

R-TS Chipboard screws

Hardened screws for new generation wood composites and timber



Product information

Features and benefits

- Easy to screw-in
- Underhead cutting ribs for easy countersinking and a precise flush finish
- 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
- Clean application
- Power and battery-saving
- TX drive guarantees secure transmission of screw-in torque and no pop-out of the bit
- Yellow zinc plated version Cr3+
- Wide range of dimensions and surfaces

Applications

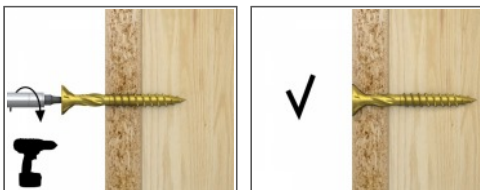
- Chipboards
- Laminated wood and exotic wood construction
- Plywood
- Anchoring of wood connection elements
- Wooden fences
- Wooden elements

Base materials

Approved for use in:

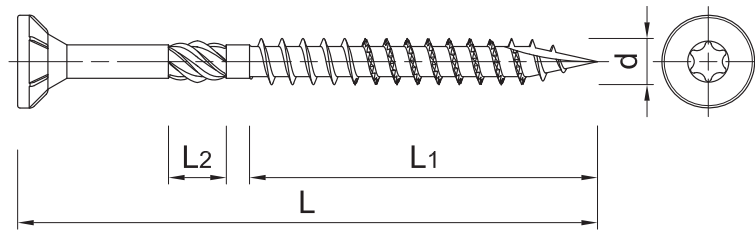
- Chipboard
- Wood
- Exotic Wood
- Timber
- Plywood

Installation guide



1. Choose the right length and diameter 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. Full-thread screws are recommended for fastening thin parts and in less firm wood materials (e.g. soft woods)
5. Screws with countersunk head allow flush connection

Product information



Size	Product Code	Screw				Screw drive
		Diameter	Length			
		d	L	L1	L2	
		[mm]	[mm]	[mm]	[mm]	-
3,0	R-TS-3016	3	16	13	-	T10
	R-TS-3020	3	20	16	-	T10
	R-TS-3025	3	25	21	-	T10
	R-TS-3030	3	30	18	2.6	T10
	R-TS-3035	3	35	21	2.6	T10
	R-TS-3040	3	40	24	2.6	T10
3,5	R-TS-3516	3.5	16	12	-	T20
	R-TS-3520	3.5	20	16	-	T20
	R-TS-3525	3.5	25	21	-	T20
	R-TS-3530	3.5	30	26	-	T20
	R-TS-3535	3.5	35	21	3.6	T20
	R-TS-3540	3.5	40	24	3.6	T20
	R-TS-3545	3.5	45	27	3.6	T20
	R-TS-3550	3.5	50	30	3.6	T20
4,0	R-TS-4016	4	16	11	-	T20
	R-TS-4020	4	20	16	-	T20
	R-TS-4025	4	25	20	-	T20
	R-TS-4030	4	30	25	-	T20
	R-TS-4035	4	35	21	4.6	T20
	R-TS-4040	4	40	24	4.6	T20
	R-TS-4045	4	45	27	4.6	T20
	R-TS-4050	4	50	30	4.6	T20
	R-TS-4060	4	60	36	4.6	T20
	R-TS-4070	4	70	42	4.6	T20
5,0	R-TS-5020	5	20	15	-	T25
	R-TS-5025	5	25	20	-	T25
	R-TS-5030	5	30	25	-	T25
	R-TS-5035	5	35	30	-	T25
	R-TS-5040	5	40	24	8	T25
	R-TS-5050	5	50	30	8	T25
	R-TS-5060	5	60	36	8	T25
	R-TS-5070	5	70	42	8	T25
	R-TS-5080	5	80	48	8	T25
	R-TS-5090	5	90	54	8	T25
	R-TS-5100	5	100	60	8	T25
	R-TS-5120	5	120	72	8	T25
6,0	R-TS-6030	6	30	24	-	T30
	R-TS-6040	6	40	33	-	T30
	R-TS-6050	6	50	30	8	T30
	R-TS-6060	6	60	36	8	T30
	R-TS-6070	6	70	42	8	T30
	R-TS-6080	6	80	48	8	T30
	R-TS-6090	6	90	54	8	T30
	R-TS-6100	6	100	60	8	T30

Product information

Size	Product Code	Screw				Screw drive
		Diameter	Length			
		d	L	L1	L2	-
		[mm]	[mm]	[mm]	[mm]	-
6,0	R-TS-6120	6	120	72	8	T30
	R-TS-6140	6	140	72	8	T30
	R-TS-6160	6	160	72	8	T30
	R-TS-6180	6	180	72	8	T30
	R-TS-6200	6	200	72	8	T30

Installation data

Size			Ø3	Ø3,5	Ø4	Ø5	Ø6
Substrate			Timber	Timber	Timber	Timber	Timber
Installation depth	h_{nom}	[mm]	12	14	16	20	24
Min. substrate thickness	h_{min}	[mm]	24	28	32	40	48
Min. spacing	s_{min}	[mm]	30	30	30	30	30
Min. edge distance	c_{min}	[mm]	30	30	30	30	30

Basic performance data

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

Size			Ø3	Ø3,5	Ø4	Ø5	Ø6
Characteristic yield moment	$M_{y,k}$	[Nmm]	2192	3273	4632	8274	13291
Characteristic pull-out strength (perpendicular to grain)	$f_{ax,k}$	[N/mm ²]	17	21.21	19.56	17.85	26.18
Characteristic pull-out strength (parallel to grain)	$f_{ax,k}$	[N/mm ²]	9.48	11.49	9.97	9.9	14.92
Characteristic head pull-through strength	$f_{head,k}$	[N/mm ²]	26.1	30.95	26.15	25.13	27.13
Characteristic tensile strength	$f_{tens,k}$	[kN]	3.79	4.76	5.81	8.69	12.61
Characteristic torsional strength	$f_{tor,k}$	[Nm]	2.2	2.91	3.67	6.79	12.92
Characteristic ratio of moments (the ratio of torque and characteristic resistance)	$f_{tor,k} / R_{tor,k}$	[-]	5.95	5.02	2.96	1.96	7.98

Product commercial data

Size	Product Code	Screw			Quantity [pcs]			Weight [kg]			Bar Codes
		Length [mm]			Box	Outer	Pallet	Box	Outer	Pallet	
3,0	R-TS-3016	16	13	-	500	32000	1000000	0.31	19.6	657.0	5906675056913
	R-TS-3020	20	16	-	500	32000	1000000	0.35	22.3	742.3	5906675056920
	R-TS-3025	25	21	-	500	32000	1000000	0.43	27.2	900.4	5906675056937
	R-TS-3030	30	18	2.6	500	16000	512000	0.53	16.8	568.6	5906675056944
	R-TS-3035	35	21	2.6	500	16000	512000	0.59	19.0	638.5	5906675056951
	R-TS-3040	40	24	2.6	500	16000	512000	0.66	21.1	705.7	5906675056968
3,5	R-TS-3516	16	12	-	500	32000	1000000	0.40	25.5	844.5	5906675056975
	R-TS-3520	20	16	-	500	32000	1000000	0.47	29.9	985.7	5906675056982
	R-TS-3525	25	21	-	500	16000	512000	0.57	18.3	615.7	5906675056999
	R-TS-3530	30	26	-	500	16000	512000	0.66	21.1	705.8	5906675057002
	R-TS-3535	35	21	3.6	500	16000	512000	0.75	24.1	801.1	5906675057019
	R-TS-3540	40	24	3.6	500	12000	384000	0.89	21.4	713.5	5906675057026
	R-TS-3545	45	27	3.6	250	8000	256000	0.51	16.3	551.6	5906675057033
R-TS-3550	50	30	3.6	250	8000	256000	0.55	17.5	589.9	5906675057040	
4,0	R-TS-4016	16	11	-	500	32000	1000000	0.57	36.8	1206.6	5906675057057
	R-TS-4020	20	16	-	500	16000	512000	0.69	22.0	732.5	5906675057064
4,0	R-TS-4025	25	20	-	500	16000	512000	0.84	27.0	894.0	5906675057071

Product commercial data

Size	Product Code	Screw			Quantity [pcs]			Weight [kg]			Bar Codes
		Length [mm]			Box	Outer	Pallet	Box	Outer	Pallet	
4,0	R-TS-4030	30	25	-	250	16000	512000	0.46	29.3	966.2	5906675057088
	R-TS-4035	35	21	4.6	250	8000	256000	0.56	17.9	601.4	5906675057095
	R-TS-4040	40	24	4.6	250	8000	64000	0.61	19.5	186.0	5906675057101
	R-TS-4045	45	27	4.6	250	8000	256000	0.67	21.4	713.7	5906675057118
	R-TS-4050	50	30	4.6	250	6000	192000	0.75	18.1	608.7	5906675057125
	R-TS-4060	60	36	4.6	250	6000	192000	0.86	20.8	693.9	5906675057132
	R-TS-4070	70	42	4.6	100	3200	102400	0.42	13.4	458.8	5906675057149
5,0	R-TS-5020	20	15	-	250	16000	512000	0.55	35.0	1151.2	5906675057156
	R-TS-5025	25	20	-	250	16000	512000	0.66	42.4	1385.7	5906675057163
	R-TS-5030	30	25	-	250	8000	256000	0.76	24.4	811.7	5906675057170
	R-TS-5035	35	30	-	250	8000	256000	0.85	27.1	898.6	5906675057187
	R-TS-5040	40	24	8	100	3200	102400	0.40	13.0	444.4	5906675057194
	R-TS-5050	50	30	8	100	3200	102400	0.48	15.5	524.9	5906675057200
	R-TS-5060	60	36	8	100	3200	102400	0.55	17.6	593.0	5906675057217
	R-TS-5070	70	42	8	100	3200	102400	0.63	20.0	671.1	5906675057231
	R-TS-5080	80	48	8	50	1600	51200	0.37	12.0	412.6	5906675057248
	R-TS-5090	90	54	8	50	1600	51200	0.41	13.3	454.2	5906675057255
	R-TS-5100	100	60	8	50	1600	12800	0.45	14.6	146.4	5906675057262
R-TS-5120	120	72	8	50	1600	51200	0.53	17.0	572.7	5906675057279	
6,0	R-TS-6030	30	24	-	100	3200	102400	0.45	14.3	485.9	5906675057286
	R-TS-6040	40	33	-	100	3200	102400	0.56	18.0	606.0	5906675057293
	R-TS-6050	50	30	8	100	3200	102400	0.67	21.5	716.9	5906675057309
	R-TS-6060	60	36	8	100	3200	102400	0.78	24.9	825.8	5906675057316
	R-TS-6070	70	42	8	50	1600	51200	0.47	15.0	508.9	5906675057323
	R-TS-6080	80	48	8	50	1600	51200	0.52	16.6	561.7	5906675057330
	R-TS-6090	90	54	8	50	1600	51200	0.58	18.5	621.2	5906675057347
	R-TS-6100	100	60	8	50	1600	51200	0.63	20.2	676.1	5906675057354
	R-TS-6120	120	72	8	50	1200	38400	0.75	18.1	608.4	5906675057361
	R-TS-6140	140	72	8	50	1200	38400	0.87	20.9	699.5	5906675057378
	R-TS-6160	160	72	8	50	1200	8400	0.98	23.5	194.4	5906675057385
R-TS-6180	180	72	8	50	1200	38400	1.20	28.7	948.7	5906675057392	
R-TS-6200	200	72	8	50	800	25600	1.25	20.1	671.9	5906675057408	