

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

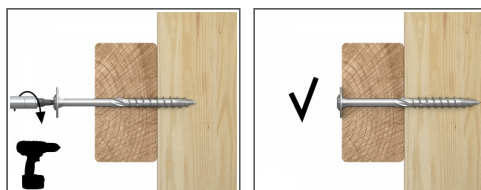
- Fastening timber and wood construction elements
- Rafter fastening to the purlins
- Fastening chipboards to wooden elements
- General wood joints
- Pergolas, bowers, sheds

Base materials

Approved for use in:

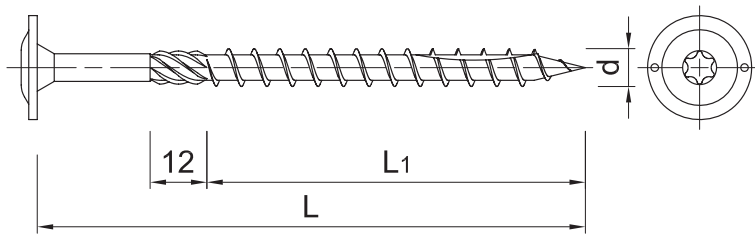
- Wood
- Timber

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

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	T40
	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 ²]	11.59	16.82	22.47
Characteristic pull-out strength (parallel to grain)	$f_{ax,k}$	[N/mm ²]	6.71	9.9	10.42
Characteristic head pull-through strength	$f_{head,k}$	[N/mm ²]	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