

SCH-H

YELLOW COUNTERSUNK HEAD SCREW FOR WOOD

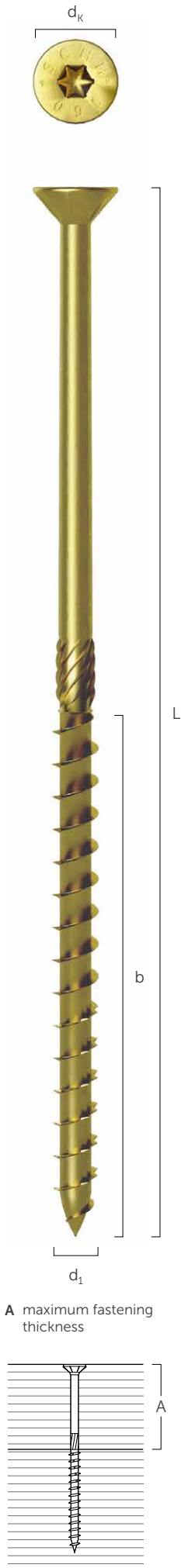
- SNK-equivalent performance at an affordable price
- Greater thread length (60%) to ensure superb joint closure and great versatility
- Special self-perforating tip with serrated thread (SAW tip) that cuts the timber fibres, facilitating initial grip and subsequent pull-through
- Yellow zinc plated with total absence of hexavalent chrome



MATERIAL: carbon steel with yellow zinc plated

Zn
ELECTRO
PLATED

d_1 [mm]	d_k [mm]	CODE	L [mm]	b [mm]	A [mm]	pcs
4 TX 20	8,00	SCHH440	40	24	16	500
		SCHH450	50	30	20	200
		SCHH460	60	35	25	200
		SCHH470	70	40	30	200
		SCHH480	80	40	40	200
4,5 TX 20	9,00	SCHH4540	40	24	13	200
		SCHH4550	50	30	20	200
		SCHH4560	60	35	25	200
		SCHH4570	70	40	30	200
		SCHH4580	80	40	40	200
5 TX 25	10,00	SCHH540	40	24	10	200
		SCHH550	50	30	20	200
		SCHH560	60	35	25	200
		SCHH570	70	40	30	100
		SCHH580	80	50	30	100
		SCHH590	90	55	35	100
		SCHH5100	100	60	40	100
		SCHH5120	120	60	60	100
6 TX 30	12,00	SCHH660	60	35	24	100
		SCHH680	80	50	30	100
		SCHH6100	100	60	40	100
		SCHH6120	120	75	45	100
		SCHH6140	140	80	60	100



A maximum fastening thickness

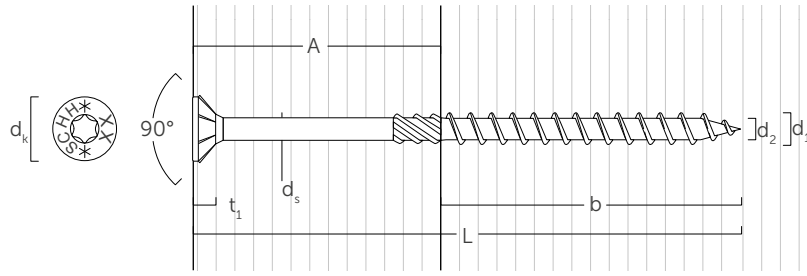
d ₁ [mm]	d _k [mm]	CODE	L [mm]	b [mm]	A [mm]	pcs
6 TX 30	12,00	SCHH6160	160	90	70	100
		SCHH6180	180	100	80	100
		SCHH6200	200	100	100	100
		SCHH6220	220	100	120	100
		SCHH6240	240	100	140	100
		SCHH6260	260	100	160	100
		SCHH6280	280	100	180	100
		SCHH6300	300	100	200	100
8 TX 30	14,50	SCHH8100	100	60	40	100
		SCHH8120	120	80	40	100
		SCHH8140	140	80	60	100
		SCHH8160	160	90	70	100
		SCHH8180	180	90	90	100
		SCHH8200	200	100	100	100
		SCHH8220	220	100	120	100
		SCHH8240	240	100	140	100
		SCHH8260	260	100	160	100
		SCHH8280	280	100	180	100
		SCHH8300	300	100	200	100
		SCHH8320	320	100	220	100
		SCHH8340	340	100	240	100
		SCHH8360	360	100	260	100



SUS-H
TURNED WASHER

d _{1SCH-H} [mm]	CODE	D ₂ [mm]	h [mm]	pcs
6	SUS6H	20	4	100
8	SUS8H	25	5	50

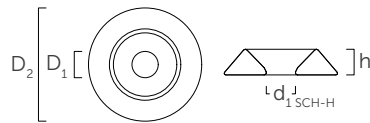
GEOMETRY AND MECHANICAL CHARACTERISTICS



nominal diameter	d_1	[mm]	4	4,5	5	6	8
head diameter	d_k	[mm]	8	9	10	12	14,5
thread diameter	d_2	[mm]	2,55	2,80	3,40	3,95	5,40
shank diameter	d_s	[mm]	2,75	3,15	3,65	4,30	5,80
head thickness	t_1	[mm]	2,80	2,80	3,10	4,50	4,50
pre-drilling hole diameter ⁽¹⁾	d_v	[mm]	2,5	3,0	3,0	4,0	5,0
characteristic yield moment	$M_{y,k}$	[Nm]	3,00	3,80	6,00	10,00	20,50
characteristic withdrawal-resistance parameter ⁽²⁾	$f_{ax,k}$	[N/mm ²]	12,0	12,0	12,0	12,0	12,0
characteristic head-pull-through parameter ⁽²⁾	$f_{head,k}$	[N/mm ²]	12,5	13,0	13,0	13,0	13,0
characteristic tensile strength	$f_{tens,k}$	[kN]	5,0	6,0	8,0	12,0	19,0

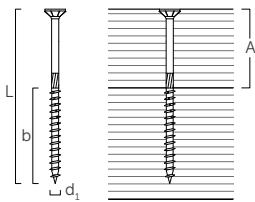
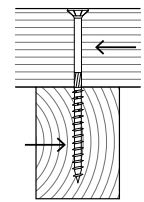
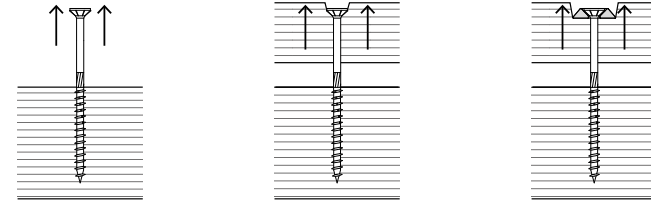
⁽¹⁾ Pre-drilling valid for softwood.

⁽²⁾ Associated density $\rho_a = 350 \text{ kg/m}^3$.



nominal screw diameter	d_1	[mm]	6	8
internal diameter	D_1	[mm]	7,5	8,5
external diameter	D_2	[mm]	20,0	25,0
height	h	[mm]	4,5	5,5

STRUCTURAL VALUES

geometry				SHEAR		TENSION		
				timber-to-timber	thread withdrawal ⁽¹⁾	head pull-through ⁽²⁾	head pull-through with washer ⁽²⁾	
								
d ₁ [mm]	L [mm]	b [mm]	A [mm]	R _{V,k} [kN]	R _{ax,k} [kN]	R _{head,k} [kN]	R _{head,k} [kN]	
4	40	24	16	0,75	1,24	0,86	-	
	50	30	20	0,81	1,55	0,86	-	
	60	35	25	0,90	1,81	0,86	-	
	70	40	30	0,93	2,07	0,86	-	
	80	40	40	0,93	2,07	0,86	-	
4,5	40	24	13	0,86	1,40	1,14	-	
	50	30	20	0,95	1,75	1,14	-	
	60	35	25	1,04	2,04	1,14	-	
	70	40	30	1,12	2,33	1,14	-	
	80	40	40	1,12	2,33	1,14	-	
5	40	24	10	0,78	1,55	1,40	-	
	50	30	20	1,18	1,94	1,40	-	
	60	35	25	1,27	2,27	1,40	-	
	70	40	30	1,37	2,59	1,40	-	
	80	50	30	1,37	3,24	1,40	-	
	90	55	35	1,46	3,56	1,40	-	
	100	60	40	1,46	3,89	1,40	-	
	120	60	60	1,46	3,89	1,40	-	
6	60	35	24	1,61	2,72	2,02	5,61	
	80	50	30	1,75	3,89	2,02	5,61	
	100	60	40	1,98	4,66	2,02	5,61	
	120	75	45	2,03	5,83	2,02	5,61	
	140	80	60	2,03	6,22	2,02	5,61	
	160	90	70	2,03	6,99	2,02	5,61	
	180	100	80	2,03	7,77	2,02	5,61	
	200	100	100	2,03	7,77	2,02	5,61	
	220	100	120	2,03	7,77	2,02	5,61	
	240	100	140	2,03	7,77	2,02	5,61	
	260	100	160	2,03	7,77	2,02	5,61	
	280	100	180	2,03	7,77	2,02	5,61	
300	100	200	2,03	7,77	2,02	5,61		

NOTES

- ⁽¹⁾ The axial thread withdrawal resistance was calculated considering a 90° angle between the grain and the connector and for a fixing length of b.
⁽²⁾ The axial resistance to head pull-through, with and without a washer, was calculated using timber elements.

STRUCTURAL VALUES

geometry				SHEAR		TENSION		
				timber-to-timber	thread withdrawal ⁽¹⁾	head pull-through ⁽²⁾	head pull-through with washer ⁽²⁾	
d ₁ [mm]	L [mm]	b [mm]	A [mm]	R _{V,k} [kN]	R _{ax,k} [kN]	R _{head,k} [kN]	R _{head,k} [kN]	
8	100	60	40	2,75	6,22	2,95	8,77	
	120	80	40	2,75	8,29	2,95	8,77	
	140	80	60	3,16	8,29	2,95	8,77	
	160	90	70	3,16	9,32	2,95	8,77	
	180	90	90	3,16	9,32	2,95	8,77	
	200	100	100	3,16	10,36	2,95	8,77	
	220	100	120	3,16	10,36	2,95	8,77	
	240	100	140	3,16	10,36	2,95	8,77	
	260	100	160	3,16	10,36	2,95	8,77	
	280	100	180	3,16	10,36	2,95	8,77	
	300	100	200	3,16	10,36	2,95	8,77	
	320	100	220	3,16	10,36	2,95	8,77	
	340	100	240	3,16	10,36	2,95	8,77	
	360	100	260	3,16	10,36	2,95	8,77	

NOTES

- ⁽¹⁾ The axial thread withdrawal resistance was calculated considering a 90° angle between the grain and the connector and for a fixing length of b.
- ⁽²⁾ The axial resistance to head pull-through, with and without a washer, was calculated using timber elements.

GENERAL PRINCIPLES

- Characteristic values according to EN 1995:2014.
- Design values can be obtained from characteristic values as follows:

$$R_d = \frac{R_k \cdot k_{mod}}{\gamma_M}$$

The coefficients γ_M and k_{mod} should be taken according to the current regulations used for the calculation.

- Mechanical strength values and screw geometry according to CE marking according to EN 14592.
- For the calculation process a timber characteristic density $\rho_k = 385 \text{ kg/m}^3$ has been considered.
- The values have been calculated considering a minimum tip pull-through depth of $6d_1$.
- Dimensioning and verification of the timber elements must be carried out separately.
- The characteristic shear strength are calculated for screws inserted without pre-drilling hole.