

HBS COIL

HBS BOUND SCREWS

QUICK, IN SERIES USE

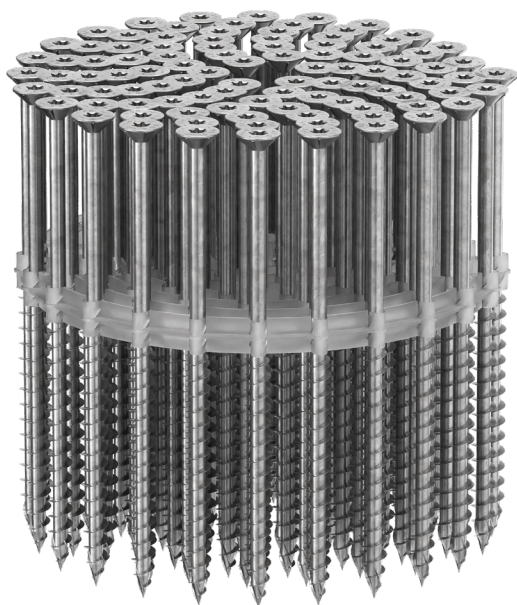
Quick and precise installation. Fast and safe execution thanks to the special binding.

HBS 0.24 inch

Also available in a diameter of 0.24 inch (#14), ideal for quick wall-to-wall fastening in CLT structures.

FAST

With the 3 THORNS tip, screw grip becomes more reliable and faster, while maintaining the usual mechanical performance. More speed, less effort.



UK
CA
UKTA-0836
22/6195

CE
ETA-11/0030



DIAMETER [in]

0.12 **0.16** 0.24 0.48

LENGTH [in]

1/2 **1** 3 1/8 39 3/8

EXPOSURE CONDITION



ATMOSPHERIC CORROSIVITY



WOOD CORROSIVITY



MATERIAL



electrogalvanized carbon steel



FIELDS OF USE

- timber based panels
- fibreboard, MDF, HDF and LDF
- plated and melamine faced panels
- solid timber
- glulam (Glued Laminated Timber)
- CLT and LVL
- high density woods

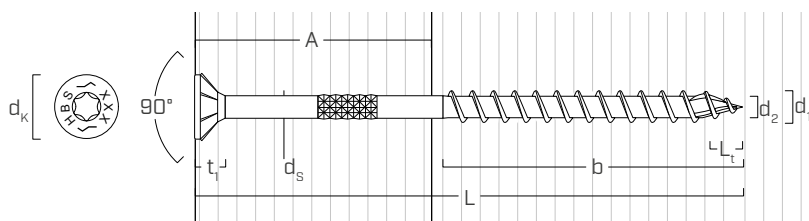
CODES AND DIMENSIONS

d ₁ [mm] [in]	CODE	L [mm] [in]	b [mm] [in]	A [in]	pcs/ [img alt="screw icon"]	pcs
4 0.16 #7 TX 20	HH10600459(*)	25	1	18 11/16	1/4	- 3000
	HZB430	30	1 3/16	16 5/8	9/16	167 3000
	HZB440	40	1 9/16	24 15/16	5/8	167 3000
	HZB450	50	1 15/16	30 1 3/16	13/16	125 2000

(*)fully-treaded screw

d ₁ [mm] [in]	CODE	L [mm] [in]	b [mm] [in]	A [in]	pcs/ [img alt="screw icon"]	pcs
4,5 0.18 #9 TX 20	HZB4550	50	1 15/16	30 1 3/16	13/16	125 1500
5 0.20 #11 TX 25	HZB560	60	2 3/8	30 1 3/16	1	125 1250
	HZB570	70	2 3/4	35 1 3/8	1 1/4	125 625
	HZB580	80	3 1/8	40 1 9/16	1 1/2	125 625
6 0.24 #14 TX 30	HZB670	70	2 3/4	35 1 3/8	1/16	125 625
	HZB680	80	3 1/8	35 1 3/8	3/8	125 625

GEOMETRY | HZB



Nominal diameter	d ₁	[in] ⁽¹⁾	0.16	0.18	0.20	0.24
Outer thread diameter	d ₁	[mm]	4	4,5	5	6
Head diameter	d _K	[in]	0.157	0.177	0.197	0.236
Root diameter	d ₂	[in]	0.100	0.110	0.134	0.156
Shank diameter	d ₃	[in]	0.108	0.124	0.144	0.169
Head thickness	t ₁	[in]	0.110	0.110	0.122	0.177
Tip length	L _t	[in]	0.157	0.177	0.197	0.236
Pre-drilling hole diameter ⁽²⁾	d _{V,G≤0.55}	[in]	-	-	1/8	5/32
Pre-drilling hole diameter ⁽³⁾	d _{V,G>0.55}	[in]	-	-	9/64	5/32

⁽¹⁾The nominal diameter of the screw is converted into imperial units and rounded up to the nearest decimal point.

⁽²⁾Pre-drilling applies to timber with G≤0.55 (optional).

⁽³⁾Pre-drilling applies to timber with G>0.55 (required).

For mechanical properties and structural values see HBS on page 36.

ADDITIONAL PRODUCTS

CODE	description	d ₁		lengths		pcs
		[mm]	[in]	[mm]	[in]	
HH3373	automatic loader for cordless screwdriver A 18 M BL	4	3/16	25-50	1-2	1
HH3372	automatic loader for cordless screwdriver A 18 M BL	4,5-6	3/16-1/4	40-80	19/16-31/8	1
HH3352	powered screwdriver	4	3/16	25-50	1-2	1
HH3338	powered screwdriver	4,5-6	3/16-1/4	40-80	19/16-31/8	1
HH14411591	extension	-	-	-	-	1
HZB6PLATE	adapter plate for HZB Ø6	-	-	-	-	1
HH14001469	TX30 M6 bit for HZB Ø6	-	-	-	-	1

Further information on page 429.



Ø0.24 inch HBS COIL APPLICATION

The adapter plates for use of 0.16, 0.18, and 0.20 inch diameter HBS COIL screws are already supplied with the respective screwdriver loaders. To use HBS COIL screws with a diameter of 0.24 inch, the adapter plates supplied must be replaced with the adapter plate HZB6PLATE. For HBS COIL screws diameter 0.24 inch it is also necessary to use the appropriate TX30 bit (code HH14001469).

We recommend using the extension HH14411591 for an easier installation of the screws on horizontal planes.

C4 EVO COATING

Multilayer coating with a surface treatment of epoxy resin and aluminium flakes. No rust after 1440 hours of salt spray exposure test, as per ISO 9227. It can be used for exposure condition 3 outdoor applications and under class C4 atmospheric corrosion conditions tested by the Research Institutes of Sweden - RISE.

3 THORNS TIP

Thanks to the 3 THORNS tip, minimum installation distances are reduced. More screws can be used in less space and larger screws in smaller elements. Costs and time for project implementation are reduced.

PRESSURE TREATED LUMBER

The C4 EVO coating has been certified according to US acceptance criteria AC257 for outdoor use with ACQ-treated timber.

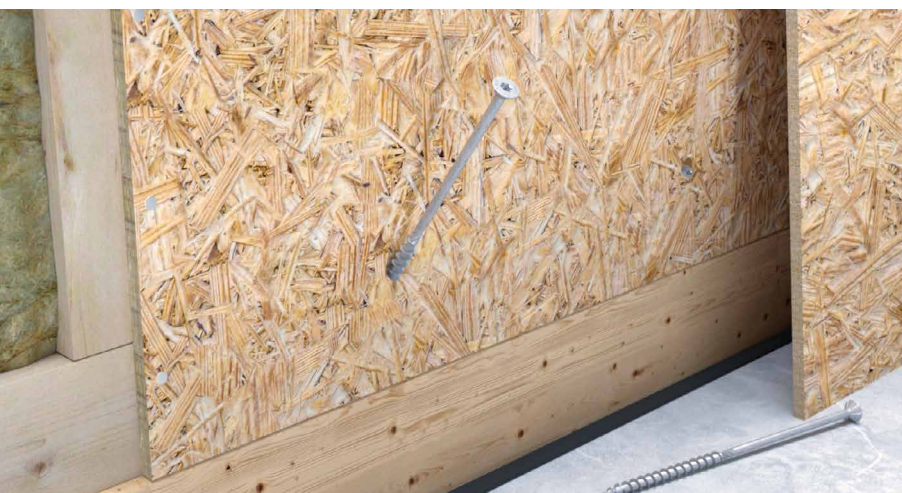
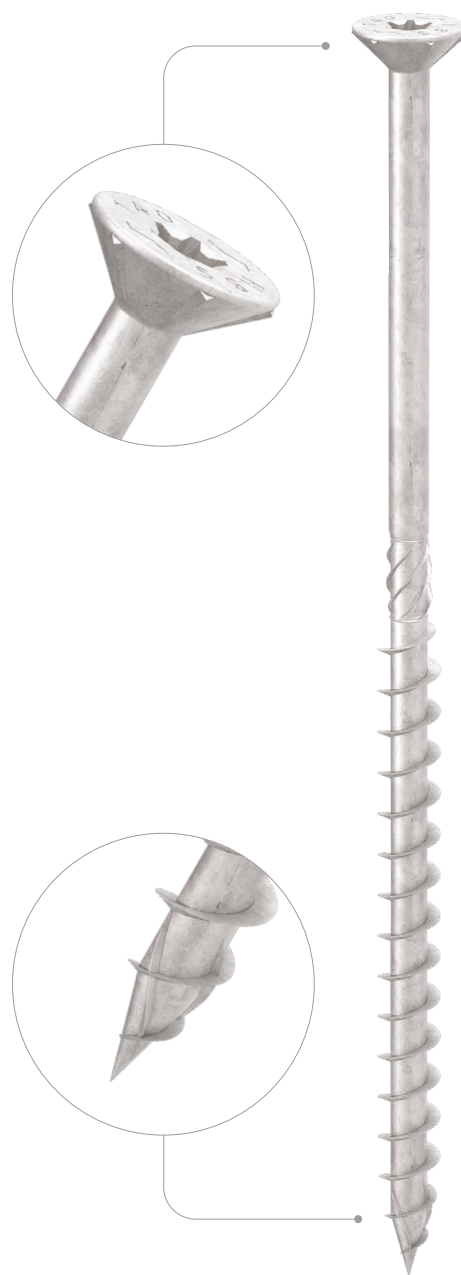
T3 TIMBER CORROSIVITY

Coating suitable for use in applications on wood with an acidity level (pH) greater than 4, such as spruce, larch and pine (see page 354).



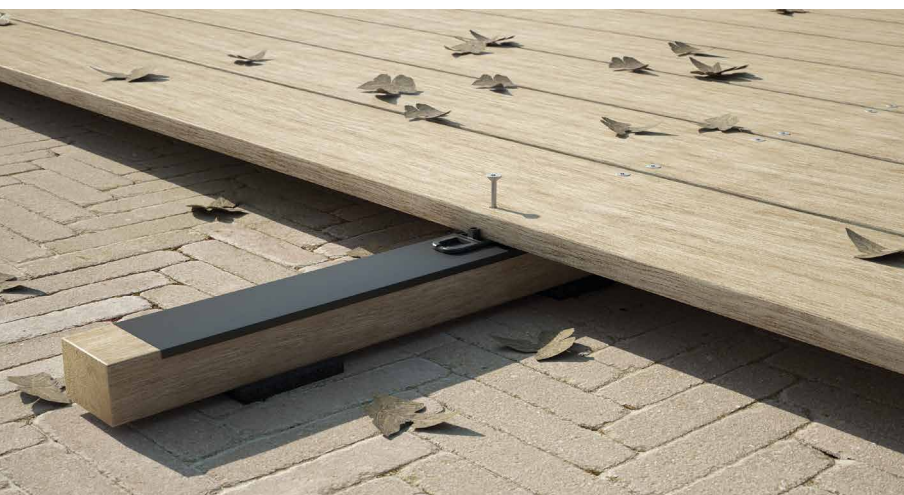
BIT INCLUDED

DIAMETER [in]	0.12	0.16	0.32	0.48
LENGTH [in]	1/2	1 9/16	12 5/8	39 3/8
EXPOSURE CONDITION	EC1	EC3		
ATMOSPHERIC CORROSIVITY	C1	C2	C3	C4
WOOD CORROSIVITY	T1	T2	T3	
MATERIAL	C4 EVO COATING carbon steel with C4 EVO coating			



FIELDS OF USE

- timber based panels
- solid timber and glulam
- CLT and LVL
- high density woods
- ACQ, CCA treated timber



EXPOSURE CONDITION 3

Certified for use in exposure condition 3 outdoor applications and under class C4 atmospheric corrosion conditions. Ideal for fastening timber framed panels and trusses (Rafter, Truss).

PERGOLAS AND DECKS

The smaller sizes are ideal for securing boards and battens of decks set up outdoors.

CODES AND DIMENSIONS

d ₁ [mm] [in]	CODE	L		b		A	pcs
		[mm]	[in]	[mm]	[in]	[in]	
4 0.16 #7 TX 20	HBSEVO440	40	1 9/16	24	15/16	1/2	500
	HBSEVO450	50	1 15/16	30	1 3/16	3/4	500
	HBSEVO460	60	2 3/8	35	1 3/8	3/4	500
	HBSEVO4545	45	1 3/4	30	1 3/16	1/2	400
4,5 0.18 #9 TX 20	HBSEVO4550	50	1 15/16	30	1 3/16	3/4	200
	HBSEVO4560	60	2 3/8	35	1 3/8	3/4	200
	HBSEVO4570	70	2 3/4	40	1 9/16	1	200
	HBSEVO4580	80	3 1/8	40	1 9/16	1 1/2	200
5 0.20 #11 TX 25	HBSEVO550	50	1 15/16	24	15/16	1	200
	HBSEVO560	60	2 3/8	30	1 3/16	1	200
	HBSEVO570	70	2 3/4	35	1 3/8	1 1/4	100
	HBSEVO580	80	3 1/8	40	1 9/16	1 1/2	100
6 0.24 #14 TX 30	HBSEVO590	90	3 1/2	45	1 3/4	1 3/4	100
	HBSEVO5100	100	4	50	1 15/16	1 3/4	100
	HBSEVO660	60	2 3/8	30	1 3/16	1	100
	HBSEVO670	70	2 3/4	40	1 9/16	1	100
8 0.32 TX 40	HBSEVO680	80	3 1/8	40	1 9/16	1 1/2	100
	HBSEVO6100	100	4	50	1 15/16	1 3/4	100
	HBSEVO6120	120	4 3/4	60	2 3/8	2 1/4	100
	HBSEVO6140	140	5 1/2	75	2 15/16	2 1/2	100
8 0.32 TX 40	HBSEVO6160	160	6 1/4	75	2 15/16	3 1/4	100
	HBSEVO6180	180	7 1/8	75	2 15/16	4	100
	HBSEVO6200	200	8	75	2 15/16	4 3/4	100

d ₁ [mm] [in]	CODE	L		b		A	pcs
		[mm]	[in]	[mm]	[in]	[in]	
8 0.32 TX 40	HBSEVO8100	100	4	52	2 1/16	1 3/4	100
	HBSEVO8120	120	4 3/4	60	2 3/8	2 1/4	100
	HBSEVO8140	140	5 1/2	60	2 3/8	3	100
	HBSEVO8160	160	6 1/4	80	3 1/8	3	100
8 0.32 TX 40	HBSEVO8180	180	7 1/8	80	3 1/8	3 3/4	100
	HBSEVO8200	200	8	80	3 1/8	4 1/2	100
	HBSEVO8220	220	8 5/8	80	3 1/8	5 1/2	100
	HBSEVO8240	240	9 1/2	80	3 1/8	6 1/4	100
8 0.32 TX 40	HBSEVO8260	260	10 1/4	80	3 1/8	7	100
	HBSEVO8280	280	11	80	3 1/8	7 3/4	100
	HBSEVO8300	300	11 3/4	100	4	7 3/4	100
	HBSEVO8320	320	12 5/8	100	4	8 1/2	100

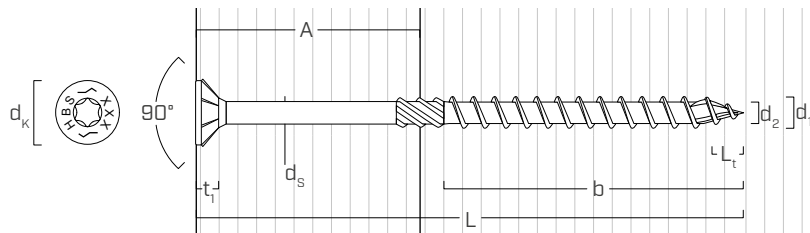
RELATED PRODUCTS



HUS EVO
TURNED WASHER

see page 72

GEOMETRY AND MECHANICAL CHARACTERISTICS



GEOMETRY

Nominal diameter	d ₁	[in] ⁽¹⁾	0.16	0.18	0.20	0.24	0.32
		[mm]	4	4,5	5	6	8
Outer thread diameter	d ₁	[in]	0.157	0.177	0.197	0.236	0.315
Head diameter	d _k	[in]	0.315	0.354	0.394	0.472	0.571
Root diameter	d ₂	[in]	0.100	0.110	0.134	0.156	0.213
Shank diameter	d _s	[in]	0.108	0.124	0.144	0.169	0.228
Head thickness	t ₁	[in]	0.110	0.110	0.122	0.177	0.177
Tip Length	L _t	[in]	0.157	0.177	0.197	0.236	0.315
Pre-drilling hole diameter ⁽²⁾	d _{V,G≤0.55}	[in]	-	-	1/8	5/32	13/64
Pre-drilling hole diameter ⁽³⁾	d _{V,G>0.55}	[in]	-	-	9/64	5/32	15/64

⁽¹⁾The nominal diameter of the screw is converted into imperial units and rounded up to the nearest decimal point.

⁽²⁾Pre-drilling applies to timber with G≤0.55 (optional).

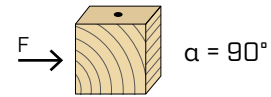
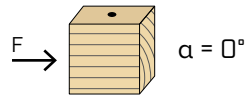
⁽³⁾Pre-drilling applies to timber with G>0.55 (required).

MECHANICAL PARAMETERS

Nominal diameter	d ₁	[in]	0.16	0.18	0.20	0.24	0.32
Tensile strength (allowable)	f _{tens}	[lbf]	430	540	680	1180	2040
Bending yield strength (specified)	F _{y,b}	[psi]	248000	253500	220000	200000	180000
Nominal diameter	d ₁	[in]	0.16	0.18	0.20	0.24	0.32
Withdrawal (design value)	W ₉₀	[lbf/in]	G = 0.35	86	86	103	131
			G = 0.42	99	99	119	151
			G = 0.49	111	111	133	171
			G = 0.55	121	121	146	188
minimum embedded length		[in]	15/16	1 1/16	1 3/16	1 7/16	1 7/8
Head pull-through (design value)	W _H	[lbf]	G = 0.35	75	95	117	142
			G = 0.42	87	110	136	165
			G = 0.49	98	124	153	186
			G = 0.55	108	136	168	204
minimum side member thickness		[in]	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2

MINIMUM DISTANCES FOR SHEAR LOADS | TIMBER

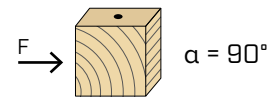
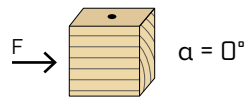
screws inserted **WITHOUT** pre-drilled hole $G \leq 0.48$



d_1	[in]		0.16	0.18	0.20	0.24	0.32
	[mm]		4	4,5	5	6	8
a_1	[in]	15-d	2 3/8	2 11/16	2 15/16	3 1/2	3 1/8
a_2	[in]	5-d	13/16	7/8	1	1 3/16	1 9/16
$a_{3,t}$	[in]	15-d	2 3/8	2 11/16	2 15/16	3 1/2	4 3/4
$a_{3,c}$	[in]	10-d	1 9/16	1 3/4	1 15/16	2 3/8	3 1/8
$a_{4,t}$	[in]	10-d	1 9/16	1 3/4	1 15/16	2 3/8	3 1/8
$a_{4,c}$	[in]	5-d	13/16	7/8	1	1 3/16	1 9/16

	0.16	0.18	0.20	0.24	0.32
	4	4,5	5	6	8
10-d	1 9/16	1 3/4	1 15/16	2 3/8	1 9/16
5-d	13/16	7/8	1	1 3/16	1 9/16
15-d	2 3/8	2 11/16	2 15/16	3 1/2	4 3/4
10-d	1 9/16	1 3/4	1 15/16	2 3/8	3 1/8
10-d	1 9/16	1 3/4	1 15/16	2 3/8	3 1/8
5-d	13/16	7/8	1	1 3/16	1 9/16

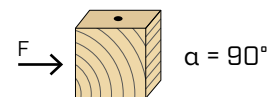
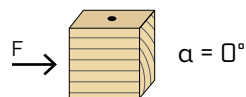
screws inserted **WITHOUT** pre-drilled hole $0.48 < G \leq 0.50$



d_1	[in]		0.16	0.18	0.20	0.24	0.32
	[mm]		4	4,5	5	6	8
a_1	[in]	15-d	2 3/8	2 11/16	2 15/16	3 1/2	4 3/4
a_2	[in]	5-d	13/16	7/8	1	1 3/16	1 9/16
$a_{3,t}$	[in]	15-d	2 3/8	2 11/16	2 15/16	3 1/2	4 3/4
$a_{3,c}$	[in]	10-d	1 9/16	1 3/4	1 15/16	2 3/8	3 1/8
$a_{4,t}$	[in]	10-d	1 9/16	1 3/4	1 15/16	2 3/8	3 1/8
$a_{4,c}$	[in]	5-d	13/16	7/8	1	1 3/16	1 9/16

	0.16	0.18	0.20	0.24	0.32
	4	4,5	5	6	8
10-d	1 9/16	1 3/4	1 15/16	2 3/8	2 3/16
5-d	13/16	7/8	1	1 3/16	1 9/16
15-d	2 3/8	2 11/16	2 15/16	3 1/2	4 3/4
10-d	1 9/16	1 3/4	1 15/16	2 3/8	3 1/8
10-d	1 9/16	1 3/4	1 15/16	2 3/8	3 1/8
5-d	13/16	7/8	1	1 3/16	1 9/16

screws inserted **WITHOUT** pre-drilled hole $G > 0.50$



d_1	[in]		0.16	0.18	0.20	0.24	0.32
	[mm]		4	4,5	5	6	8
a_1	[in]	15-d	2 3/8	2 11/16	2 15/16	3 1/2	4 3/4
a_2	[in]	7-d	1 1/8	1 1/4	1 3/8	1 5/8	2 3/16
$a_{3,t}$	[in]	20-d	3 1/8	3 1/2	4	4 3/4	6 1/4
$a_{3,c}$	[in]	15-d	2 3/8	2 11/16	2 15/16	3 1/2	4 3/4
$a_{4,t}$	[in]	12-d	1 7/8	2 1/8	2 3/8	2 13/16	3 3/4
$a_{4,c}$	[in]	7-d	1 1/8	1 1/4	1 3/8	1 5/8	2 3/16

	0.16	0.18	0.20	0.24	0.32
	4	4,5	5	6	8
10-d	1 9/16	1 3/4	1 15/16	2 3/8	3 1/8
7-d	1 1/8	1 1/4	1 3/8	1 5/8	2 3/16
20-d	3 1/8	3 1/2	4	4 3/4	6 1/4
15-d	2 3/8	2 11/16	2 15/16	3 1/2	4 3/4
12-d	1 7/8	2 1/8	2 3/8	2 13/16	3 3/4
7-d	1 1/8	1 1/4	1 3/8	1 5/8	2 3/16

α = load-to-grain angle
 $d = d_1$ = nominal diameter of the screw

