

# RAPID<sup>®</sup> TIMBER SCREW

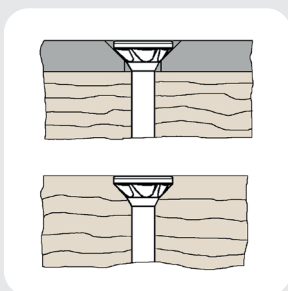
# RAPID<sup>®</sup>Timber Screw



## Head Types

### Countersunk Head

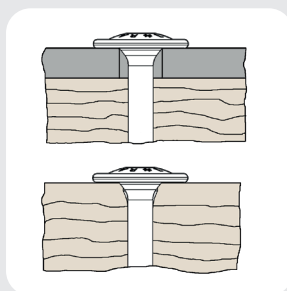
**NEW**



- Can be completely sunken into wood or prefabricated steel panels.
- Milling pockets prevent the wood from splintering and tearing.

### Washer Head

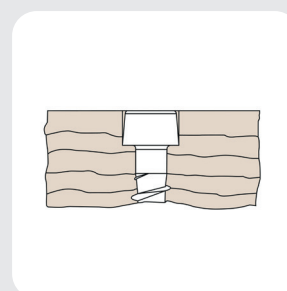
**NEW**



- Improved head pull-through values for more sturdy connections
- No additional washers required, which speeds up processing.

### Cylinder Head

**NEW**



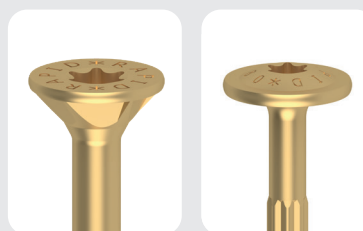
- Enables use in enclosed environments
- Deep sinking of the head is possible.

## Premium Surface



- YellWin 500+ yellow.
- Up to 10 times higher corrosion protection in comparison to standard galvanic zinc plating (iridescent blue).

## Proven TX Drive



- Robust TX drive for optimum power transfer

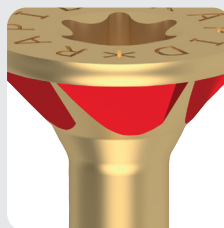
## Head Marking

**NEW**

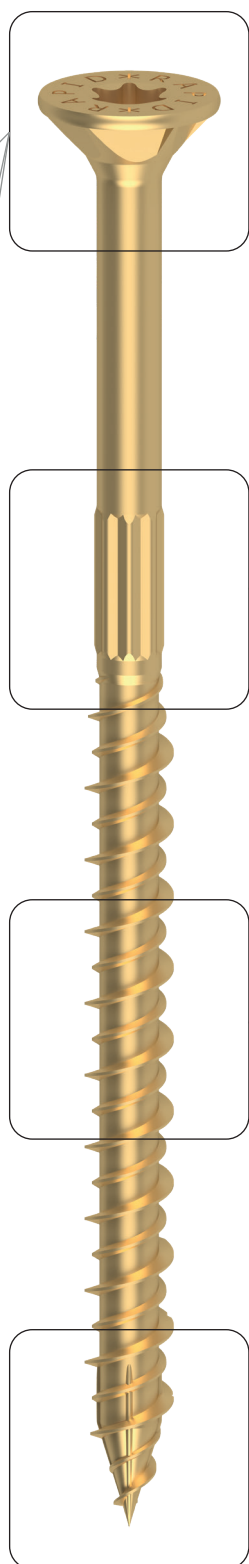


- Length indicated on screw head from Ø 8 mm

## Milling Pockets

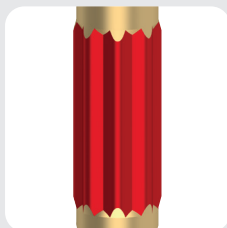


- For optimum, clean processing.
- No more surface damage due to splintering or cracking when screwing.



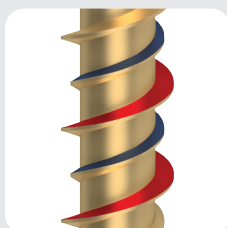
### Straight Friction Portion

**NEW**



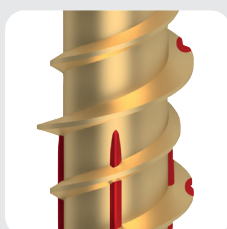
- An innovation in hardwood screw development.
- Minimal effort thanks to significantly reduced screw-in resistance.
- Increased tool battery life thanks to lower screw-in resistance

### Updated HiLo-thread



- Dual threads with high and low flanks.
- Time savings thanks to accelerated screwing processes – compared to conventional wood screws.
- Exceptional technical values guarantee secure connections even when screwing at an angle and into end-grain wood.

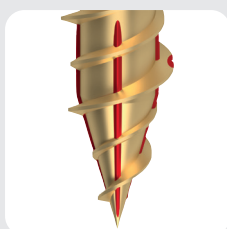
### Grooved Thread



- Reduces cracking effect and screw-in resistance thanks to cutting action
- Facilitates the screw's cutting function with its wave profile on the flanks

### New Patented Tip With Core Ribs

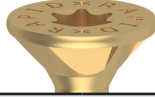
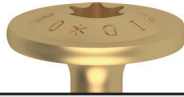
**NEW**



- Saves time by biting instantly and precisely.
- Significantly lower cracking effects in comparison with conventional timber construction screws.



## Head type, specifications, drive and surfaces

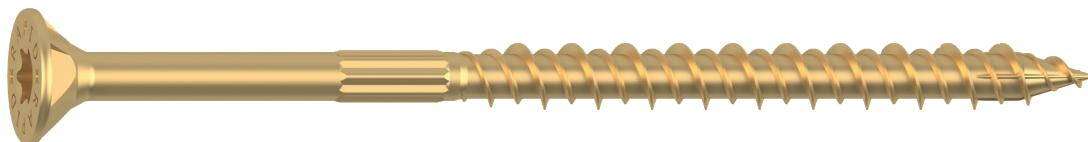
|                 |            | Art. No.: 0160 0/1/2                                                                             |                  | Art. No.: 0160 3.. ..                                                             | Art. No.: 0190 480 ...                                                              |
|-----------------|------------|--------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                 |            | Countersunk Head                                                                                 |                  | Wafer Head                                                                        | Cylinder Head                                                                       |
|                 |            | ≤ 25 mm                                                                                          | ≥ 30 mm          |                                                                                   |                                                                                     |
|                 |            |                 |                  |  |  |
| Ø 3.0           | Torx       | TX10                                                                                             |                  | –                                                                                 | –                                                                                   |
|                 | Length     | 16 – 45 mm                                                                                       |                  | –                                                                                 | –                                                                                   |
|                 | Thread     | Single Thread                                                                                    | HiLo Dual Thread | –                                                                                 | –                                                                                   |
|                 | Under head | Milling Pockets                                                                                  |                  | –                                                                                 | –                                                                                   |
| Ø 3.5           | Torx       | TX20                                                                                             |                  | –                                                                                 | –                                                                                   |
|                 | Length     | 16 – 50 mm                                                                                       |                  | –                                                                                 | –                                                                                   |
|                 | Thread     | Single Thread                                                                                    | HiLo Dual Thread | –                                                                                 | –                                                                                   |
|                 | Under head | Milling Pockets                                                                                  |                  | –                                                                                 | –                                                                                   |
| Ø 4.0           | Torx       | TX20                                                                                             |                  | –                                                                                 | –                                                                                   |
|                 | Length     | 20 – 70 mm                                                                                       |                  | –                                                                                 | –                                                                                   |
|                 | Thread     | Single Thread                                                                                    | HiLo Dual Thread | –                                                                                 | –                                                                                   |
|                 | Under head | Milling Pockets                                                                                  |                  | –                                                                                 | –                                                                                   |
| Ø 4.5           | Torx       | TX20                                                                                             |                  | –                                                                                 | –                                                                                   |
|                 | Length     | 20 – 80 mm                                                                                       |                  | –                                                                                 | –                                                                                   |
|                 | Thread     | Single Thread                                                                                    | HiLo Dual Thread | –                                                                                 | –                                                                                   |
|                 | Under head | Milling Pockets                                                                                  |                  | –                                                                                 | –                                                                                   |
| Ø 5.0           | Torx       | TX20                                                                                             |                  | –                                                                                 | –                                                                                   |
|                 | Length     | 20 – 120 mm                                                                                      |                  | –                                                                                 | –                                                                                   |
|                 | Thread     | Single Thread                                                                                    | HiLo Dual Thread | –                                                                                 | –                                                                                   |
|                 | Under head | Milling Pockets                                                                                  |                  | –                                                                                 | –                                                                                   |
| Ø 5.0           | Torx       | TX25                                                                                             |                  | –                                                                                 | –                                                                                   |
|                 | Length     | 40 – 120 mm                                                                                      |                  | –                                                                                 | –                                                                                   |
|                 | Thread     | Single Thread                                                                                    | HiLo Dual Thread | –                                                                                 | –                                                                                   |
|                 | Under head | Milling Pockets                                                                                  |                  | –                                                                                 | –                                                                                   |
| Ø 6.0           | Torx       | TX30                                                                                             |                  | –                                                                                 | –                                                                                   |
|                 | Length     | 50 – 300 mm                                                                                      |                  | 60 – 300 mm                                                                       | –                                                                                   |
|                 | Thread     | –                                                                                                | HiLo Dual Thread | HiLo Dual Thread                                                                  | –                                                                                   |
|                 | Under head | Milling Pockets                                                                                  |                  | Smooth                                                                            | –                                                                                   |
| Ø 8.0           | Torx       | –                                                                                                | TX40             |                                                                                   | –                                                                                   |
|                 | Length     | –                                                                                                | 80 – 400 mm      |                                                                                   | 120 – 400 mm                                                                        |
|                 | Thread     | –                                                                                                | HiLo Dual Thread | HiLo Dual Thread                                                                  | Single Thread                                                                       |
|                 | Under head | –                                                                                                | Milling Pockets  | Smooth                                                                            | –                                                                                   |
| Ø 10.0          | Torx       | –                                                                                                | TX50             |                                                                                   | –                                                                                   |
|                 | Length     | –                                                                                                | 100 – 400 mm     | 100 – 400 mm                                                                      | –                                                                                   |
|                 | Thread     | –                                                                                                | HiLo Dual Thread |                                                                                   | –                                                                                   |
|                 | Under head | –                                                                                                | Milling Ribs     | Smooth                                                                            | –                                                                                   |
| Surface Coating |            | YellWin 500+  |                  |                                                                                   |                                                                                     |

Change  
your bit less  
often: TX20  
head on  
sizes Ø3.5  
up to Ø5mm

Ø 5 mm also  
available  
with TX25

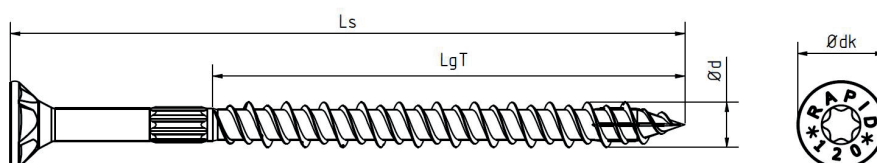


## Countersunk Head



Art. No.: 0160 0/1/2

| Screw Geometry and Properties |                      |       |       |       |        |        |        |
|-------------------------------|----------------------|-------|-------|-------|--------|--------|--------|
| d                             | [mm]                 | ø 4   | ø 4,5 | ø 5   | ø 6    | ø 8    | ø 10   |
| d <sub>k</sub>                | [mm]                 | 8,0   | 9,0   | 10,0  | 12,0   | 15,0   | 18,5   |
| d <sub>i</sub>                | [mm]                 | 2,45  | 2,75  | 3,25  | 3,95   | 5,30   | 6,20   |
| f <sub>ax,90,k</sub>          | [N/mm <sup>2</sup> ] | 14,3  | 13,3  | 13,6  | 13,0   | 10,9   | 11,0   |
| f <sub>head</sub>             | [N/mm <sup>2</sup> ] | 17,1  | 17,6  | 14,6  | 14,6   | 12,4   | 12,2   |
| F <sub>tens,k</sub>           | [kN]                 | 5,0   | 7,0   | 8,8   | 13,1   | 23,3   | 35,0   |
| M <sub>y,k</sub>              | [Nmm]                | 3.100 | 4.200 | 5.900 | 10.700 | 22.600 | 33.600 |



| Geometry | Tension (Axial) | Shear Off (Lateral) |
|----------|-----------------|---------------------|
|          |                 |                     |

| Values for C24 |                    | Axial                  |                          |                      |                        | Shear Values        |                       |                          |                           |                       |
|----------------|--------------------|------------------------|--------------------------|----------------------|------------------------|---------------------|-----------------------|--------------------------|---------------------------|-----------------------|
| ø x L/Lgew     | t <sub>1,min</sub> | F <sub>head,Rk</sub> * | F <sub>head,max</sub> ** | F <sub>ax,Rk</sub> * | F <sub>ax,max</sub> ** | Wood - Wood         |                       | Wood - Sheet Steel       |                           |                       |
|                | [mm]               |                        |                          |                      |                        | F <sub>V,Rk</sub> * | F <sub>V,max</sub> ** | F <sub>V,Rk,thin</sub> * | F <sub>V,Rk,thick</sub> * | F <sub>V,max</sub> ** |
| 4 x 30/20      | -                  | 1.09                   | 0.32                     | 1.14                 | 0.4                    | -                   | -                     | 0.79                     | 1.27                      | 0.34                  |
| 4 x 35/20      | -                  | 1.09                   | 0.32                     | 1.14                 | 0.4                    | -                   | -                     | 0.94                     | 1.4                       | 0.34                  |
| 4 x 40/25      | -                  | 1.09                   | 0.32                     | 1.43                 | 0.5                    | -                   | -                     | 1.09                     | 1.47                      | 0.34                  |
| 4 x 45/25      | -                  | 1.09                   | 0.32                     | 1.43                 | 0.5                    | -                   | -                     | 1.15                     | 1.47                      | 0.34                  |
| 4 x 50/30      | -                  | 1.09                   | 0.32                     | 1.72                 | 0.6                    | -                   | -                     | 1.22                     | 1.54                      | 0.34                  |
| 4 x 60/30      | 30                 | 1.09                   | 0.32                     | 1.72                 | 0.6                    | 1.06                | 0.27                  | 1.22                     | 1.54                      | 0.34                  |
| 4 x 70/30      | 30                 | 1.09                   | 0.32                     | 1.72                 | 0.6                    | 1.06                | 0.27                  | 1.22                     | 1.54                      | 0.34                  |

## Countersunk Head

| Values for C24 |                    | Axial                  |                          |                      |                        | Shear Values        |                       |                          |                           |                       |
|----------------|--------------------|------------------------|--------------------------|----------------------|------------------------|---------------------|-----------------------|--------------------------|---------------------------|-----------------------|
| ø x L/Lgew     | t <sub>1,min</sub> |                        |                          |                      |                        | Wood - Wood         |                       | Wood - Sheet Steel       |                           |                       |
|                | [mm]               | F <sub>head,Rk</sub> * | F <sub>head,max</sub> ** | F <sub>ax,Rk</sub> * | F <sub>ax,max</sub> ** | F <sub>V,Rk</sub> * | F <sub>V,max</sub> ** | F <sub>V,Rk,thin</sub> * | F <sub>V,Rk,thick</sub> * | F <sub>V,max</sub> ** |
| 4.5 x 30/20    | -                  | 1.43                   | 0.41                     | 1.2                  | 0.43                   | -                   | -                     | 0.84                     | 1.39                      | 0.43                  |
| 4.5 x 35/20    | -                  | 1.43                   | 0.41                     | 1.2                  | 0.43                   | -                   | -                     | 1                        | 1.53                      | 0.43                  |
| 4.5 x 40/25    | -                  | 1.43                   | 0.41                     | 1.5                  | 0.54                   | -                   | -                     | 1.17                     | 1.73                      | 0.43                  |
| 4.5 x 45/25    | -                  | 1.43                   | 0.41                     | 1.5                  | 0.54                   | -                   | -                     | 1.33                     | 1.73                      | 0.43                  |
| 4.5 x 50/30    | -                  | 1.43                   | 0.41                     | 1.8                  | 0.65                   | -                   | -                     | 1.4                      | 1.8                       | 0.43                  |
| 4.5 x 60/30    | 30                 | 1.43                   | 0.41                     | 1.8                  | 0.65                   | 1.31                | 0.34                  | 1.4                      | 1.8                       | 0.43                  |
| 4.5 x 70/30    | 30                 | 1.43                   | 0.41                     | 1.8                  | 0.65                   | 1.31                | 0.34                  | 1.4                      | 1.8                       | 0.43                  |
| 4.5 x 80/30    | 30                 | 1.43                   | 0.41                     | 1.80                 | 0.65                   | 1.31                | 0.34                  | 1.40                     | 1.80                      | 0.43                  |
| 5 x 30/20      | -                  | 1.46                   | 0.5                      | 1.36                 | 0.5                    | -                   | -                     | 0.89                     | 1.57                      | 0.53                  |
| 5 x 35/20      | -                  | 1.46                   | 0.5                      | 1.36                 | 0.5                    | -                   | -                     | 1.06                     | 1.71                      | 0.53                  |
| 5 x 40/25      | -                  | 1.46                   | 0.5                      | 1.7                  | 0.63                   | -                   | -                     | 1.24                     | 1.94                      | 0.53                  |
| 5 x 50/30      | -                  | 1.46                   | 0.5                      | 2.04                 | 0.75                   | -                   | -                     | 1.59                     | 2.17                      | 0.53                  |
| 5 x 60/40      | -                  | 1.46                   | 0.5                      | 2.72                 | 1                      | -                   | -                     | 1.86                     | 2.34                      | 0.53                  |
| 5 x 70/40      | 30                 | 1.46                   | 0.5                      | 2.72                 | 1                      | 1.49                | 0.43                  | 1.86                     | 2.34                      | 0.53                  |
| 5 x 80/40      | 40                 | 1.46                   | 0.5                      | 2.72                 | 1                      | 1.54                | 0.43                  | 1.86                     | 2.34                      | 0.53                  |
| 5 x 90/40      | 40                 | 1.46                   | 0.5                      | 2.72                 | 1                      | 1.54                | 0.43                  | 1.86                     | 2.34                      | 0.53                  |
| 5 x 100/40     | 40                 | 1.46                   | 0.5                      | 2.72                 | 1                      | 1.54                | 0.43                  | 1.86                     | 2.34                      | 0.53                  |
| 5 x 110/40     | 40                 | 1.46                   | 0.5                      | 2.72                 | 1                      | 1.54                | 0.43                  | 1.86                     | 2.34                      | 0.53                  |
| 5 x 120/40     | 40                 | 1.46                   | 0.5                      | 2.72                 | 1                      | 1.54                | 0.43                  | 1.86                     | 2.34                      | 0.53                  |
| 6 x 50/30      | -                  | 2.1                    | 0.72                     | 2.34                 | 0.9                    | -                   | -                     | 1.77                     | 2.75                      | 0.77                  |
| 6 x 60/40      | -                  | 2.1                    | 0.72                     | 3.12                 | 1.2                    | -                   | -                     | 2.17                     | 3.17                      | 0.77                  |
| 6 x 70/40      | 30                 | 2.1                    | 0.72                     | 3.12                 | 1.2                    | 1.93                | 0.61                  | 2.47                     | 3.17                      | 0.77                  |
| 6 x 80/50      | 30                 | 2.1                    | 0.72                     | 3.9                  | 1.5                    | 1.93                | 0.61                  | 2.66                     | 3.36                      | 0.77                  |
| 6 x 90/50      | 40                 | 2.1                    | 0.72                     | 3.9                  | 1.5                    | 2.2                 | 0.61                  | 2.66                     | 3.36                      | 0.77                  |
| 6 x 100/60     | 40                 | 2.1                    | 0.72                     | 4.68                 | 1.8                    | 2.2                 | 0.61                  | 2.86                     | 3.56                      | 0.77                  |
| 6 x 110/60     | 50                 | 2.1                    | 0.72                     | 4.68                 | 1.8                    | 2.21                | 0.61                  | 2.86                     | 3.56                      | 0.77                  |
| 6 x 120/70     | 50                 | 2.1                    | 0.72                     | 5.46                 | 2.1                    | 2.21                | 0.61                  | 3.05                     | 3.75                      | 0.77                  |
| 6 x 130/70     | 50                 | 2.1                    | 0.72                     | 5.46                 | 2.1                    | 2.21                | 0.61                  | 3.05                     | 3.75                      | 0.77                  |
| 6 x 140/70     | 50                 | 2.1                    | 0.72                     | 5.46                 | 2.1                    | 2.21                | 0.61                  | 3.05                     | 3.75                      | 0.77                  |
| 6 x 150/70     | 50                 | 2.1                    | 0.72                     | 5.46                 | 2.1                    | 2.21                | 0.61                  | 3.05                     | 3.75                      | 0.77                  |
| 6 x 160/70     | 50                 | 2.1                    | 0.72                     | 5.46                 | 2.1                    | 2.21                | 0.61                  | 3.05                     | 3.75                      | 0.77                  |
| 6 x 180/70     | 50                 | 2.1                    | 0.72                     | 5.46                 | 2.1                    | 2.21                | 0.61                  | 3.05                     | 3.75                      | 0.77                  |
| 6 x 200/70     | 50                 | 2.1                    | 0.72                     | 5.46                 | 2.1                    | 2.21                | 0.61                  | 3.05                     | 3.75                      | 0.77                  |
| 6 x 220/70     | 50                 | 2.1                    | 0.72                     | 5.46                 | 2.1                    | 2.21                | 0.61                  | 3.05                     | 3.75                      | 0.77                  |
| 6 x 240/70     | 50                 | 2.1                    | 0.72                     | 5.46                 | 2.1                    | 2.21                | 0.61                  | 3.05                     | 3.75                      | 0.77                  |
| 6 x 260/70     | 50                 | 2.1                    | 0.72                     | 5.46                 | 2.1                    | 2.21                | 0.61                  | 3.05                     | 3.75                      | 0.77                  |
| 6 x 280/70     | 50                 | 2.1                    | 0.72                     | 5.46                 | 2.1                    | 2.21                | 0.61                  | 3.05                     | 3.75                      | 0.77                  |
| 6 x 300/70     | 50                 | 2.1                    | 0.72                     | 5.46                 | 2.1                    | 2.21                | 0.61                  | 3.05                     | 3.75                      | 0.77                  |

| Values for C24            |                     | Axial                   |                             |                       |                           | Shear Values         |                          |                           |                            |                          |
|---------------------------|---------------------|-------------------------|-----------------------------|-----------------------|---------------------------|----------------------|--------------------------|---------------------------|----------------------------|--------------------------|
|                           |                     |                         |                             |                       |                           | Wood - Wood          |                          | Wood - Sheet Steel        |                            |                          |
| $\sigma \times L/L_{gew}$ | $t_{1,min}$<br>[mm] | $F_{head,Rk}^*$<br>[kN] | $F_{head,max}^{**}$<br>[kN] | $F_{ax,Rk}^*$<br>[kN] | $F_{ax,max}^{**}$<br>[kN] | $F_{V,Rk}^*$<br>[kN] | $F_{V,max}^{**}$<br>[kN] | $F_{V,Rk,thin}^*$<br>[kN] | $F_{V,Rk,thick}^*$<br>[kN] | $F_{V,max}^{**}$<br>[kN] |
| 8 x 80/50                 | 30                  | 2.79                    | 1.13                        | 4.36                  | 2                         | 2.69                 | 0.96                     | 3.54                      | 4.93                       | 1.36                     |
| 8 x 100/60                | 40                  | 2.79                    | 1.13                        | 5.23                  | 2.4                       | 2.97                 | 1.09                     | 4.02                      | 5.14                       | 1.36                     |
| 8 x 120/80                | 40                  | 2.79                    | 1.13                        | 6.98                  | 3.2                       | 2.97                 | 1.09                     | 4.46                      | 5.58                       | 1.36                     |
| 8 x 140/80                | 60                  | 2.79                    | 1.13                        | 6.98                  | 3.2                       | 3.41                 | 1.09                     | 4.46                      | 5.58                       | 1.36                     |
| 8 x 160/80                | 60                  | 2.79                    | 1.13                        | 6.98                  | 3.2                       | 3.41                 | 1.09                     | 4.46                      | 5.58                       | 1.36                     |
| 8 x 180/100               | 60                  | 2.79                    | 1.13                        | 8.72                  | 4                         | 3.41                 | 1.09                     | 4.89                      | 6.02                       | 1.36                     |
| 8 x 200/100               | 60                  | 2.79                    | 1.13                        | 8.72                  | 4                         | 3.41                 | 1.09                     | 4.89                      | 6.02                       | 1.36                     |
| 8 x 220/100               | 60                  | 2.79                    | 1.13                        | 8.72                  | 4                         | 3.41                 | 1.09                     | 4.89                      | 6.02                       | 1.36                     |
| 8 x 240/100               | 60                  | 2.79                    | 1.13                        | 8.72                  | 4                         | 3.41                 | 1.09                     | 4.89                      | 6.02                       | 1.36                     |
| 8 x 260/100               | 60                  | 2.79                    | 1.13                        | 8.72                  | 4                         | 3.41                 | 1.09                     | 4.89                      | 6.02                       | 1.36                     |
| 8 x 280/100               | 60                  | 2.79                    | 1.13                        | 8.72                  | 4                         | 3.41                 | 1.09                     | 4.89                      | 6.02                       | 1.36                     |
| 8 x 300/100               | 60                  | 2.79                    | 1.13                        | 8.72                  | 4                         | 3.41                 | 1.09                     | 4.89                      | 6.02                       | 1.36                     |
| 8 x 320/100               | 60                  | 2.79                    | 1.13                        | 8.72                  | 4                         | 3.41                 | 1.09                     | 4.89                      | 6.02                       | 1.36                     |
| 8 x 340/100               | 60                  | 2.79                    | 1.13                        | 8.72                  | 4                         | 3.41                 | 1.09                     | 4.89                      | 6.02                       | 1.36                     |
| 8 x 360/100               | 60                  | 2.79                    | 1.13                        | 8.72                  | 4                         | 3.41                 | 1.09                     | 4.89                      | 6.02                       | 1.36                     |
| 8 x 380/100               | 60                  | 2.79                    | 1.13                        | 8.72                  | 4                         | 3.41                 | 1.09                     | 4.89                      | 6.02                       | 1.36                     |
| 8 x 400/100               | 60                  | 2.79                    | 1.13                        | 8.72                  | 4.00                      | 3.41                 | 1.09                     | 4.89                      | 6.02                       | 1.36                     |
| 10 x 100/60               | 40                  | 4.18                    | 1.71                        | 6.60                  | 3.00                      | 3.86                 | 1.60                     | 5.18                      | 6.71                       | 2.13                     |
| 10 x 120/80               | 40                  | 4.18                    | 1.71                        | 8.80                  | 4.00                      | 3.86                 | 1.60                     | 5.78                      | 7.26                       | 2.13                     |
| 10 x 120/80               | 40                  | 4.18                    | 1.71                        | 8.80                  | 4.00                      | 3.86                 | 1.60                     | 5.78                      | 7.26                       | 2.13                     |
| 10 x 140/80               | 60                  | 4.18                    | 1.71                        | 8.80                  | 4.00                      | 4.62                 | 1.70                     | 5.78                      | 7.26                       | 2.13                     |
| 10 x 160/80               | 60                  | 4.18                    | 1.71                        | 8.80                  | 4.00                      | 4.62                 | 1.70                     | 5.78                      | 7.26                       | 2.13                     |
| 10 x 180/100              | 60                  | 4.18                    | 1.71                        | 11.00                 | 5.00                      | 4.62                 | 1.70                     | 6.33                      | 7.81                       | 2.13                     |
| 10 x 200/100              | 60                  | 4.18                    | 1.71                        | 11.00                 | 5.00                      | 4.62                 | 1.70                     | 6.33                      | 7.81                       | 2.13                     |
| 10 x 220/100              | 60                  | 4.18                    | 1.71                        | 11.00                 | 5.00                      | 4.62                 | 1.70                     | 6.33                      | 7.81                       | 2.13                     |
| 10 x 240/100              | 60                  | 4.18                    | 1.71                        | 11.00                 | 5.00                      | 4.62                 | 1.70                     | 6.33                      | 7.81                       | 2.13                     |
| 10 x 260/100              | 60                  | 4.18                    | 1.71                        | 11.00                 | 5.00                      | 4.62                 | 1.70                     | 6.33                      | 7.81                       | 2.13                     |
| 10 x 280/100              | 60                  | 4.18                    | 1.71                        | 11.00                 | 5.00                      | 4.62                 | 1.70                     | 6.33                      | 7.81                       | 2.13                     |
| 10 x 300/100              | 60                  | 4.18                    | 1.71                        | 11.00                 | 5.00                      | 4.62                 | 1.70                     | 6.33                      | 7.81                       | 2.13                     |
| 10 x 320/100              | 60                  | 4.18                    | 1.71                        | 11.00                 | 5.00                      | 4.62                 | 1.70                     | 6.33                      | 7.81                       | 2.13                     |
| 10 x 340/100              | 60                  | 4.18                    | 1.71                        | 11.00                 | 5.00                      | 4.62                 | 1.70                     | 6.33                      | 7.81                       | 2.13                     |
| 10 x 360/100              | 60                  | 4.18                    | 1.71                        | 11.00                 | 5.00                      | 4.62                 | 1.70                     | 6.33                      | 7.81                       | 2.13                     |
| 10 x 380/100              | 60                  | 4.18                    | 1.71                        | 11.00                 | 5.00                      | 4.62                 | 1.70                     | 6.33                      | 7.81                       | 2.13                     |
| 10 x 400/100              | 60                  | 4.18                    | 1.71                        | 11.00                 | 5.00                      | 4.62                 | 1.70                     | 6.33                      | 7.81                       | 2.13                     |

C24 ( $\rho_k=350\text{kg/m}^3$ )

Angle between screw axis and grain direction: 90 °

\* Characteristic values for calculation with EC5 (DIN EN 1995-1-1 with NA)

\*\* Permissible values with 3-fold security for calculation according to DIN 1052

 $F_{ax,k}$  :extraction resistance $F_{head,k}$  :head traction resistance $F_{V,Rk}$  :shearing**Typesetting and printing errors reserved. The specified values are planning aids, for projects for authorised professionals to carry out.**

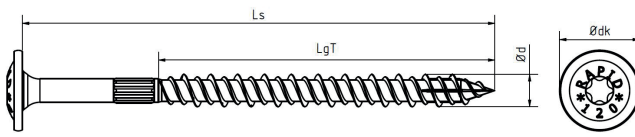


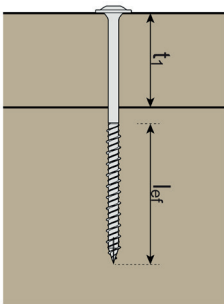
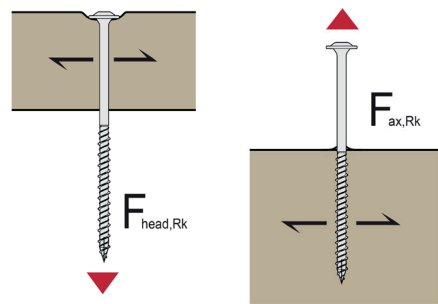
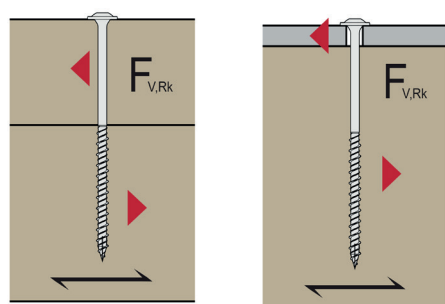
## Washer Head



Art. No.: 0160 3

| Screw Geometry and Properties |                      |        |        |        |
|-------------------------------|----------------------|--------|--------|--------|
| d                             | [mm]                 | ø 6    | ø 8    | ø 10   |
| d <sub>k</sub>                | [mm]                 | 14     | 20     | 25     |
| d <sub>i</sub>                | [mm]                 | 3.95   | 5.3    | 6.2    |
| f <sub>ax,90,k</sub>          | [N/mm <sup>2</sup> ] | 13     | 10.9   | 11     |
| f <sub>head</sub>             | [N/mm <sup>2</sup> ] | 16.7   | 17.6   | 15.2   |
| F <sub>tens,k</sub>           | [kN]                 | 13.1   | 23.3   | 35     |
| M <sub>y,k</sub>              | [Nmm]                | 10.700 | 22.600 | 33.600 |



| Geometry                                                                            | Tension (Axial)                                                                     | Shear Off (Lateral)                                                                  |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |

| Values for C24 |                            | Axial                                     |                                             |                                         |                                           | Shear Values                           |                                          |                                             |                                              |                                          |
|----------------|----------------------------|-------------------------------------------|---------------------------------------------|-----------------------------------------|-------------------------------------------|----------------------------------------|------------------------------------------|---------------------------------------------|----------------------------------------------|------------------------------------------|
|                |                            |                                           |                                             |                                         |                                           | Wood - Wood                            |                                          | Wood - Sheet Steel                          |                                              |                                          |
| ø x L          | t <sub>1,min</sub><br>[mm] | F <sub>head,Rk</sub> <sup>*</sup><br>[kN] | F <sub>head,max</sub> <sup>**</sup><br>[kN] | F <sub>ax,Rk</sub> <sup>*</sup><br>[kN] | F <sub>ax,max</sub> <sup>**</sup><br>[kN] | F <sub>V,Rk</sub> <sup>*</sup><br>[kN] | F <sub>V,max</sub> <sup>**</sup><br>[kN] | F <sub>V,Rk,thin</sub> <sup>*</sup><br>[kN] | F <sub>V,Rk,thick</sub> <sup>*</sup><br>[kN] | F <sub>V,max</sub> <sup>**</sup><br>[kN] |
| 6 x 60/40      | -                          | 3.27                                      | 0.98                                        | 3.12                                    | 1.2                                       | -                                      | -                                        | 2.17                                        | 3.17                                         | 0.77                                     |
| 6 x 80/50      | 30                         | 3.27                                      | 0.98                                        | 3.9                                     | 1.5                                       | 2.22                                   | 0.61                                     | 2.66                                        | 3.36                                         | 0.77                                     |
| 6 x 100/60     | 40                         | 3.27                                      | 0.98                                        | 4.68                                    | 1.8                                       | 2.49                                   | 0.61                                     | 2.86                                        | 3.56                                         | 0.77                                     |
| 6 x 120/70     | 50                         | 3.27                                      | 0.98                                        | 5.46                                    | 2.1                                       | 2.51                                   | 0.61                                     | 3.05                                        | 3.75                                         | 0.77                                     |
| 6 x 140/70     | 50                         | 3.27                                      | 0.98                                        | 5.46                                    | 2.1                                       | 2.51                                   | 0.61                                     | 3.05                                        | 3.75                                         | 0.77                                     |
| 6 x 160/70     | 50                         | 3.27                                      | 0.98                                        | 5.46                                    | 2.1                                       | 2.51                                   | 0.61                                     | 3.05                                        | 3.75                                         | 0.77                                     |
| 6 x 180/70     | 50                         | 3.27                                      | 0.98                                        | 5.46                                    | 2.1                                       | 2.51                                   | 0.61                                     | 3.05                                        | 3.75                                         | 0.77                                     |
| 6 x 200/70     | 50                         | 3.27                                      | 0.98                                        | 5.46                                    | 2.1                                       | 2.51                                   | 0.61                                     | 3.05                                        | 3.75                                         | 0.77                                     |
| 6 x 220/70     | 50                         | 3.27                                      | 0.98                                        | 5.46                                    | 2.1                                       | 2.51                                   | 0.61                                     | 3.05                                        | 3.75                                         | 0.77                                     |
| 6 x 240/70     | 50                         | 3.27                                      | 0.98                                        | 5.46                                    | 2.1                                       | 2.51                                   | 0.61                                     | 3.05                                        | 3.75                                         | 0.77                                     |
| 6 x 260/70     | 50                         | 3.27                                      | 0.98                                        | 5.46                                    | 2.1                                       | 2.51                                   | 0.61                                     | 3.05                                        | 3.75                                         | 0.77                                     |
| 6 x 280/70     | 50                         | 3.27                                      | 0.98                                        | 5.46                                    | 2.1                                       | 2.51                                   | 0.61                                     | 3.05                                        | 3.75                                         | 0.77                                     |
| 6 x 300/70     | 50                         | 3.27                                      | 0.98                                        | 5.46                                    | 2.1                                       | 2.51                                   | 0.61                                     | 3.05                                        | 3.75                                         | 0.77                                     |

| Values for C24                        |                            | Axial                          |                                    |                              |                                  | Shear Values                |                                 |                                  |                                   |                                 |
|---------------------------------------|----------------------------|--------------------------------|------------------------------------|------------------------------|----------------------------------|-----------------------------|---------------------------------|----------------------------------|-----------------------------------|---------------------------------|
|                                       |                            |                                |                                    |                              |                                  | Wood - Wood                 |                                 | Wood - Sheet Steel               |                                   |                                 |
| $\varnothing \times L/L_{\text{gew}}$ | $t_{1,\text{min}}$<br>[mm] | $F_{\text{head,Rk}}^*$<br>[kN] | $F_{\text{head,max}}^{**}$<br>[kN] | $F_{\text{ax,Rk}}^*$<br>[kN] | $F_{\text{ax,max}}^{**}$<br>[kN] | $F_{V,\text{Rk}}^*$<br>[kN] | $F_{V,\text{max}}^{**}$<br>[kN] | $F_{V,\text{Rk,thin}}^*$<br>[kN] | $F_{V,\text{Rk,thick}}^*$<br>[kN] | $F_{V,\text{max}}^{**}$<br>[kN] |
| 8 x 80/50                             | 30                         | 7,04                           | 2,00                               | 4,36                         | 2,00                             | 3,08                        | 0,96                            | 3,54                             | 4,93                              | 1,36                            |
| 8 x 100/60                            | 40                         | 7,04                           | 2,00                               | 5,23                         | 2,40                             | 3,58                        | 1,10                            | 4,02                             | 5,14                              | 1,36                            |
| 8 x 120/80                            | 40                         | 7,04                           | 2,00                               | 6,98                         | 3,20                             | 4,02                        | 1,10                            | 4,46                             | 5,58                              | 1,36                            |
| 8 x 140/80                            | 60                         | 7,04                           | 2,00                               | 6,98                         | 3,20                             | 4,46                        | 1,10                            | 4,46                             | 5,58                              | 1,36                            |
| 8 x 160/80                            | 80                         | 7,04                           | 2,00                               | 6,98                         | 3,20                             | 4,46                        | 1,10                            | 4,46                             | 5,58                              | 1,36                            |
| 8 x 180/100                           | 80                         | 7,04                           | 2,00                               | 8,72                         | 4,00                             | 4,47                        | 1,10                            | 4,89                             | 6,02                              | 1,36                            |
| 8 x 200/100                           | 80                         | 7,04                           | 2,00                               | 8,72                         | 4,00                             | 4,47                        | 1,10                            | 4,89                             | 6,02                              | 1,36                            |
| 8 x 220/100                           | 80                         | 7,04                           | 2,00                               | 8,72                         | 4,00                             | 4,47                        | 1,10                            | 4,89                             | 6,02                              | 1,36                            |
| 8 x 240/100                           | 80                         | 7,04                           | 2,00                               | 8,72                         | 4,00                             | 4,47                        | 1,10                            | 4,89                             | 6,02                              | 1,36                            |
| 8 x 260/100                           | 80                         | 7,04                           | 2,00                               | 8,72                         | 4,00                             | 4,47                        | 1,10                            | 4,89                             | 6,02                              | 1,36                            |
| 8 x 280/100                           | 80                         | 7,04                           | 2,00                               | 8,72                         | 4,00                             | 4,47                        | 1,10                            | 4,89                             | 6,02                              | 1,36                            |
| 8 x 300/100                           | 80                         | 7,04                           | 2,00                               | 8,72                         | 4,00                             | 4,47                        | 1,10                            | 4,89                             | 6,02                              | 1,36                            |
| 8 x 320/100                           | 80                         | 7,04                           | 2,00                               | 8,72                         | 4,00                             | 4,47                        | 1,10                            | 4,89                             | 6,02                              | 1,36                            |
| 8 x 340/100                           | 80                         | 7,04                           | 2,00                               | 8,72                         | 4,00                             | 4,47                        | 1,10                            | 4,89                             | 6,02                              | 1,36                            |
| 8 x 360/100                           | 80                         | 7,04                           | 2,00                               | 8,72                         | 4,00                             | 4,47                        | 1,10                            | 4,89                             | 6,02                              | 1,36                            |
| 8 x 380/100                           | 80                         | 7,04                           | 2,00                               | 8,72                         | 4,00                             | 4,47                        | 1,10                            | 4,89                             | 6,02                              | 1,36                            |
| 8 x 400/100                           | 80                         | 7,04                           | 2,00                               | 8,72                         | 4,00                             | 4,47                        | 1,10                            | 4,89                             | 6,02                              | 1,36                            |
| 8 x 450/100                           | 80                         | 7,04                           | 2,00                               | 8,72                         | 4,00                             | 4,47                        | 1,10                            | 4,89                             | 6,02                              | 1,36                            |
| 10 x 100/60                           | 40                         | 9,50                           | 3,13                               | 6,60                         | 3,00                             | 4,47                        | 1,60                            | 5,18                             | 6,71                              | 2,13                            |
| 10 x 120/80                           | 40                         | 9,50                           | 3,13                               | 8,80                         | 4,00                             | 5,02                        | 1,60                            | 5,78                             | 7,26                              | 2,13                            |
| 10 x 140/80                           | 60                         | 9,50                           | 3,13                               | 8,80                         | 4,00                             | 5,78                        | 1,70                            | 5,78                             | 7,26                              | 2,13                            |
| 10 x 160/80                           | 80                         | 9,50                           | 3,13                               | 8,80                         | 4,00                             | 5,78                        | 1,70                            | 5,78                             | 7,26                              | 2,13                            |
| 10 x 180/100                          | 80                         | 9,50                           | 3,13                               | 11,00                        | 5,00                             | 5,95                        | 1,70                            | 6,33                             | 7,81                              | 2,13                            |
| 10 x 200/100                          | 80                         | 9,50                           | 3,13                               | 11,00                        | 5,00                             | 5,95                        | 1,70                            | 6,33                             | 7,81                              | 2,13                            |
| 10 x 220/100                          | 80                         | 9,50                           | 3,13                               | 11,00                        | 5,00                             | 5,95                        | 1,70                            | 6,33                             | 7,81                              | 2,13                            |
| 10 x 240/100                          | 80                         | 9,50                           | 3,13                               | 11,00                        | 5,00                             | 5,95                        | 1,70                            | 6,33                             | 7,81                              | 2,13                            |
| 10 x 260/100                          | 80                         | 9,50                           | 3,13                               | 11,00                        | 5,00                             | 5,95                        | 1,70                            | 6,33                             | 7,81                              | 2,13                            |
| 10 x 280/100                          | 80                         | 9,50                           | 3,13                               | 11,00                        | 5,00                             | 5,95                        | 1,70                            | 6,33                             | 7,81                              | 2,13                            |
| 10 x 300/100                          | 80                         | 9,50                           | 3,13                               | 11,00                        | 5,00                             | 5,95                        | 1,70                            | 6,33                             | 7,81                              | 2,13                            |
| 10 x 320/100                          | 80                         | 9,50                           | 3,13                               | 11,00                        | 5,00                             | 5,95                        | 1,70                            | 6,33                             | 7,81                              | 2,13                            |
| 10 x 340/100                          | 80                         | 9,50                           | 3,13                               | 11,00                        | 5,00                             | 5,95                        | 1,70                            | 6,33                             | 7,81                              | 2,13                            |
| 10 x 360/100                          | 80                         | 9,50                           | 3,13                               | 11,00                        | 5,00                             | 5,95                        | 1,70                            | 6,33                             | 7,81                              | 2,13                            |
| 10 x 380/100                          | 80                         | 9,50                           | 3,13                               | 11,00                        | 5,00                             | 5,95                        | 1,70                            | 6,33                             | 7,81                              | 2,13                            |
| 10 x 400/100                          | 80                         | 9,50                           | 3,13                               | 11,00                        | 5,00                             | 5,95                        | 1,70                            | 6,33                             | 7,81                              | 2,13                            |
| 10 x 450/100                          | 80                         | 9,50                           | 3,13                               | 11,00                        | 5,00                             | 5,95                        | 1,70                            | 6,33                             | 7,81                              | 2,13                            |

C24 ( $\rho_k=350\text{kg/m}^3$ )

Angle between screw axis and grain direction: 90 °

\* Characteristic values for calculation with EC5 (DIN EN 1995-1-1 with NA)

\*\* Permissible values with 3-fold security for calculation according to DIN 1052

 $F_{\text{ax,k}}$  :extraction resistance $F_{\text{head,k}}$  :head traction resistance $F_{V,\text{Rk}}$  :shearing**Typesetting and printing errors reserved. The specified values are planning aids, for projects for authorised professionals to carry out.**

# RAPID® Fully Threaded Wood Construction Screw With Cylinder Head

## Areas of application:

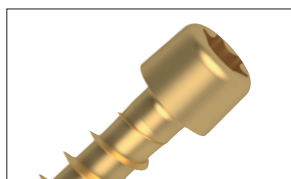
Fully threaded screw that can be used universally in new buildings and renovation areas for timber construction, carpentry, timber house and element construction. Suitable for creating non-positive connections as well as for reinforcement of transverse pressure or transverse tension.

Material: case-hardened steel

Surface: YellWin 500+ yellow

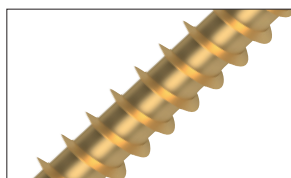
Dimensions: Ø 8.0 mm

Length: 120 to 400 mm



### Head geometry

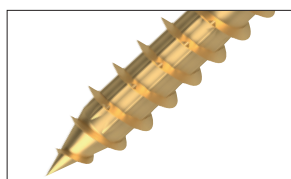
- Cylinder head: reduced explosive effect.
- Deep sinking of the head is possible.



### Thread

Full thread optimized for more efficient screwing

- Excellent pull-out values
- Excellent pressure values
- Maximum load capacity



### Patented compressor tip

- Faster bite with reduced screw-in torque.
- Reduced splitting effect.
- No pre-drilling necessary.



### Premium surface

- YellWin 500+ yellow.
- Up to 10 times higher corrosion protection in comparison to standard galvanic zinc plating (iridescent blue).

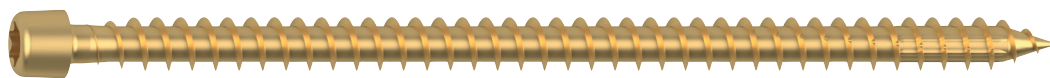


ETA-12/0373: European Technical Assessment



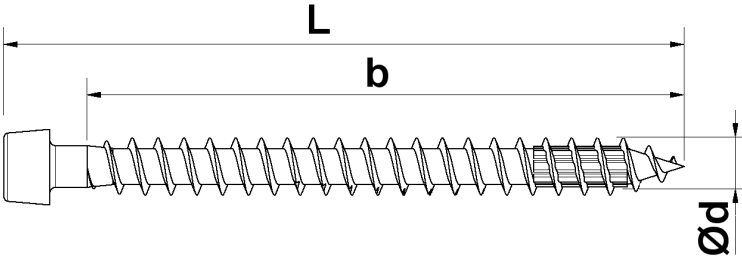
| Art. No.     | Nominal-Ø (d)<br>mm | Length (l) mm | Head     | Internal drive<br>TX | Head-Ø<br>mm | Thread length (b)<br>mm | PU /<br>piece |
|--------------|---------------------|---------------|----------|----------------------|--------------|-------------------------|---------------|
| 0190 480 120 | 8                   | 120           | Cylinder | 40                   | 10.2         | 110                     | 75            |
| 0190 480 140 | 8                   | 140           | Cylinder | 40                   | 10.2         | 130                     | 75            |
| 0190 480 160 | 8                   | 160           | Cylinder | 40                   | 10.2         | 150                     | 75            |
| 0190 480 180 | 8                   | 180           | Cylinder | 40                   | 10.2         | 170                     | 75            |
| 0190 480 200 | 8                   | 200           | Cylinder | 40                   | 10.2         | 190                     | 75            |
| 0190 480 220 | 8                   | 220           | Cylinder | 40                   | 10.2         | 210                     | 75            |
| 0190 480 240 | 8                   | 240           | Cylinder | 40                   | 10.2         | 230                     | 75            |
| 0190 480 260 | 8                   | 260           | Cylinder | 40                   | 10.2         | 250                     | 75            |
| 0190 480 280 | 8                   | 280           | Cylinder | 40                   | 10.2         | 270                     | 75            |
| 0190 480 300 | 8                   | 300           | Cylinder | 40                   | 10.2         | 290                     | 75            |
| 0190 480 350 | 8                   | 350           | Cylinder | 40                   | 10.2         | 340                     | 75            |
| 0190 480 400 | 8                   | 400           | Cylinder | 40                   | 10.2         | 390                     | 75            |

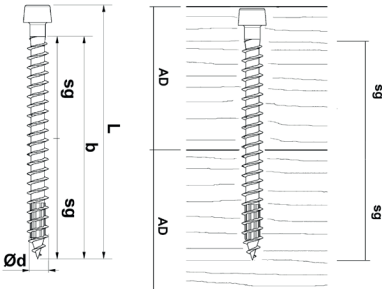
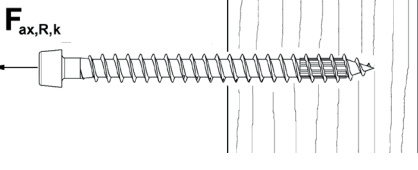
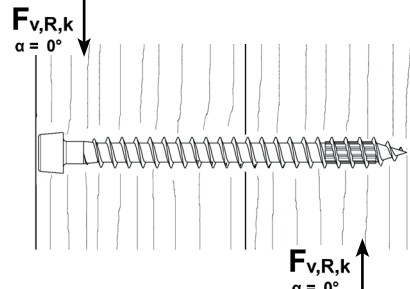
## Cylinder head



Art. No.: 0190 480

| Screw Geometry and Properties |                      |        |
|-------------------------------|----------------------|--------|
| d                             | [mm]                 | ø 8    |
| d <sub>k</sub>                | [mm]                 | 10,2   |
| d <sub>i</sub>                | [mm]                 | 5,20   |
| f <sub>ax,90,k</sub>          | [N/mm <sup>2</sup> ] | 13,1   |
| f <sub>head</sub>             | [N/mm <sup>2</sup> ] | -      |
| F <sub>tens,k</sub>           | [kN]                 | 24,1   |
| M <sub>y,k</sub>              | [Nmm]                | 20.300 |



| Geometry                                                                           | Tension (Axial)                                                                      | Shear Off (Lateral)                                                                  |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |

| Values for C24         |                        | Axial                        |                                | Shear Value Wood - Wood     |                               |
|------------------------|------------------------|------------------------------|--------------------------------|-----------------------------|-------------------------------|
| ø x L/L <sub>gew</sub> | s <sub>g</sub><br>[mm] | F <sub>ax,Rk</sub> *<br>[kN] | F <sub>ax,max</sub> **<br>[kN] | F <sub>v,Rk</sub> *<br>[kN] | F <sub>v,max</sub> **<br>[kN] |
| 8 x 120/110            | 55                     | 5,76                         | 2,20                           | 4,01                        | 0,94                          |
| 8 x 140/130            | 65                     | 6,81                         | 2,60                           | 4,27                        | 1,09                          |
| 8 x 160/150            | 75                     | 7,86                         | 3,00                           | 4,54                        | 1,09                          |
| 8 x 180/170            | 85                     | 8,91                         | 3,40                           | 4,80                        | 1,09                          |
| 8 x 200/190            | 95                     | 9,96                         | 3,80                           | 5,06                        | 1,09                          |
| 8 x 220/210            | 105                    | 11,00                        | 4,20                           | 5,14                        | 1,09                          |
| 8 x 240/230            | 115                    | 12,05                        | 4,60                           | 5,14                        | 1,09                          |
| 8 x 260/250            | 125                    | 13,10                        | 5,00                           | 5,14                        | 1,09                          |
| 8 x 280/270            | 135                    | 14,15                        | 5,40                           | 5,14                        | 1,09                          |
| 8 x 300/290            | 145                    | 15,20                        | 5,80                           | 5,14                        | 1,09                          |
| 8 x 350/340            | 170                    | 17,82                        | 6,80                           | 5,14                        | 1,09                          |
| 8 x 400/390            | 195                    | 20,44                        | 7,80                           | 5,14                        | 1,09                          |

C24 (ρ<sub>k</sub>=350kg/m<sup>3</sup>)

Angle between screw axis and grain direction: 90 °

\* Characteristic values for calculation with EC5 (DIN EN 1995-1-1 with NA)

\*\* Permissible values with 3-fold security for calculation according to DIN 1052

F<sub>ax,k</sub> :extraction resistance

F<sub>head,k</sub> :head traction resistance

F<sub>v,Rk</sub> :shearing

Typesetting and printing errors reserved. The specified values are planning aids, for projects for authorised professionals to carry out.



# Your advantages with RAPID® screws



## Specially hardened

Our screws are viscoplastic and have a bending angle of 45°. Elastic yet super strong.

## Static values

Our screws feature exceptionally high values, which means you need less screws in total.

## Product safety checks

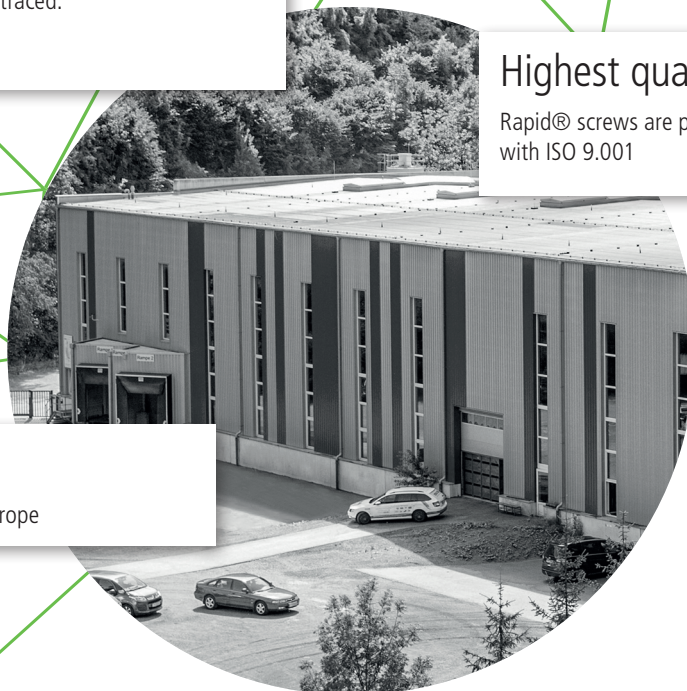
Starting at the raw materials extending to the finished product, every step is documented and can be traced.

## Highest quality

Rapid® screws are produced in accordance with ISO 9.001

## Made in Austria

Value creation in Austria/Europe



## Wide Range

We offer you a wide range of solutions.

## Focussing on the customer

All special dimensions, lengths and diameters: The right solution for every application.

## Safety

Our screws meet the European Technical Approval ETA 12/0373.

## Short transport routes

For a small ecological footprint

## Sustainability

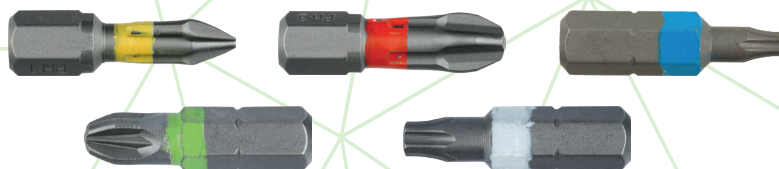
Taking responsibility seriously, Rapid® screws are manufactured in accordance with ISO 14001 and ISO 50001.

## Raw materials from Europe

Ensuring a continuous European value creation chain

## Complimentary products from RECA-UK

### RECA Power Bits



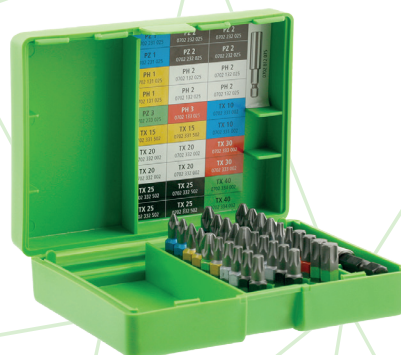
### RECA Power Bits Assortments



**RECA Bit Set TX** 31 pieces.  
Art. No. 0702 930 083



**RECA Bit Set Universal / Torx** 31 pieces.  
Art. No. 0702 930 081



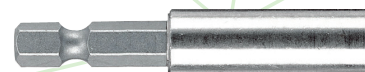
**RECA Bit Set PZ - TX - PH** 31 pieces.  
Art. No.: 0702 930 082



**RECA Bit Set Universal**, 10 pieces.  
Art. No. 0702 930 073



**RECA Bit Set Torx**, 10 pieces.  
Art. No.: 0702 930 072



**RECA Universal holder with spring clip and magnet 75mm.**  
Art. No.: 0702 812 075

For more information on these products and more, please see section 13 of the RECA-UK catalogue



## RECA Screwdrivers

### RECA Multi Screwdriver

Art. No.: 0701 9\*

Available individually



### RECA Multi Screwdriver Set

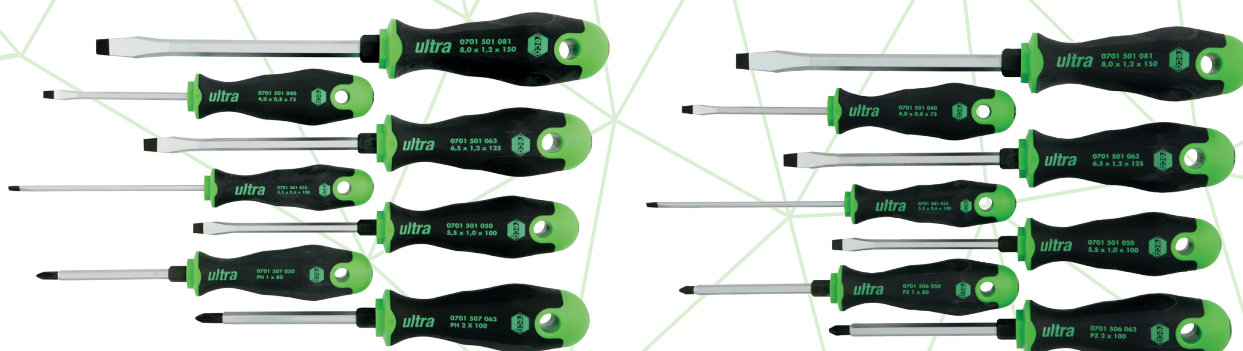


Also available in 9pc & 13pc set

### RECA Ultra Screwdriver

Art. No.: 0701 50\*

Available individually



Also available in two 7pc sets

For more information on our extensive hand tool range, check out section 14 of the RECA-UK catalogue





**RECA-UK LTD**

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