ASSY 3.0 Combi 10x320 mm plus washer</b>	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85	6,30	3,85
		4,63		4,63		4,63		4,63		4,63		4,63		4,63



According to ETA-11/0190, only one washer may be used with  $d < 32$ mm.

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

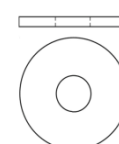
NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	25*		30*		35*		40*		45*		50*		60*	
<b>ASSY 3.0 Combi 12x100 mm plus washer</b>	7,20	6,49	7,20	6,76	7,20	7,09	7,20	7,45	6,60	7,69	6,00	7,78		
	4,43	4,00	4,43	4,16	4,43	4,36	4,43	4,58	4,06	4,73	3,69	4,79		
<b>ASSY 3.0 Combi 12x120 mm plus washer</b>	9,60	7,09	9,60	7,36	9,60	7,69	9,60	8,05	9,00	8,29	8,40	8,56	7,80	8,77
	5,91	4,37	5,91	4,53	5,91	4,73	5,91	4,95	5,54	5,10	5,17	5,27	4,80	5,40
<b>ASSY 3.0 Combi 12x140 mm plus washer</b>	9,60	7,09	9,60	7,36	9,60	7,69	9,60	8,05	9,60	8,44	9,60	8,86	9,60	9,22
	5,91	4,37	5,91	4,53	5,91	4,73	5,91	4,95	5,91	5,20	5,91	5,45	5,91	5,67
<b>ASSY 3.0 Combi 12x160 mm plus washer</b>	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77
<b>ASSY 3.0 Combi 12x180 mm plus washer</b>	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77
<b>ASSY 3.0 Combi 12x180 mm plus washer</b>	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77
<b>ASSY 3.0 Combi 12x200 mm plus washer</b>	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77
<b>ASSY 3.0 Combi 12x220 mm plus washer</b>	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77

Ø  
**12,0 mm**



Ø = 44mm

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

According to ETA-11/0190, only one washer may be used with d < 32mm.

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

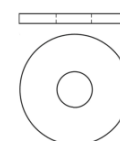
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x ℓ	Side wood thickness in [mm]									
	80	100	120	140	160	180	200			
<b>ASSY 3.0 Combi 12x100 mm plus washer</b>										
<b>ASSY 3.0 Combi 12x120 mm plus washer</b>										
<b>ASSY 3.0 Combi 12x140 mm plus washer</b>	7,20 4,43	6,18 3,80 5,30								
<b>ASSY 3.0 Combi 12x160 mm plus washer</b>	9,60 5,91	7,41 4,56 5,67	7,20 4,43	6,18 3,80 5,30						
<b>ASSY 3.0 Combi 12x180 mm plus washer</b>	10,24 6,30	7,57 4,66 5,77	9,60 5,91	7,41 4,56 5,67	7,20 4,43	6,18 3,80 5,30				
<b>ASSY 3.0 Combi 12x180 mm plus washer</b>	10,24 6,30	7,57 4,66 5,77	9,60 5,91	7,41 4,56 5,67	7,20 4,43	6,18 3,80 5,30				
<b>ASSY 3.0 Combi 12x200 mm plus washer</b>	10,24 6,30	7,57 4,66 5,77	10,24 6,30	7,57 4,66 5,77	9,60 5,91	7,41 4,56 5,67	7,20 4,43	6,18 3,80 5,30		
<b>ASSY 3.0 Combi 12x220 mm plus washer</b>	10,24 6,30	7,57 4,66 5,77	10,24 6,30	7,57 4,66 5,77	10,24 6,30	7,57 4,66 5,77	9,60 5,91	7,41 4,56 5,67	7,20 4,43	6,18 3,80 5,30

Ø  
**12,0 mm**



Ø = 44mm

According to ETA-11/0190, only one washer may be used with d < 32mm.

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

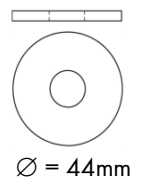
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	25*		30*		35*		40*		45*		50*		60*	
ASSY 3.0 Combi 12x240 mm plus washer	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77
ASSY 3.0 Combi 12x260 mm plus washer	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77
ASSY 3.0 Combi 12x280 mm plus washer	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77
ASSY 3.0 Combi 12x300 mm plus washer	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77
ASSY 3.0 Combi 12x320 mm plus washer	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77
ASSY 3.0 Combi 12x340 mm plus washer	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77
ASSY 3.0 Combi 12x360 mm plus washer	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77
ASSY 3.0 Combi 12x380 mm plus washer	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

According to ETA-11/0190, only one washer may be used with  $d < 32$ mm.

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

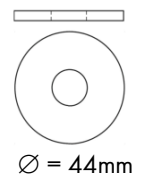
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x $\ell$	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 Combi 12x240 mm plus washer</b>	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	9,60	7,41 9,22	7,20	6,18 8,62		
	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	5,91	4,56 5,67	4,43	3,80 5,30		
<b>ASSY 3.0 Combi 12x260 mm plus washer</b>	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	9,60	7,41 9,22	7,20	6,18 8,62
	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	5,91	4,56 5,67	4,43	3,80 5,30
<b>ASSY 3.0 Combi 12x280 mm plus washer</b>	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	9,60	7,41 9,22
	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	5,91	4,56 5,67
<b>ASSY 3.0 Combi 12x300 mm plus washer</b>	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38
	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77
<b>ASSY 3.0 Combi 12x320 mm plus washer</b>	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38
	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77
<b>ASSY 3.0 Combi 12x340 mm plus washer</b>	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38
	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77
<b>ASSY 3.0 Combi 12x360 mm plus washer</b>	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38
	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77
<b>ASSY 3.0 Combi 12x380 mm plus washer</b>	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38	10,24	7,57 9,38
	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77	6,30	4,66 5,77



According to ETA-11/0190, only one washer may be used with  $d < 32$ mm.

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

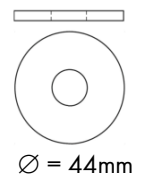
NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x l	Side wood thickness in [mm]													
	25*		30*		35*		40*		45*		50*		60*	
<b>ASSY 3.0 Combi 12x400 mm plus washer</b>	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77
<b>ASSY 3.0 Combi 12x440 mm plus washer</b>	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77
<b>ASSY 3.0 Combi 12x480 mm plus washer</b>	10,24	7,25	10,24	7,52	10,24	7,85	10,24	8,21	10,24	8,60	10,24	9,02	10,24	9,38
	6,30	4,46	6,30	4,63	6,30	4,83	6,30	5,05	6,30	5,29	6,30	5,55	6,30	5,77

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

According to ETA-11/0190, only one washer may be used with  $d < 32$ mm.



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

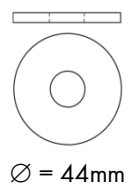
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 COMBI + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 Combi</b> <b>12x400 mm</b> <b>plus washer</b>	10,24	7,57	10,24	7,57	10,24	7,57	10,24	7,57	10,24	7,57	10,24	7,57	10,24	7,57
		9,38		9,38		9,38		9,38		9,38		9,38		9,38
	6,30	4,66	6,30	4,66	6,30	4,66	6,30	4,66	6,30	4,66	6,30	4,66	6,30	4,66
		5,77		5,77		5,77		5,77		5,77		5,77		5,77
<b>ASSY 3.0 Combi</b> <b>12x440 mm</b> <b>plus washer</b>	10,24	7,57	10,24	7,57	10,24	7,57	10,24	7,57	10,24	7,57	10,24	7,57	10,24	7,57
		9,38		9,38		9,38		9,38		9,38		9,38		9,38
	6,30	4,66	6,30	4,66	6,30	4,66	6,30	4,66	6,30	4,66	6,30	4,66	6,30	4,66
		5,77		5,77		5,77		5,77		5,77		5,77		5,77
<b>ASSY 3.0 Combi</b> <b>12x480 mm</b> <b>plus washer</b>	10,24	7,57	10,24	7,57	10,24	7,57	10,24	7,57	10,24	7,57	10,24	7,57	10,24	7,57
		9,38		9,38		9,38		9,38		9,38		9,38		9,38
	6,30	4,66	6,30	4,66	6,30	4,66	6,30	4,66	6,30	4,66	6,30	4,66	6,30	4,66
		5,77		5,77		5,77		5,77		5,77		5,77		5,77

According to ETA-11/0190, only one washer may be used with d < 32mm.



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

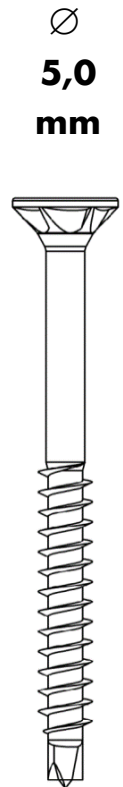
Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD PLUS

Type d x ℓ	Side wood thickness in [mm]													
	20*		25		30		35		40		45		50	
ASSY plus 5x50 mm	1,17	1,54	1,17	1,21	1,17	1,19								
	0,72	0,94	0,72	0,74	0,72	0,73								
ASSY plus 5x60 mm	1,17	1,54	1,17	1,30	1,17	1,39	1,17	1,30	1,17	1,19				
	0,72	0,94	0,72	0,80	0,72	0,86	0,72	0,80	0,72	0,73				
ASSY plus 5x70 mm	1,17	1,54	1,17	1,30	1,17	1,42	1,17	1,47	1,17	1,42	1,17	1,30	1,17	1,19
	0,72	0,94	0,72	0,80	0,72	0,87	0,72	0,90	0,72	0,87	0,72	0,80	0,72	0,73
ASSY plus 5x80 mm	1,17	1,54	1,17	1,30	1,17	1,42	1,17	1,47	1,17	1,47	1,17	1,47	1,17	1,42
	0,72	0,94	0,72	0,80	0,72	0,87	0,72	0,90	0,72	0,90	0,72	0,90	0,72	0,87
ASSY plus 5x90 mm	1,17	1,54	1,17	1,30	1,17	1,42	1,17	1,47	1,17	1,47	1,17	1,47	1,17	1,47
	0,72	0,94	0,72	0,80	0,72	0,87	0,72	0,90	0,72	0,90	0,72	0,90	0,72	0,90
ASSY plus 5x100 mm	1,17	1,54	1,17	1,30	1,17	1,42	1,17	1,47	1,17	1,47	1,17	1,47	1,17	1,47
	0,72	0,94	0,72	0,80	0,72	0,87	0,72	0,90	0,72	0,90	0,72	0,90	0,72	0,90



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS

Type d x ℓ	Side wood thickness in [mm]													
	60		80		100		120		140		160		180	
ASSY plus 5x50 mm														
ASSY plus 5x60 mm														
ASSY plus 5x70 mm														
ASSY plus 5x80 mm	1,17	1,19												
		1,54												
	0,72	0,73												
		0,94												
ASSY plus 5x90 mm	1,17	1,42												
		1,75												
	0,72	0,87												
		1,08												
ASSY plus 5x100 mm	1,17	1,47												
		1,75	1,17	1,19										
	0,72	0,90		0,73										
		1,08	0,72	0,94										

∅  
**5,0**  
mm



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS

Type d x l	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
<b>ASSY plus</b> <b>6x80 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	1,97	1,87	1,83		
		2,26				2,48				2,48				
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,21	1,15	1,13		
		1,39				1,53				1,53				
<b>ASSY plus</b> <b>6x90 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	1,83
		2,26				2,48				2,48				2,48
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,13
		1,39				1,53				1,53				1,53
<b>ASSY plus</b> <b>6x100 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26				2,48				2,48				2,48
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39				1,53				1,53				1,53
<b>ASSY plus</b> <b>6x120 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26				2,48				2,48				2,48
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39				1,53				1,53				1,53
<b>ASSY plus</b> <b>6x140 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26				2,48				2,48				2,48
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39				1,53				1,53				1,53
<b>ASSY plus</b> <b>6x160 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26				2,48				2,48				2,48
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39				1,53				1,53				1,53
<b>ASSY plus</b> <b>6x180 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26				2,48				2,48				2,48
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39				1,53				1,53				1,53
<b>ASSY plus</b> <b>6x200 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26				2,48				2,48				2,48
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39				1,53				1,53				1,53

∅  
**6,0**  
mm



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY plus 6x80 mm														
ASSY plus 6x90 mm														
ASSY plus 6x100 mm														
ASSY plus 6x120 mm	1,87	2,06 2,48												
	1,15	1,27 1,53												
ASSY plus 6x140 mm	1,87	2,06 2,48	1,87	2,06 2,48										
	1,15	1,27 1,53	1,15	1,27 1,53										
ASSY plus 6x160 mm	1,87	2,06 2,48	1,87	2,06 2,48	1,87	2,06 2,48								
	1,15	1,27 1,53	1,15	1,27 1,53	1,15	1,27 1,53								
ASSY plus 6x180 mm	1,87	2,06 2,48	1,87	2,06 2,48	1,87	2,06 2,48	1,87	2,06 2,48						
	1,15	1,27 1,53	1,15	1,27 1,53	1,15	1,27 1,53	1,15	1,27 1,53						
ASSY plus 6x200 mm	1,87	2,06 2,48	1,87	2,06 2,48	1,87	2,06 2,48	1,87	2,06 2,48	1,87	2,06 2,48				
	1,15	1,27 1,53	1,15	1,27 1,53	1,15	1,27 1,53	1,15	1,27 1,53	1,15	1,27 1,53				

∅  
**6,0**  
mm



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS

Type d x ℓ	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
<b>ASSY plus</b> <b>6x220 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		2,48
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		1,53
<b>ASSY plus</b> <b>6x240 mm</b>	1,87	1,71	1,87	1,83	1,87	1,97	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,26		2,48		2,48		2,48		2,48		2,48		2,48
	1,15	1,05	1,15	1,13	1,15	1,21	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,39		1,53		1,53		1,53		1,53		1,53		1,53

∅  
**6,0**  
**mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY plus</b> <b>6x220 mm</b>	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06		
		2,48		2,48		2,48		2,48		2,48		2,48		
	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27		
		1,53		1,53		1,53		1,53		1,53		1,53		
<b>ASSY plus</b> <b>6x240 mm</b>	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06	1,87	2,06
		2,48		2,48		2,48		2,48		2,48		2,48		2,48
	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27	1,15	1,27
		1,53		1,53		1,53		1,53		1,53		1,53		1,53

∅  
**6,0**  
**mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS

Type d x l	Side wood thickness in [mm]													
	25*		30*		35		40		45		50		60	
ASSY plus 8x140 mm	2,73		2,73		2,73	2,74	2,73	2,90	2,73	3,06	2,73	3,23	2,73	3,23
		3,29		3,55		3,84		4,03		4,03		4,03		4,03
	1,68		1,68		1,68	1,69	1,68	1,78	1,68	1,88	1,68	1,99	1,68	1,99
		2,03		2,19		2,36		2,48		2,48		2,48		2,48
ASSY plus 8x160 mm	2,73		2,73		2,73	2,74	2,73	2,90	2,73	3,06	2,73	3,23	2,73	3,23
		3,29		3,55		3,84		4,03		4,03		4,03		4,03
	1,68		1,68		1,68	1,69	1,68	1,78	1,68	1,88	1,68	1,99	1,68	1,99
		2,03		2,19		2,36		2,48		2,48		2,48		2,48
ASSY plus 8x180 mm	2,73		2,73		2,73	2,74	2,73	2,90	2,73	3,06	2,73	3,23	2,73	3,23
		3,29		3,55		3,84		4,03		4,03		4,03		4,03
	1,68		1,68		1,68	1,69	1,68	1,78	1,68	1,88	1,68	1,99	1,68	1,99
		2,03		2,19		2,36		2,48		2,48		2,48		2,48
ASSY plus 8x200 mm	2,73		2,73		2,73	2,74	2,73	2,90	2,73	3,06	2,73	3,23	2,73	3,23
		3,29		3,55		3,84		4,03		4,03		4,03		4,03
	1,68		1,68		1,68	1,69	1,68	1,78	1,68	1,88	1,68	1,99	1,68	1,99
		2,03		2,19		2,36		2,48		2,48		2,48		2,48
ASSY plus 8x220 mm	2,73		2,73		2,73	2,74	2,73	2,90	2,73	3,06	2,73	3,23	2,73	3,23
		3,29		3,55		3,84		4,03		4,03		4,03		4,03
	1,68		1,68		1,68	1,69	1,68	1,78	1,68	1,88	1,68	1,99	1,68	1,99
		2,03		2,19		2,36		2,48		2,48		2,48		2,48
ASSY plus 8x240 mm	2,73		2,73		2,73	2,74	2,73	2,90	2,73	3,06	2,73	3,23	2,73	3,23
		3,29		3,55		3,84		4,03		4,03		4,03		4,03
	1,68		1,68		1,68	1,69	1,68	1,78	1,68	1,88	1,68	1,99	1,68	1,99
		2,03		2,19		2,36		2,48		2,48		2,48		2,48
ASSY plus 8x260 mm	2,73		2,73		2,73	2,74	2,73	2,90	2,73	3,06	2,73	3,23	2,73	3,23
		3,29		3,55		3,84		4,03		4,03		4,03		4,03
	1,68		1,68		1,68	1,69	1,68	1,78	1,68	1,88	1,68	1,99	1,68	1,99
		2,03		2,19		2,36		2,48		2,48		2,48		2,48
ASSY plus 8x280 mm	2,73		2,73		2,73	2,74	2,73	2,90	2,73	3,06	2,73	3,23	2,73	3,23
		3,29		3,55		3,84		4,03		4,03		4,03		4,03
	1,68		1,68		1,68	1,69	1,68	1,78	1,68	1,88	1,68	1,99	1,68	1,99
		2,03		2,19		2,36		2,48		2,48		2,48		2,48
ASSY plus 8x300 mm	2,73		2,73		2,73	2,74	2,73	2,90	2,73	3,06	2,73	3,23	2,73	3,23
		3,29		3,55		3,84		4,03		4,03		4,03		4,03
	1,68		1,68		1,68	1,69	1,68	1,78	1,68	1,88	1,68	1,99	1,68	1,99
		2,03		2,19		2,36		2,48		2,48		2,48		2,48

∅  
**8,0**  
mm



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS

Type d x $\ell$	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY plus</b> <b>8x140 mm</b>	2,73	3,23	2,73	2,90										
		4,03			4,03									
	1,68	1,99	1,68	1,78										
		2,48			2,48									
<b>ASSY plus</b> <b>8x160 mm</b>	2,73	3,23	2,73	3,23	2,73	2,90								
		4,03				4,03								
	1,68	1,99	1,68	1,99	1,68	1,78								
		2,48				2,48		2,48						
<b>ASSY plus</b> <b>8x180 mm</b>	2,73	3,23	2,73	3,23	2,73	3,23	2,73	2,90						
		4,03				4,03			4,03					
	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,78						
		2,48				2,48			2,48		2,48			
<b>ASSY plus</b> <b>8x200 mm</b>	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	2,90				
		4,03				4,03				4,03		4,03		
	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,78				
		2,48				2,48				2,48		2,48		2,48
<b>ASSY plus</b> <b>8x220 mm</b>	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	2,90		
		4,03				4,03				4,03			4,03	
	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,78		
		2,48				2,48				2,48			2,48	
<b>ASSY plus</b> <b>8x240 mm</b>	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	2,90
		4,03				4,03				4,03				4,03
	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,78
		2,48				2,48				2,48				2,48
<b>ASSY plus</b> <b>8x260 mm</b>	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23
		4,03				4,03				4,03				4,03
	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99
		2,48				2,48				2,48				2,48
<b>ASSY plus</b> <b>8x280 mm</b>	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23
		4,03				4,03				4,03				4,03
	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99
		2,48				2,48				2,48				2,48
<b>ASSY plus</b> <b>8x300 mm</b>	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23	2,73	3,23
		4,03				4,03				4,03				4,03
	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99	1,68	1,99
		2,48				2,48				2,48				2,48

∅  
**8,0**  
**mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
ASSY plus 6x80 mm plus washer	3,52	2,12	3,45	2,23	3,11	2,28	2,76	2,28	2,42	2,11	2,07	1,88		
		2,67				2,88				2,79				
	2,17	1,31	2,12	1,37	1,91	1,40	1,70	1,40	1,49	1,30	1,27	1,16		
		1,64				1,77				1,72				
ASSY plus 6x90 mm plus washer	3,52	2,12	3,52	2,25	3,52	2,38	3,45	2,45	3,11	2,37	2,76	2,28	2,07	1,88
		2,67				2,90				2,90				2,88
	2,17	1,31	2,17	1,38	2,17	1,47	2,12	1,51	1,91	1,46	1,70	1,40	1,27	1,16
		1,64				1,78				1,78				1,77
ASSY plus 6x100 mm plus washer	4,14	2,28	4,14	2,40	4,14	2,54	4,14	2,62	3,80	2,54	3,45	2,45	2,76	2,28
		2,83				3,05				3,05				3,05
	2,55	1,40	2,55	1,48	2,55	1,56	2,55	1,62	2,34	1,56	2,12	1,51	1,70	1,40
		1,74				1,88				1,88				1,88
ASSY plus 6x120 mm plus washer	4,14	2,28	4,14	2,40	4,14	2,54	4,14	2,62	4,14	2,62	4,14	2,62	4,14	2,62
		2,83				3,05				3,05				3,05
	2,55	1,40	2,55	1,48	2,55	1,56	2,55	1,62	2,55	1,62	2,55	1,62	2,55	1,62
		1,74				1,88				1,88				1,88
ASSY plus 6x140 mm plus washer	4,14	2,28	4,14	2,40	4,14	2,54	4,14	2,62	4,14	2,62	4,14	2,62	4,14	2,62
		2,83				3,05				3,05				3,05
	2,55	1,40	2,55	1,48	2,55	1,56	2,55	1,62	2,55	1,62	2,55	1,62	2,55	1,62
		1,74				1,88				1,88				1,88
ASSY plus 6x160 mm plus washer	4,14	2,28	4,14	2,40	4,14	2,54	4,14	2,62	4,14	2,62	4,14	2,62	4,14	2,62
		2,83				3,05				3,05				3,05
	2,55	1,40	2,55	1,48	2,55	1,56	2,55	1,62	2,55	1,62	2,55	1,62	2,55	1,62
		1,74				1,88				1,88				1,88
ASSY plus 6x180 mm plus washer	4,14	2,28	4,14	2,40	4,14	2,54	4,14	2,62	4,14	2,62	4,14	2,62	4,14	2,62
		2,83				3,05				3,05				3,05
	2,55	1,40	2,55	1,48	2,55	1,56	2,55	1,62	2,55	1,62	2,55	1,62	2,55	1,62
		1,74				1,88				1,88				1,88
ASSY plus 6x200 mm plus washer	4,14	2,28	4,14	2,40	4,14	2,54	4,14	2,62	4,14	2,62	4,14	2,62	4,14	2,62
		2,83				3,05				3,05				3,05
	2,55	1,40	2,55	1,48	2,55	1,56	2,55	1,62	2,55	1,62	2,55	1,62	2,55	1,62
		1,74				1,88				1,88				1,88

∅  
**6,0**  
mm



∅ ≥ 22mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

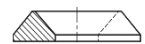
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS + WASHER

Type d x $\ell$	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY plus 6x80 mm plus washer</b>														
<b>ASSY plus 6x90 mm plus washer</b>														
<b>ASSY plus 6x100 mm plus washer</b>														
<b>ASSY plus 6x120 mm plus washer</b>	2,76	2,28 2,71												
	1,70	1,40 1,67												
<b>ASSY plus 6x140 mm plus washer</b>	4,14	2,62 3,05	2,76	2,28 2,71										
	2,55	1,62 1,88	1,70	1,40 1,67										
<b>ASSY plus 6x160 mm plus washer</b>	4,14	2,62 3,05	4,14	2,62 3,05	2,76	2,28 2,71								
	2,55	1,62 1,88	2,55	1,62 1,88	1,70	1,40 1,67								
<b>ASSY plus 6x180 mm plus washer</b>	4,14	2,62 3,05	4,14	2,62 3,05	4,14	2,62 3,05	2,76	2,28 2,71						
	2,55	1,62 1,88	2,55	1,62 1,88	2,55	1,62 1,88	1,70	1,40 1,67						
<b>ASSY plus 6x200 mm plus washer</b>	4,14	2,62 3,05	4,14	2,62 3,05	4,14	2,62 3,05	4,14	2,62 3,05	2,76	2,28 2,71				
	2,55	1,62 1,88	2,55	1,62 1,88	2,55	1,62 1,88	2,55	1,62 1,88	1,70	1,40 1,67				

Ø  
**6,0  
mm**



Ø ≥ 22mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
<b>ASSY plus 6x220 mm plus washer</b>	4,14	2,28	4,14	2,40	4,14	2,54	4,14	2,62	4,14	2,62	4,14	2,62	4,14	2,62
		2,83		3,05		3,05		3,05		3,05		3,05		3,05
<b>ASSY plus 6x240 mm plus washer</b>	2,55	1,40	2,55	1,48	2,55	1,56	2,55	1,62	2,55	1,62	2,55	1,62	2,55	1,62
		1,74		1,88		1,88		1,88		1,88		1,88		1,88

∅  
**6,0  
mm**



∅ ≥ 22mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS + WASHER

Type d x $\ell$	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY plus 6x220 mm plus washer</b>	4,14	2,62	4,14	2,62	4,14	2,62	4,14	2,62	4,14	2,62	2,76	2,28		
		3,05		3,05		3,05		3,05		3,05		2,71		
<b>ASSY plus 6x240 mm plus washer</b>	2,55	1,62	2,55	1,62	2,55	1,62	2,55	1,62	2,55	1,62	1,70	1,40		
		1,88		1,88		1,88		1,88		1,88		1,67		
<b>ASSY plus 6x240 mm plus washer</b>	4,14	2,62	4,14	2,62	4,14	2,62	4,14	2,62	4,14	2,62	4,14	2,62	2,76	2,28
		3,05		3,05		3,05		3,05		3,05		3,05		2,71
<b>ASSY plus 6x240 mm plus washer</b>	2,55	1,62	2,55	1,62	2,55	1,62	2,55	1,62	2,55	1,62	2,55	1,62	1,70	1,40
		1,88		1,88		1,88		1,88		1,88		1,88		1,67

Ø  
**6,0  
mm**



Ø ≥ 22mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY plus 8x140 mm plus washer	6,25	4,17	6,25	3,48 4,43	6,25	3,62 4,72	6,25	3,78 4,91	6,25	3,94 4,91	6,25	4,11 4,91	6,25	4,11 4,91
	3,85	2,57	3,85	2,14 2,73	3,85	2,23 2,90	3,85	2,32 3,02	3,85	2,43 3,02	3,85	2,53 3,02	3,85	2,53 3,02
ASSY plus 8x160 mm plus washer	6,25	4,17	6,25	3,48 4,43	6,25	3,62 4,72	6,25	3,78 4,91	6,25	3,94 4,91	6,25	4,11 4,91	6,25	4,11 4,91
	3,85	2,57	3,85	2,14 2,73	3,85	2,23 2,90	3,85	2,32 3,02	3,85	2,43 3,02	3,85	2,53 3,02	3,85	2,53 3,02
ASSY plus 8x180 mm plus washer	6,25	4,17	6,25	3,48 4,43	6,25	3,62 4,72	6,25	3,78 4,91	6,25	3,94 4,91	6,25	4,11 4,91	6,25	4,11 4,91
	3,85	2,57	3,85	2,14 2,73	3,85	2,23 2,90	3,85	2,32 3,02	3,85	2,43 3,02	3,85	2,53 3,02	3,85	2,53 3,02
ASSY plus 8x200 mm plus washer	6,25	4,17	6,25	3,48 4,43	6,25	3,62 4,72	6,25	3,78 4,91	6,25	3,94 4,91	6,25	4,11 4,91	6,25	4,11 4,91
	3,85	2,57	3,85	2,14 2,73	3,85	2,23 2,90	3,85	2,32 3,02	3,85	2,43 3,02	3,85	2,53 3,02	3,85	2,53 3,02
ASSY plus 8x220 mm plus washer	6,25	4,17	6,25	3,48 4,43	6,25	3,62 4,72	6,25	3,78 4,91	6,25	3,94 4,91	6,25	4,11 4,91	6,25	4,11 4,91
	3,85	2,57	3,85	2,14 2,73	3,85	2,23 2,90	3,85	2,32 3,02	3,85	2,43 3,02	3,85	2,53 3,02	3,85	2,53 3,02
ASSY plus 8x240 mm plus washer	6,25	4,17	6,25	3,48 4,43	6,25	3,62 4,72	6,25	3,78 4,91	6,25	3,94 4,91	6,25	4,11 4,91	6,25	4,11 4,91
	3,85	2,57	3,85	2,14 2,73	3,85	2,23 2,90	3,85	2,32 3,02	3,85	2,43 3,02	3,85	2,53 3,02	3,85	2,53 3,02
ASSY plus 8x260 mm plus washer	6,25	4,17	6,25	3,48 4,43	6,25	3,62 4,72	6,25	3,78 4,91	6,25	3,94 4,91	6,25	4,11 4,91	6,25	4,11 4,91
	3,85	2,57	3,85	2,14 2,73	3,85	2,23 2,90	3,85	2,32 3,02	3,85	2,43 3,02	3,85	2,53 3,02	3,85	2,53 3,02
ASSY plus 8x280 mm plus washer	6,25	4,17	6,25	3,48 4,43	6,25	3,62 4,72	6,25	3,78 4,91	6,25	3,94 4,91	6,25	4,11 4,91	6,25	4,11 4,91
	3,85	2,57	3,85	2,14 2,73	3,85	2,23 2,90	3,85	2,32 3,02	3,85	2,43 3,02	3,85	2,53 3,02	3,85	2,53 3,02
ASSY plus 8x300 mm plus washer	6,25	4,17	6,25	3,48 4,43	6,25	3,62 4,72	6,25	3,78 4,91	6,25	3,94 4,91	6,25	4,11 4,91	6,25	4,11 4,91
	3,85	2,57	3,85	2,14 2,73	3,85	2,23 2,90	3,85	2,32 3,02	3,85	2,43 3,02	3,85	2,53 3,02	3,85	2,53 3,02

∅  
**8,0**  
mm



∅ ≥ 25mm

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

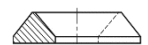
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY plus 8x140 mm plus washer</b>	5,28	3,87	3,52	3,09										
		4,66			4,22									
	3,25	2,38	2,17	1,90										
		2,87			2,60									
<b>ASSY plus 8x160 mm plus washer</b>	6,25	4,11	5,28	3,87	3,52	3,09								
		4,91				4,22								
	3,85	2,53	3,25	2,38	2,17	1,90								
		3,02				2,87		2,60						
<b>ASSY plus 8x180 mm plus washer</b>	6,25	4,11	6,25	4,11	5,28	3,87	3,52	3,09						
		4,91				4,66								
	3,85	2,53	3,85	2,53	3,25	2,38	2,17	1,90						
		3,02				3,02			2,87		2,60			
<b>ASSY plus 8x200 mm plus washer</b>	6,25	4,11	6,25	4,11	6,25	4,11	5,28	3,87	3,52	3,09				
		4,91				4,91				4,66		4,22		
	3,85	2,53	3,85	2,53	3,85	2,53	3,25	2,38	2,17	1,90				
		3,02				3,02				3,02		2,87		2,60
<b>ASSY plus 8x220 mm plus washer</b>	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11	5,28	3,87	3,52	3,09		
		4,91				4,91				4,91			4,91	
	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53	3,25	2,38	2,17	1,90		
		3,02				3,02				3,02			3,02	
<b>ASSY plus 8x240 mm plus washer</b>	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11	5,28	3,87	3,52	3,09
		4,91				4,91				4,91				4,91
	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53	3,25	2,38	2,17	1,90
		3,02				3,02				3,02				3,02
<b>ASSY plus 8x260 mm plus washer</b>	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11	5,28	3,87
		4,91				4,91				4,91				4,91
	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53	3,25	2,38
		3,02				3,02				3,02				3,02
<b>ASSY plus 8x280 mm plus washer</b>	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11
		4,91				4,91				4,91				4,91
	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53
		3,02				3,02				3,02				3,02
<b>ASSY plus 8x300 mm plus washer</b>	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11	6,25	4,11
		4,91				4,91				4,91				4,91
	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53	3,85	2,53
		3,02				3,02				3,02				3,02

∅  
**8,0  
mm**



∅ ≥ 25mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

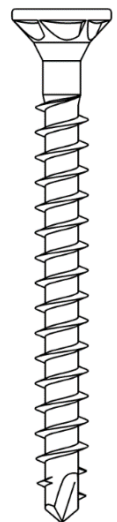
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
ASSY plus VG 6x80 mm	1,73	1,67	2,07	1,88	2,42	2,11	2,76	2,28	2,42	2,11	2,07	1,88		
		2,22		2,53		2,62		2,71		2,62		2,53		
ASSY plus VG 6x100 mm	1,73	1,67	2,07	1,88	2,42	2,11	2,76	2,28	3,11	2,37	3,45	2,45	2,76	2,28
		2,22		2,53		2,62		2,71		2,79		2,88		
ASSY plus VG 6x120 mm	1,73	1,67	2,07	1,88	2,42	2,11	2,76	2,28	3,11	2,37	3,45	2,45	4,14	2,62
		2,22		2,53		2,62		2,71		2,79		2,88		
ASSY plus VG 6x140 mm	1,73	1,67	2,07	1,88	2,42	2,11	2,76	2,28	3,11	2,37	3,45	2,45	4,14	2,62
		2,22		2,53		2,62		2,71		2,79		2,88		
ASSY plus VG 6x160 mm	1,73	1,67	2,07	1,88	2,42	2,11	2,76	2,28	3,11	2,37	3,45	2,45	4,14	2,62
		2,22		2,53		2,62		2,71		2,79		2,88		
ASSY plus VG 6x180 mm	1,73	1,67	2,07	1,88	2,42	2,11	2,76	2,28	3,11	2,37	3,45	2,45	4,14	2,62
		2,22		2,53		2,62		2,71		2,79		2,88		
ASSY plus VG 6x200 mm	1,73	1,67	2,07	1,88	2,42	2,11	2,76	2,28	3,11	2,37	3,45	2,45	4,14	2,62
		2,22		2,53		2,62		2,71		2,79		2,88		
	1,06	1,03	1,27	1,16	1,49	1,30	1,70	1,40	1,91	1,46	2,12	1,51	2,55	1,62
		1,37		1,56		1,61		1,67		1,72		1,77		

∅  
**6,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY plus VG</b> 6x80 mm														
<b>ASSY plus VG</b> 6x100 mm														
<b>ASSY plus VG</b> 6x120 mm	2,76	2,28 2,71												
	1,70	1,40 1,67												
<b>ASSY plus VG</b> 6x140 mm	4,14	2,62 3,05	2,76	2,28 2,71										
	2,55	1,62 1,88	1,70	1,40 1,67										
<b>ASSY plus VG</b> 6x160 mm	5,52	2,97 3,40	4,14	2,62 3,05	2,76	2,28 2,71								
	3,40	1,83 2,09	2,55	1,62 1,88	1,70	1,40 1,67								
<b>ASSY plus VG</b> 6x180 mm	5,52	2,97 3,40	5,52	2,97 3,40	4,14	2,62 3,05	2,76	2,28 2,71						
	3,40	1,83 2,09	3,40	1,83 2,09	2,55	1,62 1,88	1,70	1,40 1,67						
<b>ASSY plus VG</b> 6x200 mm	5,52	2,97 3,40	6,90	3,18 3,74	5,52	2,97 3,40	4,14	2,62 3,05	2,76	2,28 2,71				
	3,40	1,83 2,09	4,25	1,96 2,30	3,40	1,83 2,09	2,55	1,62 1,88	1,70	1,40 1,67				

∅  
**6,0**  
mm



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

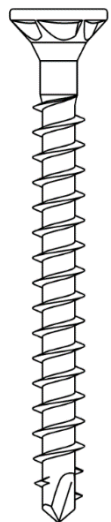
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
ASSY plus VG 6x220 mm	1,73	1,67	2,07	1,88	2,42	2,11	2,76	2,28	3,11	2,37	3,45	2,45	4,14	2,62
		2,22				2,53				2,62				2,71
ASSY plus VG 6x240 mm	1,06	1,03	1,27	1,16	1,49	1,30	1,70	1,40	1,91	1,46	2,12	1,51	2,55	1,62
		1,37				1,56				0,61				1,67
ASSY plus VG 6x260 mm	1,73	1,67	2,07	1,88	2,42	2,11	2,76	2,28	3,11	2,37	3,45	2,45	4,14	2,62
		2,22				2,53				2,62				2,71
ASSY plus VG 6x260 mm	1,06	1,03	1,27	1,16	1,49	1,30	1,70	1,40	1,91	1,46	2,12	1,51	2,55	1,62
		1,37				1,56				0,61				1,67

∅  
**6,0**  
mm



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY plus VG 6x220 mm	5,52	2,97	6,90	3,31	6,90	3,31	5,52	2,97	4,14	2,62	2,76	2,28		
		3,40		3,74		3,74		3,40		3,05		2,71		
	3,40	1,83	4,25	2,04	4,25	2,04	3,40	1,83	2,55	1,62	1,70	1,40		
		2,09		2,30		2,30		2,09		1,88		1,67		
ASSY plus VG 6x240 mm	5,52	2,97	6,90	3,31	8,28	3,66	6,90	3,31	5,52	2,97	4,14	2,62	2,76	2,28
		3,40		3,74		4,09		3,74		3,40		3,05		2,71
	3,40	1,83	4,25	2,04	5,10	2,25	4,25	2,04	3,40	1,83	2,55	1,62	1,70	1,40
		2,09		2,30		2,51		2,30		2,09		1,88		1,67
ASSY plus VG 6x260 mm	5,52	2,97	6,90	3,31	8,28	3,66	8,28	3,66	6,90	3,31	5,52	2,97	4,14	2,62
		3,40		3,74		4,09		4,09		3,74		3,40		3,05
	3,40	1,83	4,25	2,04	5,10	2,25	5,10	2,25	4,25	2,04	3,40	1,83	2,55	1,62
		2,09		2,30		2,51		2,51		2,30		2,09		1,88

∅  
**6,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

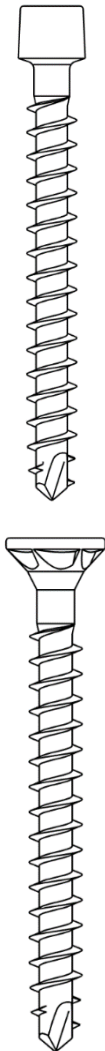


## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY plus VG 8x120 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x140 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x160 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x180 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x200 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x220 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x240 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x260 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

∅  
**8,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

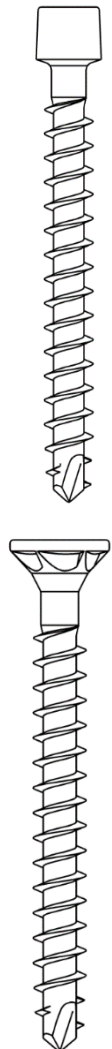
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY plus VG 8x120 mm	3,52	3,09												
		4,22												
ASSY plus VG 8x120 mm	2,17	1,90												
		2,60												
ASSY plus VG 8x140 mm	5,28	3,87	3,52	3,09										
		4,66		4,22										
ASSY plus VG 8x140 mm	3,25	2,38	2,17	1,90										
		2,87		2,60										
ASSY plus VG 8x160 mm	7,04	4,31	5,28	3,87	3,52	3,09								
		5,10		4,66		4,22								
ASSY plus VG 8x160 mm	4,33	2,65	3,25	2,38	2,17	1,90								
		3,14		2,87		2,60								
ASSY plus VG 8x180 mm	7,04	4,31	7,04	4,31	5,28	3,87	3,52	3,09						
		5,10		5,10		4,66		4,22						
ASSY plus VG 8x180 mm	4,33	2,65	4,33	2,65	3,25	2,38	2,17	1,90						
		3,14		3,14		2,87		2,60						
ASSY plus VG 8x200 mm	7,04	4,31	8,80	4,75	7,04	4,31	5,28	3,87	3,52	3,09				
		5,10		5,54		5,10		4,66		4,22				
ASSY plus VG 8x200 mm	4,33	2,65	5,42	2,92	4,33	2,65	3,25	2,38	2,17	1,90				
		3,14		3,41		3,14		2,87		2,60				
ASSY plus VG 8x220 mm	7,04	4,31	8,80	4,75	8,80	4,75	7,04	4,31	5,28	3,87	3,52	3,09		
		5,10		5,54		5,54		5,10		4,66		4,22		
ASSY plus VG 8x220 mm	4,33	2,65	5,42	2,92	5,42	2,92	4,33	2,65	3,25	2,38	2,17	1,90		
		3,14		3,41		3,41		3,14		2,87		2,60		
ASSY plus VG 8x240 mm	7,04	4,31	8,80	4,75	10,56	5,10	8,80	4,75	7,04	4,31	5,28	3,87	3,52	3,09
		5,10		5,54		5,98		5,54		5,10		4,66		4,22
ASSY plus VG 8x240 mm	4,33	2,65	5,42	2,92	6,50	3,14	5,42	2,92	4,33	2,65	3,25	2,38	2,17	1,90
		3,14		3,41		3,68		3,41		3,14		2,87		2,60
ASSY plus VG 8x260 mm	7,04	4,31	8,80	4,75	10,56	5,10	10,56	5,10	8,80	4,75	7,04	4,31	5,28	3,87
		5,10		5,54		5,98		5,98		5,54		5,10		4,66
ASSY plus VG 8x260 mm	4,33	2,65	5,42	2,92	6,50	3,14	6,50	3,14	5,42	2,92	4,33	2,65	3,25	2,38
		3,14		3,41		3,68		3,41		3,14		2,87		2,60

∅  
**8,0**  
mm



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

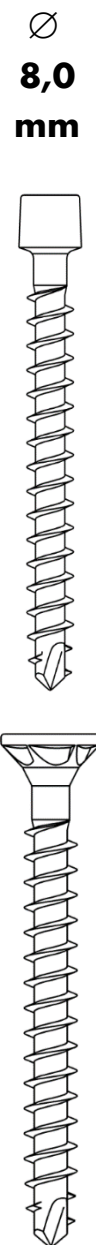
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY plus VG 8x280 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x300 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x330 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x380 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x430 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x480 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x530 mm	1,30	2,93	1,30	2,24 3,20	3,08	2,83 3,93	3,52	3,09 4,22	3,96	3,37 4,33	4,40	3,65 4,44	5,28	3,87 4,66
	0,80	1,81	0,80	1,38 1,97	1,90	1,74 2,42	2,17	1,90 2,60	2,44	2,07 2,67	2,71	2,25 2,73	3,25	2,38 2,87
ASSY plus VG 8x580 mm	2,87	3,33	2,87	2,63 3,59	2,87	2,77 3,87	2,87	2,93 4,06	2,87	3,10 4,06	2,87	3,27 4,06	2,87	3,27 4,06
	1,76	2,05	1,76	1,62 2,21	1,76	1,71 2,38	1,76	1,80 2,50	1,76	1,91 2,50	1,76	2,01 2,50	1,76	2,01 2,50

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY plus VG 8x280 mm	7,04	4,31	8,80	4,75	10,56	5,10	12,32	5,10	10,56	5,10	8,80	4,75	7,04	4,31
		5,10				5,54				5,98				6,42
ASSY plus VG 8x300 mm	4,33	2,65	5,42	2,92	6,50	3,14	7,58	3,14	6,50	3,14	5,42	2,92	4,33	2,65
		3,14				3,41				3,68				3,95
ASSY plus VG 8x330 mm	7,04	4,31	8,80	4,75	10,56	5,10	12,32	5,10	12,32	5,10	10,56	5,10	8,80	4,75
		5,10				5,54				5,98				6,42
ASSY plus VG 8x380 mm	4,33	2,65	5,42	2,92	6,50	3,14	7,58	3,14	7,58	3,14	6,50	3,14	5,42	2,92
		3,14				3,41				3,68				3,95
ASSY plus VG 8x430 mm	7,04	4,31	8,80	4,75	10,56	5,10	12,32	5,10	14,08	5,10	13,20	5,10	11,44	5,10
		5,10				5,54				5,98				6,42
ASSY plus VG 8x480 mm	4,33	2,65	5,42	2,92	6,50	3,14	7,58	3,14	8,66	3,14	8,12	3,14	7,04	3,14
		3,14				3,41				3,68				3,95
ASSY plus VG 8x530 mm	7,04	4,31	8,80	4,75	10,56	5,10	12,32	5,10	14,08	5,10	15,84	5,10	17,60	5,10
		5,10				5,54				5,98				6,42
ASSY plus VG 8x580 mm	4,33	2,65	5,42	2,92	6,50	3,14	7,58	3,14	8,66	3,14	9,75	3,14	10,83	3,14
		3,14				3,41				3,68				3,95

∅  
**8,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

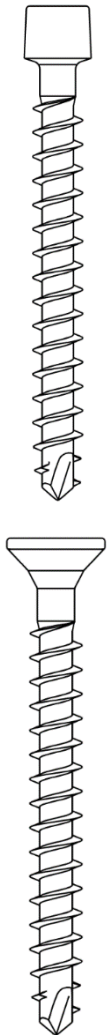
NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	25*		30*		35*		40		45		50		60	
ASSY plus VG 10x120 mm	2,37		2,37		2,37		4,00	3,87	4,50	4,16	5,00	4,47	6,00	5,07
		4,17		4,44		4,76		5,51		5,99		6,21		6,46
ASSY plus VG 10x140 mm	1,46		1,46		1,46		2,46	2,38	2,77	2,56	3,08	2,75	3,69	3,12
		2,57		2,74		2,93		3,39		3,69		3,82		3,97
ASSY plus VG 10x160 mm	2,37		2,37		2,37		4,00	3,87	4,50	4,16	5,00	4,47	6,00	5,12
		4,17		4,44		4,76		5,51		5,99		6,21		6,46
ASSY plus VG 10x180 mm	1,46		1,46		1,46		2,46	2,38	2,77	2,56	3,08	2,75	3,69	3,15
		2,57		2,74		2,93		3,39		3,69		3,82		3,97
ASSY plus VG 10x200 mm	2,37		2,37		2,37		4,00	3,87	4,50	4,16	5,00	4,47	6,00	5,12
		4,17		4,44		4,76		5,51		5,99		6,21		6,46
ASSY plus VG 10x220 mm	1,46		1,46		1,46		2,46	2,38	2,77	2,56	3,08	2,75	3,69	3,15
		2,57		2,74		2,93		3,39		3,69		3,82		3,97
ASSY plus VG 10x240 mm	2,37		2,37		2,37		4,00	3,87	4,50	4,16	5,00	4,47	6,00	5,12
		4,17		4,44		4,76		5,51		5,99		6,21		6,46
ASSY plus VG 10x260 mm	1,46		1,46		1,46		2,46	2,38	2,77	2,56	3,08	2,75	3,69	3,15
		2,57		2,74		2,93		3,39		3,69		3,82		3,97
ASSY plus VG 10x280 mm	2,37		2,37		2,37		4,00	3,87	4,50	4,16	5,00	4,47	6,00	5,12
		4,17		4,44		4,76		5,51		5,99		6,21		6,46
ASSY plus VG 10x280 mm	1,46		1,46		1,46		2,46	2,38	2,77	2,56	3,08	2,75	3,69	3,15
		2,57		2,74		2,93		3,39		3,69		3,82		3,97

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

∅  
**10,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

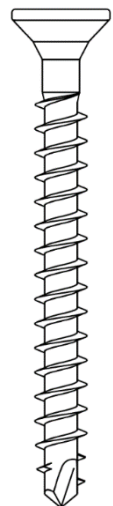
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY plus VG 10x120 mm	4,00	3,87												
		5,51												
ASSY plus VG 10x140 mm	2,46	2,38												
		3,39												
ASSY plus VG 10x160 mm	6,00	5,12	4,00	3,87										
		6,46		5,51										
ASSY plus VG 10x180 mm	3,69	3,15	2,46	2,38										
		3,97		3,39										
ASSY plus VG 10x200 mm	8,00	5,70	6,00	5,12	4,00	3,87								
		6,96		6,46		5,51								
ASSY plus VG 10x220 mm	4,92	3,51	3,69	3,15	2,46	2,38								
		4,28		3,97		3,39								
ASSY plus VG 10x240 mm	8,00	5,70	10,00	6,20	8,00	5,70	6,00	5,12	4,00	3,87				
		6,96		7,46		6,46		5,51						
ASSY plus VG 10x260 mm	4,92	3,51	6,15	3,82	6,15	3,82	4,92	3,51	3,69	3,15	2,46	2,38		
		4,28		4,59		4,59		4,28		3,97		3,39		
ASSY plus VG 10x280 mm	8,00	5,70	10,00	6,20	12,00	6,70	10,00	6,20	8,00	5,70	6,00	5,12	4,00	3,87
		6,96		7,46		7,96		7,46		6,96		6,46		5,51
ASSY plus VG 10x280 mm	4,92	3,51	6,15	3,82	7,38	4,12	6,15	3,82	4,92	3,51	3,69	3,15	2,46	2,38
		4,28		4,59		4,90		4,59		4,28		3,97		3,39

∅  
**10,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

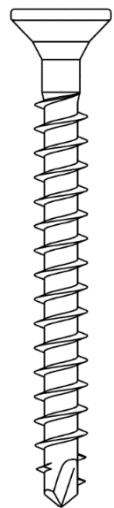
NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	25*		30*		35*		40		45		50		60	
ASSY plus VG 10x300 mm	2,37		2,37		2,37		4,00	3,87	4,50	4,16	5,00	4,47	6,00	5,12
		4,17		4,44		4,76		5,51		5,99		6,21		6,46
ASSY plus VG 10x320 mm	1,46		1,46		1,46		2,46	2,38	2,77	2,56	3,08	2,75	3,69	3,15
		2,57		2,74		2,93		3,39		3,69		3,82		3,97
ASSY plus VG 10x340 mm	2,37		2,37		2,37		4,00	3,87	4,50	4,16	5,00	4,47	6,00	5,12
		4,17		4,44		4,76		5,51		5,99		6,21		6,46
ASSY plus VG 10x360 mm	1,46		1,46		1,46		2,46	2,38	2,77	2,56	3,08	2,75	3,69	3,15
		2,57		2,74		2,93		3,39		3,69		3,82		3,97
ASSY plus VG 10x380 mm	2,37		2,37		2,37		4,00	3,87	4,50	4,16	5,00	4,47	6,00	5,12
		4,17		4,44		4,76		5,51		5,99		6,21		6,46
ASSY plus VG 10x400 mm	1,46		1,46		1,46		2,46	2,38	2,77	2,56	3,08	2,75	3,69	3,15
		2,57		2,74		2,93		3,39		3,69		3,82		3,97
ASSY plus VG 10x430 mm	2,37		2,37		2,37		4,00	3,87	4,50	4,16	5,00	4,47	6,00	5,12
		4,17		4,44		4,76		5,51		5,99		6,21		6,46
ASSY plus VG 10x480 mm	1,46		1,46		1,46		2,46	2,38	2,77	2,56	3,08	2,75	3,69	3,15
		2,57		2,74		2,93		3,39		3,69		3,82		3,97
ASSY plus VG 10x530 mm	2,37		2,37		2,37		4,00	3,87	4,50	4,16	5,00	4,47	6,00	5,12
		4,17		4,44		4,76		5,51		5,99		6,21		6,46
ASSY plus VG 10x530 mm	1,46		1,46		1,46		2,46	2,38	2,77	2,56	3,08	2,75	3,69	3,15
		2,57		2,74		2,93		3,39		3,69		3,82		3,97

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

∅  
**10,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY plus VG 10x300 mm	8,00	5,70	10,00	6,20	12,00	6,70	14,00	7,20	14,00	7,20	12,00	6,70	10,00	6,20
		6,96				7,46				7,96				8,46
ASSY plus VG 10x320 mm	4,92	3,51	6,15	3,82	7,38	4,12	8,62	4,43	8,62	4,43	7,38	4,12	6,15	3,82
		4,28				4,59				4,90				5,21
ASSY plus VG 10x340 mm	8,00	5,70	10,00	6,20	12,00	6,70	14,00	7,20	16,00	7,40	14,00	7,20	12,00	6,70
		6,96				7,46				7,96				8,46
ASSY plus VG 10x360 mm	4,92	3,51	6,15	3,82	7,38	4,12	8,62	4,43	9,85	4,55	8,62	4,43	7,38	4,12
		4,28				4,59				4,90				5,21
ASSY plus VG 10x380 mm	8,00	5,70	10,00	6,20	12,00	6,70	14,00	7,20	16,00	7,40	18,00	7,40	14,00	7,20
		6,96				7,46				7,96				8,46
ASSY plus VG 10x400 mm	4,92	3,51	6,15	3,82	7,38	4,12	8,62	4,43	9,85	4,55	11,08	4,55	9,85	4,55
		4,28				4,59				4,90				5,21
ASSY plus VG 10x430 mm	8,00	5,70	10,00	6,20	12,00	6,70	14,00	7,20	16,00	7,40	18,00	7,40	20,00	7,40
		6,96				7,46				7,96				8,46
ASSY plus VG 10x480 mm	4,92	3,51	6,15	3,82	7,38	4,12	8,62	4,43	9,85	4,55	11,08	4,55	12,31	4,55
		4,28				4,59				4,90				5,21
ASSY plus VG 10x530 mm	8,00	5,70	10,00	6,20	12,00	6,70	14,00	7,20	16,00	7,40	18,00	7,40	20,00	7,40
		6,96				7,46				7,96				8,46
ASSY plus VG 10x530 mm	4,92	3,51	6,15	3,82	7,38	4,12	8,62	4,43	9,85	4,55	11,08	4,55	12,31	4,55
		4,28				4,59				4,90				5,21

∅  
**10,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

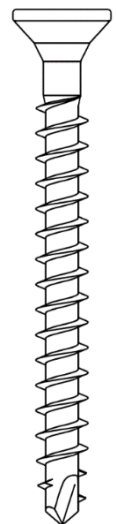


## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	25*		30*		35*		40		45		50		60	
ASSY plus VG 10x580 mm	2,37		2,37		2,37		4,00	3,87	4,50	4,16	5,00	4,47	6,00	5,12
		4,17		4,44		4,76		5,51		5,99		6,21		6,46
ASSY plus VG 10x600 mm	1,46		1,46		1,46		2,46	2,38	2,77	2,56	3,08	2,75	3,69	3,15
		2,57		2,74		2,93		3,39		3,69		3,82		3,97
ASSY plus VG 10x650 mm	2,37		2,37		2,37		4,00	3,87	4,50	4,16	5,00	4,47	6,00	5,12
		4,17		4,44		4,76		5,51		5,99		6,21		6,46
ASSY plus VG 10x700 mm	1,46		1,46		1,46		2,46	2,38	2,77	2,56	3,08	2,75	3,69	3,15
		2,57		2,74		2,93		3,39		3,69		3,82		3,97
ASSY plus VG 10x750 mm	2,37		2,37		2,37		4,00	3,87	4,50	4,16	5,00	4,47	6,00	5,12
		4,17		4,44		4,76		5,51		5,99		6,21		6,46
ASSY plus VG 10x800 mm	1,46		1,46		1,46		2,46	2,38	2,77	2,56	3,08	2,75	3,69	3,15
		2,57		2,74		2,93		3,39		3,69		3,82		3,97

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

∅  
**10,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

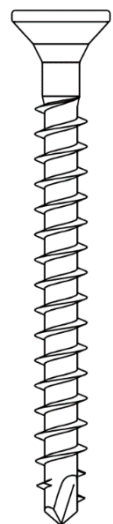
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY plus VG</b> <b>10x580 mm</b>	8,00	5,70	10,00	6,20	12,00	6,70	14,00	7,20	16,00	7,40	18,00	7,40	20,00	7,40
		6,96				7,46				7,96				8,46
<b>ASSY plus VG</b> <b>10x600 mm</b>	4,92	3,51	6,15	3,82	7,38	4,12	8,62	4,43	9,85	4,55	11,08	4,55	12,31	4,55
		4,28				4,59				4,90				5,21
<b>ASSY plus VG</b> <b>10x650 mm</b>	8,00	5,70	10,00	6,20	12,00	6,70	14,00	7,20	16,00	7,40	18,00	7,40	20,00	7,40
		6,96				7,46				7,96				8,46
<b>ASSY plus VG</b> <b>10x650 mm</b>	4,92	3,51	6,15	3,82	7,38	4,12	8,62	4,43	9,85	4,55	11,08	4,55	12,31	4,55
		4,28				4,59				4,90				5,21
<b>ASSY plus VG</b> <b>10x700 mm</b>	8,00	5,70	10,00	6,20	12,00	6,70	14,00	7,20	16,00	7,40	18,00	7,40	20,00	7,40
		6,96				7,46				7,96				8,46
<b>ASSY plus VG</b> <b>10x700 mm</b>	4,92	3,51	6,15	3,82	7,38	4,12	8,62	4,43	9,85	4,55	11,08	4,55	12,31	4,55
		4,28				4,59				4,90				5,21
<b>ASSY plus VG</b> <b>10x750 mm</b>	8,00	5,70	10,00	6,20	12,00	6,70	14,00	7,20	16,00	7,40	18,00	7,40	20,00	7,40
		6,96				7,46				7,96				8,46
<b>ASSY plus VG</b> <b>10x750 mm</b>	4,92	3,51	6,15	3,82	7,38	4,12	8,62	4,43	9,85	4,55	11,08	4,55	12,31	4,55
		4,28				4,59				4,90				5,21
<b>ASSY plus VG</b> <b>10x800 mm</b>	8,00	5,70	10,00	6,20	12,00	6,70	14,00	7,20	16,00	7,40	18,00	7,40	20,00	7,40
		6,96				7,46				7,96				8,46
<b>ASSY plus VG</b> <b>10x800 mm</b>	4,92	3,51	6,15	3,82	7,38	4,12	8,62	4,43	9,85	4,55	11,08	4,55	12,31	4,55
		4,28				4,59				4,90				5,21

∅  
**10,0**  
**mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

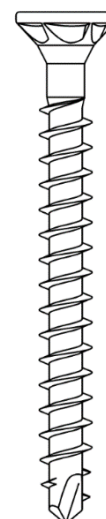
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	60		80		100		120		140		160		180	
ASSY plus VG 12x120 mm	7,20	8,62												
	4,43	5,30												
ASSY plus VG 12x140 mm	7,20	8,62	7,20	6,18										
	4,43	5,30	4,43	3,80										
ASSY plus VG 12x160 mm	7,20	8,62	9,60	7,41	7,20	6,18								
	4,43	5,30	5,91	4,56	4,43	3,80								
ASSY plus VG 12x180 mm	7,20	8,62	9,60	7,41	9,60	7,41	7,20	6,18						
	4,43	5,30	5,91	4,56	5,91	4,56	4,43	3,80						
ASSY plus VG 12x200 mm	7,20	8,62	9,60	7,41	12,00	8,01	9,60	7,41	7,20	6,18				
	4,43	5,30	5,91	4,56	7,38	4,93	5,91	4,56	4,43	3,80				
ASSY plus VG 12x220 mm	7,20	8,62	9,60	7,41	12,00	8,01	12,00	8,01	9,60	7,41	7,20	6,18		
	4,43	5,30	5,91	4,56	7,38	4,93	7,38	4,93	5,91	4,56	4,43	3,80		
ASSY plus VG 12x240 mm	7,20	8,62	9,60	7,41	12,00	8,01	14,40	8,61	12,00	8,01	9,60	7,41	7,20	6,18
	4,43	5,30	5,91	4,56	7,38	4,93	8,86	5,30	7,38	4,93	5,91	4,56	4,43	3,80
ASSY plus VG 12x260 mm	7,20	8,62	9,60	7,41	12,00	8,01	14,40	8,61	14,40	8,61	12,00	8,01	9,60	7,41
	4,43	5,30	5,91	4,56	7,38	4,93	8,86	5,30	8,86	5,30	7,38	4,93	5,91	4,56
ASSY plus VG 12x280 mm	7,20	8,62	9,60	7,41	12,00	8,01	14,40	8,61	16,80	9,21	14,40	8,61	12,00	8,01
	4,43	5,30	5,91	4,56	7,38	4,93	8,86	5,30	10,34	5,67	8,86	5,30	7,38	4,93

∅  
**12,0  
mm**



\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

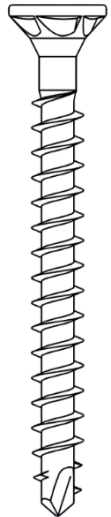
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x ℓ	Side wood thickness in [mm]							
	200	220	240	260	280	300	320	
ASSY plus VG 12x120 mm								
ASSY plus VG 12x140 mm								
ASSY plus VG 12x160 mm								
ASSY plus VG 12x180 mm								
ASSY plus VG 12x200 mm								
ASSY plus VG 12x220 mm								
ASSY plus VG 12x240 mm								
ASSY plus VG 12x260 mm	7,20	6,18 8,62						
	4,43	3,80 5,30						
ASSY plus VG 12x280 mm	9,60	7,41 9,22	7,20	6,18 8,62				
	5,91	4,56 5,67	4,43	3,80 5,30				

∅  
**12,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

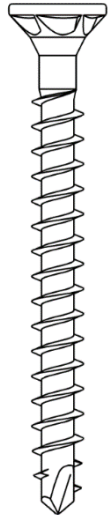
NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	60		80		100		120		140		160		180	
<b>ASSY plus VG</b> <b>12x300 mm</b>	7,20	8,62	9,60	7,41 9,22	12,00	8,01 9,82	14,40	8,61 10,42	16,80	9,21 11,02	16,80	9,21 11,02	14,40	8,61 10,42
	4,43	5,30	5,91	4,56 5,67	7,38	4,93 6,04	8,86	5,30 6,41	10,34	5,67 6,78	10,34	5,67 6,78	8,86	5,30 6,41
<b>ASSY plus VG</b> <b>12x380 mm</b>	7,20	8,62	9,60	7,41 9,22	12,00	8,01 9,82	14,40	8,61 10,42	16,80	9,21 11,02	19,20	9,81 11,62	21,60	10,41 12,22
	4,43	5,30	5,91	4,56 5,67	7,38	4,93 6,04	8,86	5,30 6,41	10,34	5,67 6,78	11,82	6,04 7,15	13,29	6,40 7,52
<b>ASSY plus VG</b> <b>12x480 mm</b>	7,20	8,62	9,60	7,41 9,22	12,00	8,01 9,82	14,40	8,61 10,42	16,80	9,21 11,02	19,20	9,81 11,62	21,60	10,41 12,22
	4,43	5,30	5,91	4,56 5,67	7,38	4,93 6,04	8,86	5,30 6,41	10,34	5,67 6,78	11,82	6,04 7,15	13,29	6,40 7,52
<b>ASSY plus VG</b> <b>12x600 mm</b>	7,20	8,62	9,60	7,41 9,22	12,00	8,01 9,82	14,40	8,61 10,42	16,80	9,21 11,02	19,20	9,81 11,62	21,60	10,41 12,22
	4,43	5,30	5,91	4,56 5,67	7,38	4,93 6,04	8,86	5,30 6,41	10,34	5,67 6,78	11,82	6,04 7,15	13,29	6,40 7,52

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

∅  
**12,0**  
**mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

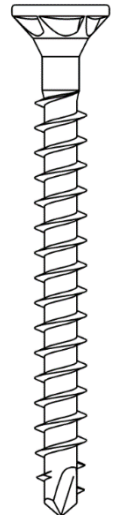
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	200		220		240		260		280		300		320	
ASSY plus VG 12x300 mm	12,00	8,01	9,60	7,41	7,20	6,18								
		9,82				9,22		8,62						
	7,38	4,93	5,91	4,56	4,43	3,80								
	6,04			5,67			5,30							
ASSY plus VG 12x380 mm	21,60	10,41	19,20	9,81	16,80	9,21	14,40	8,61	12,00	8,01	9,60	7,41	7,20	6,18
		12,22				11,62		11,02				10,42		
	13,29	6,40	11,82	6,04	10,34	5,67	8,86	5,30	7,38	4,93	5,91	4,56	4,43	3,80
				7,52				7,15				6,78		
ASSY plus VG 12x480 mm	24,00	11,01	26,40	11,61	28,80	12,21	26,40	11,61	24,00	11,01	21,60	10,41	19,20	9,81
		12,82				13,42				14,02				13,42
	14,77	6,77	16,25	7,14	17,72	7,51	16,25	7,14	14,77	6,77	13,29	6,40	11,82	6,04
				7,89				8,26				8,63		
ASSY plus VG 12x600 mm	24,00	11,01	26,40	11,61	28,80	12,21	31,20	12,81	33,60	13,41	36,00	14,01	33,60	13,41
		12,82				13,42				14,02				14,62
	14,77	6,77	16,25	7,14	17,72	7,51	19,20	7,88	20,68	8,25	22,15	8,62	20,68	8,25
				7,89				8,26				9,00		

∅  
**12,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	60*		80		100		120		140		160		180	
ASSY plus VG 14x800 mm	8,40		11,20	8,97	14,00	9,93	16,80	10,63	19,60	11,33	22,40	12,03	25,20	12,73
		10,79				11,67				12,37				13,07
	5,17		6,89	5,52	8,62	6,11	10,34	6,54	12,06	6,98	13,78	7,41	15,51	7,84
		6,64				7,18				7,61				8,04
ASSY plus VG 14x850 mm	8,40		11,20	8,97	14,00	9,93	16,80	10,63	19,60	11,33	22,40	12,03	25,20	12,73
		10,79				11,67				12,37				13,07
	5,17		6,89	5,52	8,62	6,11	10,34	6,54	12,06	6,98	13,78	7,41	15,51	7,84
		6,64				7,18				7,61				8,04
ASSY plus VG 14x900 mm	8,40		11,20	8,97	14,00	9,93	16,80	10,63	19,60	11,33	22,40	12,03	25,20	12,73
		10,79				11,67				12,37				13,07
	5,17		6,89	5,52	8,62	6,11	10,34	6,54	12,06	6,98	13,78	7,41	15,51	7,84
		6,64				7,18				7,61				8,04
ASSY plus VG 14x950 mm	8,40		11,20	8,97	14,00	9,93	16,80	10,63	19,60	11,33	22,40	12,03	25,20	12,73
		10,79				11,67				12,37				13,07
	5,17		6,89	5,52	8,62	6,11	10,34	6,54	12,06	6,98	13,78	7,41	15,51	7,84
		6,64				7,18				7,61				8,04
ASSY plus VG 14x1000 mm	8,40	7,30	11,20	8,97	14,00	9,93	16,80	10,63	19,60	11,33	22,40	12,03	25,20	12,73
		10,79				11,67				12,37				13,07
	5,17	4,49	6,89	5,52	8,62	6,11	10,34	6,54	12,06	6,98	13,78	7,41	15,51	7,84
		6,64				7,18				7,61				8,04
ASSY plus VG 14x1050 mm	8,40		11,20	8,97	14,00	9,93	16,80	10,63	19,60	11,33	22,40	12,03	25,20	12,73
		10,79				11,67				12,37				13,07
	5,17		6,89	5,52	8,62	6,11	10,34	6,54	12,06	6,98	13,78	7,41	15,51	7,84
		6,64				7,18				7,61				8,04
ASSY plus VG 14x1100 mm	8,40		11,20	8,97	14,00	9,93	16,80	10,63	19,60	11,33	22,40	12,03	25,20	12,73
		10,79				11,67				12,37				13,07
	5,17		6,89	5,52	8,62	6,11	10,34	6,54	12,06	6,98	13,78	7,41	15,51	7,84
		6,64				7,18				7,61				8,04
ASSY plus VG 14x1200 mm	8,40		11,20	8,97	14,00	9,93	16,80	10,63	19,60	11,33	22,40	12,03	25,20	12,73
		10,79				11,67				12,37				13,07
	5,17		6,89	5,52	8,62	6,11	10,34	6,54	12,06	6,98	13,78	7,41	15,51	7,84
		6,64				7,18				7,61				8,04

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

∅  
**14,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	200		220		240		260		280		300		320	
ASSY plus VG 14x800 mm	28,00	13,43	30,80	14,13	33,60	14,83	36,40	15,53	39,20	16,23	42,00	16,93	44,80	17,63
		15,87		16,57		17,27		17,97		18,67		19,37		20,07
	17,23	8,27	18,95	8,70	20,68	9,13	22,40	9,56	24,12	9,99	25,85	10,42	27,57	10,85
		9,76		10,19		10,63		11,06		11,49		11,92		12,35
ASSY plus VG 14x850 mm	28,00	13,43	30,80	14,13	33,60	14,83	36,40	15,53	39,20	16,23	42,00	16,93	44,80	17,63
		15,87		16,57		17,27		17,97		18,67		19,37		20,07
	17,23	8,27	18,95	8,70	20,68	9,13	22,40	9,56	24,12	9,99	25,85	10,42	27,57	10,85
		9,76		10,19		10,63		11,06		11,49		11,92		12,35
ASSY plus VG 14x900 mm	28,00	13,43	30,80	14,13	33,60	14,83	36,40	15,53	39,20	16,23	42,00	16,93	44,80	17,63
		15,87		16,57		17,27		17,97		18,67		19,37		20,07
	17,23	8,27	18,95	8,70	20,68	9,13	22,40	9,56	24,12	9,99	25,85	10,42	27,57	10,85
		9,76		10,19		10,63		11,06		11,49		11,92		12,35
ASSY plus VG 14x950 mm	28,00	13,43	30,80	14,13	33,60	14,83	36,40	15,53	39,20	16,23	42,00	16,93	44,80	17,63
		15,87		16,57		17,27		17,97		18,67		19,37		20,07
	17,23	8,27	18,95	8,70	20,68	9,13	22,40	9,56	24,12	9,99	25,85	10,42	27,57	10,85
		9,76		10,19		10,63		11,06		11,49		11,92		12,35
ASSY plus VG 14x1000 mm	28,00	13,43	30,80	14,13	33,60	14,83	36,40	15,53	39,20	16,23	42,00	16,93	44,80	17,63
		15,87		16,57		17,27		17,97		18,67		19,37		20,07
	17,23	8,27	18,95	8,70	20,68	9,13	22,40	9,56	24,12	9,99	25,85	10,42	27,57	10,85
		9,76		10,19		10,63		11,06		11,49		11,92		12,35
ASSY plus VG 14x1050 mm	28,00	13,43	30,80	14,13	33,60	14,83	36,40	15,53	39,20	16,23	42,00	16,93	44,80	17,63
		15,87		16,57		17,27		17,97		18,67		19,37		20,07
	17,23	8,27	18,95	8,70	20,68	9,13	22,40	9,56	24,12	9,99	25,85	10,42	27,57	10,85
		9,76		10,19		10,63		11,06		11,49		11,92		12,35
ASSY plus VG 14x1100 mm	28,00	13,43	30,80	14,13	33,60	14,83	36,40	15,53	39,20	16,23	42,00	16,93	44,80	17,63
		15,87		16,57		17,27		17,97		18,67		19,37		20,07
	17,23	8,27	18,95	8,70	20,68	9,13	22,40	9,56	24,12	9,99	25,85	10,42	27,57	10,85
		9,76		10,19		10,63		11,06		11,49		11,92		12,35
ASSY plus VG 14x1200 mm	28,00	13,43	30,80	14,13	33,60	14,83	36,40	15,53	39,20	16,23	42,00	16,93	44,80	17,63
		15,87		16,57		17,27		17,97		18,67		19,37		20,07
	17,23	8,27	18,95	8,70	20,68	9,13	22,40	9,56	24,12	9,99	25,85	10,42	27,57	10,85
		9,76		10,19		10,63		11,06		11,49		11,92		12,35

∅  
**14,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	60*		80		100		120		140		160		180	
ASSY plus VG 14x1300 mm	8,40		11,20	8,97	14,00	9,93	16,80	10,63	19,60	11,33	22,40	12,03	25,20	12,73
		10,79		11,67		12,37		13,07		13,77		14,47		15,17
	5,17		6,89	5,52	8,62	6,11	10,34	6,54	12,06	6,98	13,78	7,41	15,51	7,84
		6,64		7,18		7,61		8,04		8,47		8,90		9,33
ASSY plus VG 14x1400 mm	8,40		11,20	8,97	14,00	9,93	16,80	10,63	19,60	11,33	22,40	12,03	25,20	12,73
		10,79		11,67		12,37		13,07		13,77		14,47		15,17
	5,17		6,89	5,52	8,62	6,11	10,34	6,54	12,06	6,98	13,78	7,41	15,51	7,84
		6,64		7,18		7,61		8,04		8,47		8,90		9,33
ASSY plus VG 14x1500 mm	8,40		11,20	8,97	14,00	9,93	16,80	10,63	19,60	11,33	22,40	12,03	25,20	12,73
		10,79		11,67		12,37		13,07		13,77		14,47		15,17
	5,17		6,89	5,52	8,62	6,11	10,34	6,54	12,06	6,98	13,78	7,41	15,51	7,84
		6,64		7,18		7,61		8,04		8,47		8,90		9,33

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

∅  
**14,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS VG

Type d x l	Side wood thickness in [mm]													
	200		220		240		260		280		300		320	
ASSY plus VG 14x1300 mm	28,00	13,43	30,80	14,13	33,60	14,83	36,40	15,53	39,20	16,23	42,00	16,93	44,80	17,63
		15,87		16,57		17,27		17,97		18,67		19,37		20,07
	17,23	8,27	18,95	8,70	20,68	9,13	22,40	9,56	24,12	9,99	25,85	10,42	27,57	10,85
		9,76		10,19		10,63		11,06		11,49		11,92		12,35
ASSY plus VG 14x1400 mm	28,00	13,43	30,80	14,13	33,60	14,83	36,40	15,53	39,20	16,23	42,00	16,93	44,80	17,63
		15,87		16,57		17,27		17,97		18,67		19,37		20,07
	17,23	8,27	18,95	8,70	20,68	9,13	22,40	9,56	24,12	9,99	25,85	10,42	27,57	10,85
		9,76		10,19		10,63		11,06		11,49		11,92		12,35
ASSY plus VG 14x1500 mm	28,00	13,43	30,80	14,13	33,60	14,83	36,40	15,53	39,20	16,23	42,00	16,93	44,80	17,63
		15,87		16,57		17,27		17,97		18,67		19,37		20,07
	17,23	8,27	18,95	8,70	20,68	9,13	22,40	9,56	24,12	9,99	25,85	10,42	27,57	10,85
		9,76		10,19		10,63		11,06		11,49		11,92		12,35

∅  
**14,0  
mm**



### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2

Type d x ℓ	Side wood thickness in [mm]													
	20*		25		30		35		40		45		50	
<b>ASSY 3.0 A2</b> 5x50 mm	1,20		1,20	1,11	1,20	1,06								
		1,30		1,30		1,30								
	0,74		0,74	0,68	0,74	0,65								
		0,80		0,80		0,80								
<b>ASSY 3.0 A2</b> 5x60 mm	1,20		1,20	1,11	1,20	1,11	1,20	1,11	1,20	1,06				
		1,30		1,30		1,30		1,30		1,30				
	0,74		0,74	0,68	0,74	0,68	0,74	0,68	0,74	0,65				
		0,80		0,80		0,80		0,80		0,80				
<b>ASSY 3.0 A2</b> 5x70 mm	1,20		1,20	1,11	1,20	1,11	1,20	1,11	1,20	1,11	1,20	1,11	1,20	1,06
		1,30		1,30		1,30		1,30		1,30		1,30		1,30
	0,74		0,74	0,68	0,74	0,68	0,74	0,68	0,74	0,68	0,74	0,68	0,74	0,65
		0,80		0,80		0,80		0,80		0,80		0,80		0,80
<b>ASSY 3.0 A2</b> 5x80 mm	1,20		1,20	1,11	1,20	1,11	1,20	1,11	1,20	1,11	1,20	1,11	1,20	1,11
		1,30		1,30		1,30		1,30		1,30		1,30		1,30
	0,74		0,74	0,68	0,74	0,68	0,74	0,68	0,74	0,68	0,74	0,68	0,74	0,68
		0,80		0,80		0,80		0,80		0,80		0,80		0,80
<b>ASSY 3.0 A2</b> 5x90 mm	1,20		1,20	1,11	1,20	1,11	1,20	1,11	1,20	1,11	1,20	1,11	1,20	1,11
		1,30		1,30		1,30		1,30		1,30		1,30		1,30
	0,74		0,74	0,68	0,74	0,68	0,74	0,68	0,74	0,68	0,74	0,68	0,74	0,68
		0,80		0,80		0,80		0,80		0,80		0,80		0,80
<b>ASSY 3.0 A2</b> 5x100 mm	1,20		1,20	1,11	1,20	1,11	1,20	1,11	1,20	1,11	1,20	1,11	1,20	1,11
		1,30		1,30		1,30		1,30		1,30		1,30		1,30
	0,74		0,74	0,68	0,74	0,68	0,74	0,68	0,74	0,68	0,74	0,68	0,74	0,68
		0,80		0,80		0,80		0,80		0,80		0,80		0,80

∅  
**5,0**  
mm



**A2**

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2

Type d x ℓ	Side wood thickness in [mm]								
	60	80	100	120	140	160	180		
ASSY 3.0 A2 5x50 mm									
ASSY 3.0 A2 5x60 mm									
ASSY 3.0 A2 5x70 mm									
ASSY 3.0 A2 5x80 mm	1,20	1,06							
		1,30							
	0,74	0,65							
		0,80							
ASSY 3.0 A2 5x90 mm	1,20	1,11							
		1,30							
	0,74	0,68							
		0,80							
ASSY 3.0 A2 5x100 mm	1,20	1,11	1,20	1,06					
		1,30		1,30					
	0,74	0,68	0,74	0,65					
		0,80		0,80					

∅  
**5,0  
mm**



**A2**

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2

Type d x l	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
ASSY 3.0 A2 6x60 mm	1,87	1,57	1,87	1,68	1,80	1,55	1,44	1,33						
		2,00				2,00								
ASSY 3.0 A2 6x70 mm	1,87	1,57	1,87	1,68	1,87	1,68	1,87	1,68	1,80	1,55	1,44	1,33		
		2,00				2,00				2,00				
ASSY 3.0 A2 6x80 mm	1,87	1,57	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,44	1,33
		2,00				2,00				2,00				2,00
ASSY 3.0 A2 6x90 mm	1,87	1,57	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68
		2,00				2,00				2,00				2,00
ASSY 3.0 A2 6x100 mm	1,87	1,57	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68
		2,00				2,00				2,00				2,00
ASSY 3.0 A2 6x110 mm	1,87	1,57	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68
		2,00				2,00				2,00				2,00
ASSY 3.0 A2 6x120 mm	1,87	1,57	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68
		2,00				2,00				2,00				2,00
ASSY 3.0 A2 6x140 mm	1,87	1,57	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68
		2,00				2,00				2,00				2,00

∅  
**6,0**  
mm



A2

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 A2 6x60 mm														
ASSY 3.0 A2 6x70 mm														
ASSY 3.0 A2 6x80 mm														
ASSY 3.0 A2 6x90 mm														
ASSY 3.0 A2 6x100 mm	1,44	1,33												
		1,77												
	0,89	0,82												
		1,09												
ASSY 3.0 A2 6x110 mm	1,87	1,68												
		2,00												
	1,15	1,03												
		1,23												
ASSY 3.0 A2 6x120 mm	1,87	1,68	1,44	1,33										
		2,00		1,77										
	1,15	1,03	0,89	0,82										
		1,23		1,09										
ASSY 3.0 A2 6x140 mm	1,87	1,68	1,87	1,68	1,44	1,33								
		2,00		2,00		1,77								
	1,15	1,03	1,15	1,03	0,89	0,82								
		1,23		1,23		1,09								

∅  
**6,0**  
mm



A2

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2

Type d x ℓ	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
<b>ASSY 3.0 A2</b> <b>6x160 mm</b>	1,87	1,57	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68
		2,00				2,00				2,00				2,00
	1,15	0,96	1,15	1,03	1,15	1,03	1,15	1,03	1,15	1,03	1,15	1,03	1,15	1,03
		1,23				1,23				1,23				1,23
<b>ASSY 3.0 A2</b> <b>6x180 mm</b>	1,87	1,57	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68
		2,00				2,00				2,00				2,00
	1,15	0,96	1,15	1,03	1,15	1,03	1,15	1,03	1,15	1,03	1,15	1,03	1,15	1,03
		1,23				1,23				1,23				1,23
<b>ASSY 3.0 A2</b> <b>6x200 mm</b>	1,87	1,57	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68
		2,00				2,00				2,00				2,00
	1,15	0,96	1,15	1,03	1,15	1,03	1,15	1,03	1,15	1,03	1,15	1,03	1,15	1,03
		1,23				1,23				1,23				1,23

∅  
**6,0**  
mm



A2

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 A2 6x160 mm	1,87	1,68	1,87	1,68	1,87	1,68	1,44	1,33						
		2,00		2,00		2,00		1,77						
	1,15	1,03	1,15	1,03	1,15	1,03	0,89	0,82						
		1,23		1,23		1,23		1,09						
ASSY 3.0 A2 6x180 mm	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,44	1,33				
		2,00		2,00		2,00		2,00		1,77				
	1,15	1,03	1,15	1,03	1,15	1,03	1,15	1,03	0,89	0,82				
		1,23		1,23		1,23		1,23		1,09				
ASSY 3.0 A2 6x200 mm	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,87	1,68	1,44	1,33		
		2,00		2,00		2,00		2,00		2,00		1,77		
	1,15	1,03	1,15	1,03	1,15	1,03	1,15	1,03	1,15	1,03	0,89	0,82		
		1,23		1,23		1,23		1,23		1,23		1,09		

∅  
**6,0**  
mm



A2

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY 3.0 A2 8x80 mm	2,93	3,02	2,93	2,38 3,21	2,93	2,55 3,21	2,93	2,62 3,21	2,93	2,55 3,21	2,88	2,37 3,20	1,92	1,85 2,49
	1,80	1,86	1,80	1,47 1,98	1,80	1,57 1,98	1,80	1,61 1,98	1,80	1,57 1,98	1,77	1,46 1,97	1,18	1,14 1,53
ASSY 3.0 A2 8x100 mm	2,93	3,02	2,93	2,38 3,21	2,93	2,55 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21
	1,80	1,86	1,80	1,47 1,98	1,80	1,57 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98
ASSY 3.0 A2 8x120 mm	2,93	3,02	2,93	2,38 3,21	2,93	2,55 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21
	1,80	1,86	1,80	1,47 1,98	1,80	1,57 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98
ASSY 3.0 A2 8x140 mm	2,93	3,02	2,93	2,38 3,21	2,93	2,55 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21
	1,80	1,86	1,80	1,47 1,98	1,80	1,57 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98
ASSY 3.0 A2 8x160 mm	2,93	3,02	2,93	2,38 3,21	2,93	2,55 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21
	1,80	1,86	1,80	1,47 1,98	1,80	1,57 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98
ASSY 3.0 A2 8x180 mm	2,93	3,02	2,93	2,38 3,21	2,93	2,55 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21
	1,80	1,86	1,80	1,47 1,98	1,80	1,57 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98
ASSY 3.0 A2 8x200 mm	2,93	3,02	2,93	2,38 3,21	2,93	2,55 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21
	1,80	1,86	1,80	1,47 1,98	1,80	1,57 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98
ASSY 3.0 A2 8x220 mm	2,93	3,02	2,93	2,38 3,21	2,93	2,55 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21
	1,80	1,86	1,80	1,47 1,98	1,80	1,57 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98
ASSY 3.0 A2 8x240 mm	2,93	3,02	2,93	2,38 3,21	2,93	2,55 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21	2,93	2,62 3,21
	1,80	1,86	1,80	1,47 1,98	1,80	1,57 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98	1,80	1,61 1,98

∅  
**8,0  
mm**



**A2**

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 A2</b> 8x80 mm														
<b>ASSY 3.0 A2</b> 8x100 mm	1,92	1,85												
		2,49												
<b>ASSY 3.0 A2</b> 8x120 mm	1,18	1,14												
		1,53												
<b>ASSY 3.0 A2</b> 8x140 mm	2,93	2,62	1,92	1,85										
		3,21		2,49										
<b>ASSY 3.0 A2</b> 8x160 mm	1,80	1,61	1,18	1,14										
		1,98		1,53										
<b>ASSY 3.0 A2</b> 8x180 mm	2,93	2,62	2,93	2,62	1,92	1,85								
		3,21		3,21		2,49								
<b>ASSY 3.0 A2</b> 8x200 mm	1,80	1,61	1,80	1,61	1,18	1,14								
		1,98		1,98		1,53								
<b>ASSY 3.0 A2</b> 8x220 mm	2,93	2,62	2,93	2,62	2,93	2,62	2,93	2,62	1,92	1,85				
		3,21		3,21		3,21		3,21		2,49				
<b>ASSY 3.0 A2</b> 8x240 mm	1,80	1,61	1,80	1,61	1,80	1,61	1,80	1,61	1,18	1,14				
		1,98		1,98		1,98		1,98		1,53				

∅  
**8,0**  
mm



A2

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY 3.0 A2 8x260 mm	2,93		2,93	2,38	2,93	2,55	2,93	2,62	2,93	2,62	2,93	2,62	2,93	2,62
		3,02		3,21		3,21		3,21		3,21		3,21		3,21
ASSY 3.0 A2 8x280 mm	1,80		1,80	1,47	1,80	1,57	1,80	1,61	1,80	1,61	1,80	1,61	1,80	1,61
		1,86		1,98		1,98		1,98		1,98		1,98		1,98
ASSY 3.0 A2 8x300 mm	2,93		2,93	2,38	2,93	2,55	2,93	2,62	2,93	2,62	2,93	2,62	2,93	2,62
		3,02		3,21		3,21		3,21		3,21		3,21		3,21
ASSY 3.0 A2 8x300 mm	1,80		1,80	1,47	1,80	1,57	1,80	1,61	1,80	1,61	1,80	1,61	1,80	1,61
		1,86		1,98		1,98		1,98		1,98		1,98		1,98

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

∅  
**8,0**  
mm



A2

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2

Type d x $\ell$	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 A2</b> <b>8x260 mm</b>	2,93	2,62	2,93	2,62	2,93	2,62	2,93	2,62	2,93	2,62	2,93	2,62	2,93	2,62
		3,21		3,21		3,21		3,21		3,21		3,21		3,21
<b>ASSY 3.0 A2</b> <b>8x280 mm</b>	1,80	1,61	1,80	1,61	1,80	1,61	1,80	1,61	1,80	1,61	1,80	1,61	1,80	1,61
		1,98		1,98		1,98		1,98		1,98		1,98		1,98
<b>ASSY 3.0 A2</b> <b>8x280 mm</b>	2,93	2,62	2,93	2,62	2,93	2,62	2,93	2,62	2,93	2,62	2,93	2,62	2,93	2,62
		3,21		3,21		3,21		3,21		3,21		3,21		3,21
<b>ASSY 3.0 A2</b> <b>8x300 mm</b>	1,80	1,61	1,80	1,61	1,80	1,61	1,80	1,61	1,80	1,61	1,80	1,61	1,80	1,61
		1,98		1,98		1,98		1,98		1,98		1,98		1,98

∅  
**8,0**  
mm



**A2**

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2 + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	20*		25		30		35		40		45		50	
<b>ASSY 3.0 A2 5x50 mm plus washer</b>	1,80	1,21	1,50	1,18	1,20	1,06								
		1,45		1,38		1,30								
	1,11		0,92	0,73	0,74	0,65								
		0,90		0,85		0,80								
<b>ASSY 3.0 A2 5x60 mm plus washer</b>	2,22	1,31	2,10	1,33	1,80	1,26	1,50	1,18	1,20	1,06				
		1,56		1,53		1,45		1,38		1,30				
	1,37		1,29	0,82	1,11	0,78	0,92	0,73	0,74	0,65				
		0,96		0,94		0,90		0,85		0,80				
<b>ASSY 3.0 A2 5x70 mm plus washer</b>	2,52	1,39	2,52	1,44	2,40	1,41	2,10	1,33	1,80	1,26	1,50	1,18	1,20	1,06
		1,63		1,63		1,60		1,53		1,45		1,38		1,30
	1,55		1,55	0,89	1,48	0,87	1,29	0,82	1,11	0,78	0,92	0,73	0,74	0,65
		1,01		1,01		0,99		0,94		0,90		0,85		0,80
<b>ASSY 3.0 A2 5x80 mm plus washer</b>	2,52	1,39	2,52	1,44	2,52	1,44	2,52	1,44	2,40	1,41	2,10	1,33	1,80	1,26
		1,63		1,63		1,63		1,60		1,53		1,45		
	1,55		1,55	0,89	1,55	0,89	1,55	0,89	1,48	0,87	1,29	0,82	1,11	0,78
		1,01		1,01		1,01		1,01		0,99		0,94		0,90
<b>ASSY 3.0 A2 5x90 mm plus washer</b>	2,82	1,46	2,82	1,51	2,82	1,51	2,82	1,51	2,82	1,51	2,70	1,48	2,40	1,41
		1,71		1,71		1,71		1,71		1,68		1,60		
	1,74		1,74	0,93	1,74	0,93	1,74	0,93	1,74	0,93	1,66	0,91	1,48	0,87
		1,05		1,05		1,05		1,05		1,05		1,03		0,99
<b>ASSY 3.0 A2 5x100 mm plus washer</b>	3,12	1,54	3,12	1,59	3,12	1,59	3,12	1,59	3,12	1,59	3,12	1,59	3,00	1,56
		1,78		1,78		1,78		1,78		1,78		1,75		
	1,92		1,92	0,98	1,92	0,98	1,92	0,98	1,92	0,98	1,92	0,98	1,85	0,96
		1,10		1,10		1,10		1,10		1,10		1,10		1,08

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

∅  
**5,0  
mm**



**A2**



∅ ≥ 16mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2 + WASHER

Type d x ℓ	Side wood thickness in [mm]								
	60	80	100	120	140	160	180		
ASSY 3.0 A2 5x50 mm plus washer									
ASSY 3.0 A2 5x60 mm plus washer									
ASSY 3.0 A2 5x70 mm plus washer									
ASSY 3.0 A2 5x80 mm plus washer	1,20	1,06							
		1,30							
	0,74	0,65							
		0,80							
ASSY 3.0 A2 5x90 mm plus washer	1,80	1,26							
		1,45							
	1,11	0,78							
		0,90							
ASSY 3.0 A2 5x100 mm plus washer	2,40	1,41							
		1,60							
	1,48	0,87							
		0,99	0,74	1,06					

∅  
**5,0  
mm**



**A2**



∅ ≥ 16mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2 + WASHER

Type d x l	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
ASSY 3.0 A2 6x60 mm plus washer	2,42	1,70	2,07	1,73	1,73	1,53								
		2,14				2,05		1,97						
	1,49	1,05	1,27	1,06	1,06	0,94								
		1,32				1,26		1,21						
ASSY 3.0 A2 6x70 mm plus washer	2,90	1,82	2,76	1,90	2,42	1,81	2,07	1,73	1,73	1,53				
		2,26				2,22				2,14		2,05		1,97
	1,78	1,12	1,70	1,17	1,49	1,12	1,27	1,06	1,06	0,94				
		1,39				1,37				1,32		1,26		1,21
ASSY 3.0 A2 6x80 mm plus washer	3,45	1,96	3,45	2,07	3,11	1,99	2,76	1,90	2,42	1,81	2,07	1,73		
		2,40				2,40				2,31			2,22	
	2,12	1,21	2,12	1,28	1,91	1,22	1,70	1,17	1,49	1,12	1,27	1,06		
		1,48				1,48				1,42			1,37	
ASSY 3.0 A2 6x90 mm plus washer	3,45	1,96	3,45	2,07	3,45	2,07	3,45	2,07	3,11	1,99	2,76	1,90	2,07	1,73
		2,40				2,40				2,40				2,40
	2,12	1,21	2,12	1,28	2,12	1,28	2,12	1,28	1,91	1,22	1,70	1,17	1,27	1,06
		1,48				1,48				1,48				1,42
ASSY 3.0 A2 6x100 mm plus washer	4,14	2,13	4,14	2,24	4,14	2,24	4,14	2,24	3,80	2,16	3,45	2,07	2,76	1,90
		2,57				2,57				2,57				2,57
	2,55	1,31	2,55	1,38	2,55	1,38	2,55	1,38	2,34	1,33	2,12	1,28	1,70	1,17
		1,58				1,58				1,58				1,53
ASSY 3.0 A2 6x110 mm plus washer	4,21	2,15	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26	4,14	2,24	3,45	2,07
		2,59				2,59				2,59				2,59
	2,59	1,32	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39	2,55	1,38	2,12	1,28
		1,59				1,59				1,59				1,59
ASSY 3.0 A2 6x120 mm plus washer	4,21	2,15	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26	4,14	2,24
		2,59				2,59				2,59				2,59
	2,59	1,32	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39	2,55	1,38
		1,59				1,59				1,59				1,59
ASSY 3.0 A2 6x140 mm plus washer	4,21	2,15	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26
		2,59				2,59				2,59				2,59
	2,59	1,32	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39
		1,59				1,59				1,59				1,59

∅  
**6,0  
mm**



**A2**



∅ ≥ 18mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2 + WASHER

Type d x ℓ	Side wood thickness in [mm]							
	80	100	120	140	160	180	200	
ASSY 3.0 A2 6x60 mm plus washer								
ASSY 3.0 A2 6x70 mm plus washer								
ASSY 3.0 A2 6x80 mm plus washer								
ASSY 3.0 A2 6x90 mm plus washer								
ASSY 3.0 A2 6x100 mm plus washer	1,44	1,33						
		1,77						
ASSY 3.0 A2 6x110 mm plus washer	0,89	0,82						
		1,09						
ASSY 3.0 A2 6x120 mm plus washer	2,07	1,73						
		2,05						
ASSY 3.0 A2 6x140 mm plus washer	1,27	1,06						
		1,26						
ASSY 3.0 A2 6x120 mm plus washer	2,76	1,90						
		2,22						
ASSY 3.0 A2 6x140 mm plus washer	1,70	1,17						
		1,37						
ASSY 3.0 A2 6x140 mm plus washer	4,14	2,24	2,76	1,90				
		2,57		2,22				
ASSY 3.0 A2 6x140 mm plus washer	2,55	1,38	1,70	1,17				
		1,58		1,37				

∅  
**6,0**  
mm



**A2**



∅ ≥ 18mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.



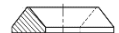
## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2 + WASHER

Type d x l	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
<b>ASSY 3.0 A2 6x160 mm plus washer</b>	4,21	2,15	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26
		2,59		2,59		2,59		2,59		2,59		2,59		
	2,59	1,32	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39
<b>ASSY 3.0 A2 6x180 mm plus washer</b>	4,21	2,15	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26
		2,59		2,59		2,59		2,59		2,59		2,59		
	2,59	1,32	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39
<b>ASSY 3.0 A2 6x200 mm plus washer</b>	4,21	2,15	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26	4,21	2,26
		2,59		2,59		2,59		2,59		2,59		2,59		2,59
	2,59	1,32	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39	2,59	1,39
		1,59		1,59		1,59		1,59		1,59		1,59		1,59

∅  
**6,0  
mm**



**A2**



∅ ≥ 18mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

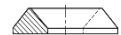
## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2 + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 A2 6x160 mm plus washer	4,21	2,26	4,14	2,24	2,76	1,90								
		2,59		2,57		2,22								
	2,59	1,39	2,55	1,38	1,70	1,17								
		1,59		1,58		1,37								
ASSY 3.0 A2 6x180 mm plus washer	4,21	2,26	4,21	2,26	4,14	2,24	2,76	1,90						
		2,59		2,59		2,57		2,22						
	2,59	1,39	2,59	1,39	2,55	1,38	1,70	1,17						
		1,59		1,59		1,58		1,37						
ASSY 3.0 A2 6x200 mm plus washer	4,21	2,26	4,21	2,26	4,21	2,26	4,14	2,24	2,76	1,90				
		2,59		2,59		2,57		2,22						
	2,59	1,39	2,59	1,39	2,59	1,39	2,55	1,38	1,70	1,17				
		1,59		1,59		1,59		1,58		1,37				

∅  
**6,0  
mm**



**A2**



∅ ≥ 18mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2 + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY 3.0 A2 8x80 mm plus washer	4,40		4,40	2,75	3,96	2,81	3,52	2,77	3,08	2,59				
		3,38				3,58				3,47				
	2,71		2,71	1,69	2,44	1,73	2,17	1,71	1,90	1,59				
		2,08				2,20				2,13				
ASSY 3.0 A2 8x100 mm plus washer	5,28		5,28	2,97	5,28	3,14	5,28	3,21	4,84	3,10	4,40	2,99	3,52	2,77
		3,60				3,80				3,80				3,80
	3,25		3,25	1,83	3,25	1,93	3,25	1,98	2,98	1,91	2,71	1,84	2,17	1,71
		2,22				2,34				2,34				2,34
ASSY 3.0 A2 8x120 mm plus washer	6,25		6,25	3,21	6,25	3,38	6,25	3,45	6,25	3,45	6,16	3,43	5,28	3,21
		3,85				4,04				4,04				4,04
	3,85		3,85	1,98	3,85	2,08	3,85	2,13	3,85	2,13	3,79	2,11	3,25	1,98
		2,37				2,49				2,49				2,49
ASSY 3.0 A2 8x140 mm plus washer	6,25		6,25	3,21	6,25	3,38	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45
		3,85				4,04				4,04				4,04
	3,85		3,85	1,98	3,85	2,08	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13
		2,37				2,49				2,49				2,49
ASSY 3.0 A2 8x160 mm plus washer	6,25		6,25	3,21	6,25	3,38	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45
		3,85				4,04				4,04				4,04
	3,85		3,85	1,98	3,85	2,08	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13
		2,37				2,49				2,49				2,49
ASSY 3.0 A2 8x180 mm plus washer	6,25		6,25	3,21	6,25	3,38	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45
		3,85				4,04				4,04				4,04
	3,85		3,85	1,98	3,85	2,08	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13
		2,37				2,49				2,49				2,49
ASSY 3.0 A2 8x200 mm plus washer	6,25		6,25	3,21	6,25	3,38	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45
		3,85				4,04				4,04				4,04
	3,85		3,85	1,98	3,85	2,08	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13
		2,37				2,49				2,49				2,49
ASSY 3.0 A2 8x220 mm plus washer	6,25		6,25	3,21	6,25	3,38	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45
		3,85				4,04				4,04				4,04
	3,85		3,85	1,98	3,85	2,08	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13
		2,37				2,49				2,49				2,49
ASSY 3.0 A2 8x240 mm plus washer	6,25		6,25	3,21	6,25	3,38	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45
		3,85				4,04				4,04				4,04
	3,85		3,85	1,98	3,85	2,08	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13
		2,37				2,49				2,49				2,49

∅  
**8,0  
mm**



**A2**



∅ ≥ 25mm

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2 + WASHER

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 A2 8x80 mm plus washer</b>														
<b>ASSY 3.0 A2 8x100 mm plus washer</b>														
<b>ASSY 3.0 A2 8x120 mm plus washer</b>	3,52	2,77 3,36												
<b>ASSY 3.0 A2 8x140 mm plus washer</b>	5,28	3,21 3,80	3,52	2,77 3,36										
<b>ASSY 3.0 A2 8x140 mm plus washer</b>	3,25	1,98 2,34	2,17	1,71 2,07										
<b>ASSY 3.0 A2 8x160 mm plus washer</b>	6,25	3,45 4,04	5,28	3,21 3,80	3,52	2,77 3,36								
<b>ASSY 3.0 A2 8x160 mm plus washer</b>	3,85	2,13 2,49	3,25	1,98 2,34	2,17	1,71 2,07								
<b>ASSY 3.0 A2 8x180 mm plus washer</b>	6,25	3,45 4,04	6,25	3,45 4,04	5,28	3,21 3,80	3,52	2,77 3,36						
<b>ASSY 3.0 A2 8x180 mm plus washer</b>	3,85	2,13 2,49	3,85	2,13 2,49	3,25	1,98 2,34	2,17	1,71 2,07						
<b>ASSY 3.0 A2 8x200 mm plus washer</b>	6,25	3,45 4,04	6,25	3,45 4,04	6,25	3,45 4,04	5,28	3,21 3,80	3,52	2,77 3,36				
<b>ASSY 3.0 A2 8x200 mm plus washer</b>	3,85	2,13 2,49	3,85	2,13 2,49	3,85	2,13 2,49	3,25	1,98 2,34	2,17	1,71 2,07				
<b>ASSY 3.0 A2 8x220 mm plus washer</b>	6,25	3,45 4,04	6,25	3,45 4,04	6,25	3,45 4,04	6,25	3,45 4,04	5,28	3,21 3,80	3,52	2,77 3,36		
<b>ASSY 3.0 A2 8x220 mm plus washer</b>	3,85	2,13 2,49	3,85	2,13 2,49	3,85	2,13 2,49	3,85	2,13 2,49	3,25	1,98 2,34	2,17	1,71 2,07		
<b>ASSY 3.0 A2 8x240 mm plus washer</b>	6,25	3,45 4,04	6,25	3,45 4,04	6,25	3,45 4,04	6,25	3,45 4,04	6,25	3,45 4,04	5,28	3,21 3,80	3,52	2,77 3,36
<b>ASSY 3.0 A2 8x240 mm plus washer</b>	3,85	2,13 2,49	3,85	2,13 2,49	3,85	2,13 2,49	3,85	2,13 2,49	3,85	2,13 2,49	3,85	1,98 2,34	2,17	1,71 2,07

∅  
**8,0  
mm**



**A2**



∅ ≥ 25mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2 + WASHER

Type d x l	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
<b>ASSY 3.0 A2 8x260 mm plus washer</b>	6,25		6,25	3,21	6,25	3,38	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45
		3,85		4,04		4,04		4,04		4,04		4,04		4,04
	3,85		3,85	1,98	3,85	2,08	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13
		2,37		2,49		2,49		2,49		2,49		2,49		2,49
<b>ASSY 3.0 A2 8x280 mm plus washer</b>	6,25		6,25	3,21	6,25	3,38	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45
		3,85		4,04		4,04		4,04		4,04		4,04		4,04
	3,85		3,85	1,98	3,85	2,08	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13
		2,37		2,49		2,49		2,49		2,49		2,49		2,49
<b>ASSY 3.0 A2 8x300 mm plus washer</b>	6,25		6,25	3,21	6,25	3,38	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45
		3,85		4,04		4,04		4,04		4,04		4,04		4,04
	3,85		3,85	1,98	3,85	2,08	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13
		2,37		2,49		2,49		2,49		2,49		2,49		2,49

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

∅  
**8,0  
mm**



**A2**



∅ ≥ 25mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 A2 + WASHER

Type d x l	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 A2 8x260 mm plus washer</b>	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45	5,28	3,21
		4,04		4,04		4,04		4,04		4,04		3,80		
	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13	3,25	1,98
		2,49		2,49		2,49		2,49		2,49		2,34		
<b>ASSY 3.0 A2 8x280 mm plus washer</b>	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45
		4,04		4,04		4,04		4,04		4,04		4,04		
	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13
		2,49		2,49		2,49		2,49		2,49		2,49		
<b>ASSY 3.0 A2 8x300 mm plus washer</b>	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45	6,25	3,45
		4,04		4,04		4,04		4,04		4,04		4,04		
	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13	3,85	2,13
		2,49		2,49		2,49		2,49		2,49		2,49		

∅  
**8,0  
mm**



**A2**



∅ ≥ 25mm

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK A2

Type d x ℓ	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
ASSY 3.0 SK A2 6x60 mm	2,52	1,73	2,16	1,75	1,80	1,55	1,44	1,33						
		2,16				2,07								
ASSY 3.0 SK A2 6x70 mm	2,55	1,73	2,55	1,85	2,52	1,84	2,16	1,75	1,80	1,55	1,44	1,33		
		2,17				2,17				2,16				
ASSY 3.0 SK A2 6x80 mm	1,57	1,07	1,57	1,14	1,55	1,13	1,33	1,08	1,11	0,95	0,89	0,82		
		1,34				1,34				1,33				
ASSY 3.0 SK A2 6x90 mm	2,55	1,73	2,55	1,85	2,55	1,85	2,55	1,85	2,52	1,84	2,16	1,75	1,44	1,33
		2,17				2,17				2,17				2,17
ASSY 3.0 SK A2 6x100 mm	1,57	1,07	1,57	1,14	1,57	1,14	1,57	1,14	1,55	1,13	1,33	1,08	0,89	0,82
		1,34				1,34				1,34				1,33
ASSY 3.0 SK A2 6x120 mm	2,55	1,73	2,55	1,85	2,55	1,85	2,55	1,85	2,55	1,85	2,55	1,85	2,55	1,85
		2,17				2,17				2,17				2,17
ASSY 3.0 SK A2 6x140 mm	1,57	1,07	1,57	1,14	1,57	1,14	1,57	1,14	1,57	1,14	1,57	1,14	1,57	1,14
		1,34				1,34				1,34				1,34

∅  
**6,0**  
mm



**A2**

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

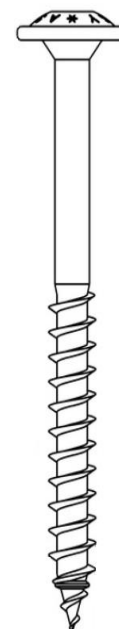
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK A2

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 SK A2 6x60 mm														
ASSY 3.0 SK A2 6x70 mm														
ASSY 3.0 SK A2 6x80 mm														
ASSY 3.0 SK A2 6x90 mm														
ASSY 3.0 SK A2 6x100 mm	1,44	1,33												
		1,77												
	0,89	0,82												
		1,09												
ASSY 3.0 SK A2 6x120 mm	2,55	1,85												
		2,17												
	1,57	1,14	0,89											
		1,34												
ASSY 3.0 SK A2 6x140 mm	2,55	1,85												
		2,17	2,55											
	1,57	1,14			1,44									
		1,34												

∅  
**6,0**  
mm



**A2**

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

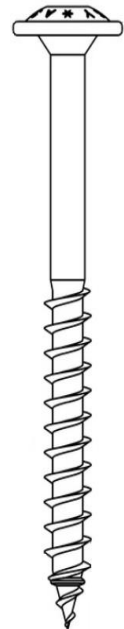
NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK A2

Type d x ℓ	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY 3.0 SK A2 8x80 mm	3,57		3,57	2,54	3,57	2,71	3,57	2,79	3,36	2,66	2,88	2,37	1,92	1,85
		3,18				3,37				3,37				3,37
	2,20		2,20	1,57	2,20	1,67	2,20	1,71	2,07	1,64	1,77	1,46	1,18	1,14
		1,96				2,08				2,08				2,08
ASSY 3.0 SK A2 8x100 mm	3,57		3,57	2,54	3,57	2,71	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,18				3,37				3,37				3,37
	2,20		2,20	1,57	2,20	1,67	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		1,96				2,08				2,08				2,08
ASSY 3.0 SK A2 8x120 mm	3,57		3,57	2,54	3,57	2,71	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,18				3,37				3,37				3,37
	2,20		2,20	1,57	2,20	1,67	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		1,96				2,08				2,08				2,08
ASSY 3.0 SK A2 8x140 mm	3,57		3,57	2,54	3,57	2,71	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,18				3,37				3,37				3,37
	2,20		2,20	1,57	2,20	1,67	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		1,96				2,08				2,08				2,08
ASSY 3.0 SK A2 8x160 mm	3,57		3,57	2,54	3,57	2,71	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,18				3,37				3,37				3,37
	2,20		2,20	1,57	2,20	1,67	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		1,96				2,08				2,08				2,08
ASSY 3.0 SK A2 8x180 mm	3,57		3,57	2,54	3,57	2,71	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,18				3,37				3,37				3,37
	2,20		2,20	1,57	2,20	1,67	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		1,96				2,08				2,08				2,08
ASSY 3.0 SK A2 8x200 mm	3,57		3,57	2,54	3,57	2,71	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,18				3,37				3,37				3,37
	2,20		2,20	1,57	2,20	1,67	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		1,96				2,08				2,08				2,08
ASSY 3.0 SK A2 8x220 mm	3,57		3,57	2,54	3,57	2,71	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,18				3,37				3,37				3,37
	2,20		2,20	1,57	2,20	1,67	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		1,96				2,08				2,08				2,08
ASSY 3.0 SK A2 8x240 mm	3,57		3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,37				3,37				3,37				3,37
	2,20		2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		2,08				2,08				2,08				2,08

∅  
**8,0**  
mm



**A2**

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK A2

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
<b>ASSY 3.0 SK A2 8x80 mm</b>														
<b>ASSY 3.0 SK A2 8x100 mm</b>	1,92	1,85 2,49												
<b>ASSY 3.0 SK A2 8x120 mm</b>	3,57	2,79 3,37	1,92	1,85 2,49										
<b>ASSY 3.0 SK A2 8x140 mm</b>	2,20	1,71 2,08	1,18	1,14 1,53										
<b>ASSY 3.0 SK A2 8x160 mm</b>	3,57	2,79 3,37	3,57	2,79 3,37	1,92	1,85 2,49								
<b>ASSY 3.0 SK A2 8x180 mm</b>	2,20	1,71 2,08	2,20	1,71 2,08	1,18	1,14 1,53								
<b>ASSY 3.0 SK A2 8x200 mm</b>	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37	1,92	1,85 2,49						
<b>ASSY 3.0 SK A2 8x220 mm</b>	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08	1,18	1,14 1,53						
<b>ASSY 3.0 SK A2 8x240 mm</b>	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37	1,92	1,85 2,49		
<b>ASSY 3.0 SK A2 8x240 mm</b>	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08	1,18	1,14 1,53		

∅  
**8,0  
mm**



**A2**

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK A2

Type d x ℓ	Side wood thickness in [mm]													
	25*		30		35		40		45		50		60	
ASSY 3.0 SK A2 8x260 mm	3,57	3,18	3,57	2,54 3,37	3,57	2,71 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37
	2,20	1,96	2,20	1,57 2,08	2,20	1,67 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08
ASSY 3.0 SK A2 8x280 mm	3,57	3,18	3,57	2,54 3,37	3,57	2,71 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37
	2,20	1,96	2,20	1,57 2,08	2,20	1,67 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08
ASSY 3.0 SK A2 8x300 mm	3,57	3,18	3,57	2,54 3,37	3,57	2,71 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37
	2,20	1,96	2,20	1,57 2,08	2,20	1,67 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08
ASSY 3.0 SK A2 8x320 mm	3,57	3,18	3,57	2,54 3,37	3,57	2,71 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37
	2,20	1,96	2,20	1,57 2,08	2,20	1,67 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08
ASSY 3.0 SK A2 8x340 mm	3,57	3,18	3,57	2,54 3,37	3,57	2,71 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37
	2,20	1,96	2,20	1,57 2,08	2,20	1,67 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08
ASSY 3.0 SK A2 8x360 mm	3,57	3,18	3,57	2,54 3,37	3,57	2,71 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37
	2,20	1,96	2,20	1,57 2,08	2,20	1,67 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08
ASSY 3.0 SK A2 8x380 mm	3,57	3,18	3,57	2,54 3,37	3,57	2,71 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37
	2,20	1,96	2,20	1,57 2,08	2,20	1,67 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08
ASSY 3.0 SK A2 8x400 mm	3,57	3,18	3,57	2,54 3,37	3,57	2,71 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37	3,57	2,79 3,37
	2,20	1,96	2,20	1,57 2,08	2,20	1,67 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08	2,20	1,71 2,08

∅  
**8,0**  
mm



**A2**

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY 3.0 SK A2

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY 3.0 SK A2 8x260 mm	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,37				3,37				3,37				3,37
	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		2,08				2,08				2,08				2,08
ASSY 3.0 SK A2 8x280 mm	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,37				3,37				3,37				3,37
	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		2,08				2,08				2,08				2,08
ASSY 3.0 SK A2 8x300 mm	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,37				3,37				3,37				3,37
	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		2,08				2,08				2,08				2,08
ASSY 3.0 SK A2 8x320 mm	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,37				3,37				3,37				3,37
	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		2,08				2,08				2,08				2,08
ASSY 3.0 SK A2 8x340 mm	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,37				3,37				3,37				3,37
	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		2,08				2,08				2,08				2,08
ASSY 3.0 SK A2 8x360 mm	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,37				3,37				3,37				3,37
	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		2,08				2,08				2,08				2,08
ASSY 3.0 SK A2 8x380 mm	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,37				3,37				3,37				3,37
	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		2,08				2,08				2,08				2,08
ASSY 3.0 SK A2 8x400 mm	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79	3,57	2,79
		3,37				3,37				3,37				3,37
	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71	2,20	1,71
		2,08				2,08				2,08				2,08

∅  
**8,0**  
mm



A2

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS A2

Type d x ℓ	Side wood thickness in [mm]													
	20*		25		30		35		40		45		50	
ASSY plus A2 5.5x45 mm	1,17													
		1,56												
ASSY plus A2 5.5x50 mm	1,17		1,17	1,27										
		1,56		1,61										
ASSY plus A2 5.5x60 mm	1,17		1,17	1,30	1,17	1,34	1,17	1,30						
		1,56		1,61		1,61		1,61						
ASSY plus A2 5.5x70 mm	1,17		1,17	1,30	1,17	1,34	1,17	1,34	1,17	1,34	1,17	1,30		
		1,56		1,61		1,61		1,61		1,61		1,61		
ASSY plus A2 5.5x80 mm	1,17		1,17	1,30	1,17	1,34	1,17	1,34	1,17	1,34	1,17	1,34	1,17	1,34
		1,56		1,61		1,61		1,61		1,61		1,61		1,61
ASSY plus A2 5.5x90 mm	1,17		1,17	1,30	1,17	1,34	1,17	1,34	1,17	1,34	1,17	1,34	1,17	1,34
		1,56		1,61		1,61		1,61		1,61		1,61		1,61
ASSY plus A2 5.5x100 mm	1,17		1,17	1,30	1,17	1,34	1,17	1,34	1,17	1,34	1,17	1,34	1,17	1,34
		1,56		1,61		1,61		1,61		1,61		1,61		1,61

∅  
**5,5  
mm**



A2

\* Values apply only to predrilled wood components (see ETA-11/0190 Table 1 and A.1.4).

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

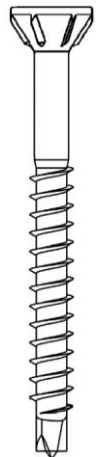
All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS A2

Type d x ℓ	Side wood thickness in [mm]						
	60	80	100	120	140	160	180
ASSY plus A2 5.5x45 mm							
ASSY plus A2 5.5x50 mm							
ASSY plus A2 5.5x60 mm							
ASSY plus A2 5.5x70 mm							
ASSY plus A2 5.5x80 mm							
ASSY plus A2 5.5x90 mm	1,17	1,34					
		1,61					
	0,72	0,83					
ASSY plus A2 5.5x100 mm	1,17	1,34					
		1,61					
	0,72	0,83					
		0,99					

∅  
**5,5**  
mm



A2

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/ SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS A2

Type d x ℓ	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
ASSY plus A2 6.5x60 mm	1,87	1,67	1,87	1,79										
		2,24			2,24									
ASSY plus A2 6.5x70mm	1,15	1,02	1,15	1,10										
		1,38			1,38									
ASSY plus A2 6.5x80 mm	1,87	1,67	1,87	1,81	1,87	1,85	1,87	1,81						
		2,24				2,24			2,24		2,24			
ASSY plus A2 6.5x90 mm	1,15	1,02	1,15	1,11	1,15	1,14	1,15	1,11						
		1,38				1,38			1,38		1,38			
ASSY plus A2 6.5x100 mm	1,87	1,67	1,87	1,81	1,87	1,85	1,87	1,85	1,87	1,85	1,87	1,85	2,24	1,90
		2,24				2,24				2,24			2,24	
ASSY plus A2 6.5x120mm	1,15	1,02	1,15	1,11	1,15	1,14	1,15	1,14	1,15	1,14	1,15	1,14	1,38	1,17
		1,38				1,38				1,38			1,38	
ASSY plus A2 6.5x140 mm	1,87	1,67	1,87	1,81	1,87	1,85	1,87	1,85	1,87	1,85	1,87	1,85	2,99	2,13
		2,24				2,24				2,24			2,24	
ASSY plus A2 6.5x160 mm	1,15	1,02	1,15	1,11	1,15	1,14	1,15	1,14	1,15	1,14	1,15	1,14	1,38	1,31
		1,38				1,38				1,38			1,38	
ASSY plus A2 6.5x120mm	1,87	1,67	1,87	1,81	1,87	1,85	1,87	1,85	1,87	1,85	1,87	1,85	1,87	1,85
		2,24				2,24				2,24			2,24	
ASSY plus A2 6.5x140 mm	1,15	1,02	1,15	1,11	1,15	1,14	1,15	1,14	1,15	1,14	1,15	1,14	1,15	1,14
		1,38				1,38				1,38			1,38	
ASSY plus A2 6.5x160 mm	1,87	1,67	1,87	1,81	1,87	1,85	1,87	1,85	1,87	1,85	1,87	1,85	1,87	1,85
		2,24				2,24				2,24			2,24	
ASSY plus A2 6.5x160 mm	1,15	1,02	1,15	1,11	1,15	1,14	1,15	1,14	1,15	1,14	1,15	1,14	1,15	1,14
		1,38				1,38				1,38			1,38	

∅  
**6,5  
mm**



**A2**

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS A2

Type d x ℓ	Side wood thickness in [mm]							
	80	100	120	140	160	180	200	
ASSY plus A2 6.5x60 mm								
ASSY plus A2 6x70mm								
ASSY plus A2 6.5x80 mm								
ASSY plus A2 6.5x90 mm								
ASSY plus A2 6.5x100 mm								
ASSY plus A2 6.5x120mm	1,87	1,85 2,24						
	1,15	1,14 1,38						
ASSY plus A2 6.5x140 mm	1,87	1,85 2,24	1,87	1,85 2,24				
	1,15	1,14 1,38	1,15	1,14 1,38				
ASSY plus A2 6.5x160 mm	1,87	1,85 2,24	1,87	1,85 2,24	1,87	1,85 2,24		
	1,15	1,14 1,38	1,15	1,14 1,38	1,15	1,14 1,38		

∅  
**6,5**  
mm



A2

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.



## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS A2

Type d x ℓ	Side wood thickness in [mm]													
	25		30		35		40		45		50		60	
ASSY plus A2 6.5x180mm	1,87	1,67	1,87	1,81	1,87	1,85	1,87	1,85	1,87	1,85	1,87	1,85	1,87	1,85
		2,24		2,24		2,24		2,24		2,24		2,24		
	1,15	1,02	1,15	1,11	1,15	1,14	1,15	1,14	1,15	1,14	1,15	1,14	1,15	1,14
		1,38		1,38		1,38		1,38		1,38		1,38		
ASSY plus A2 6.5x200 mm	1,87	1,67	1,87	1,81	1,87	1,85	1,87	1,85	1,87	1,85	1,87	1,85	1,87	1,85
		2,24		2,24		2,24		2,24		2,24		2,24		
	1,15	1,02	1,15	1,11	1,15	1,14	1,15	1,14	1,15	1,14	1,15	1,14	1,15	1,14
		1,38		1,38		1,38		1,38		1,38		1,38		

∅  
**6,5  
mm**



A2

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

## AXIAL/SHEARING VALUE TABLES WOOD-WOOD ASSY PLUS A2

Type d x ℓ	Side wood thickness in [mm]													
	80		100		120		140		160		180		200	
ASSY plus A2 6.5x180mm	1,87	1,85	1,87	1,85	1,87	1,85	1,87	1,85						
		2,24		2,24		2,24								
	1,15	1,14	1,15	1,14	1,15	1,14	1,15	1,14						
		1,38		1,38		1,38								
ASSY plus A2 6.5x200 mm	1,87	1,85	1,87	1,85	1,87	1,85	1,87	1,85	1,87	1,85				
		2,24		2,24		2,24		2,24						
	1,15	1,14	1,15	1,14	1,15	1,14	1,15	1,14	1,15	1,14				
		1,38		1,38		1,38		1,38						

∅  
**6,5  
mm**



**A2**

### Calculation assumptions

Calculated values apply to softwood according to EN 14081-1 of the strength class C24 according to EN 338.

Each load-bearing capacity for one screw. The group effect must be taken into account when there is more than one screw.

Load-bearing connections must consist of at least two screws. There may be deviations according to DIN EN 1995-1-1/NA:2010-12, NCI for 8.3.1.2 (NA 10), and ETA-11/0190, 4.2.

All screws must be driven in flush to the surface. Preliminary holes must be drilled according to Table 1, Section 4.2 of ETA 11/0190.

NOTE: These are planning aids. These values must be measured by authorized persons for each project.

# **ASSY® – THE SCREW FOR WOOD AND BUILDING CRAFTS**

Adolf Würth GmbH & Co.KG  
D-74650 Künzelsau  
T +049 7940 15-0  
F +49 7940 15-1000  
info@wuerth.com  
www.wuerth.de

© by Adolf Wuerth GmbH & Co. KG  
Printed in Germany  
All rights reserved  
Responsible for the contents PCV Dept. Udo Cera,  
P&A Dept Herbert Streich, BPM Dept. Mathias Faiss

No reproduction without prior permission  
We reserve the right to make any changes we deem necessary to  
improve the quality of the product, even without prior  
announcement or notification. Illustrations can be sample  
illustrations that may differ in appearance from the goods  
supplied. Errors excepted. We assume no liability for printing  
errors. Our general terms and conditions apply.

