

## Vis à bois à tête plate

Vis trempées de haute fiabilité pour les constructions en bois



### Approbations et rapports

- ETA 17/0023



### Information produit

#### Caractéristiques et avantages

- Facile à visser
- Le filetage partiel sur la tige de la vis permet de serrer plusieurs éléments ensemble en toute sécurité sans séparation
- Fil cranté et revêtement en cire pour réduire la friction
- Évitement des fissures
- Application d'économie d'énergie et de batterie
- Version zinguée jaune ou blanche
- L'entraînement TX garantit une transmission sécurisée du couple de vissage et aucune sortie de l'embout
- Tête de rondelle large pour une meilleure résistance à l'arrachement

#### Application

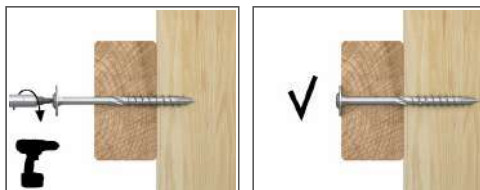
- Fixation du bois et des éléments de construction en bois
- Fixation des chevrons aux pannes
- Fixation de panneaux de particules sur des éléments en bois
- Joints généraux en bois
- Pergolas, tonnelles, cabanons

#### Matériaux de base

Approuvé pour une utilisation dans :

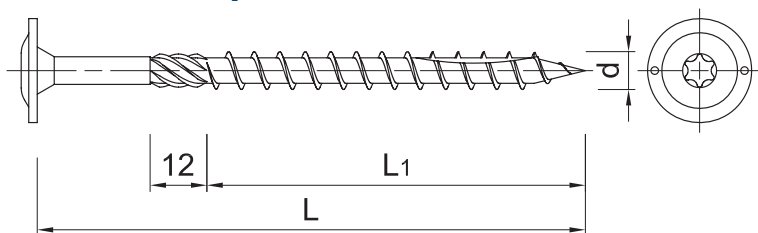
- Bois
- Charpente

### Guide d'installation



1. Choisissez la bonne longueur de vis
2. Enfoncez la vis tout droit jusqu'à ce que la tête affleure
3. Les vis à filetage partiel peuvent serrer les pièces en bois en évitant les espaces entre elles
4. Les vis à tête fraisée permettent un raccordement affleurant
5. Effets de la tête de lavage sur une résistance élevée à l'arrachement

Information produit



Taille	Code produit	Vis			Entraînement par vis
		Diametre	Logueur		
		d [mm]	L [mm]	L1 [mm]	
6,0	R-CS-60080-WH	6	80	50	T30
	R-CS-60100-WH	6	100	50	T30
	R-CS-60120-WH	6	120	75	T30
	R-CS-60140-WH	6	140	75	T30
	R-CS-60160-WH	6	160	75	T30
	R-CS-60180-WH	6	180	75	T30
	R-CS-60200-WH	6	200	75	T30
	R-CS-60220-WH	6	220	75	T30
	R-CS-60240-WH	6	240	75	T30
	R-CS-60080-WH-W	6	80	50	T30
	R-CS-60100-WH-W	6	100	50	T30
	R-CS-60120-WH-W	6	120	75	T30
	R-CS-60140-WH-W	6	140	75	T30
	8,0	R-CS-80080-WH	8	80	52
R-CS-80100-WH		8	100	52	T40
R-CS-80120-WH		8	120	80	T40
R-CS-80140-WH		8	140	80	T40
R-CS-80160-WH		8	160	80	T40
R-CS-80180-WH		8	180	80	T40
R-CS-80200-WH		8	200	80	T40
R-CS-80220-WH		8	220	80	T40
R-CS-80240-WH		8	240	80	T40
R-CS-80260-WH		8	260	80	T40
R-CS-80280-WH		8	280	80	T40
R-CS-80300-WH		8	300	80	T40
R-CS-80320-WH		8	320	80	T40
R-CS-80340-WH		8	340	80	T40
R-CS-80360-WH		8	360	80	T40
R-CS-80380-WH		8	380	80	T40
R-CS-80400-WH		8	400	80	T40
R-CS-80100-WH-W		8	100	52	T40
R-CS-80120-WH-W		8	120	80	T40
R-CS-80340-WH-W		8	340	80	T40
R-CS-80380-WH-W		8	380	80	T40
R-CS-80400-WH-W		8	400	80	T40
10,0	R-CS-10120-WH	10	120	80	T40
	R-CS-10140-WH	10	140	80	T40
	R-CS-10160-WH	10	160	80	T40
	R-CS-10180-WH	10	180	80	T40
	R-CS-10200-WH	10	200	80	T40
	R-CS-10220-WH	10	220	80	T40
	R-CS-10240-WH	10	240	80	T40
	R-CS-10260-WH	10	260	80	T40
	R-CS-10280-WH	10	280	80	T40
	R-CS-10300-WH	10	300	80	T40

## Information produit

Taille	Code produit	Vis			Entraînement par vis
		Diamètre	Longueur		
		d [mm]	L [mm]	L1 [mm]	- -
10,0	R-CS-10320-WH	10	320	80	T40
	R-CS-10340-WH	10	340	80	T40
	R-CS-10360-WH	10	360	80	T40
	R-CS-10380-WH	10	380	80	T40
	R-CS-10400-WH	10	400	80	T40
	R-CS-10120-WH-W	10	120	80	T40
	R-CS-10140-WH-W	10	140	80	T40
	R-CS-10160-WH-W	10	160	80	T40
	R-CS-10180-WH-W	10	180	80	T40
	R-CS-10220-WH-W	10	220	80	T40
	R-CS-10240-WH-W	10	240	80	T40
	R-CS-10340-WH-W	10	340	80	T40
	R-CS-10360-WH-W	10	360	80	T40
	R-CS-10380-WH-W	10	380	80	T40
R-CS-10400-WH-W	10	400	80	T40	

## Données d'installation

Taille			Ø6	Ø8	Ø10
Support			Charpente	Charpente	Charpente
Min. profondeur d'installation	$h_{nom}$	[mm]	24	32	40
Min. épaisseur du support	$h_{min}$	[mm]	48	64	80
Min. espacement	$s_{min}$	[mm]	30	30	30
Min. distance au bord	$c_{min}$	[mm]	30	30	30
Entraînement par vis			T30	T40	T40

## Données de performances de base

Données de performance pour une cheville unique sans influence de la distance au bord et de l'espacement

Taille			Ø6	Ø8	Ø10
Moment d'élasticité caractéristique	$M_{y,k}$	[Nmm]	1244	28080	46966
Résistance caractéristique à l'arrachement (perpendiculaire au fil)	$f_{ax,k}$	[N/mm <sup>2</sup> ]	11.59	16.82	22.47
Résistance caractéristique à l'arrachement (parallèle au grain)	$f_{ax,k}$	[N/mm <sup>2</sup> ]	6.71	9.9	10.42
Résistance caractéristique à la traction de la tête	$f_{head,k}$	[N/mm <sup>2</sup> ]	16.74	23.65	20.87
Résistance à la traction caractéristique	$f_{tens,k}$	[kN]	9.59	17.49	26.76
Résistance caractéristique à la torsion	$f_{tor,k}$	[Nm]	9.65	29.94	27.83
Rapport caractéristique des moments (le rapport du couple et de la résistance caractéristique)	$f_{tor,k} / R_{tor,k}$	[-]	2.21	4.31	1.76

## Données commerciales du produit

Code produit	Vis		Quantité [pcs]			Gewicht [kg]			Code barre
	Longueur [mm]		Boîte	extérieur	Palette	Boîte	extérieur	Palette	
R-CS-60080-WH	80	50	100.0	1200.0	38400.0	0.99	11.9	410.2	5906675389011
R-CS-60100-WH	100	50	100.0	1200.0	28800.0	1.22	14.7	382.2	5906675389042
R-CS-60120-WH	120	75	100.0	1200.0	38400.0	1.44	17.2	581.0	5906675389073
R-CS-60140-WH	140	75	100.0	1200.0	28800.0	1.64	19.6	500.9	5906675389097
R-CS-60160-WH	160	75	100.0	1200.0	38400.0	2.0	23.5	783.0	5906675422534
R-CS-60180-WH	180	75	100.0	800.0	25600.0	2.2	17.3	583.0	5906675422541

## Données commerciales du produit

Code produit	Vis		Quantité [pcs]			Poids [kg]			Code barre
	Longueur [mm]		Boîte	Extérieur	Palette	Boîte	Extérieur	Palette	
R-CS-60200-WH	200	75	100.0	800.0	25600.0	2.4	18.9	634.2	5906675422558
R-CS-60220-WH	220	75	100.0	800.0	25600.0	2.6	20.5	685.4	5906675422565
R-CS-60240-WH	240	75	100.0	800.0	25600.0	2.8	22.2	739.1	5906675422572
R-CS-60080-WH-W	80	50	100.0	1200.0	38400.0	0.99	11.9	410.2	5906675389028
R-CS-60100-WH-W	100	50	100.0	1200.0	38400.0	1.22	14.7	499.6	5906675389059
R-CS-60120-WH-W	120	75							
R-CS-60140-WH-W	140	75							
R-CS-80080-WH	80	52	50.0	600.0	14400.0	1.16	13.9	363.7	5906675077512
R-CS-80100-WH	100	52	50.0	600.0	14400.0	1.38	16.6	427.2	5906675077529
R-CS-80120-WH	120	80	50.0	600.0	14400.0	1.56	18.7	478.4	5906675077536
R-CS-80140-WH	140	80	50.0	600.0	14400.0	1.76	21.2	538.0	5906675077543
R-CS-80160-WH	160	80	50.0	600.0	14400.0	2.0	24.2	609.7	5906675077550
R-CS-80180-WH	180	80	50.0	400.0	9600.0	2.3	18.1	463.6	5906675077567
R-CS-80200-WH	200	80	50.0	400.0	9600.0	2.3	18.5	474.5	5906675077574
R-CS-80220-WH	220	80	50.0	400.0	9600.0	2.6	20.5	521.9	5906675077581
R-CS-80240-WH	240	80	50.0	400.0	9600.0	2.8	22.2	562.6	5906675077598
R-CS-80260-WH	260	80	50.0	400.0	9600.0	2.9	23.4	590.7	5906675077604
R-CS-80280-WH	280	80	50.0	50.0	6400.0	3.2	3.2	443.2	5906675077611
R-CS-80300-WH	300	80	50.0	50.0	6400.0	3.4	3.4	469.3	5906675077628
R-CS-80320-WH	320	80	50.0	50.0	6400.0	3.7	3.7	508.8	5906675077635
R-CS-80340-WH	340	80	25.0	25.0	3200.0	2.1	2.1	296.0	5906675077642
R-CS-80360-WH	360	80	25.0	25.0	3200.0	2.2	2.2	310.3	5906675077659
R-CS-80380-WH	380	80	25.0	25.0	4550.0	2.2	2.2	438.2	5906675077666
R-CS-80400-WH	400	80	25.0	25.0	4550.0	2.4	2.4	457.9	5906675077673
R-CS-80100-WH-W	100	52	50.0	600.0	12000.0	1.38	16.6	361.5	5906675230061
R-CS-80120-WH-W	120	80	50.0	600.0	15000.0	1.57	18.9	502.3	5906675230078
R-CS-80340-WH-W	340	80	25.0	25.0	3200.0	2.1	2.1	297.3	5906675230191
R-CS-80380-WH-W	380	80	25.0	25.0	4550.0	2.2	2.2	438.2	5906675230214
R-CS-80400-WH-W	400	80	25.0	25.0	4550.0	2.4	2.4	461.5	5906675230238
R-CS-10120-WH	120	80	50.0	50.0	8400.0	1.92	1.92	352.6	5906675388717
R-CS-10140-WH	140	80	50.0	50.0	8400.0	2.2	2.2	405.5	5906675388748
R-CS-10160-WH	160	80	50.0	50.0	8400.0	2.8	2.8	497.3	5906675428550
R-CS-10180-WH	180	80	50.0	50.0	8400.0	3.1	3.1	557.7	5906675428567
R-CS-10200-WH	200	80	50.0	50.0	8400.0	3.1	3.1	557.5	5906675388779
R-CS-10220-WH	220	80	50.0	50.0	8400.0	3.7	3.7	650.6	5906675428574
R-CS-10240-WH	240	80	50.0	50.0	8400.0	4.0	4.0	704.3	5906675428581
R-CS-10260-WH	260	80	50.0	50.0	5600.0	4.1	4.1	487.5	5906675388847
R-CS-10280-WH	280	80	50.0	50.0	5600.0	4.6	4.6	543.4	5906675428598
R-CS-10300-WH	300	80	50.0	50.0	5600.0	4.9	4.9	577.6	5906675428604
R-CS-10320-WH	320	80	50.0	50.0	5600.0	5.2	5.2	613.9	5906675428611
R-CS-10340-WH	340	80	25.0	25.0	4550.0	2.8	2.8	532.3	5906675428635
R-CS-10360-WH	360	80	25.0	25.0	4550.0	2.9	2.9	560.8	5906675428642
R-CS-10380-WH	380	80	25.0	25.0	4550.0	3.1	3.1	586.6	5906675428659
R-CS-10400-WH	400	80	25.0	25.0	4550.0	3.2	3.2	613.3	5906675428666
R-CS-10120-WH-W	120	80	50.0	50.0	8400.0	1.92	1.92	352.6	5906675388724
R-CS-10140-WH-W	140	80	50.0	50.0	8400.0	2.2	2.2	405.5	5906675388755
R-CS-10160-WH-W	160	80							
R-CS-10180-WH-W	180	80							
R-CS-10220-WH-W	220	80	50.0	50.0	8400.0	3.4	3.4	604.4	5906675388809
R-CS-10240-WH-W	240	80	50.0	50.0	8400.0	3.7	3.7	658.2	5906675388823
R-CS-10340-WH-W	340	80	25.0	25.0	4550.0	2.7	2.7	524.1	5906675388939
R-CS-10360-WH-W	360	80	25.0	25.0	4550.0	2.9	2.9	556.9	5906675388953
R-CS-10380-WH-W	380	80	25.0	25.0	4550.0	3.1	3.1	597.1	5906675388977
R-CS-10400-WH-W	400	80	25.0	25.0	4550.0	3.3	3.3	631.2	5906675388991

1) ETA 17/0023

## Houtschroef met platte kop

Hoge betrouwbaarheid geharde schroeven voor houten constructies



### Goedkeuringen en rapportage

- ETA 17/0023



### Productinformatie

#### Kenmerken en voordelen

- Gemakkelijk te schroeven
- Dankzij de gedeeltelijke schroefdraad op de schroefschacht kunnen meerdere items veilig en zonder scheiding aan elkaar worden vastgemaakt
- Gekeerde draad en wascoating om wrijving te verminderen
- Voorkomen van scheuren
- Energie- en batterijbesparende app
- Geel of wit verzinkte uitvoering
- De TX-aandrijving garandeert een veilige overdracht van het schroefmoment en geen bituittreding
- Grote sproeierkop voor betere weerstand tegen scheuren

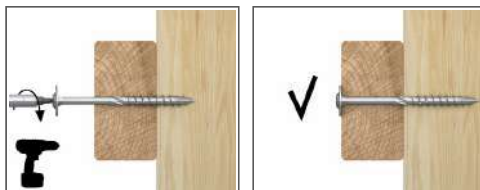
#### Toepassing

- Bevestigen van hout en houten constructie-elementen
- Bevestiging van de spanten aan de gordingen
- Het bevestigen van spaanplaten op houten elementen
- Algemene houtverbindingen
- Pergola's, priëlen, schuurtjes

#### Basismaterialen

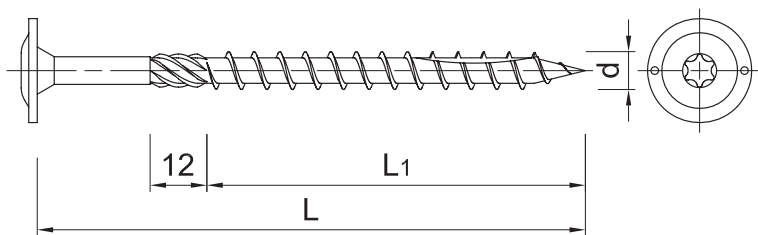
- Goedgekeurd voor gebruik in:
- hout
  - Kader

### Installatie gids



1. Kies de juiste schroeflengte
2. Draai de schroef recht naar binnen totdat de kop gelijk ligt
3. Schroeven met gedeeltelijke schroefdraad kunnen houten onderdelen vastzetten en gaten ertussen vermijden
4. Verzonken schroeven maken een vlakke aansluiting mogelijk
5. Effecten van de schroefkop op de hoge uittreksterkte

**Productinformatie**



Maat	Productcode	Schroef			Schroevendraaier
		Diameter	Lengte		
		d [mm]	L [mm]	L1 [mm]	
6,0	R-CS-60080-WH	6	80	50	T30
	R-CS-60100-WH	6	100	50	T30
	R-CS-60120-WH	6	120	75	T30
	R-CS-60140-WH	6	140	75	T30
	R-CS-60160-WH	6	160	75	T30
	R-CS-60180-WH	6	180	75	T30
	R-CS-60200-WH	6	200	75	T30
	R-CS-60220-WH	6	220	75	T30
	R-CS-60240-WH	6	240	75	T30
	R-CS-60080-WH-W	6	80	50	T30
	R-CS-60100-WH-W	6	100	50	T30
	R-CS-60120-WH-W	6	120	75	T30
	R-CS-60140-WH-W	6	140	75	T30
	8,0	R-CS-80080-WH	8	80	52
R-CS-80100-WH		8	100	52	T40
R-CS-80120-WH		8	120	80	T40
R-CS-80140-WH		8	140	80	T40
R-CS-80160-WH		8	160	80	T40
R-CS-80180-WH		8	180	80	T40
R-CS-80200-WH		8	200	80	T40
R-CS-80220-WH		8	220	80	T40
R-CS-80240-WH		8	240	80	T40
R-CS-80260-WH		8	260	80	T40
R-CS-80280-WH		8	280	80	T40
R-CS-80300-WH		8	300	80	T40
R-CS-80320-WH		8	320	80	T40
R-CS-80340-WH		8	340	80	T40
R-CS-80360-WH		8	360	80	T40
R-CS-80380-WH		8	380	80	T40
R-CS-80400-WH		8	400	80	T40
R-CS-80100-WH-W		8	100	52	T40
R-CS-80120-WH-W		8	120	80	T40
R-CS-80340-WH-W		8	340	80	T40
R-CS-80380-WH-W		8	380	80	T40
R-CS-80400-WH-W		8	400	80	T40
10,0	R-CS-10120-WH	10	120	80	T40
	R-CS-10140-WH	10	140	80	T40
	R-CS-10160-WH	10	160	80	T40
	R-CS-10180-WH	10	180	80	T40
	R-CS-10200-WH	10	200	80	T40
	R-CS-10220-WH	10	220	80	T40
	R-CS-10240-WH	10	240	80	T40
	R-CS-10260-WH	10	260	80	T40
	R-CS-10280-WH	10	280	80	T40
	R-CS-10300-WH	10	300	80	T40

## Productinformatie

Maat	Productcode	Schroef			Schroevendraaier
		Diameter	Lengte		
		d [mm]	L [mm]	L1 [mm]	
10,0	R-CS-10320-WH	10	320	80	T40
	R-CS-10340-WH	10	340	80	T40
	R-CS-10360-WH	10	360	80	T40
	R-CS-10380-WH	10	380	80	T40
	R-CS-10400-WH	10	400	80	T40
	R-CS-10120-WH-W	10	120	80	T40
	R-CS-10140-WH-W	10	140	80	T40
	R-CS-10160-WH-W	10	160	80	T40
	R-CS-10180-WH-W	10	180	80	T40
	R-CS-10220-WH-W	10	220	80	T40
	R-CS-10240-WH-W	10	240	80	T40
	R-CS-10340-WH-W	10	340	80	T40
	R-CS-10360-WH-W	10	360	80	T40
	R-CS-10380-WH-W	10	380	80	T40
R-CS-10400-WH-W	10	400	80	T40	

## Installatiegegevens

Maat			Ø6	Ø8	Ø10
Steun			Kader	Kader	Kader
Min. installatie diepte	$h_{nom}$	[mm]	24	32	40
Min. ondersteuning dikte	$h_{min}$	[mm]	48	64	80
Min. spatiering	$s_{min}$	[mm]	30	30	30
Min. afstand tot rand	$c_{min}$	[mm]	30	30	30
Schroevendraaier	-		T30	T40	T40

## Basisprestatiegegevens

Prestatiegegevens voor een enkel anker zonder invloed van randafstand en -afstand

Maat			Ø6	Ø8	Ø10
Karakteristiek moment van elasticiteit	$M_{y,k}$	[Nmm]	1244	28080	46966
Karakteristieke scheurweerstand (loodrecht op de nerf)	$f_{ax,k}$	[N/mm <sup>2</sup> ]	11.59	16.82	22.47
Karakteristieke weerstand tegen scheuren (parallel aan korrel)	$f_{ax,k}$	[N/mm <sup>2</sup> ]	6.71	9.9	10.42
Karakteristieke treksterkte van de kop	$f_{head,k}$	[N/mm <sup>2</sup> ]	16.74	23.65	20.87
Karakteristieke treksterkte	$f_{tens,k}$	[kN]	9.59	17.49	26.76
Karakteristieke weerstand tegen torsie	$f_{tor,k}$	[Nm]	9.65	29.94	27.83
Karakteristieke verhouding van momenten (de verhouding van koppel en karakteristieke weerstand)	$f_{tor,k} / R_{tor,k}$	[-]	2.21	4.31	1.76

## Commerciële productgegevens

Productcode	Schroef		Hoeveelheid [st.]			Gewicht [kg]			Streepjescode
	Lengte [mm]		Doos	buiten	Palette	Doos	buiten	Palette	
R-CS-60080-WH	80	50	100.0	1200.0	38400.0	0.99	11.9	410.2	5906675389011
R-CS-60100-WH	100	50	100.0	1200.0	28800.0	1.22	14.7	382.2	5906675389042
R-CS-60120-WH	120	75	100.0	1200.0	38400.0	1.44	17.2	581.0	5906675389073
R-CS-60140-WH	140	75	100.0	1200.0	28800.0	1.64	19.6	500.9	5906675389097
R-CS-60160-WH	160	75	100.0	1200.0	38400.0	2.0	23.5	783.0	5906675422534
R-CS-60180-WH	180	75	100.0	800.0	25600.0	2.2	17.3	583.0	5906675422541

## Commerciële productgegevens

Productcode	Schroef		Hoeveelheid [st.]			Gewicht [kg]			Streepjescode
	Länge [mm]		Doos	Buiten	Palet	Doos	Buiten	Palet	
R-CS-60200-WH	200	75	100.0	800.0	25600.0	2.4	18.9	634.2	5906675422558
R-CS-60220-WH	220	75	100.0	800.0	25600.0	2.6	20.5	685.4	5906675422565
R-CS-60240-WH	240	75	100.0	800.0	25600.0	2.8	22.2	739.1	5906675422572
R-CS-60080-WH-W	80	50	100.0	1200.0	38400.0	0.99	11.9	410.2	5906675389028
R-CS-60100-WH-W	100	50	100.0	1200.0	38400.0	1.22	14.7	499.6	5906675389059
R-CS-60120-WH-W	120	75							
R-CS-60140-WH-W	140	75							
R-CS-80080-WH	80	52	50.0	600.0	14400.0	1.16	13.9	363.7	5906675077512
R-CS-80100-WH	100	52	50.0	600.0	14400.0	1.38	16.6	427.2	5906675077529
R-CS-80120-WH	120	80	50.0	600.0	14400.0	1.56	18.7	478.4	5906675077536
R-CS-80140-WH	140	80	50.0	600.0	14400.0	1.76	21.2	538.0	5906675077543
R-CS-80160-WH	160	80	50.0	600.0	14400.0	2.0	24.2	609.7	5906675077550
R-CS-80180-WH	180	80	50.0	400.0	9600.0	2.3	18.1	463.6	5906675077567
R-CS-80200-WH	200	80	50.0	400.0	9600.0	2.3	18.5	474.5	5906675077574
R-CS-80220-WH	220	80	50.0	400.0	9600.0	2.6	20.5	521.9	5906675077581
R-CS-80240-WH	240	80	50.0	400.0	9600.0	2.8	22.2	562.6	5906675077598
R-CS-80260-WH	260	80	50.0	400.0	9600.0	2.9	23.4	590.7	5906675077604
R-CS-80280-WH	280	80	50.0	50.0	6400.0	3.2	3.2	443.2	5906675077611
R-CS-80300-WH	300	80	50.0	50.0	6400.0	3.4	3.4	469.3	5906675077628
R-CS-80320-WH	320	80	50.0	50.0	6400.0	3.7	3.7	508.8	5906675077635
R-CS-80340-WH	340	80	25.0	25.0	3200.0	2.1	2.1	296.0	5906675077642
R-CS-80360-WH	360	80	25.0	25.0	3200.0	2.2	2.2	310.3	5906675077659
R-CS-80380-WH	380	80	25.0	25.0	4550.0	2.2	2.2	438.2	5906675077666
R-CS-80400-WH	400	80	25.0	25.0	4550.0	2.4	2.4	457.9	5906675077673
R-CS-80100-WH-W	100	52	50.0	600.0	12000.0	1.38	16.6	361.5	5906675230061
R-CS-80120-WH-W	120	80	50.0	600.0	15000.0	1.57	18.9	502.3	5906675230078
R-CS-80340-WH-W	340	80	25.0	25.0	3200.0	2.1	2.1	297.3	5906675230191
R-CS-80380-WH-W	380	80	25.0	25.0	4550.0	2.2	2.2	438.2	5906675230214
R-CS-80400-WH-W	400	80	25.0	25.0	4550.0	2.4	2.4	461.5	5906675230238
R-CS-10120-WH	120	80	50.0	50.0	8400.0	1.92	1.92	352.6	5906675388717
R-CS-10140-WH	140	80	50.0	50.0	8400.0	2.2	2.2	405.5	5906675388748
R-CS-10160-WH	160	80	50.0	50.0	8400.0	2.8	2.8	497.3	5906675428550
R-CS-10180-WH	180	80	50.0	50.0	8400.0	3.1	3.1	557.7	5906675428567
R-CS-10200-WH	200	80	50.0	50.0	8400.0	3.1	3.1	557.5	5906675388779
R-CS-10220-WH	220	80	50.0	50.0	8400.0	3.7	3.7	650.6	5906675428574
R-CS-10240-WH	240	80	50.0	50.0	8400.0	4.0	4.0	704.3	5906675428581
R-CS-10260-WH	260	80	50.0	50.0	5600.0	4.1	4.1	487.5	5906675388847
R-CS-10280-WH	280	80	50.0	50.0	5600.0	4.6	4.6	543.4	5906675428598
R-CS-10300-WH	300	80	50.0	50.0	5600.0	4.9	4.9	577.6	5906675428604
R-CS-10320-WH	320	80	50.0	50.0	5600.0	5.2	5.2	613.9	5906675428611
R-CS-10340-WH	340	80	25.0	25.0	4550.0	2.8	2.8	532.3	5906675428635
R-CS-10360-WH	360	80	25.0	25.0	4550.0	2.9	2.9	560.8	5906675428642
R-CS-10380-WH	380	80	25.0	25.0	4550.0	3.1	3.1	586.6	5906675428659
R-CS-10400-WH	400	80	25.0	25.0	4550.0	3.2	3.2	613.3	5906675428666
R-CS-10120-WH-W	120	80	50.0	50.0	8400.0	1.92	1.92	352.6	5906675388724
R-CS-10140-WH-W	140	80	50.0	50.0	8400.0	2.2	2.2	405.5	5906675388755
R-CS-10160-WH-W	160	80							
R-CS-10180-WH-W	180	80							
R-CS-10220-WH-W	220	80	50.0	50.0	8400.0	3.4	3.4	604.4	5906675388809
R-CS-10240-WH-W	240	80	50.0	50.0	8400.0	3.7	3.7	658.2	5906675388823
R-CS-10340-WH-W	340	80	25.0	25.0	4550.0	2.7	2.7	524.1	5906675388939
R-CS-10360-WH-W	360	80	25.0	25.0	4550.0	2.9	2.9	556.9	5906675388953
R-CS-10380-WH-W	380	80	25.0	25.0	4550.0	3.1	3.1	597.1	5906675388977
R-CS-10400-WH-W	400	80	25.0	25.0	4550.0	3.3	3.3	631.2	5906675388991

1) ETA 17/0023



# R-CS-WH Holzschrauben mit Tellerkopf

Hochzuverlässige gehärtete Schrauben für Holzkonstruktionen



## Genehmigungen und Berichte

- ETA 17/0023



## Produktinformation

### Funktionen und Vorteile

- Leichtes Einschrauben
- Durch das Teilgewinde am Schaft der Schraube können mehrere Elemente sicher und ohne Trennung zusammengeklemmt werden
- Gekerbtes Gewinde und Wachsbeschichtung für reduzierte Reibung
- Rissvermeidung
- Kraft- und batteriesparende Anwendung
- Gelb oder weiß verzinkte Ausführung
- TX-Antrieb garantiert sichere Übertragung des Einschraubdrehmoments und kein Herausspringen des Bits
- Breiter Scheibenkopf für bessere Durchzugsfestigkeit

### Anwendungen

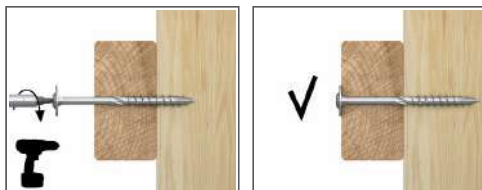
- Befestigung von Holz und Holzbauerelementen
- Befestigung von Sparren an Dachsparren
- Befestigung von Spanplatten an Holzelementen
- Allgemeine Holzverbindungen
- Pergolen, Lauben, Schuppen

### Grundmaterialien

Zugelassen für den Einsatz in:

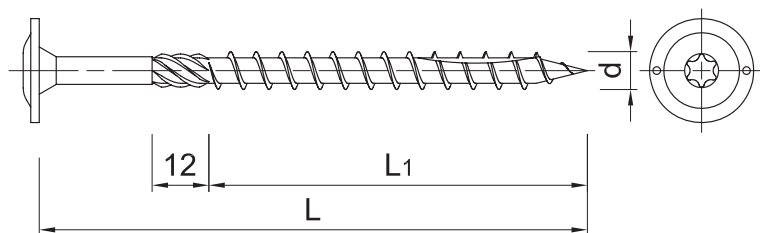
- Holz
- Bauholz

## Installationsanleitung



1. Wählen Sie die richtige Schraubenlänge
2. Drehen Sie die Schraube gerade ein, bis der Kopf bündig sitzt
3. Schrauben mit Teilgewinde können Holzteile klemmen und dabei Zwischenräume vermeiden
4. Schrauben mit Senkkopf ermöglichen eine bündige Verbindung
5. Ein Scheibenkopf wirkt sich auf einen hohen Durchzugswiderstand aus

## Produktinformation



Größe	Produktcode	Schrauben			Schraubenantrieb
		Durchmesser	Länge		
		d [mm]	L [mm]	L1 [mm]	
6,0	R-CS-60080-WH	6	80	50	T30
	R-CS-60100-WH	6	100	50	T30
	R-CS-60120-WH	6	120	75	T30
	R-CS-60140-WH	6	140	75	T30
	R-CS-60160-WH	6	160	75	T30
	R-CS-60180-WH	6	180	75	T30
	R-CS-60200-WH	6	200	75	T30
	R-CS-60220-WH	6	220	75	T30
	R-CS-60240-WH	6	240	75	T30
	R-CS-60080-WH-W	6	80	50	T30
	R-CS-60100-WH-W	6	100	50	T30
	R-CS-60120-WH-W	6	120	75	T30
	R-CS-60140-WH-W	6	140	75	T30
	8,0	R-CS-80080-WH	8	80	52
R-CS-80100-WH		8	100	52	T40
R-CS-80120-WH		8	120	80	T40
R-CS-80140-WH		8	140	80	T40
R-CS-80160-WH		8	160	80	T40
R-CS-80180-WH		8	180	80	T40
R-CS-80200-WH		8	200	80	T40
R-CS-80220-WH		8	220	80	T40
R-CS-80240-WH		8	240	80	T40
R-CS-80260-WH		8	260	80	T40
R-CS-80280-WH		8	280	80	T40
R-CS-80300-WH		8	300	80	T40
R-CS-80320-WH		8	320	80	T40
R-CS-80340-WH		8	340	80	T40
R-CS-80360-WH		8	360	80	T40
R-CS-80380-WH		8	380	80	T40
R-CS-80400-WH		8	400	80	T40
R-CS-80100-WH-W		8	100	52	T40
R-CS-80120-WH-W		8	120	80	T40
R-CS-80340-WH-W		8	340	80	T40
R-CS-80380-WH-W		8	380	80	T40
R-CS-80400-WH-W		8	400	80	T40
10,0	R-CS-10120-WH	10	120	80	T40
	R-CS-10140-WH	10	140	80	T40
	R-CS-10160-WH	10	160	80	T40
	R-CS-10180-WH	10	180	80	T40
	R-CS-10200-WH	10	200	80	T40
	R-CS-10220-WH	10	220	80	T40
	R-CS-10240-WH	10	240	80	T40
	R-CS-10260-WH	10	260	80	T40
	R-CS-10280-WH	10	280	80	T40
	R-CS-10300-WH	10	300	80	T40

FREIE DEUTSCHE ÜBERSETZUNG  
ADAM MATERIALUX

## Product information

Größe	Produktcode	Schrauben			Schraubenantrieb
		Durchmesser	Länge		
		d	L	L1	
		[mm]	[mm]	[mm]	-
10,0	R-CS-10320-WH	10	320	80	T40
	R-CS-10340-WH	10	340	80	T40
	R-CS-10360-WH	10	360	80	T40
	R-CS-10380-WH	10	380	80	T40
	R-CS-10400-WH	10	400	80	T40
	R-CS-10120-WH-W	10	120	80	T40
	R-CS-10140-WH-W	10	140	80	T40
	R-CS-10160-WH-W	10	160	80	T40
	R-CS-10180-WH-W	10	180	80	T40
	R-CS-10220-WH-W	10	220	80	T40
	R-CS-10240-WH-W	10	240	80	T40
	R-CS-10340-WH-W	10	340	80	T40
	R-CS-10360-WH-W	10	360	80	T40
	R-CS-10380-WH-W	10	380	80	T40
R-CS-10400-WH-W	10	400	80	T40	

## Installationsdaten

Größe			Ø6	Ø8	Ø10
Unterstützung			Rahmen	Rahmen	Rahmen
Mindest. Einbautiefe	$h_{nom}$	[mm]	24	32	40
Mindest. Substratdicke	$h_{min}$	[mm]	48	64	80
Mindest. Abstand	$s_{min}$	[mm]	30	30	30
Mindest. Abstand zum Rand	$c_{min}$	[mm]	30	30	30
Schraubenantrieb	-		T30	T40	T40

## Grundlegende Leistungsdaten

Leistungsdaten für Einzelanker ohne Einfluss von Rand- und Achsabständen

Größe			Ø6	Ø8	Ø10
Charakteristisches FlieBmoment	$M_{y,k}$	[Nmm]	1244	28080	46966
Charakteristische Auszugsfestigkeit (senkrecht zur Faserrichtung)	$f_{ax,k}$	[N/mm <sup>2</sup> ]	11.59	16.82	22.47
Charakteristische Auszugsfestigkeit (parallel zur Faserrichtung)	$f_{ax,k}$	[N/mm <sup>2</sup> ]	6.71	9.9	10.42
Charakteristische Kopfdurchzugsfestigkeit	$f_{head,k}$	[N/mm <sup>2</sup> ]	16.74	23.65	20.87
Charakteristische Zugfestigkeit	$f_{tens,k}$	[kN]	9.59	17.49	26.76
Charakteristische Torsionsfestigkeit	$f_{tor,k}$	[Nm]	9.65	29.94	27.83
Charakteristisches Momentenverhältnis (Verhältnis von Drehmoment und charakteristischem Widerstand)	$f_{tor,k} / R_{tor,k}$	[-]	2.21	4.31	1.76

## Kommerzielle Produktdaten

Produktcode	Schrauben		Menge [Stück]			Gewicht [kg]			Barcode
	Länge [mm]		Kasten	Äußere	Palette	Kasten	Äußere	Palette	
R-CS-60080-WH	80	50	100.0	1200.0	38400.0	0.99	11.9	410.2	5906675389011
R-CS-60100-WH	100	50	100.0	1200.0	28800.0	1.22	14.7	382.2	5906675389042
R-CS-60120-WH	120	75	100.0	1200.0	38400.0	1.44	17.2	581.0	5906675389073
R-CS-60140-WH	140	75	100.0	1200.0	28800.0	1.64	19.6	500.9	5906675389097
R-CS-60160-WH	160	75	100.0	1200.0	38400.0	2.0	23.5	783.0	5906675422534
R-CS-60180-WH	180	75	100.0	800.0	25600.0	2.2	17.3	583.0	5906675422541

## Product commercial data

Produktcode	Schrauben		Menge [Stk]			Gewicht (kg)			Barcode
	Length [mm]		Kasten	Äußere	Palette	Kasten	Äußere	Palette	
R-CS-60200-WH	200	75	100.0	800.0	25600.0	2.4	18.9	634.2	5906675422558
R-CS-60220-WH	220	75	100.0	800.0	25600.0	2.6	20.5	685.4	5906675422565
R-CS-60240-WH	240	75	100.0	800.0	25600.0	2.8	22.2	739.1	5906675422572
R-CS-60080-WH-W	80	50	100.0	1200.0	38400.0	0.99	11.9	410.2	5906675389028
R-CS-60100-WH-W	100	50	100.0	1200.0	38400.0	1.22	14.7	499.6	5906675389059
R-CS-60120-WH-W	120	75							
R-CS-60140-WH-W	140	75							
R-CS-80080-WH	80	52	50.0	600.0	14400.0	1.16	13.9	363.7	5906675077512
R-CS-80100-WH	100	52	50.0	600.0	14400.0	1.38	16.6	427.2	5906675077529
R-CS-80120-WH	120	80	50.0	600.0	14400.0	1.56	18.7	478.4	5906675077536
R-CS-80140-WH	140	80	50.0	600.0	14400.0	1.76	21.2	538.0	5906675077543
R-CS-80160-WH	160	80	50.0	600.0	14400.0	2.0	24.2	609.7	5906675077550
R-CS-80180-WH	180	80	50.0	400.0	9600.0	2.3	18.1	463.6	5906675077567
R-CS-80200-WH	200	80	50.0	400.0	9600.0	2.3	18.5	474.5	5906675077574
R-CS-80220-WH	220	80	50.0	400.0	9600.0	2.6	20.5	521.9	5906675077581
R-CS-80240-WH	240	80	50.0	400.0	9600.0	2.8	22.2	562.6	5906675077598
R-CS-80260-WH	260	80	50.0	400.0	9600.0	2.9	23.4	590.7	5906675077604
R-CS-80280-WH	280	80	50.0	50.0	6400.0	3.2	3.2	443.2	5906675077611
R-CS-80300-WH	300	80	50.0	50.0	6400.0	3.4	3.4	469.3	5906675077628
R-CS-80320-WH	320	80	50.0	50.0	6400.0	3.7	3.7	508.8	5906675077635
R-CS-80340-WH	340	80	25.0	25.0	3200.0	2.1	2.1	296.0	5906675077642
R-CS-80360-WH	360	80	25.0	25.0	3200.0	2.2	2.2	310.3	5906675077659
R-CS-80380-WH	380	80	25.0	25.0	4550.0	2.2	2.2	438.2	5906675077666
R-CS-80400-WH	400	80	25.0	25.0	4550.0	2.4	2.4	457.9	5906675077673
R-CS-80100-WH-W	100	52	50.0	600.0	12000.0	1.38	16.6	361.5	5906675230061
R-CS-80120-WH-W	120	80	50.0	600.0	15000.0	1.57	18.9	502.3	5906675230078
R-CS-80340-WH-W	340	80	25.0	25.0	3200.0	2.1	2.1	297.3	5906675230191
R-CS-80380-WH-W	380	80	25.0	25.0	4550.0	2.2	2.2	438.2	5906675230214
R-CS-80400-WH-W	400	80	25.0	25.0	4550.0	2.4	2.4	461.5	5906675230238
R-CS-10120-WH	120	80	50.0	50.0	8400.0	1.92	1.92	352.6	5906675388717
R-CS-10140-WH	140	80	50.0	50.0	8400.0	2.2	2.2	405.5	5906675388748
R-CS-10160-WH	160	80	50.0	50.0	8400.0	2.8	2.8	497.3	5906675428550
R-CS-10180-WH	180	80	50.0	50.0	8400.0	3.1	3.1	557.7	5906675428567
R-CS-10200-WH	200	80	50.0	50.0	8400.0	3.1	3.1	557.5	5906675388779
R-CS-10220-WH	220	80	50.0	50.0	8400.0	3.7	3.7	650.6	5906675428574
R-CS-10240-WH	240	80	50.0	50.0	8400.0	4.0	4.0	704.3	5906675428581
R-CS-10260-WH	260	80	50.0	50.0	5600.0	4.1	4.1	487.5	5906675388847
R-CS-10280-WH	280	80	50.0	50.0	5600.0	4.6	4.6	543.4	5906675428598
R-CS-10300-WH	300	80	50.0	50.0	5600.0	4.9	4.9	577.6	5906675428604
R-CS-10320-WH	320	80	50.0	50.0	5600.0	5.2	5.2	613.9	5906675428611
R-CS-10340-WH	340	80	25.0	25.0	4550.0	2.8	2.8	532.3	5906675428635
R-CS-10360-WH	360	80	25.0	25.0	4550.0	2.9	2.9	560.8	5906675428642
R-CS-10380-WH	380	80	25.0	25.0	4550.0	3.1	3.1	586.6	5906675428659
R-CS-10400-WH	400	80	25.0	25.0	4550.0	3.2	3.2	613.3	5906675428666
R-CS-10120-WH-W	120	80	50.0	50.0	8400.0	1.92	1.92	352.6	5906675388724
R-CS-10140-WH-W	140	80	50.0	50.0	8400.0	2.2	2.2	405.5	5906675388755
R-CS-10160-WH-W	160	80							
R-CS-10180-WH-W	180	80							
R-CS-10220-WH-W	220	80	50.0	50.0	8400.0	3.4	3.4	604.4	5906675388809
R-CS-10240-WH-W	240	80	50.0	50.0	8400.0	3.7	3.7	658.2	5906675388823
R-CS-10340-WH-W	340	80	25.0	25.0	4550.0	2.7	2.7	524.1	5906675388939
R-CS-10360-WH-W	360	80	25.0	25.0	4550.0	2.9	2.9	556.9	5906675388953
R-CS-10380-WH-W	380	80	25.0	25.0	4550.0	3.1	3.1	597.1	5906675388977
R-CS-10400-WH-W	400	80	25.0	25.0	4550.0	3.3	3.3	631.2	5906675388991

1) ETA 17/0023

# R-CS-WH Timber screws with wafer head

High reliability hardened screws for timber constructions



## Approvals and Reports

- ETA 17/0023



## Product information

### Features and benefits

- Easy to screw-in
- The partial thread on the shaft of the screw allows multiple elements to be clamped together securely without separation
- Notched thread and wax coating for reduced friction
- Crack avoidance
- Power and battery saving application
- Yellow or white zinc plated version
- TX drive guarantees secure transmission of screw-in torque and no pop-out of the bit
- Wide washer head for better pull-through resistance

### Applications

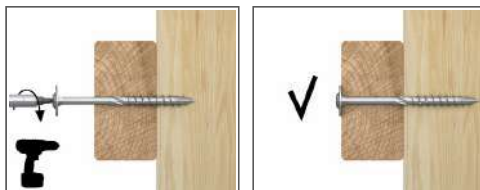
- Fastening timber and wood construction elements
- Rafter fastening to the purlins
- Fastening chipboards to wooden elements
- General wood joints
- Pergolas, bowers, sheds

### Base materials

Approved for use in:

- Wood
- Timber

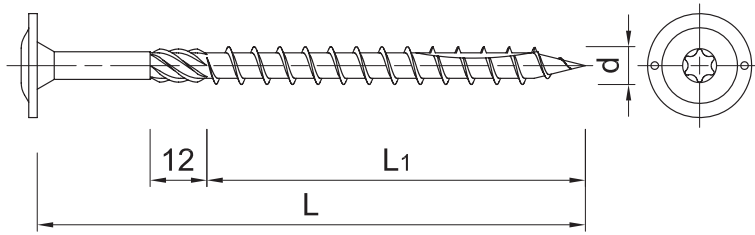
## Installation guide



1. Choose the right length of the screw
2. Drive the screw straight until the head is flush
3. Screws with partial thread can clamp wooden parts avoiding spaces between them
4. Screws with countersunk head allow flush connection
5. Washer head effects on high pull-through resistance

**Fasteners**

**Product information**



Size	Product Code	Screw			Screw drive
		Diameter	Length		
		d [mm]	L [mm]	L1 [mm]	
6,0	R-CS-60080-WH	6	80	50	T30
	R-CS-60100-WH	6	100	50	T30
	R-CS-60120-WH	6	120	75	T30
	R-CS-60140-WH	6	140	75	T30
	R-CS-60160-WH	6	160	75	T30
	R-CS-60180-WH	6	180	75	T30
	R-CS-60200-WH	6	200	75	T30
	R-CS-60220-WH	6	220	75	T30
	R-CS-60240-WH	6	240	75	T30
	R-CS-60080-WH-W	6	80	50	T30
	R-CS-60100-WH-W	6	100	50	T30
	R-CS-60120-WH-W	6	120	75	T30
	R-CS-60140-WH-W	6	140	75	T30
	8,0	R-CS-80080-WH	8	80	52
R-CS-80100-WH		8	100	52	T40
R-CS-80120-WH		8	120	80	T40
R-CS-80140-WH		8	140	80	T40
R-CS-80160-WH		8	160	80	T40
R-CS-80180-WH		8	180	80	T40
R-CS-80200-WH		8	200	80	T40
R-CS-80220-WH		8	220	80	T40
R-CS-80240-WH		8	240	80	T40
R-CS-80260-WH		8	260	80	T40
R-CS-80280-WH		8	280	80	T40
R-CS-80300-WH		8	300	80	T40
R-CS-80320-WH		8	320	80	T40
R-CS-80340-WH		8	340	80	T40
R-CS-80360-WH		8	360	80	T40
R-CS-80380-WH		8	380	80	T40
R-CS-80400-WH		8	400	80	T40
R-CS-80100-WH-W		8	100	52	T40
R-CS-80120-WH-W		8	120	80	T40
R-CS-80340-WH-W		8	340	80	T40
R-CS-80380-WH-W	8	380	80	T40	
R-CS-80400-WH-W	8	400	80	T40	
10,0	R-CS-10120-WH	10	120	80	T40
	R-CS-10140-WH	10	140	80	T40
	R-CS-10160-WH	10	160	80	T40
	R-CS-10180-WH	10	180	80	T40
	R-CS-10200-WH	10	200	80	T40
	R-CS-10220-WH	10	220	80	T40
	R-CS-10240-WH	10	240	80	T40
	R-CS-10260-WH	10	260	80	T40
	R-CS-10280-WH	10	280	80	T40
	R-CS-10300-WH	10	300	80	T40

## Product information

Size	Product Code	Screw			Screw drive
		Diameter	Length		
		d [mm]	L [mm]	L1 [mm]	-
10,0	R-CS-10320-WH	10	320	80	T40
	R-CS-10340-WH	10	340	80	T40
	R-CS-10360-WH	10	360	80	T40
	R-CS-10380-WH	10	380	80	T40
	R-CS-10400-WH	10	400	80	T40
	R-CS-10120-WH-W	10	120	80	T40
	R-CS-10140-WH-W	10	140	80	T40
	R-CS-10160-WH-W	10	160	80	T40
	R-CS-10180-WH-W	10	180	80	T40
	R-CS-10220-WH-W	10	220	80	T40
	R-CS-10240-WH-W	10	240	80	T40
	R-CS-10340-WH-W	10	340	80	T40
	R-CS-10360-WH-W	10	360	80	T40
	R-CS-10380-WH-W	10	380	80	T40
R-CS-10400-WH-W	10	400	80	T40	

## Installation data

Size			Ø6	Ø8	Ø10
Substrate			Timber	Timber	Timber
Min. installation depth	$h_{nom}$	[mm]	24	32	40
Min. substrate thickness	$h_{min}$	[mm]	48	64	80
Min. spacing	$s_{min}$	[mm]	30	30	30
Min. edge distance	$c_{min}$	[mm]	30	30	30
Screw drive			T30	T40	T40

## Basic performance data

Performance data for single anchor without influence of edge distance and spacing

Size			Ø6	Ø8	Ø10
Characteristic yield moment	$M_{y,k}$	[Nmm]	1244	28080	46966
Characteristic pull-out strength (perpendicular to grain)	$f_{ax,k}$	[N/mm <sup>2</sup> ]	11.59	16.82	22.47
Characteristic pull-out strength (parallel to grain)	$f_{ax,k}$	[N/mm <sup>2</sup> ]	6.71	9.9	10.42
Characteristic head pull-through strength	$f_{head,k}$	[N/mm <sup>2</sup> ]	16.74	23.65	20.87
Characteristic tensile strength	$f_{tens,k}$	[kN]	9.59	17.49	26.76
Characteristic torsional strength	$f_{tor,k}$	[Nm]	9.65	29.94	27.83
Characteristic ratio of moments (the ratio of torque and characteristic resistance)	$f_{tor,k} / R_{tor,k}$	[-]	2.21	4.31	1.76

## Product commercial data

Product Code	Screw		Quantity [pcs]			Weight [kg]			Bar Codes
	Length [mm]		Box	Outer	Pallet	Box	Outer	Pallet	
R-CS-60080-WH	80	50	100.0	1200.0	38400.0	0.99	11.9	410.2	5906675389011
R-CS-60100-WH	100	50	100.0	1200.0	28800.0	1.22	14.7	382.2	5906675389042
R-CS-60120-WH	120	75	100.0	1200.0	38400.0	1.44	17.2	581.0	5906675389073
R-CS-60140-WH	140	75	100.0	1200.0	28800.0	1.64	19.6	500.9	5906675389097
R-CS-60160-WH	160	75	100.0	1200.0	38400.0	2.0	23.5	783.0	5906675422534
R-CS-60180-WH	180	75	100.0	800.0	25600.0	2.2	17.3	583.0	5906675422541

## Product commercial data

Product Code	Screw		Quantity [pcs]			Weight [kg]			Bar Codes
	Length [mm]		Box	Outer	Pallet	Box	Outer	Pallet	
R-CS-60200-WH	200	75	100.0	800.0	25600.0	2.4	18.9	634.2	5906675422558
R-CS-60220-WH	220	75	100.0	800.0	25600.0	2.6	20.5	685.4	5906675422565
R-CS-60240-WH	240	75	100.0	800.0	25600.0	2.8	22.2	739.1	5906675422572
R-CS-60080-WH-W	80	50	100.0	1200.0	38400.0	0.99	11.9	410.2	5906675389028
R-CS-60100-WH-W	100	50	100.0	1200.0	38400.0	1.22	14.7	499.6	5906675389059
R-CS-60120-WH-W	120	75							
R-CS-60140-WH-W	140	75							
R-CS-80080-WH	80	52	50.0	600.0	14400.0	1.16	13.9	363.7	5906675077512
R-CS-80100-WH	100	52	50.0	600.0	14400.0	1.38	16.6	427.2	5906675077529
R-CS-80120-WH	120	80	50.0	600.0	14400.0	1.56	18.7	478.4	5906675077536
R-CS-80140-WH	140	80	50.0	600.0	14400.0	1.76	21.2	538.0	5906675077543
R-CS-80160-WH	160	80	50.0	600.0	14400.0	2.0	24.2	609.7	5906675077550
R-CS-80180-WH	180	80	50.0	400.0	9600.0	2.3	18.1	463.6	5906675077567
R-CS-80200-WH	200	80	50.0	400.0	9600.0	2.3	18.5	474.5	5906675077574
R-CS-80220-WH	220	80	50.0	400.0	9600.0	2.6	20.5	521.9	5906675077581
R-CS-80240-WH	240	80	50.0	400.0	9600.0	2.8	22.2	562.6	5906675077598
R-CS-80260-WH	260	80	50.0	400.0	9600.0	2.9	23.4	590.7	5906675077604
R-CS-80280-WH	280	80	50.0	50.0	6400.0	3.2	3.2	443.2	5906675077611
R-CS-80300-WH	300	80	50.0	50.0	6400.0	3.4	3.4	469.3	5906675077628
R-CS-80320-WH	320	80	50.0	50.0	6400.0	3.7	3.7	508.8	5906675077635
R-CS-80340-WH	340	80	25.0	25.0	3200.0	2.1	2.1	296.0	5906675077642
R-CS-80360-WH	360	80	25.0	25.0	3200.0	2.2	2.2	310.3	5906675077659
R-CS-80380-WH	380	80	25.0	25.0	4550.0	2.2	2.2	438.2	5906675077666
R-CS-80400-WH	400	80	25.0	25.0	4550.0	2.4	2.4	457.9	5906675077673
R-CS-80100-WH-W	100	52	50.0	600.0	12000.0	1.38	16.6	361.5	5906675230061
R-CS-80120-WH-W	120	80	50.0	600.0	15000.0	1.57	18.9	502.3	5906675230078
R-CS-80340-WH-W	340	80	25.0	25.0	3200.0	2.1	2.1	297.3	5906675230191
R-CS-80380-WH-W	380	80	25.0	25.0	4550.0	2.2	2.2	438.2	5906675230214
R-CS-80400-WH-W	400	80	25.0	25.0	4550.0	2.4	2.4	461.5	5906675230238
R-CS-10120-WH	120	80	50.0	50.0	8400.0	1.92	1.92	352.6	5906675388717
R-CS-10140-WH	140	80	50.0	50.0	8400.0	2.2	2.2	405.5	5906675388748
R-CS-10160-WH	160	80	50.0	50.0	8400.0	2.8	2.8	497.3	5906675428550
R-CS-10180-WH	180	80	50.0	50.0	8400.0	3.1	3.1	557.7	5906675428567
R-CS-10200-WH	200	80	50.0	50.0	8400.0	3.1	3.1	557.5	5906675388779
R-CS-10220-WH	220	80	50.0	50.0	8400.0	3.7	3.7	650.6	5906675428574
R-CS-10240-WH	240	80	50.0	50.0	8400.0	4.0	4.0	704.3	5906675428581
R-CS-10260-WH	260	80	50.0	50.0	5600.0	4.1	4.1	487.5	5906675388847
R-CS-10280-WH	280	80	50.0	50.0	5600.0	4.6	4.6	543.4	5906675428598
R-CS-10300-WH	300	80	50.0	50.0	5600.0	4.9	4.9	577.6	5906675428604
R-CS-10320-WH	320	80	50.0	50.0	5600.0	5.2	5.2	613.9	5906675428611
R-CS-10340-WH	340	80	25.0	25.0	4550.0	2.8	2.8	532.3	5906675428635
R-CS-10360-WH	360	80	25.0	25.0	4550.0	2.9	2.9	560.8	5906675428642
R-CS-10380-WH	380	80	25.0	25.0	4550.0	3.1	3.1	586.6	5906675428659
R-CS-10400-WH	400	80	25.0	25.0	4550.0	3.2	3.2	613.3	5906675428666
R-CS-10120-WH-W	120	80	50.0	50.0	8400.0	1.92	1.92	352.6	5906675388724
R-CS-10140-WH-W	140	80	50.0	50.0	8400.0	2.2	2.2	405.5	5906675388755
R-CS-10160-WH-W	160	80							
R-CS-10180-WH-W	180	80							
R-CS-10220-WH-W	220	80	50.0	50.0	8400.0	3.4	3.4	604.4	5906675388809
R-CS-10240-WH-W	240	80	50.0	50.0	8400.0	3.7	3.7	658.2	5906675388823
R-CS-10340-WH-W	340	80	25.0	25.0	4550.0	2.7	2.7	524.1	5906675388939
R-CS-10360-WH-W	360	80	25.0	25.0	4550.0	2.9	2.9	556.9	5906675388953
R-CS-10380-WH-W	380	80	25.0	25.0	4550.0	3.1	3.1	597.1	5906675388977
R-CS-10400-WH-W	400	80	25.0	25.0	4550.0	3.3	3.3	631.2	5906675388991

1) ETA 17/0023