Proiectate pentru **maximum** *de performanta*

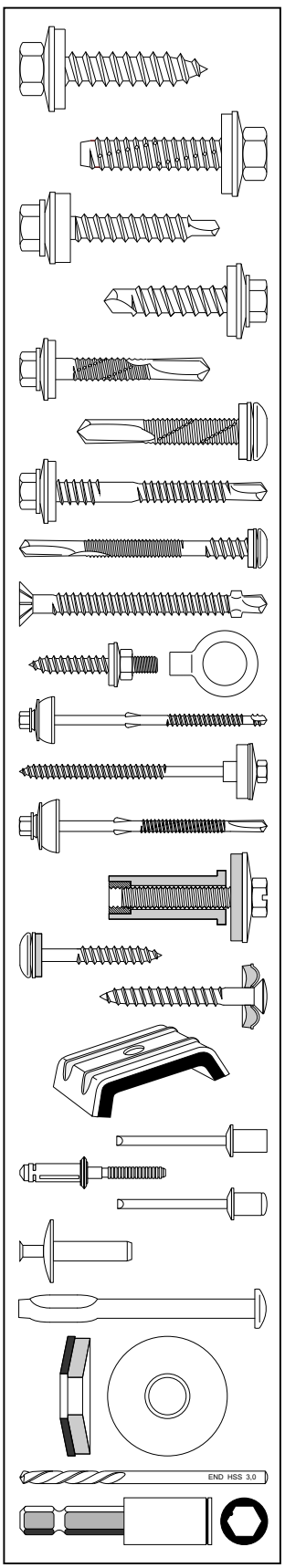


Fixari si etansari pentru hale industriale

de la MIRADTEHNIC



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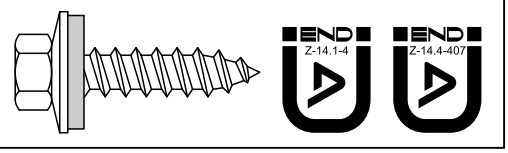
IFBS Industrieverband für Bausysteme im Stahlleichtbau

Redaction 1-06/2011-ENG

E-X® END-INOX

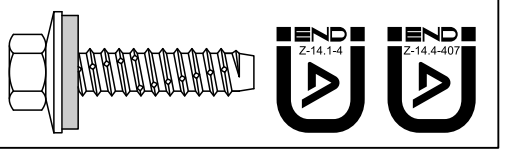
Surub autofiletant din otel inoxidabil 1.4301 cu sau fara saiba din inox premontata.
Saiba are vulcanizata etansare EPDM.

E-X 16 A 6.5 x L





E-X 16 BZ 6.3 x L



Further information on the approval, compliance certificate and bearing ratios is provided on pages 37, 39 and 40.

Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPDM premontata Ø 16 [€ / 100 items]	Name
E-X 16 A 6.5 x 13	13,25	16,50	———
E-X 16 A 6.5 x 16	13,60	16,85	E-X 16 BZ 6.3 x 16
E-X 16 A 6.5 x 20	13,65	16,90	E-X 16 BZ 6.3 x 20
E-X 16 A 6.5 x 25	15,85	19,10	E-X 16 BZ 6.3 x 25
E-X 16 A 6.5 x 32	19,05	22,30	E-X 16 BZ 6.3 x 32
E-X 16 A 6.5 x 38	23,10	26,35	E-X 16 BZ 6.3 x 38
E-X 16 A 6.5 x 45	24,45	27,70	E-X 16 BZ 6.3 x 45
E-X 16 A 6.5 x 50	25,85	29,10	E-X 16 BZ 6.3 x 50
E-X 16 A 6.5 x 60	31,70	34,95	E-X 16 BZ 6.3 x 60
E-X 16 A 6.5 x 65	34,40	37,65	E-X 16 BZ 6.3 x 65
E-X 16 A 6.5 x 70	37,20	40,45	E-X 16 BZ 6.3 x 70
E-X 16 A 6.5 x 75	39,10	42,35	E-X 16 BZ 6.3 x 75
E-X 16 A 6.5 x 80	40,95	44,20	E-X 16 BZ 6.3 x 80
E-X 16 A 6.5 x 85	42,90	46,15	E-X 16 BZ 6.3 x 85
E-X 16 A 6.5 x 90	46,35	49,60	E-X 16 BZ 6.3 x 90
E-X 16 A 6.5 x 100	49,70	52,95	E-X 16 BZ 6.3 x 100
E-X 16 A 6.5 x 115	56,40	59,65	E-X 16 BZ 6.3 x 115
E-X 16 A 6.5 x 130	63,25	66,50	E-X 16 BZ 6.3 x 130
E-X 16 A 6.5 x 150	73,50	76,75	E-X 16 BZ 6.3 x 150
E-X 16 A 6.5 x 175	90,55	93,80	E-X 16 BZ 6.3 x 175
E-X 16 A 6.5 x 200	116,75	120,00	E-X 16 BZ 6.3 x 200
E-X 16 A 6.5 x 220	131,75	135,00	E-X 16 BZ 6.3 x 220
E-X 16 A 6.5 x 240	147,30	150,55	E-X 16 BZ 6.3 x 240
E-X 16 A 6.5 x 260	161,75	165,00	E-X 16 BZ 6.3 x 260
E-X 16 A 6.5 x 280	176,75	180,00	E-X 16 BZ 6.3 x 280
E-X 16 A 6.5 x 300	191,50	194,75	E-X 16 BZ 6.3 x 300

Application
Fastened on a wooden substructure or a steel substructure with a flange thickness of up to 3.0 mm.

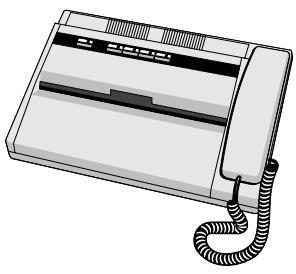
Application
Fastened on a steel substructure with a flange thickness of 1.25 mm or more.

Available from stock:
- Stainless steel 1.4401 (A4), Price on application
- Width across flats 8 mm
- Coloured fasteners

Pentru orice informatie privind produsele, selectarea si utilizarea acestora :

INFOLINE:
0332 803469





Puteti sa ne contactati la orice ora pentru comenzi sau orice tip de informatii tehnice, iar noi va vom raspunde in cel mai scurt timp posibil.

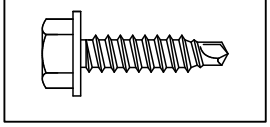
E-mail:
info@mirad-tehnic.ro

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

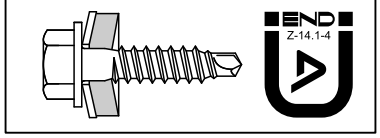
E-X® BOHR END-INOX

Surub autoperforant din otel inoxidabil 1.4301 cu sau fara saiba premontata din otel inox 1.4301. Saiba are vulcanizata etansare EPDM.

E-X BR RS 4.8 x 19



E-X BR RS 14 4.8 x L



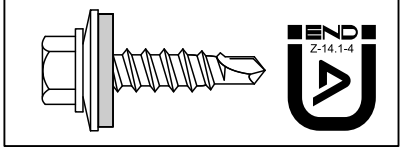
Further information on the approval, compliance certificate and bearing ratios is provided on page 38.

Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 14 [€ / 100 buc]	Capacitate perf. maxima [mm]
E-X BOHR RS 4.8 x 19	22,15	-	pregaurire
E-X BOHR RS 14 4.8 x 20	-	25,15	

Aplicatii

Montarea inchiderilor cu foi de tabla; va rugam sa cautati informatii despre produs la pagina 34.

E-X BR RS 16 5.5 x 22



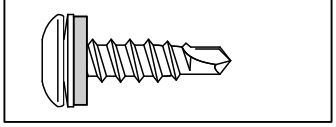
Further information on the approval, compliance certificate and bearing ratios is provided on page 38.

Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 16 [€ / 100 items]	Capacitate perf. [mm]
E-X BOHR RS 16 5.5 x 22	26,90	30,15	pregaurire

Aplicatii

Montarea inchiderilor cu foi de tabla; va rugam sa cautati informatii despre produs la pagina 34.

E-X T25 BR RS 12 5.5 x L

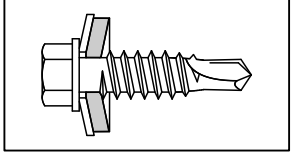


Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 12 [€ / 100 items]	Capacitate perf. [mm]
E-X T25 BR RS 12 5.5 x 22	28,80	31,60	pregaurire

Aplicatii

Montarea inchiderilor cu foi de tabla. Surubul este indicat in special pentru montarea tablelor sinus pe fatade.

E-X BR RS 16 6.3 x L



Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 16 [€ / 100 items]	Capacitate perf. [mm]
E-X BOHR RS 16 6.3 x 25	38,75	42,00	pregaurire

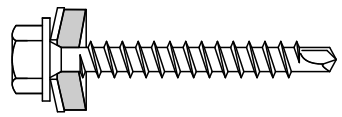
Aplicatii

Montarea inchiderilor cu foi de tabla; va rugam sa cautati informatii despre produs la pagina 34.

E-X® BOHR END-INOX

Surub autoperforant din otel inoxidabil 1.4301 cu sau fara saiba premontata din otel inox 1.4301. Saiba are vulcanizata etansare EPDM

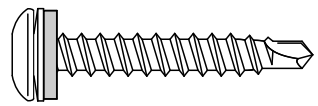
E-X BR RS 14 4.8 x L



Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 14 [€ / 100 items]	Capacitate perf. [mm]
E-X BOHR RS 14 4.8 x 35	28,40	31,30	Lemn
E-X BOHR RS 14 4.8 x 80	45,95	48,85	

Application
Montaje pe substructuri din lemn.

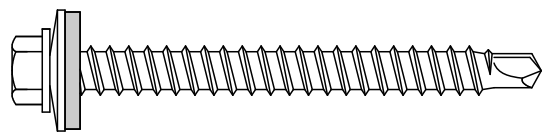
E-X T25 BR RS 12 5.5 x L



Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 12 [€ / 100 items]	Capacitate perf. [mm]
E-X T25 BR RS 12 5.5 x 38	35,30	38,10	Lemn

Application
Montaje pe substructuri din lemn. Surubul este indicat in special pentru montarea tablelor sinus pe fatade.

E-X BR RS 16 6.5 x L

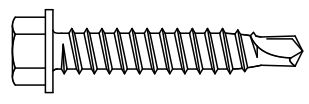


Approval by the building authorities according to Z-14.1-4 has been applied for.

Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 16 [€ / 100 items]	Capacitate perf. [mm]
E-X BOHR RS 16 6.5 x 50	48,10	51,35	Wooden
E-X BOHR RS 16 6.5 x 65	53,55	56,80	
E-X BOHR RS 16 6.5 x 80	74,60	77,85	

Application
Montaje pe substructuri din lemn.

E-X BR RS 6.0 x L



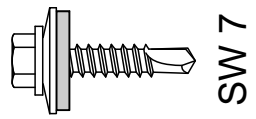
Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 16 [€ / 100 items]	Capacitate perf. [mm]
E-X BOHR RS 16 6.0 x 35	40,40	43,65	3.0

Application
Montarea cu suruburi (coasere) a profilelor si tablelor pe substructuri din otel..

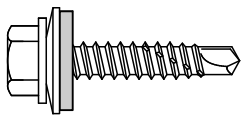
E-X® BOHR END-INOX

Surub autoperforant din otel inoxidabil 1.4301 cu sau fara saiba premontata din otel inox 1.4301. Saiba are vulcanizata etansare EPDM

E-X BR 2 14 4.2 x L



E-X BR 2 14 4.8 x L

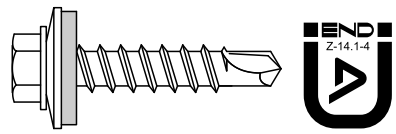


Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 14 [€ / 100 items]	Capacitate perf. [mm]
E-X BOHR 2 14 4.2 x 19 SW 7	16,10	19,00	2.5
E-X BOHR 2 14 4.8 x 16	17,20	20,10	
E-X BOHR 2 14 4.8 x 20	20,70	23,60	
E-X BOHR 2 14 4.8 x 25	21,65	24,55	

Application

Montarea foilor de tabla.

E-X BR 2 16 5.5 x L



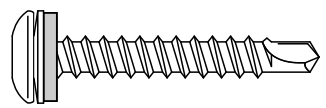
Weitere Informationen zur Zulassung, dem Übereinstimmungsnachweis und den Tragfähigkeitswerten finden Sie auf Seite 38.

Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 16 [€ / 100 items]	Capacitate perf. [mm]
E-X BOHR 2 16 5.5 x 25	26,25	29,50	3.5
E-X BOHR 2 16 5.5 x 28	29,20	32,45	
E-X BOHR 2 16 5.5 x 38	33,95	37,20	
E-X BOHR 2 16 5.5 x 50	43,85	47,10	
E-X BOHR 2 16 5.5 x 58	47,10	50,35	
E-X BOHR 2 16 5.5 x 65	51,65	54,90	
E-X BOHR 2 16 5.5 x 80	67,60	70,85	
E-X BOHR 2 16 5.5 x 100	72,50	75,75	

Application

Montaj table pe profile subtiri din tabla sau pe caseta structurala.

E-X T25 BR 2 12 5.5 x L



Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 12 [€ / 100 items]	Capacitate perf. performance [mm]
E-X T25 BR 2 12 5.5 x 25	27,55	30,35	3.5
E-X T25 BR 2 12 5.5 x 38	34,20	37,00	
E-X T25 BR 2 12 5.5 x 50	45,20	48,00	

Application

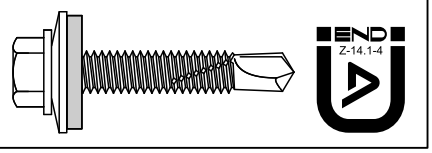
Montaj table pe profile subtiri din tabla sau pe caseta structurala.Surubul este indicat in special pentru montarea tablelor sinus pe profile la fatade.

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

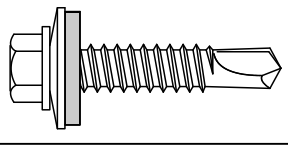
E-X® BOHR END-INOX

Surub autoperforant din otel inoxidabil 1.4301 cu sau fara saiba premontata din otel inox 1.4301. Saiba are vulcanizata etansare EPDM

E-X BR 3 16 5.5 x L



E-X BR 3 16 6.3 x L



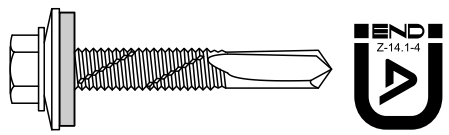
Further information on the approval, compliance certificate and bearing ratios is provided on page 39.

Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 16 [€ / 100 items]	Capacitate perf. [mm]
E-X BOHR 3 16 5.5 x 26	29,10	32,35	6.0
E-X BOHR 3 16 5.5 x 32	32,00	35,25	
E-X BOHR 3 16 5.5 x 38	34,95	38,20	
E-X BOHR 3 16 5.5 x 50	45,40	48,65	
E-X BOHR 3 16 5.5 x 65	53,20	56,45	
E-X BOHR 3 16 6.3 x 25	35,60	38,85	

Application

Montaj pe structuri din otel de maxim 6 mm.

E-X BR 5 16 5.5 x L



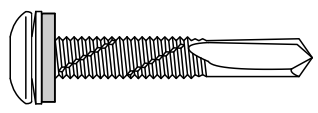
Further information on the approval, compliance certificate and bearing ratios is provided on page 39.

Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 16 [€ / 100 items]	Capacitate perf. [mm]
E-X BOHR 5 16 5.5 x 38	47,30	50,55	12.5
E-X BOHR 5 16 5.5 x 50	50,10	53,35	
E-X BOHR 5 16 5.5 x 65	56,10	59,35	
E-X BOHR 5 16 5.5 x 80	73,75	77,00	
E-X BOHR 5 16 5.5 x 100	83,25	86,50	

Application

Montaj pe structuri din otel de maxim 12,5 mm.

E-X T25 BR 5 12 5.5 x L



Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 12 [€ / 100 items]	Capacitate perf. [mm]
E-X T25 BR 5 12 5.5 x 38	48,65	51,45	12.5

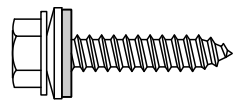
Application

Montaj pe structuri din otel de maxim 12,5 mm.Surubul este indicat in special pentru montarea tablelor sinus

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

Surub autoperforant din otel inoxidabil 1.4301 cu sau fara saiba premontata din otel inox 1.4301. Saiba are vulcanizata etansare EPDM

E-XS 14 AB 4.8 x L

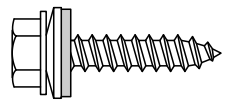


Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 14 [€ / 100 items]
E-XS 14 AB 4.8 x 16	12,25	15,15
E-XS 14 AB 4.8 x 19	12,75	15,65
E-XS 14 AB 4.8 x 25	13,95	16,85
E-XS 14 AB 4.8 x 32	15,75	18,65
E-XS 14 AB 4.8 x 38	17,00	19,90
E-XS 14 AB 4.8 x 50	20,10	23,00
E-XS 14 AB 4.8 x 60	23,65	26,55

Application

Montaj pe structuri din otel.

E-XS 14 A 4.9 x L

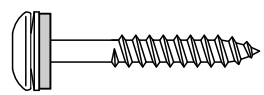


Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 14 [€ / 100 items]
E-XS 14 A 4.9 x 25	13,95	16,85
E-XS 14 A 4.9 x 32	15,75	18,65
E-XS 14 A 4.9 x 38	17,00	19,90
E-XS 14 A 4.9 x 60	23,65	26,55

Application

Montaje pe substructura din lemn.

E-X T20 12 A 4.8 x L



Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 12 [€ / 100 items]
E-X T20 12 A 4.8 x 25	15,55	18,35
E-X T20 12 A 4.8 x 32	15,90	18,70
E-X T20 12 A 4.8 x 38	16,40	19,20
E-X T20 12 A 4.8 x 50	19,40	22,20
E-X T20 12 A 4.8 x 60	21,65	24,45
E-X T20 12 A 4.8 x 80	27,05	29,85
E-X T20 12 A 4.8 x 100	33,20	36,00

Application

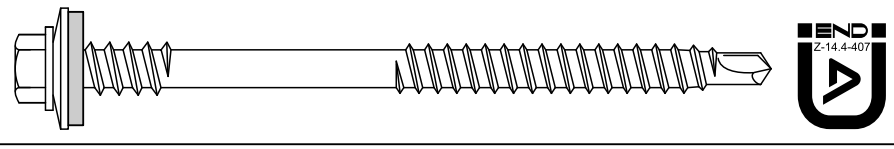
Montaje pe substructura din lemn.

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

E-X®BOHR Fastener for sandwich profiles

Surub autoperforant din otel inoxidabil 1.4301 cu sau fara saiba premontata din otel inox 1.4301. Saiba are vulcanizata etansare EPDM

E-X BR RS HT 16 6.5 x L



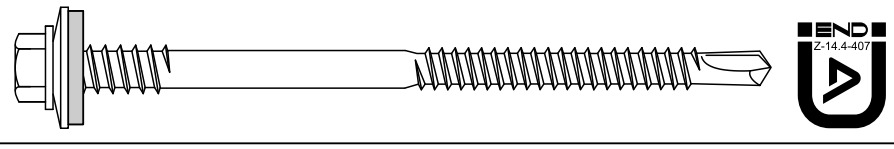
Further information on the approval, compliance certificate and bearing ratios is provided on page 36.

Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 16 [€ / 100 items]	Capacitate perf. [mm]	Pachet de prindere de la - la [mm]
E-X BOHR RS HT 16 6.5 x 80	83,30	86,55		< 30
E-X BOHR RS HT 16 6.5 x 100	95,15	98,40		< 50
E-X BOHR RS HT 16 6.5 x 120	102,90	106,15		< 70
E-X BOHR RS HT 16 6.5 x 140	111,20	114,45		< 90
E-X BOHR RS HT 16 6.5 x 160	118,95	122,20	Pe lemn	< 110
E-X BOHR RS HT 16 6.5 x 180	130,65	133,90		< 130
E-X BOHR RS HT 16 6.5 x 200	142,55	145,80		< 150
E-X BOHR RS HT 16 6.5 x 220	153,10	156,35		< 170
E-X BOHR RS HT 16 6.5 x 240	162,10	165,35		< 190

Application

Montajul panourilor sandwich pe substructura din lemn.

E-X BR 3 HT 16 5.5 x L



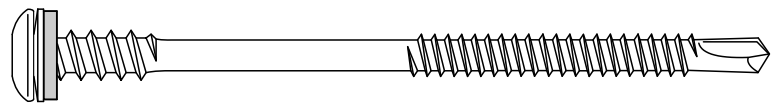
Further information on the approval, compliance certificate and bearing ratios is provided on page 36.

Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 16 [€ / 100 items]	Capacitate perf. [mm]	Pachet de prindere grosime panou [mm]
E-X BOHR 3 HT 16 5.5 x 70	62,40	65,65		22 - 47
E-X BOHR 3 HT 16 5.5 x 85	71,35	74,60		32 - 62
E-X BOHR 3 HT 16 5.5 x 95	73,85	77,10		42 - 72
E-X BOHR 3 HT 16 5.5 x 110	77,00	80,25		57 - 87
E-X BOHR 3 HT 16 5.5 x 130	84,45	87,70	5.5	77 - 107
E-X BOHR 3 HT 16 5.5 x 150	89,15	92,40		99 - 127
E-X BOHR 3 HT 16 5.5 x 165	102,50	105,75		112 - 142
E-X BOHR 3 HT 16 5.5 x 180	112,50	115,75		127 - 157
E-X BOHR 3 HT 16 5.5 x 200	128,10	131,35		148 - 177
E-X BOHR 3 HT 16 5.5 x 230	153,10	156,35		178 - 207

Application

Montajul panourilor sandwich pe substructura din otel.

E-X T25 BR 3 HT 12 5.5 x L



Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 12 [€ / 100 items]	Capacitate perf. performance [mm]	Clamping area from - to [mm]
E-X T25 BR 3 HT 12 5.5 x 120	78,85	83,85	5.5	69 - 96

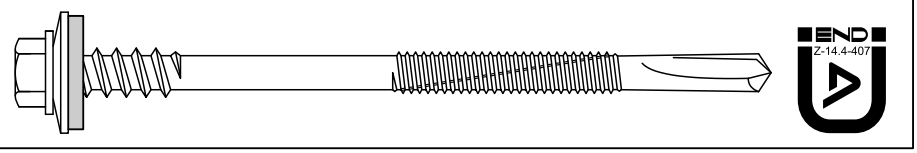
Application

Montajul panourilor sandwich pe substructura din otel. Indicat pentru fixarea panourilir cu tabla sinus..

E-X® BOHR Fastener for sandwich profiles

Surub autoperforant din otel inoxidabil 1.4301 cu sau fara saiba premontata din otel inox 1.4301. Saiba are vulcanizata etansare EPDM.

E-X BR 5 HT 16 5.5 x L



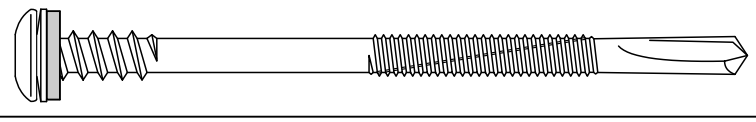
Further information on the approval, compliance certificate and bearing ratios is provided on page 37.

Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 16 [€ / 100 items]	Capacitate perf. performance [mm]		Pachet de prindere Grosime panou[mm]
E-X BOHR 5 HT 16 5.5 x 75	75,50	78,75			24 - 35
E-X BOHR 5 HT 16 5.5 x 95	87,45	90,70			28 - 55
E-X BOHR 5 HT 16 5.5 x 110	94,25	97,50			43 - 70
E-X BOHR 5 HT 16 5.5 x 125	101,10	104,35			58 - 85
E-X BOHR 5 HT 16 5.5 x 150	114,75	118,00		14.0	83 - 110
E-X BOHR 5 HT 16 5.5 x 165	129,20	132,45			98 - 125
E-X BOHR 5 HT 16 5.5 x 185	143,70	146,95			113 - 145
E-X BOHR 5 HT 16 5.5 x 210	154,75	158,00			138 - 170
E-X BOHR 5 HT 16 5.5 x 240	199,30	202,55			168 - 200

Application

Montajul panourilor sandwich pe substructura din otel.

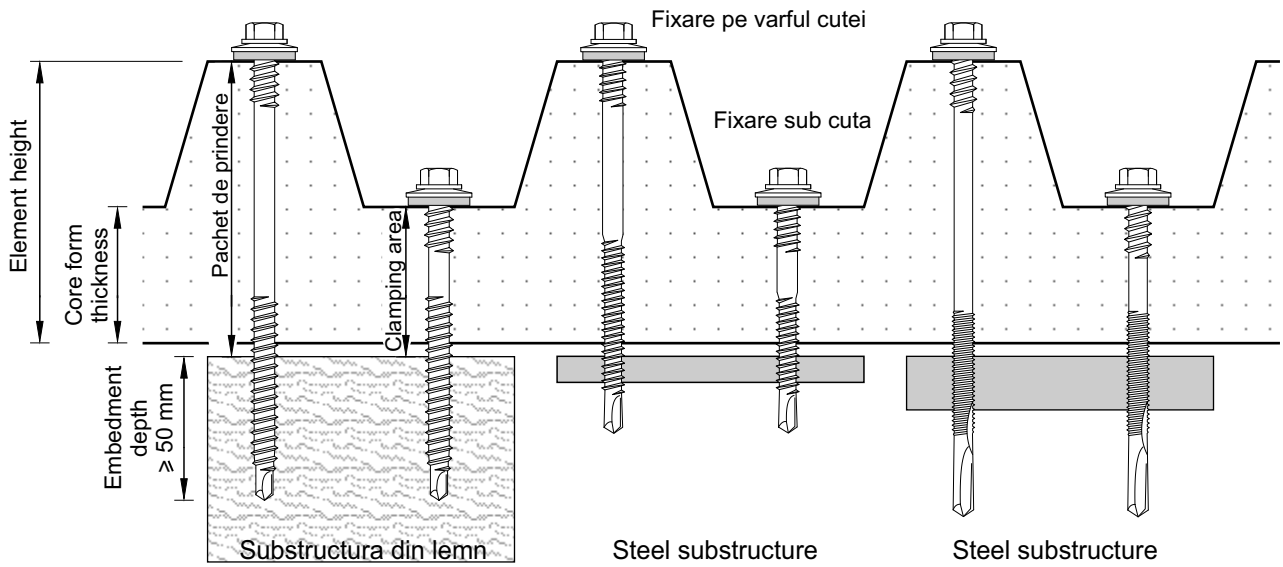
E-X T25 BR 5 HT 12 5.5 x L



Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 12 [€ / 100 items]	Capacitate perf. performance [mm]		Pachet de prindere Grosime panou[mm]
E-X T25 BR 5 HT 12 5.5 x 130	103,70	108,70		12.5	63 - 90

Application

Montajul panourilor sandwich pe substructura din otel. Indicat pentru fixarea panourilir cu tabla sinus..



E-X BOHR RS HT 6.5 x L	E-X BOHR 3 HT 5.5 x L	E-X BOHR 5 HT 5.5 x L
	E-VS BOHR 3 HT 5.5 x L	E-VS BOHR 5 HT 5.5 x L

E-X®BOHR FLT

Surub autoperforant din otel inox1.4301 cu cap zenc cu rizuri si aripioare.

E-X BR 3 FLT 4.8 x L



Name	Price [€ / 100 items]	Drive	Capacitate perf. [mm]	Grosime lemn [mm]
E-X BOHR FLT 4.8 x 38	38,40	PH 2	3.5	5 - 18
E-X BOHR FLT 4.8 x 50	46,95			5 - 30

Application

Pentru fixarea panourilor din lemn pe structuri din otel. grosimea minima a substructurii nu trebuie sa fie sub 1.25 mm.

E-X BR 3 FLT 5.5 x L



Name	Price [€ / 100 items]	Drive	Capacitate perf. [mm]	Grosime lemn [mm]
E-X BOHR 3 FLT 5.5 x 60	51,20	PH 3	5.0	10 - 38
E-X BOHR 3 FLT 5.5 x 85	57,90			20 - 63
E-X BOHR 3 FLT 5.5 x 109	76,50			45 - 88
E-X BOHR 3 FLT 5.5 x 130	85,40			max. 105

Application

Pentru fixarea panourilor din lemn pe structuri din otel. grosimea minima a substructurii nu trebuie sa fie sub 1.25 mm.

E-X BR 5 FLT 5.5 x L



Name	Price [€ / 100 items]	Drive	Capacitate perf. [mm]	Grosime lemn [mm]
E-X BOHR 5 FLT 5.5 x 60	56,10	PH 3	12.5	5 - 24
E-X BOHR 5 FLT 5.5 x 85	69,00			13 - 49
E-X BOHR 5 FLT 5.5 x 109	87,00			37 - 73
E-X BOHR 5 FLT 5.5 x 130	97,20			max. 94

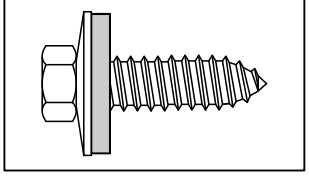
Application

Pentru fixarea panourilor din lemn pe structuri din otel. grosimea minima a substructurii nu trebuie sa fie sub 1.25 mm.

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

Surub autofiletant din otel inoxidabil 1.4301 cu sau fara saiba premontata din otel inox 1.4301. Saiba are vulcanizata etansare EPDM.

E-XR 19 AB 7.2 x L

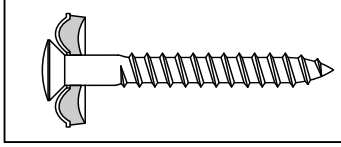


Name	Fara saiba etansare [€ / 100 items]	Cu saiba din otel inox Ø 19 [€ / 100 items]
E-XR 19 AB 7.2 x 19	26,60	31,85
E-XR 19 AB 7.2 x 25	29,60	34,85
E-XR 19 AB 7.2 x 38	40,90	46,15

Application

Surub de reparatie. Inlocuieste surubul de 6,3 mm montat gresit in otel sau aluminiu.

Spengler 15 4.5 x L

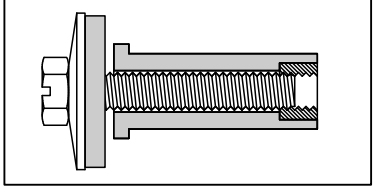


Name	Cu saiba din otel inox Ø 15 [€ / 100 items]	Antrenare	Capacitate perforare [mm]
Spengler 15 4.5 x 25	10,90	PZ 2	lemn
Spengler 15 4.5 x 35	12,95	or optional	
Spengler 15 4.5 x 45	15,00	TORX 25	

Application

Montaje pe substructuri din lemn.

Lapstitch 19 10 x L



Name	Cu sau fara saiba din aluminiu sau inox premontata Ø 19 [€ / 100 items]
Lapstitch 19 10 x 25	29,00

Application

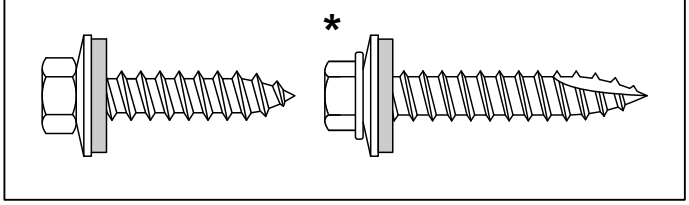
Fixarea si etansarea placilor de policarbonat la luminatoare. Surub din otel inox, corp din cauciuc.

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

E-VS® END Otel tratat termic

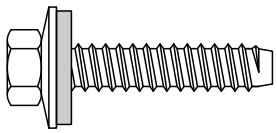
Surub autofiletant din otel calit rezistent la coroziune. Otel zincat. Cu sau fara saiba EPDM premontata. Fixari pe sub structura din lemn(notate cu *) sau otel mai gros de 3 mm.

E-VS 16 A 6.5 x L E-VS 8 16 A 6.5 x L S.P





E-VS 16 BZ 6.3 x L



Name	Fara saiba etansare [€ / 100 items]	Cu saiba EPDM montata Ø 16 [€ / 100 items]	Denumire
E-VS 16 A 6.5 x 16	5,40	7,65	E-VS 16 BZ 6.3 x 16
E-VS 16 A 6.5 x 20 *	5,75	8,00	E-VS 16 BZ 6.3 x 20
E-VS 16 A 6.5 x 25 *	7,15	9,40	E-VS 16 BZ 6.3 x 25
E-VS 16 A 6.5 x 32 *	7,85	10,10	E-VS 16 BZ 6.3 x 32
E-VS 16 A 6.5 x 38 *	8,50	10,75	E-VS 16 BZ 6.3 x 38
E-VS 16 A 6.5 x 45 *	9,25	11,50	E-VS 16 BZ 6.3 x 45
E-VS 16 A 6.5 x 50 *	9,55	11,80	E-VS 16 BZ 6.3 x 50
E-VS 16 A 6.5 x 60	11,10	13,35	E-VS 16 BZ 6.3 x 60
E-VS 16 A 6.5 x 65 *	11,45	13,70	E-VS 16 BZ 6.3 x 65
E-VS 16 A 6.5 x 70	11,70	13,95	E-VS 16 BZ 6.3 x 70
E-VS 16 A 6.5 x 75 *	12,55	14,80	E-VS 16 BZ 6.3 x 75
E-VS 16 A 6.5 x 80	12,75	15,00	E-VS 16 BZ 6.3 x 80
E-VS 16 A 6.5 x 85	13,75	16,00	E-VS 16 BZ 6.3 x 85
E-VS 16 A 6.5 x 90 *	14,15	16,40	E-VS 16 BZ 6.3 x 90
E-VS 16 A 6.5 x 100 *	18,10	20,35	E-VS 16 BZ 6.3 x 100
E-VS 16 A 6.5 x 115	19,55	21,80	E-VS 16 BZ 6.3 x 115
E-VS 16 A 6.5 x 130 *	25,40	27,65	E-VS 16 BZ 6.3 x 130
E-VS 16 A 6.5 x 150 *	31,45	33,70	E-VS 16 BZ 6.3 x 150
E-VS 16 A 6.5 x 175 *	38,60	40,85	E-VS 16 BZ 6.3 x 175
E-VS 16 A 6.5 x 200 *	51,10	53,35	E-VS 16 BZ 6.3 x 200
E-VS 16 A 6.5 x 220	67,20	69,45	E-VS 16 BZ 6.3 x 220
E-VS 16 A 6.5 x 240	79,95	82,20	E-VS 16 BZ 6.3 x 240
E-VS 16 A 6.5 x 260	93,10	95,35	E-VS 16 BZ 6.3 x 260

Anwendung

Fastened on a wooden substructure or a steel substructure with a flange thickness of up to 3.0 mm.

We also offer the screws marked with * in SW 8 mm and cutting thread (S.P) which are suitable for fastening trapezoidal steel sheets of up to 1.0 mm on a wooden substructure without pre-drilling.

Anwendung

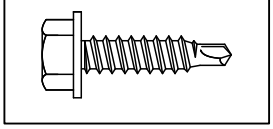
Fastened on a steel substructure with a flange thickness of 3 mm or more.

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

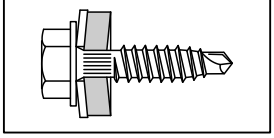
E-VS® BOHR END Heat-threated steel

Surub autoperforant din otel calit, rezistent la coroziune, cu sau fara saiba cu EPDM premontata. Otel zincat.

E-VS BR RS 4.8 x L



E-VS BR RS 14 4.8 x L

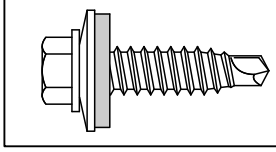


Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPGM premontata Ø 14 [€ / 100 items]	Capacitate perforare performance [mm]
E-VS BOHR RS 4.8 x 19	7,75	-	Coasere table
E-VS BOHR RS 14 4.8 x 20*	-	9,70	

Application

Mounting the longitudinal connection. Please observe the product information on page 22 of our catalogue.

E-VS BR RS 16 6.3 x L

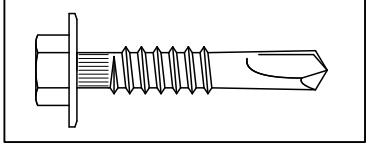


Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPGM premontata Ø 16 [€ / 100 items]	Capacitate perforare performance [mm]
E-VS BOHR RS 16 6.3 x 20	-	15,10	Coasere table
E-VS BOHR RS 16 6.3 x 25	-	16,40	

Application

Mounting the longitudinal connection. Please observe the product information on page 22 of our catalogue.

E-VS BR RS COL 6.3 x L



Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPGM premontata Ø 16 [€ / 100 items]	Capacitate perforare performance [mm]
E-VS BOHR RS COL 6.3 x 22	12,00	-	2 x 1.00
E-VS BOHR RS COL 6.3 x 23	12,00	-	Coasere 2 x 1.25
E-VS BOHR RS COL 6.3 x 32	14,65	-	2 x 1.50

Application

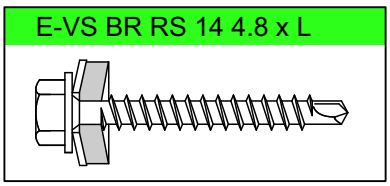
Mounting the longitudinal connection. Please observe the product information on page 23 of our catalogue.

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

E-VS® BOHR END Heat-threated steel

Surub autoperforant din otel calit, rezistent la coroziune, cu sau fara saiba cu EPDM premontata. Otel zincat.

E-VS BR RS 14 4.8 x L

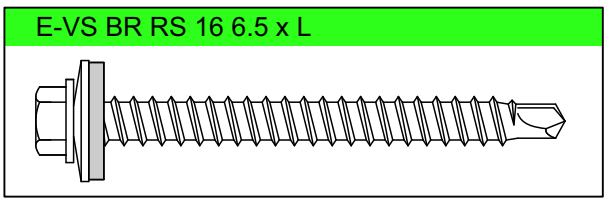


Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPGM premontata Ø 14 [€ / 100 items]	Capacitate perforare performance [mm]
E-VS BOHR RS 14 4.8 x 28	-	10,55	Lemn
E-VS BOHR RS 14 4.8 x 35	-	13,05	
E-VS BOHR RS 14 4.8 x 60	-	14,35	
E-VS BOHR RS 14 4.8 x 80	-	17,15	

Application

Montaje la conexiuni longitudinale, montarea profileler subturi sau teblelor pe substructuri din lemn.

E-VS BR RS 16 6.5 x L

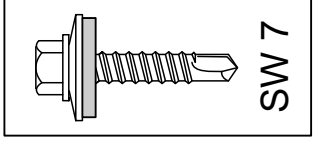


Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPGM premontata Ø 16 [€ / 100 items]	Capacitate perforare performance [mm]
E-VS BOHR RS 16 6.5 x 50	19,50	21,75	Lemn
E-VS BOHR RS 16 6.5 x 70	23,65	25,90	
E-VS BOHR RS 16 6.5 x 90	30,25	32,50	

Application

Montaje pe substructuri din lemn.

E-VS BR 3 14 4.2 x L



Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPGM premontata Ø 14 [€ / 100 items]	Capacitate perforare performance [mm]
E-VS BOHR 3 14 4.2 x 13	4,45	6,40	2.0
E-VS BOHR 3 14 4.2 x 16	4,75	6,70	
E-VS BOHR 3 14 4.2 x 19	5,80	7,75	
E-VS BOHR 3 14 4.2 x 25	6,30	8,25	
E-VS BOHR 3 14 4.2 x 32	6,80	8,75	

Application

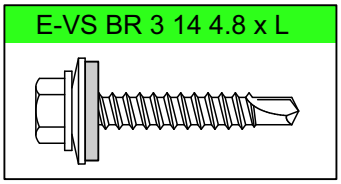
Montaje pe substructuri din otel.

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

E-VS® BOHR END Heat-threated steel

Surub autoperforant din otel calit, rezistent la coroziune, cu sau fara saiba cu EPDM premontata. Otel zincat.

E-VS BR 3 14 4.8 x L

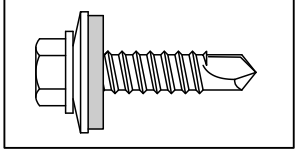


Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPDM premontata Ø 14 [€ / 100 items]	Capacitate perforare performance [mm]
E-VS BOHR 3 14 4.8 x 13	7,00	8,95	3.0
E-VS BOHR 3 14 4.8 x 16	7,60	9,55	
E-VS BOHR 3 14 4.8 x 19	7,75	9,70	
E-VS BOHR 3 14 4.8 x 22	8,15	10,10	
E-VS BOHR 3 14 4.8 x 25	9,25	11,20	
E-VS BOHR 3 14 4.8 x 32	9,70	11,65	
E-VS BOHR 3 14 4.8 x 38	10,55	12,50	
E-VS BOHR 3 14 4.8 x 45	10,95	12,90	
E-VS BOHR 3 14 4.8 x 50	12,00	13,95	
E-VS BOHR 3 14 4.8 x 60	13,15	15,10	

Application

Montaje pe substructuri din otel.

E-VS BR 3 16 5.5 x L

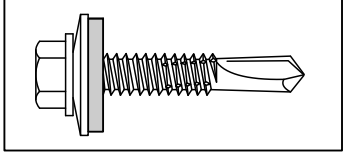


Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPDM premontata Ø 16 [€ / 100 items]	Capacitate perforare performance [mm]
E-VS BOHR 3 16 5.5 x 19	10,15	12,40	5.0
E-VS BOHR 3 16 5.5 x 22	10,65	12,90	
E-VS BOHR 3 16 5.5 x 25	11,05	13,30	
E-VS BOHR 3 16 5.5 x 32	11,95	14,20	
E-VS BOHR 3 16 5.5 x 38	12,95	15,20	
E-VS BOHR 3 16 5.5 x 50	15,30	17,55	
E-VS BOHR 3 16 5.5 x 60	16,55	18,80	

Application

Montaje pe substructuri din otel.

E-VS BR 4 16 5.5 x L



Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPGM premontata Ø 16 [€ / 100 items]	Capacitate perforare performance [mm]
E-VS BOHR 4 16 5.5 x 24	13,25	15,50	8.0
E-VS BOHR 4 16 5.5 x 26	14,05	16,30	

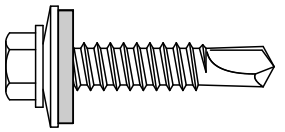
Application

Montaje pe substructuri din otel.

E-VS® BOHR END Heat-threated steel

Surub autoperforant din otel calit, rezistent la coroziune, cu sau fara saiba cu EPDM premontata. Otel zincat.

E-VS BR 3 16 6.3 x L

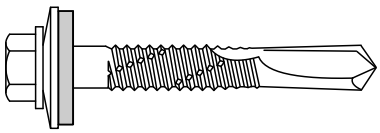


Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPDM premontata Ø 16 [€ / 100 items]	Capacitate perforare performance [mm]
E-VS BOHR 3 16 6.3 x 19	12,80	15,05	6.0
E-VS BOHR 3 16 6.3 x 22	13,60	15,85	
E-VS BOHR 3 16 6.3 x 25	14,10	16,35	
E-VS BOHR 3 16 6.3 x 32	16,25	18,50	
E-VS BOHR 3 16 6.3 x 38	17,40	19,65	
E-VS BOHR 3 16 6.3 x 50	21,15	23,40	8.0
E-VS BOHR 3 16 6.3 x 65	22,60	24,85	
E-VS BOHR 3 16 6.3 x 80	26,10	28,35	
E-VS BOHR 3 16 6.3 x 100	35,65	37,90	
E-VS BOHR 3 16 6.3 x 120	39,70	41,95	
E-VS BOHR 3 16 6.3 x 140	44,00	46,25	
E-VS BOHR 3 16 6.3 x 160	47,30	49,55	

Application

Montaje pe substructuri din otel.

E-VS BR 5 16 5.5 x L



Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPDM premontata Ø 16 [€ / 100 items]	Capacitate perforare performance [mm]
E-VS BOHR 5 16 5.5 x 32	14,85	17,10	12.5
E-VS BOHR 5 16 5.5 x 38	15,45	17,70	
E-VS BOHR 5 16 5.5 x 51	16,85	19,10	
E-VS BOHR 5 16 5.5 x 67	22,55	24,80	
E-VS BOHR 5 16 5.5 x 76	24,25	26,50	
E-VS BOHR 5 16 5.5 x 85	25,95	28,20	
E-VS BOHR 5 16 5.5 x 100	30,05	32,30	
E-VS BOHR 5 16 5.5 x 115	37,60	39,85	
E-VS BOHR 5 16 5.5 x 130	43,05	45,30	
E-VS BOHR 5 16 5.5 x 150	45,40	47,65	

Application

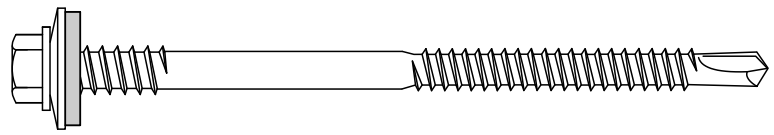
Montaje pe substructuri din otel.

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

E-VS® BOHR Suruburi panou sandwish

Surub autoperforant din otel calit, rezistent la coroziune, cu sau fara saiba cu EPDM premontata. Otel zincat.

E-VS BR 3 HT 16 5.5 x L

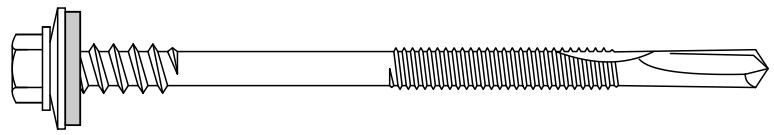


Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPDM premontata Ø 16 [€ / 100 items]	Capacitate perforare performance [mm]	Pachet de prindere Grosime panou [mm]
E-VS BOHR 3 HT 16 5.5 x 60	18,75	21,00	5.0	25 - 40
E-VS BOHR 3 HT 16 5.5 x 65	19,25	21,50		25 - 45
E-VS BOHR 3 HT 16 5.5 x 80	21,55	23,80		40 - 60
E-VS BOHR 3 HT 16 5.5 x 98	26,40	28,65		50 - 78
E-VS BOHR 3 HT 16 5.5 x 120	30,95	33,20		60 - 100
E-VS BOHR 3 HT 16 5.5 x 130	33,20	35,45		70 - 110
E-VS BOHR 3 HT 16 5.5 x 150	38,95	41,20		70 - 130
E-VS BOHR 3 HT 16 5.5 x 180	51,30	53,55		100 - 160
E-VS BOHR 3 HT 16 5.5 x 200	61,85	64,10		120 - 180
E-VS BOHR 3 HT 16 5.5 x 230	70,00	72,25		150 - 210

Application

Montajul panourilor termoizolante pe structuri din otel mai subtiri de 5 mm.

E-VS BR 5 HT 16 5.5 x L



Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPDM premontata Ø 16 [€ / 100 items]	Capacitate perforare performance [mm]	Pachet de prindere Grosime panou [mm]
E-VS BOHR 5 HT 16 5.5 x 75	26,25	28,50	12.5	25 - 35
E-VS BOHR 5 HT 16 5.5 x 85	27,30	29,55		38 - 46
E-VS BOHR 5 HT 16 5.5 x 105	32,50	34,75		38 - 64
E-VS BOHR 5 HT 16 5.5 x 130	39,30	41,55		61 - 90
E-VS BOHR 5 HT 16 5.5 x 140	42,00	44,25		71 - 100
E-VS BOHR 5 HT 16 5.5 x 150	44,80	47,05		61 - 110
E-VS BOHR 5 HT 16 5.5 x 160	47,00	49,25		70 - 120
E-VS BOHR 5 HT 16 5.5 x 175	49,20	51,45		85 - 135
E-VS BOHR 5 HT 16 5.5 x 190	60,55	62,80		100 - 150
E-VS BOHR 5 HT 16 5.5 x 210	72,15	74,40		130 - 180
E-VS BOHR 5 HT 16 5.5 x 240	92,00	94,25		152 - 200
E-VS BOHR 5 HT 16 5.5 x 285	124,85	127,10		200 - 245

Application

Montajul panourilor termoizolante pe structuri din otel mai subtiri de 12,5 mm.

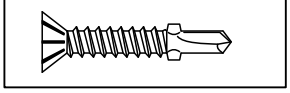
La pagina 9 este explicat si desenat conceptul de pachet de prindere (grosime pachet), ainaltime element de fixare, fixarea pe varful cutei sau fixarea sub cuta panoului.

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

E-VS® BOHR FLT

Surub autoperfotant din otel zincat, rezistent la coroziune, cu cap zenc si aripioare.
Rizuri sub cap.

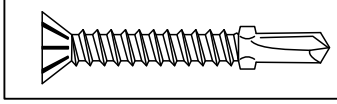
E-VS BR 2 FLT 4.2 x L



Name	Price [€ / 100 items]	Drive	Capacitate perforare performance [mm]	Grosime lemn [mm]
E-VS BOHR 2 FLT 4.2 x 25	2,70	PH 2	2.5	9

Application
Pentru fixarea rapida a elementelor din lemn pe substructuri din otel cu grosime mai mare de 1 mm.

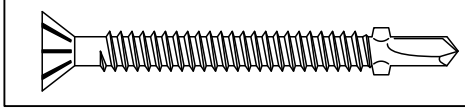
E-VS BR 3 FLT 4.8 x L



Name	Price [€ / 100 items]	Drive	Capacitate perforare performance [mm]	Grosime lemn [mm]
E-VS BOHR 3 FLT 4.8 x 32	3,00	PH 2	3.5	12
E-VS BOHR 3 FLT 4.8 x 38	3,20			18
E-VS BOHR 3 FLT 4.8 x 45	4,50			25
E-VS BOHR 3 FLT 4.8 x 50	5,55			30

Application
Pentru fixarea rapida a elementelor din lemn pe substructuri din otel cu grosime mai mare de 1,25 mm..

E-VS BR 3 FLT 5.5 x L



Name	Price [€ / 100 items]	Drive	Capacitate perforare performance [mm]	Grosime lemn [mm]
E-VS BOHR 3 FLT 5.5 x 38	6,10	PH 3	5.0	13
E-VS BOHR 3 FLT 5.5 x 55	6,75			30
E-VS BOHR 3 FLT 5.5 x 60	8,25			35
E-VS BOHR 3 FLT 5.5 x 85	14,30			60
E-VS BOHR 3 FLT 5.5 x 109	18,70			84
E-VS BOHR 3 FLT 5.5 x 130	20,70			105
E-VS BOHR 3 FLT 5.5 x 150	22,75			125

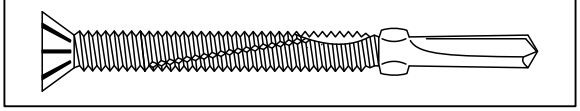
Application
Pentru fixarea rapida a elementelor din lemn pe substructuri din otel cu grosime mai mare de 1 mm. 1.25 mm.

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

E-VS® BOHR FLT

Surub autoperfotant din otel zincat, rezistent la coroziune, cu cap zenc si aripioare.
Rizuri sub cap.

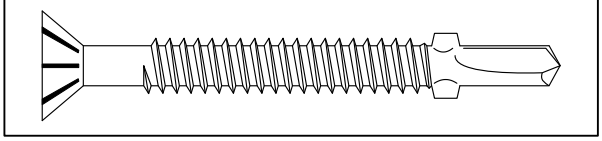
E-VS BR 5 FLT 5.5 x L



Name	Price [€ / 100 items]	Drive	Capacitate perforare performance [mm]	Grosime lemn [mm]
E-VS BOHR 5 FLT 5.5 x 60	17,55	PH 3	12.5	27
E-VS BOHR 5 FLT 5.5 x 85	23,70			52
E-VS BOHR 5 FLT 5.5 x 109	27,45			76
E-VS BOHR 5 FLT 5.5 x 130	33,10			97
E-VS BOHR 5 FLT 5.5 x 150	35,65			117

Application
Pentru fixarea rapida a elementelor din lemn pe substructuri din otel cu grosime mai mare de 1,25 mm.

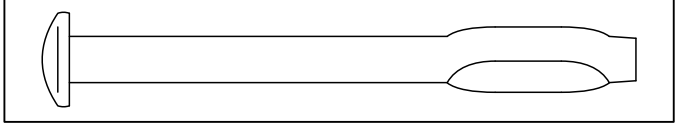
E-VS BR T30 FLT 6.3 x L



Name	Price [€ / 100 items]	Drive	Capacitate perforare performance [mm]	Grosime lemn [mm]
E-VS BOHR T30 FLT 6.3 x 45	8,10	T 30	6.0	10 - 20
E-VS BOHR T30 FLT 6.3 x 50	9,30			12 - 28
E-VS BOHR T30 FLT 6.3 x 60	12,00			12 - 36
E-VS BOHR T30 FLT 6.3 x 70	13,95			15 - 45
E-VS BOHR T30 FLT 6.3 x 80	15,45			25 - 57
E-VS BOHR T30 FLT 6.3 x 100	16,80			35 - 75

Application
Pentru fixarea rapida a elementelor din lemn pe substructuri din otel cu grosime mai mare de 1,25 mm.

E-VS SP 6.0 x L



Name	Fara saiba [€ / 100 items]	Cu saiba din otel zincat Ø 19 [€ / 100 items]	Pachet de prindere maxim [mm]
E-VS SP 6.0 x 40	11,60	15,65	< 10
E-VS SP 6.0 x 135	23,20	27,25	< 105
E-VS SP 6.0 x 155	25,60	29,65	< 125
E-VS SP 6.0 x 185	29,70	33,75	< 155

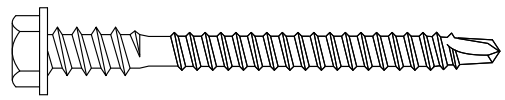
Application
Pentru fixari rapide pe structuri din beton. Necesita gaurire d = Ø 6.0 mm, adancime gaura mai mare de 30 mm .

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

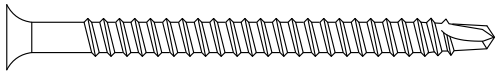
E-VS® BOHR Suruburi pentru acoperis plan

Suruburi autoperforante din otel zincat, cu acoperire organica anticoroziva.

E-DB RS HT 4.8 x L



E-DB RS TK 4.8 x L

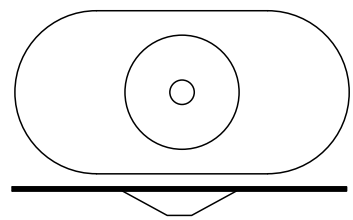


Name	Price [€ / 100 items]	Name
E-DB RS 4.8 x 50	9,80	E-DB RS TK 4.8 x 50
E-DB RS 4.8 x 60	12,15	———
E-DB RS HT 4.8 x 60	12,95	———
E-DB RS 4.8 x 70	12,95	E-DB RS TK 4.8 x 70
E-DB RS 4.8 x 80	17,95	E-DB RS TK 4.8 x 80
E-DB RS HT 4.8 x 80	16,50	———
———	19,15	E-DB RS TK 4.8 x 90
E-DB RS HT 4.8 x 100	20,35	E-DB RS TK 4.8 x 100
E-DB RS 4.8 x 110	23,25	E-DB RS TK 4.8 x 110
E-DB RS HT 4.8 x 120	29,95	E-DB RS TK 4.8 x 120
E-DB RS 4.8 x 130	33,25	E-DB RS TK 4.8 x 130
E-DB RS HT 4.8 x 140	36,55	E-DB RS TK 4.8 x 140
E-DB RS 4.8 x 150	41,55	E-DB RS TK 4.8 x 150
E-DB RS HT 4.8 x 160	48,90	———
E-DB RS HT 4.8 x 180	53,20	———
E-DB RS HT 4.8 x 200	66,50	———
E-DB RS HT 4.8 x 220	77,55	———
E-DB RS HT 4.8 x 240	89,75	———
E-DB RS HT 4.8 x 260	101,40	———
E-DB RS HT 4.8 x 280	116,35	———
E-DB RS HT 4.8 x 300	132,65	———

Application

Fixarea mecanica a termohidroizolatiilor si altor izolatii pe lemn, tabla cutata sau tabla trapezoidala.
Capacitate de perforare2 x 1.0 mm thick.

Taler oval 82x40x1



Name	Price [€ / 100 items]
stress plate, oval 82 x 40 x 1 HT	11,90
stress plate, oval 82 x 40 x 1 TK	11,90
stress plate, round 50 x 0.50	4,90

Application

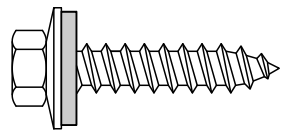
Fixarea mecanica a materialelor izolatoare pe fatade sau acoperis plan.

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

E-AL® • E-AL® BOHR END-ALUMINIU

Suruburi speciale autofiletante si autoperforante din aluminiu F44 cu sau fara saiba din aluminiu cu EPDM premontata.

E-AL 16 A 6.5 x L

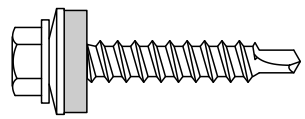


Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPDM aluminiu Ø 16 [€ / 100 items]
E-AL 16 A 6.5 x 20	6,75	9,25
E-AL 16 A 6.5 x 25	7,65	10,15
E-AL 16 A 6.5 x 32	8,15	10,65
E-AL 16 A 6.5 x 38	8,30	10,80
E-AL 16 A 6.5 x 50	8,45	10,95
E-AL 16 A 6.5 x 60	11,15	13,65
E-AL 16 A 6.5 x 65	12,35	14,85
E-AL 16 A 6.5 x 70	13,70	16,20
E-AL 16 A 6.5 x 75	15,22	17,75
E-AL 16 A 6.5 x 80	17,20	19,70
E-AL 16 A 6.5 x 90	20,05	22,55

Application

Fixarea profilelor sau tablelor din aluminiu pe substructuri din aluminiu sau lemn. Necesita pregaurire.

E-AL BR RS 14 5.6 x L

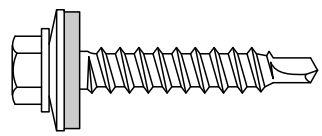


Name	Fara saiba EPDM [€ / 100 items]	Cu saiba EPDM aluminiu Ø 14 [€ / 100 items]	max. drilling performance [mm]
E-AL BOHR RS 14 5.6 x 19	11,60	13,80	Wooden
E-AL BOHR RS 14 5.6 x 35	14,85	17,05	

Application

Fixarea profilelor sau tablelor din aluminiu pe substructuri din aluminiu sau lemn.

E-AL BR RS 16 6.0 x L



Name	Fara saiba EPDM [€ / 100 items]	With Aluminium washer Ø 16 [€ / 100 items]	max. drilling performance [mm]
E-AL BOHR RS 16 6.0 x 35	15,45	17,95	Wooden

Application

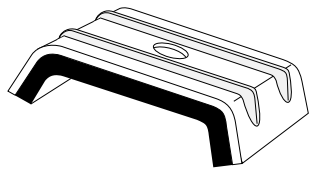
Fixarea profilelor sau tablelor din aluminiu pe substructuri din aluminiu sau lemn.

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

Calota rigidizare cuta

Calota de rigidizare din aluminiu cu garnitura EPDM. Pentru fixarea sigura a tablelor si panourilor termoizolante, a panourilor pentru luminatoare,etc.

Aluminium-Saddle washers

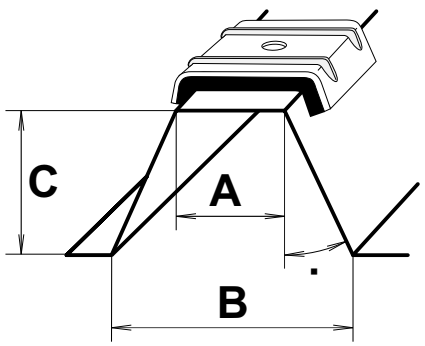


Name		Latime cuta sup. [mm]	Unghiul cutei	Aluminiu natur [€ / 100 items]	Vopsite RAL [€ / 100 items]
R 38	19/34	19	34°	15,45	18,55
G 4	20/32	20	32°	15,45	18,55
30/200	20/29	20	29°	15,45	18,55
N 1000 T	23/30	23	30°	16,35	19,60
ROMA D	24/22	24	22°	15,45	18,55
30/153	24/30	24	30°	15,45	18,55
TRP 20	24/32	24	32°	16,35	19,60
150/45	25/27	25	27°	16,35	19,60
100/24	28/35	28	35°	16,35	19,60
MONTANA THERM	30/22	30	22°	18,90	22,70
TRP 40	30/27	30	27°	18,90	22,70
KINGSPAN	31/23	31	23°	18,90	22,70
40/167	34/23	34	23°	18,90	22,70
35/203	36/36	36	36°	20,65	24,80
40/183	40/17	40	17°	20,65	24,80
35/207	40/36	40	36°	20,65	24,80
EKO 50	42/44	42	44°	24,05	28,90
SAB 52	50/42	50	42°	24,05	28,90
50/250	57/18	57	18°	24,05	28,90
WAVE 18/76		Radius 24		15,45	18,55
WAVE 150/50		Radius 30		20,65	24,80
WAVE 130/30		Radius 40		20,65	24,80
WAVE 177/55		Radius 48		24,05	28,90

Application

Calota de rigidizare, se utilizeaza impreuna cu surubul pentru panou corespunzator pentru fixarea sigura a panourilor sandwish, a tablelor cutate din otel sau aluminiu, a panourilor de luminator.. Surubul are intotdeauna saiba de 16 mm premontata.

To determine the correct saddle washer profile, we require details as shown in the figure below.



A Upper flange width
B Inner width on lower flange
C Profile height

OR

A Upper flange width
· Profile angle

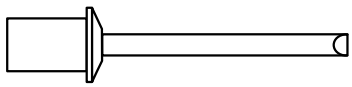
Other profiles on request

Permanently elastic **Non-ageing** **Securely sealed**

Pop-nit • Saiba EPDM

Nituri pop ALU/Ot, nituri de bataie of ALU/Ot.

Pop-nit etans natur sau vopsit

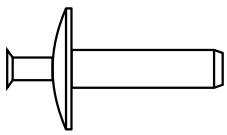


Name	Price [€ / 100 items]	Pachet de prindere from - to [mm]	Diametru pregaurire [mm]
ALU/NIRO 4.8 x 11	11,45	5.0 - 6.5	4.9
ALU/NIRO 6.4 x 12	18,00	6.5 - 8.0	6.6

Application

Se pot livra o gama foarte mare de nituri pot STANDARD, ETANSE, cu GULER, cu FISURARE, etc. din aluminiu, otel, INOX,. Natur sau vopsite RAL.

Nit de bataie

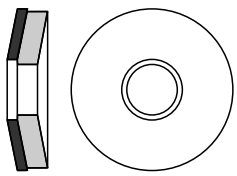


Name	Price [€ / 100 items]	Clamping area [mm]
ALU/NIRO 5.0 x 20	18,50	bis 5.0

Application

Fixarea substructurilor din aluminiu sau otel pe beton, zidarie, etc. Se solicita probe.

Saibe EPDM



Material	Ø 12 mm	Ø 14 mm	Ø 16 mm	Ø 19 mm	Ø 22 mm	Ø 25 mm	Ø 29 mm
INOX	3,10	3,75	4,45	5,75	8,10	10,95	13,55
ALUMINIUM	2,30	2,80	3,25	4,30	5,85	8,10	10,25
GALVANISED	2,15	2,60	3,05	4,05	5,50	7,65	9,65

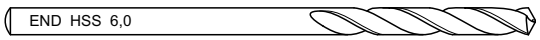
The inner diameter is tailored to the screw diameter.

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

HSS-SPIBO Burghiu HSS pentru Metal

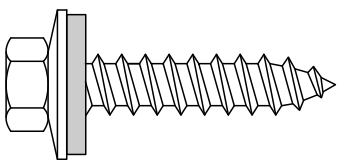
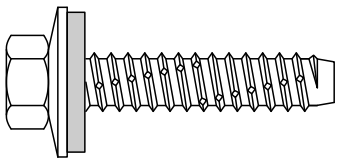
HSS spiral drill with point thinning, right-hand cutting, spiral length up to 30 mm.
Price in € per item.

END-SPIBO HSS Ø x L

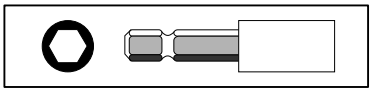


mm / Ø	66	90	135	185	205	260	280	mm / Ø
3.0	1,20	1,80	2,10	-	-	-	-	3.0
3.1	1,25	-	2,15	-	-	-	-	3.1
3.3	1,25	-	2,15	-	-	-	-	3.3
3.5	1,25	1,80	2,15	-	-	-	-	3.5
4.0	1,40	-	2,70	-	-	-	-	4.0
4.1	1,40	1,80	2,75	-	-	-	-	4.1
4.2	1,40	1,85	2,75	-	-	-	-	4.2
4.3	-	1,85	-	-	-	-	-	4.3
4.5	1,50	1,85	3,20	-	-	-	-	4.5
4.7	1,50	2,15	3,20	-	-	-	-	4.7
4.8	1,70	2,15	3,30	-	-	-	-	4.8
4.9	1,70	2,15	3,30	-	-	-	-	4.9
5.0	1,70	2,15	3,45	7,10	8,75	9,60	10,00	5.0
5.1	1,70	2,15	3,55	-	-	-	-	5.1
5.2	1,70	2,15	3,55	-	8,75	-	-	5.2
5.3	1,95	2,15	3,55	7,10	8,75	9,60	-	5.3
5.4	-	-	-	-	-	-	-	5.4
5.5	1,95	2,45	3,55	7,10	8,75	9,60	12,70	5.5
5.6	1,95	2,45	3,55	-	-	-	-	5.6
5.7	1,95	2,45	4,00	7,10	8,75	10,25	13,30	5.7
5.8	1,95	2,45	4,00	7,10	8,75	10,25	13,30	5.8
5.9	1,95	2,45	4,00	7,10	8,75	10,25	13,30	5.9
6.0	1,95	2,45	4,00	7,10	9,60	-	-	6.0
6.5	2,25	-	-	-	-	-	-	6.5
Ø / mm	66	90	135	185	205	260	280	Ø / mm

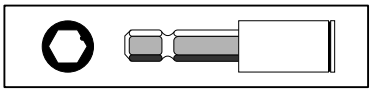
Tabel pregauriri

Thread type		Beam thickness St 37	Drill diameter	
A		Wood 0.63 mm 0.75 mm 0.88 - 1.25 mm 1.5 - 3.0 mm	4.8 mm 3.5 mm 4.0 mm 4.5 mm 5.0 mm	In accordance with the approval the figures relate to steel, S235Jxx acc. to DIN EN 10 025 S280GD+xx or S320GD+xx acc. to DIN EN 10 147
BZ		1.25 - 1.5 mm 2.0 - 4.0 mm 4.0 - 6.0 mm ab 7.0 mm	5.0 mm 5.3 mm 5.5 mm 5.7 mm	

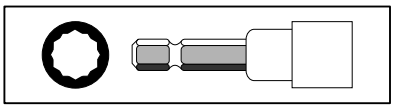
ACCESSORIES



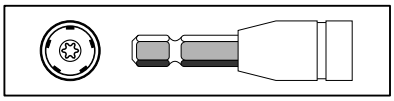
Cheie coada1/4”, in SW3/8” or Sw8 € per items



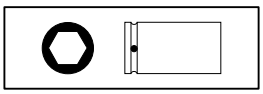
Cheie coada 1/4”, cu inel de retinere SW3/8” or SW8
sau cheie magnetica Sw8, Sw10, Sw13, SW17 € per items 670



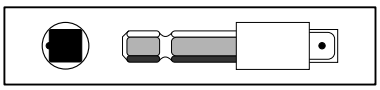
Socket with drivebar 1/4” for BI-HEX, SW 11 € per items



Clamp follower T25 1/4”, for TORX 25 € per items 22,00

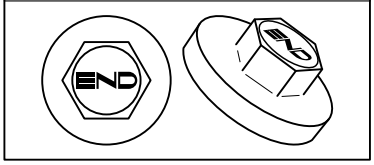


Wrench insert 1/4”, in 3/8” or 1/2”, in SW3/8” or Sw8 € per items 5,70



Drivebar only 1/4” x 3/8” € per items

Capacel cap surub RAL



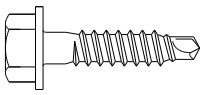
SW 8, Diameter 19 mm	€ per 100 items	1,85
SW 3/8”, Diameter 19 mm	€ per 100 items	1,85
SW 3/8”, Diameter 25 mm	€ per 100 items	3,60
SW 3/8”, Diameter 29 mm	€ per 100 items	3,60

Preturile sunt exprimate in euro/UM, fara TVA. Preturi de lista. Suporta discounturi.

Stitching screws

Otel inoxidabil (E-X®)

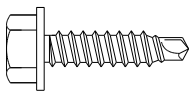




Capacitate perforare
2 x 1.0 mm

E-X BR RS 4.8 x 20

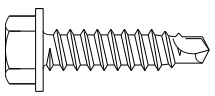




Capacitate perforare
2 x 1.0 mm

E-X BR RS 4.8 x 19

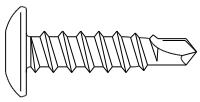




Capacitate perforare
2 x 1.0 mm

E-X BR RS 5.5 x 22 / ... 38

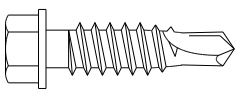




Capacitate perforare
2 x 1.0 mm

E-X T25 BR RS 5.5 x 22 / ... 38



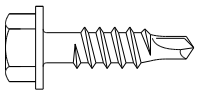


Capacitate perforare
2 x 1.25 mm

E-X BR RS 6.3 x 25

Aluminium (E-AL®)



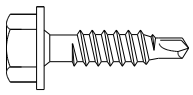


drilling performance
2 x 1.0 mm ALU

E-AL BR RS 5.6 x 20

Otel calit zincat (E-VS®)

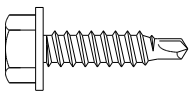




Capacitate perforare
2 x 1.0 mm

E-VS BR RS 4.8 x 20 / ...28

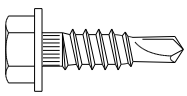




Capacitate perforare
2 x 1.0 mm

E-VS BR RS 4.8 x 19

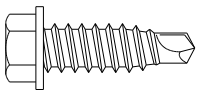




Capacitate perforare
2 x 1.0 mm

E-VS8 BR RS 5.5 x 20 / ... 28

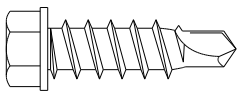




Capacitate perforare
2 x 1.0 mm

E-VS8 BR RS 6.3 x 19 / ... 25

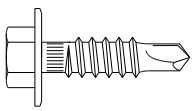




Capacitate perforare
2 x 1.0 mm

E-VS BR RS 7.8 x 25

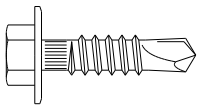




Capacitate perforare
2 x 1.0 mm

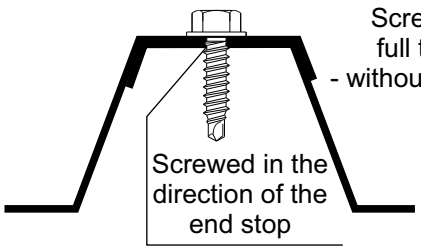
E-VS BR RS COL 6.3 x 22



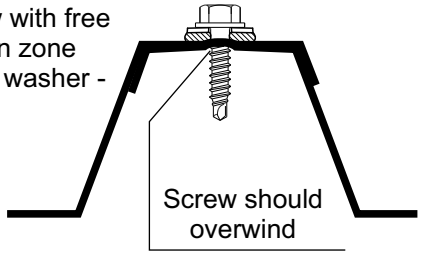


Capacitate perforare
2 x 1.25 mm

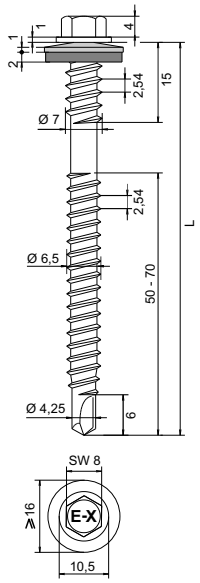
E-VS BR RS COL 6.3 x 23



Depending on the application, these screws are used either with or without a washer.



E-X® Characteristic bearing ratios (Z-14.4-407)



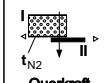
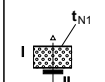
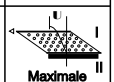
Im Zulassungsbescheid Z-14.4 - 407, Blatt 4.5

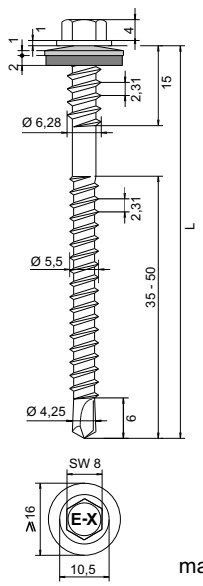
Verbindungs-element: Bohrschraube
E-X Bohr RS HT 6,5 x L
Dichtscheibe ≥ 16 mm

Werkstoffe: Schraube
nichtrostender Stahl,
Werkst.-Nr.: 1.4301

Scheibe
nichtrostender Stahl,
Werkst.-Nr.: 1.4301
mit aufvulkanisierter
EPDM-Dichtung

Bauteil II, Nadelholz Sortierklasse S10 nach DIN 4074-1

Sandwichdicke d oder D in mm		40	50	60	70	80	≥100	
Verschraubung		anschlagorientiert verschrauben						
Einschraubtiefe		l_{ef} ≥ 50 mm einschließlich Bohrspitze						Belastungsart
Bauteil I, Blechdicke t_{N1} bzw t_{N2} in mm S280 GD+xx bis S350 GD+xx nach DIN EN 10326	0,50	0,90	0,90	0,90	0,90	0,90	0,90	 Querkraft $V_{R,K}$ in kN
	0,55	1,00	1,00	1,00	1,00	1,00	1,00	
	0,63	1,10	1,10	1,10	1,10	1,10	1,10	
	0,75	1,10	1,10	1,10	1,10	1,10	1,10	
	≥0,88	1,10	1,10	1,10	1,10	1,10	1,10	
		Bei t_{N2} aus S320 GD dürfen alle Werte um 8,2% erhöht werden. Bei t_{N2} aus S350 GD dürfen alle Werte um 16,7% erhöht werden.						
	0,50	2,00	2,00	2,00	2,00	2,00	2,00	 Zugkraft $N_{R,K}$ in kN
	0,55	2,00	2,00	2,00	2,00	2,00	2,00	
	0,63	2,00	2,00	2,00	2,00	2,00	2,00	
	0,75	2,00	2,00	2,00	2,00	2,00	2,00	
	0,88	2,00	2,00	2,00	2,00	2,00	2,00	
	1,00	2,00	2,00	2,00	2,00	2,00	2,00	
		5	6	7	8	9	16	 Maximale Kopfauslenkung U, in mm



Im Zulassungsbescheid Z-14.4 - 407, Blatt 2.20

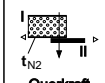
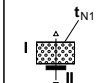
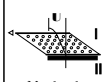
Verbindungs-element: Bohrschraube
E-X Bohr 3 HT 5,5 x L
Dichtscheibe ≥ 16 mm

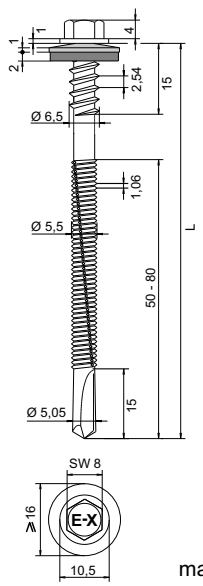
Werkstoffe: Schraube
nichtrostender Stahl,
Werkst.-Nr.: 1.4301

Scheibe
nichtrostender Stahl,
Werkst.-Nr.: 1.4301
mit aufvulkanisierter
EPDM-Dichtung

maximale Durchdringung Σ (t_{N2} + t_I) 5,5 mm

Bauteil II, Stahl mit t_I in mm, S235Jxx nach DIN EN 10025-2, S280GD+xx oder S320GD+xx nach DIN EN 10326

Blechdicke [mm]		D [mm]	1,5	2,0	2,5	3,0	4,0	
Verschraubung		anschlagorientiert verschrauben						Belastungsart
Bauteil I, Blechdicke t_{N1} bzw t_{N2} in mm S280 GD+xx bis S350 GD+xx nach DIN EN 10326	≥0,50	40	0,80	0,80	0,80	0,80	0,90	 Querkraft $V_{R,K}$ in kN
	≥0,50	60	1,00	1,10	1,20	1,20	1,30	
		Bei t_{N2} aus S320 GD dürfen alle Werte um 8,2% erhöht werden. Bei t_{N2} aus S350 GD dürfen alle Werte um 16,7% erhöht werden.						
	0,50		2,10	2,20	2,20	2,20	2,20	 Zugkraft $N_{R,K}$ in kN
	0,55		2,10	2,60	2,60	2,60	2,60	
	0,63		2,10	3,00	3,00	3,00	3,00	
	0,75		2,10	3,20	3,70	3,70	3,70	
	0,88		2,10	3,20	3,80	3,80	3,80	
	1,00		2,10	3,20	4,00	4,00	4,00	
Maximale Kopfauslenkung U Sandwichdicke d oder D in mm	40		10,0	3,5	3,5	3,5	3,5	 Maximale Kopfauslenkung U, in mm
	50		12,5	4,5	4,5	4,5	4,5	
	60		15,0	6,0	6,0	6,0	5,8	
	70		17,5	7,5	7,5	7,5	7,3	
	80		20,0	9,0	9,0	9,0	8,8	
	≥100		20,0	12,0	12,0	12,0	11,7	



Im Zulassungsbescheid Z-14.4 - 407, Blatt 2.21

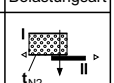
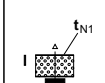
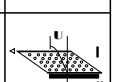
Verbindungs-element: Bohrschraube
E-X Bohr 5 HT 5,5 x L
Dichtscheibe ≥ 16 mm

Werkstoffe: Schraube
nichtrostender Stahl,
Werkst.-Nr.: 1.4301

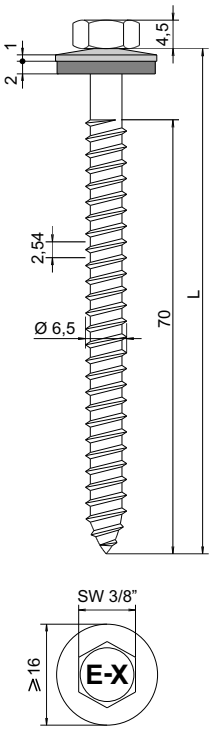
Scheibe
nichtrostender Stahl,
Werkst.-Nr.: 1.4301
mit aufvulkanisierter
EPDM-Dichtung

maximale Durchdringung Σ (t_{N2} + t_I) 14 mm

Bauteil II, Stahl mit t_I in mm, S235Jxx nach DIN EN 10025-2, S280GD+xx oder S320GD+xx nach DIN EN 10326

Blechdicke [mm]		D [mm]	3,0	4,0	5,0	6,0	≥10,0	
Verschraubung		anschlagorientiert verschrauben						Belastungsart
Bauteil I, Blechdicke t_{N1} bzw t_{N2} in mm S280 GD+xx bis S350 GD+xx nach DIN EN 10326	≥0,50	40	1,00	1,00	1,10	1,10	1,20	 Querkraft $V_{R,K}$ in kN
	≥0,50	60	1,00	1,00	1,10	1,20	1,30	
		Bei t_{N2} aus S320 GD dürfen alle Werte um 8,2% erhöht werden. Bei t_{N2} aus S350 GD dürfen alle Werte um 16,7% erhöht werden.						
	0,50		2,40	2,40	2,40	2,40	2,40	 Zugkraft $N_{R,K}$ in kN
	0,55		2,60	2,60	2,60	2,60	2,60	
	0,63		3,00	3,00	3,00	3,00	3,00	
	0,75		3,60	3,60	3,60	3,60	3,60	
	0,88		4,20	4,20	4,20	4,20	4,20	
	1,00		4,70	4,70	4,70	4,70	4,70	
Maximale Kopfauslenkung U Sandwichdicke d oder D in mm	40		3,5	3,0	3,0	3,0	3,0	 Maximale Kopfauslenkung U, in mm
	50		5,0	5,0	5,0	5,0	5,0	
	60		6,0	6,0	6,0	6,0	6,0	
	70		7,5	7,5	7,5	7,5	7,5	
	80		9,0	9,0	9,0	9,0	9,0	
	≥100		12,0	12,0	12,0	12,0	12,0	

E-X® Characteristic bearing ratios (Z-14.4-407)



Im Zulassungsbescheid Z-14.4 - 407, Blatt 5.5

Verbindungs-element: E-X A 6,5 x L
Dichtscheibe ≥ 16 mm

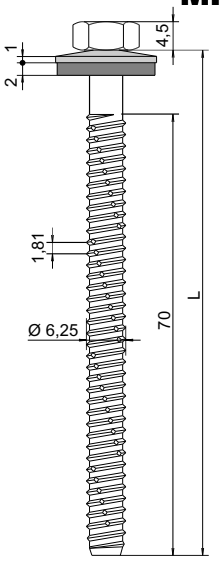
Werkstoffe
Schraube
nichtrostender Stahl, Werkst.-Nr.: 1.4301

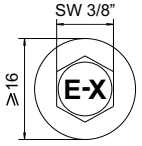
Scheibe
nichtrostender Stahl, Werkst.-Nr.: 1.4301
mit aufvulkanisierter EPDM-Dichtung

Bauteil II, Nadelholz Sortierklasse S10 nach DIN 4074-1

Sandwichdicke d oder D in mm		30	40	50	60	80	≥100	
Ø Bohrloch [mm]		4,8						
Einschraubtiefe		l_{ef} ≥ 45 mm						Belastungsart
Bauteil I, Blechdicke t_{N1} bzw t_{N2} in mm S280 GD+xx bis S350 GD+xx nach DIN EN 10326	0,50	0,60	0,60	0,60	0,60	0,60	0,60	I, II, t_{N2} Querkraft $V_{R,K}$ in kN
	0,55	0,70	0,70	0,70	0,70	0,70	0,70	
	0,63	0,80	0,80	0,80	0,80	0,80	0,80	
	0,75	0,80	0,80	0,80	0,80	0,80	0,80[a]	
	0,88	0,80	0,80	0,80	0,80	0,80	0,80[a]	
	1,00	0,80	0,80	0,80	0,80	0,80	0,80[a]	
		[a] Bei t_{N2} aus S320 GD dürfen die Werte $V_{R,K}$ um 0,10 kN erhöht werden.						
	0,50	1,60	1,60	1,60	1,60	1,60	1,60	I, II, t_{N1} Zugkraft $N_{R,K}$ in kN
	0,55	1,90[b]	1,90[b]	1,90[b]	1,90[b]	1,90[b]	1,90[b]	
	0,63	2,30[b]	2,30[b]	2,30[b]	2,30[b]	2,30[b]	2,30[b]	
	0,75	2,80[b]	2,80[b]	2,80[b]	2,80[b]	2,80[b]	2,80[b]	
	0,88	2,80[b]	2,80[b]	2,80[b]	2,80[b]	2,80[b]	2,80[b]	
	1,00	2,80[b]	2,80[b]	2,80[b]	2,80[b]	2,80[b]	2,80[b]	
		[b] Bei t_{N1} aus S320 GD dürfen die Werte $N_{R,K}$ um 8,2% erhöht werden.						
		4	6	7	9	13	18	I, II, U Maximale Kopfauslenkung U, in mm

. Mirad Tehnic - Fixari si etansari in constructii .





Im Zulassungsbescheid Z-14.4 - 407, Blatt 3.8

Verbindungs-element: E-X BZ 6,3 x L
Dichtscheibe ≥ 16 mm

Werkstoffe
Schraube
nichtrostender Stahl, Werkst.-Nr.: 1.4301

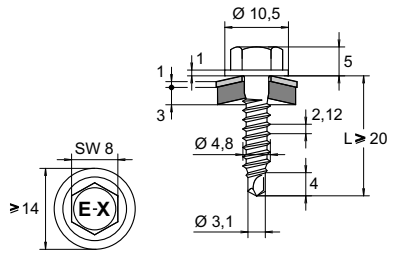
Scheibe
nichtrostender Stahl, Werkst.-Nr.: 1.4301
mit aufvulkanisierter EPDM-Dichtung

Bauteil II, Stahl mit t_s in mm, S235Jxx nach DIN EN 10025-2, S280GD+xx oder S320GD+xx nach DIN EN 10326

Sandwichdicke [mm]		1,25	1,5	2,0	2,5	3,0	4,0	≥ 6,0	
Ø Bohrloch [mm]		5,0		5,3				5,5 bzw. 5,7 bei ≥ 7,0	
Verschraubung		anschlagorientiert verschrauben							Belastungsart
Bauteil I, Blechdicke t_{N1} bzw t_{N2} in mm S280 GD+xx bis S350 GD+xx nach DIN EN 10326	0,50	0,70	0,70	0,70	0,70	0,70	0,70	0,70	I, II, t_{N2} Querkraft $V_{R,K}$ in kN
	0,55	0,80	0,80	0,80	0,80	0,80	0,80	0,80	
	0,63	1,00	1,00[a]	1,10[a]	1,10[a]	1,10[a]	1,20[a]	1,20[a]	
	0,75	1,10	1,20[a]	1,30[a]	1,40[a]	1,50[a]	1,50[a]	1,60[b]	
		[a] Bei t_{N2} aus S320 GD dürfen diese Werte um 0,10 kN erhöht werden. [b] Bei t_{N2} aus S320 GD dürfen diese Werte um 0,20 kN erhöht werden.							
	0,50	1,20	1,60[b]	2,10[a]	2,10[a]	2,10[a]	2,10[a]	2,10[a]	I, II, t_{N1} Zugkraft $N_{R,K}$ in kN
	0,55	1,20	1,60[b]	2,30[a]	2,30[a]	2,30[a]	2,30[a]	2,30[a]	
	0,63	1,20	1,60[b]	2,60[a]	2,60[a]	2,60[a]	2,60[a]	2,60[a]	
	0,75	1,20	1,60[b]	2,80[b]	3,00[a]	3,00[a]	3,00[a]	3,00[a]	
	0,88	1,20	1,60[b]	2,80[b]	3,40[b]	3,40[b]	3,40[b]	3,40[b]	
	1,00	1,20	1,60[b]	2,80[b]	3,60[c]	3,60[c]	3,60[c]	3,60[c]	
		[a] Bei t_{N1} aus S320 GD dürfen diese Werte um 0,10 kN erhöht werden. [b] Bei t_{N1} bzw. t_s aus S320 GD dürfen diese Werte um 0,20 kN erhöht werden. [c] Bei t_{N1} aus S320 GD dürfen diese Werte um 0,30 kN erhöht werden.							
Maximale Kopfauslenkung U Sandwichdicke d oder D in mm	40	26,5	26,5	10,0	9,0	8,0	7,0	4,5	I, II, U Maximale Kopfauslenkung U, in mm
	50	40,0	40,0	12,5	11,5	10,5	8,5	5,5	
	60	40,0	40,0	15,5	14,5	13,5	10,0	7,0	
	70	40,0	40,0	18,5	16,0	14,0	11,5	9,0	
	80	40,0	40,0	21,5	18,0	14,5	13,5	11,5	
	100	40,0	40,0	27,0	23,0	19,0	17,5	14,0	
	120	40,0	40,0	32,5	29,5	26,5	25,0	21,0	
	140	40,0	40,0	38,5	36,5	34,5	32,5	28,0	

. Mirad Tehnic - Fixari si etansari in constructii .

Im Zulassungsbescheid Z-14.1-4, Blatt 3.65



maximale Durchdringung $\sum (t_I + t_{II})$ 2 x 1,00 mm

Verbindungs-element: Bohrschraube
E-X Bohr RS 4,8 x L
Dichtscheibe Ø ≥ 14 mm

Werkstoffe: Schraube
nichtrostender Stahl, Werkst.-Nr.: 1.4301

Scheibe
nichtrostender Stahl, Werkst.-Nr.: 1.4301
mit aufvulkanisierter EPDM-Dichtung

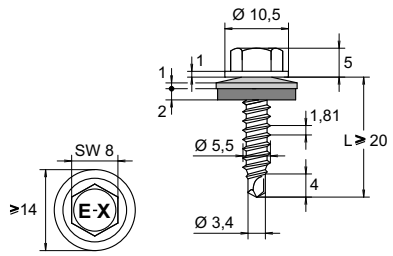
Bauteil II aus Stahl mit t_{II}[mm]
S235Jxx nach DIN EN 10 025
S280GD+xx oder S320GD+xx nach DIN EN 10 147

Bauteil II aus Holz; Sortierklasse ≥ S10

Anzugsmoment: anschlagorientiert verschrauben, 5 Nm (Richtwert)

Bauteil I aus Stahl mit t_I[mm] S280GD+xx oder S320GD+xx nach DIN EN 10 147		0,63	0,75	0,88	1,00	1,13	1,25
Querkraft $V_{R,k}$ [kN]	0,63		0,70 ac	1,00 ac	1,30 a	1,30 a	1,30 a
	0,75		0,90 —	1,20 —	1,50 —	1,60 —	1,70 —
	0,88		1,10 —	1,40 —	1,80 —	2,00 —	— —
	1,00		1,20 —	1,60 —	2,00 —	— —	— —
	1,13		1,40 —	1,80 —	— —	— —	— —
	1,25		1,60 —	— —	— —	— —	— —
	1,50		— —	— —	— —	— —	— —
Zugkraft $N_{R,k}$ [kN]	0,63	0,40 —	0,50 ac	0,60 ac	0,70 a	0,90 a	0,90 a
	0,75	0,40 —	0,50 —	0,60 —	0,70 —	0,90 —	1,00 —
	0,88	0,40 —	0,50 —	0,60 —	0,80 —	1,10 —	— —
	1,00	0,40 —	0,50 —	0,60 —	0,80 —	— —	— —
	1,13	0,40 —	0,50 —	0,70 —	— —	— —	— —
	1,25	0,40 —	0,50 —	0,70 —	— —	— —	— —
	1,50	— —	— —	— —	— —	— —	— —

Im Zulassungsbescheid Z-14.1-4, Blatt 3.66



maximale Durchdringung $\sum (t_I + t_{II})$ 2 x 1,00 mm

Verbindungs-element: Bohrschraube
E-X Bohr RS 5,5 x L
Dichtscheibe Ø ≥ 14 mm

Werkstoffe: Schraube
nichtrostender Stahl, Werkst.-Nr.: 1.4301

Scheibe
nichtrostender Stahl, Werkst.-Nr.: 1.4301
mit aufvulkanisierter EPDM-Dichtung

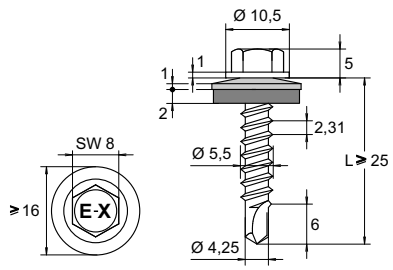
Bauteil II aus Stahl mit t_{II}[mm]
S235Jxx nach DIN EN 10 025
S280GD+xx oder S320GD+xx nach DIN EN 10 147

Bauteil II aus Holz; Sortierklasse ≥ S10

Anzugsmoment: anschlagorientiert verschrauben, 5 Nm (Richtwert)

Bauteil I aus Stahl mit t_I[mm] S280GD+xx oder S320GD+xx nach DIN EN 10 147		0,63	0,75	0,88	1,00	1,13	1,25
Querkraft $V_{R,k}$ [kN]	0,63		1,20 ac	1,30 ac	1,80 a	2,10 a	2,80 a
	0,75		1,30 —	1,60 —	2,00 —	2,40 —	3,00 —
	0,88		1,40 —	1,80 —	2,20 —	2,70 —	— —
	1,00		1,50 —	2,00 —	2,40 —	— —	— —
	1,13		1,60 —	2,00 —	— —	— —	— —
	1,25		1,70 —	— —	— —	— —	— —
	1,50		— —	— —	— —	— —	— —
Zugkraft $N_{R,k}$ [kN]	0,63	0,50 —	0,70 ac	0,90 ac	0,90 a	0,90 a	0,90 a
	0,75	0,50 —	0,70 —	1,00 —	1,00 —	1,00 —	1,00 —
	0,88	0,70 —	0,90 —	1,10 —	1,20 —	1,20 —	— —
	1,00	0,70 —	0,90 —	1,10 —	1,40 —	— —	— —
	1,13	0,80 —	1,00 —	1,30 —	— —	— —	— —
	1,25	0,80 —	1,00 —	— —	— —	— —	— —
	1,50	— —	— —	— —	— —	— —	— —

Im Zulassungsbescheid Z-14.1-4, Blatt 3.116



maximale Durchdringung $\sum (t_I + t_{II})$ ≤ 3,50 mm

Verbindungs-element: Bohrschraube
E-X Bohr 2 5,5 x L
Dichtscheibe Ø ≥ 16 mm

Werkstoffe: Schraube
nichtrostender Stahl, Werkst.-Nr.: 1.4301

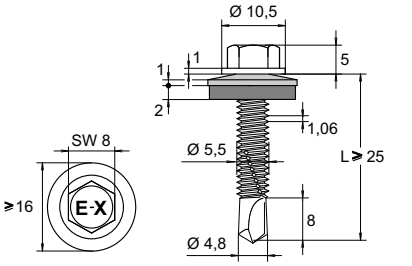
Scheibe
nichtrostender Stahl, Werkst.-Nr.: 1.4301
mit aufvulkanisierter EPDM-Dichtung

Bauteil II aus Stahl mit t_{II}[mm]
S235Jxx nach DIN EN 10 025
S280GD+xx oder S320GD+xx nach DIN EN 10 147

Bauteil II aus Holz; Sortierklasse ≥ S10

Anzugsmoment (Richtwert)		0,88	1,00	1,13	1,25	1,50	2,00
		anschlagorientiert verschrauben					
		5 Nm					7 Nm
Bauteil I aus Stahl mit t_I[mm] S280GD+xx oder S320GD+xx nach DIN EN 10 147							
Querkraft $V_{R,k}$ [kN]	0,63		1,20 —	1,50 —	1,70 —	1,70 abc	1,70 abc
	0,75		1,60 —	1,80 —	2,00 —	2,00 ac	2,00 abc
	0,88		2,00 —	2,20 —	2,30 —	2,40 —	2,40 ac
	1,00		2,20 —	2,60 —	2,70 —	2,70 —	2,70 a
	1,13		2,20 —	2,60 —	2,70 —	2,70 —	2,70 a
	1,25		2,20 —	2,60 —	2,70 —	2,70 —	2,70 a
	1,50		2,20 —	2,60 —	2,70 —	2,70 —	2,70 a
	1,75		2,20 —	2,60 —	2,70 —	2,70 —	— —
	2,00		2,20 —	2,60 —	2,70 —	2,70 —	— —
Zugkraft $N_{R,k}$ [kN]	0,50		0,38 —	0,43 —	0,54 —	0,76 abc	1,19 abc
	0,55		0,48 —	0,55 —	0,68 —	0,95 abc	1,50 abc
	0,63		0,70 —	0,80 —	1,00 —	1,40 abc	2,20 abc
	0,75		0,70 —	0,80 —	1,00 —	1,40 ac	2,20 abc
	0,88		0,70 —	0,80 —	1,00 —	1,40 —	2,20 ac
	1,00		0,70 —	0,80 —	1,00 —	1,40 —	2,20 a
	1,13		0,70 —	0,80 —	1,00 —	1,40 —	2,20 a
	1,25		0,70 —	0,80 —	1,00 —	1,40 —	2,20 a
	1,50		0,70 —	0,80 —	1,00 —	1,40 —	2,20 a
	1,75		0,70 —	0,80 —	1,00 —	1,40 —	— —
	2,00		0,70 —	0,80 —	1,00 —	1,40 —	— —

Im Zulassungsbescheid Z-14.1-4, Blatt 3.117



maximale Durchdringung $\sum (t_i + t_{II}) \leq 25$ mm

Verbindungs-element: Bohrschraube E-X Bohr 3 5,5 x L, Dichtscheibe Ø ≥ 16 mm

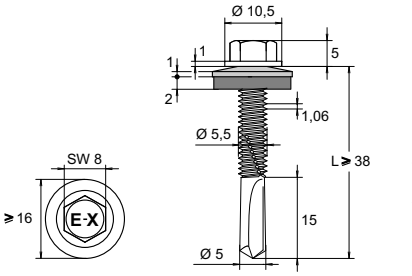
Werkstoffe: Schraube nichtrostender Stahl, Werkst.-Nr.: 1.4301; Scheibe nichtrostender Stahl, Werkst.-Nr.: 1.4301 mit aufvulkanisierter EPDM-Dichtung

Bauteil II aus Stahl mit t_{II}[mm]
S235Jxx nach DIN EN 10 025
S280GD+xx oder S320GD+xx nach DIN EN 10 147

Bauteil II aus Holz; Sortierklasse ≥ S10

Bauteil I aus Stahl mit t_I[mm] S280GD+xx oder S320GD+xx nach DIN EN 10 147		1,50	2,00	2,50	3,00	4,00	5,00	6,00
Anzugsmoment (Richtwert)		anschlagorientiert verschrauben, 2 Nm						
Querkraft $V_{R,k}$ [kN]	0,63	2,40 ac	2,40 ac	2,40 ac	2,40 abcd	2,40 abc		
	0,75	2,70 ac	2,80 ac	2,80 ac	3,30 ac	3,30 ac		
	0,88	3,00 —	3,50 —	3,50 —	4,20 —	4,20 —		
	1,00	3,20 —	3,60 —	3,60 —	4,30 —	4,30 —		
	1,13	3,20 —	3,60 —	3,60 —	4,30 —	4,30 —		
	1,25	3,20 —	3,60 —	3,60 —	4,30 —	4,30 —		
	1,50	3,20 —	3,60 —	3,60 —	4,30 —	— —		
	1,75	3,20 —	3,60 —	3,60 —	4,30 —	— —		
	2,00	3,20 —	3,60 —	3,60 —	4,30 —	— —		
Zugkraft $N_{R,k}$ [kN]	0,50	0,54 ac	0,97 ac	0,97 ac	1,57 abcd	1,57 abc		
	0,55	0,68 ac	1,23 ac	1,23 ac	1,98 abcd	1,98 abc		
	0,63	1,00 ac	1,80 ac	1,80 ac	2,90 abcd	2,90 abc		
	0,75	1,00 ac	1,80 ac	1,80 ac	3,50 ac	3,50 ac		
	0,88	1,00 —	1,80 —	1,80 —	4,10 —	4,10 —		
	1,00	1,00 —	1,80 —	1,80 —	4,60 —	4,70 —		
	1,13	1,00 —	1,80 —	1,80 —	4,60 —	5,40 —		
	1,25	1,00 —	1,80 —	1,80 —	4,60 —	6,00 —		
	1,50	1,00 —	1,80 —	1,80 —	4,60 —	— —		
	1,75	1,00 —	1,80 —	1,80 —	4,60 —	— —		
	2,00	1,00 —	1,80 —	1,80 —	4,60 —	— —		

Im Zulassungsbescheid Z-14.1-4, Blatt 3.133



maximale Durchdringung $\sum (t_i + t_{II}) \leq 2,5$ mm

Verbindungs-element: Bohrschraube E-X Bohr 5 5,5 x L, Dichtscheibe Ø ≥ 16 mm

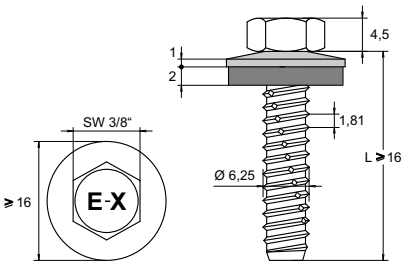
Werkstoffe: Schraube nichtrostender Stahl, Werkst.-Nr.: 1.4301; Scheibe nichtrostender Stahl, Werkst.-Nr.: 1.4301 mit aufvulkanisierter EPDM-Dichtung

Bauteil II aus Stahl mit t_{II}[mm]
S235Jxx nach DIN EN 10 025
S280GD+xx oder S320GD+xx nach DIN EN 10 147

Bauteil II aus Holz; Sortierklasse ≥ S10

Bauteil I aus Stahl mit t_I[mm] S280GD+xx oder S320GD+xx nach DIN EN 10 147		4,00	5,00	6,00	8,00	10,00	12,00	13,00
Anzugsmoment (Richtwert)		anschlagorientiert verschrauben, 8 Nm						
Querkraft $V_{R,k}$ [kN]	0,63			4,00 abcd	4,00 abcd	4,00 abcd		
	0,75			4,50 ac	4,50 ac	4,50 ac		
	0,88			4,90 ac	5,00 ac	5,00 ac		
	1,00			5,30 ac	5,40 ac	5,50 ac		
	1,13			5,70 —	5,90 ac	6,00 ac		
	1,25			6,10 —	6,30 ac	6,50 ac		
	1,50			6,10 —	6,30 —	6,50 —		
	1,75			6,10 —	6,30 —	6,50 —		
	2,00			6,10 —	6,30 —	6,50 —		
Zugkraft $N_{R,k}$ [kN]	0,50			1,84 abcd	1,84 abcd	1,84 abcd		
	0,55			2,32 abcd	2,32 abcd	2,32 abcd		
	0,63			3,40 abcd	3,40 abcd	3,40 abcd		
	0,75			3,90 ac	3,90 ac	3,90 ac		
	0,88			4,40 ac	4,40 ac	4,40 ac		
	1,00			4,90 ac	4,90 ac	4,90 ac		
	1,13			5,40 —	5,40 ac	5,40 ac		
	1,25			5,80 —	5,80 ac	5,80 ac		
	1,50			6,60 —	6,60 —	6,60 —		
	1,75			6,60 —	6,60 —	6,60 —		
	2,00			6,60 —	6,60 —	6,60 —		

Im Zulassungsbescheid Z-14.1-4, Blatt 4.8



Verbindungs-element: E-X BZ 6,3 x L, Dichtscheibe Ø ≥ 16 mm

Werkstoffe: Schraube nichtrostender Stahl, Werkst.-Nr.: 1.4301; Scheibe nichtrostender Stahl, Werkst.-Nr.: 1.4301 mit aufvulkanisierter EPDM-Dichtung

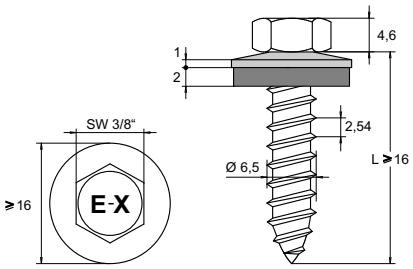
Bauteil II aus Stahl mit t_{II}[mm]
S235Jxx nach DIN EN 10 025
S280GD+xx oder S320GD+xx nach DIN EN 10 147

Bauteil II aus Holz; Sortierklasse ≥ S10

Bauteil I aus Stahl mit t_I[mm] S280GD+xx oder S320GD+xx nach DIN EN 10 147		1,25	1,50	2,00	3,00	4,00	6,00	≥ 7,00
Vorgebohrt mit		Ø 5,0		Ø 5,3			Ø 5,5	Ø 5,7
Anzugsmoment		anschlagorientiert verschrauben, Richtwert 5 Nm						
Querkraft $V_{R,k}$ [kN]	0,63	2,50 ac	2,70 ac	2,90 abcd	3,00 abcd	3,10 abcd	3,10 abcd	3,10 abcd
	0,75	2,60 ac	3,10 ac	3,30 ac	3,60 ac	3,70 abcd	3,70 abcd	3,70 abcd
	0,88	2,80 ac	3,20 ac	3,80 ac	4,10 ac	4,30 ac	4,40 ac	4,40 ac
	1,00	3,20 —	3,60 ac	4,10 ac	4,80 ac	4,90 ac	5,10 ac	5,10 ac
	1,13	3,40 —	4,00 —	4,60 ac	5,40 ac	5,60 ac	5,80 ac	5,80 ac
	1,25	3,60 —	4,20 —	5,00 ac	6,10 ac	6,30 ac	6,50 ac	6,50 ac
	1,50	3,70 —	4,40 —	5,70 —	6,80 —	7,10 —	7,30 —	7,30 —
	1,75	3,70 —	4,70 —	6,20 —	7,60 —	7,70 —	8,10 —	8,10 —
	2,00	3,80 —	4,90 —	6,90 —	7,80 —	7,90 —	8,10 —	8,10 —
Zugkraft $N_{R,k}$ [kN]	0,50	0,97 ac	1,35 ac	1,51 abcd	1,51 abcd	1,51 abcd	1,51 abcd	1,51 abcd
	0,55	1,23 ac	1,71 ac	1,91 abcd	1,91 abcd	1,91 abcd	1,91 abcd	1,91 abcd
	0,63	1,80 ac	2,50 ac	2,80 abcd	2,80 abcd	2,80 abcd	2,80 abcd	2,80 abcd
	0,75	2,00 ac	2,60 ac	3,10 ac	3,60 ac	3,60 abcd	3,60 abcd	3,60 abcd
	0,88	2,00 ac	2,70 ac	3,30 ac	3,80 ac	3,80 ac	3,80 ac	3,80 ac
	1,00	2,00 —	2,70 ac	3,40 ac	4,00 ac	4,00 ac	4,00 ac	4,00 ac
	1,13	2,00 —	2,70 —	3,60 ac	4,40 ac	4,40 ac	4,40 ac	4,40 ac
	1,25	2,00 —	2,70 —	3,60 ac	4,80 ac	4,90 ac	4,90 ac	4,90 ac
	1,50	2,00 —	2,70 —	3,60 —	5,60 —	5,90 —	5,90 —	5,90 —
	1,75	2,00 —	2,70 —	3,60 —	5,80 —	6,90 —	7,10 —	7,10 —
	2,00	2,00 —	2,70 —	3,60 —	6,00 —	7,30 —	7,60 —	7,60 —

E-X® Characteristic bearing ratios (Z-14.1-4)

Im Zulassungsbescheid Z-14.1-4, Blatt 4.1



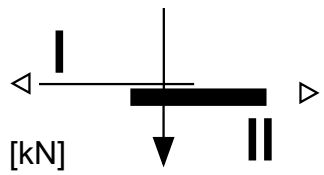
Verbindungs-element	E-X A 6,5 x L Dichtscheibe Ø ≥ 16 mm
Werkstoffe	Schraube nichtrostender Stahl, Werkst.-Nr.: 1.4301 Scheibe nichtrostender Stahl, Werkst.-Nr.: 1.4301 mit aufvulkanisierter EPDM-Dichtung

Bauteil II aus Stahl mit t_{II}[mm]
S235Jxx nach DIN EN 10 025
S280GD+xx oder S320GD+xx nach DIN EN 10 147

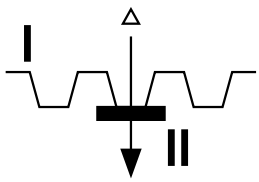
		0,63	0,75	0,88	1,00	1,13	1,25	1,50	2,00	**Bauteil II** aus Holz; Sortierklasse ≥ S10
										s_o ≥26 mm
Vorgebohrt mit		Ø 3,5	Ø 4,0	Ø 4,5				Ø 5,0		Ø 4,8
Anzugsmoment		Richtwert 3 Nm					Richtwert 5 Nm			
Bauteil I aus Stahl mit t_I[mm] S280GD+xx oder S320GD+xx nach DIN EN 10 147	Querkraft $V_{R,k}$ [kN]									
	0,63	1,30 —	1,50 —	1,80 —	2,00 ac	2,30 ac	2,50 ac	2,90 ac	2,90 ac	2,90
	0,75	1,40 —	1,60 —	1,90 —	2,20 ac	2,50 ac	2,70 ac	3,10 ac	3,10 ac	3,10
	0,88	1,50 —	1,70 —	2,00 —	2,30 —	2,60 —	2,80 ac	3,20 ac	3,20 ac	3,20
	1,00	1,50 —	1,80 —	2,10 —	2,50 —	2,80 —	3,10 —	3,60 —	3,60 —	3,60
	1,13	1,60 —	1,80 —	2,20 —	2,60 —	2,90 —	3,20 —	3,80 —	3,80 —	3,80
	1,25	1,60 —	1,90 —	2,30 —	2,70 —	3,00 —	3,30 —	4,00 —	4,00 —	4,00
	1,50	1,60 —	1,90 —	2,40 —	2,80 —	3,20 —	3,50 —	4,00 —	4,00 —	4,00
	1,75	1,60 —	1,90 —	2,40 —	2,80 —	3,20 —	3,50 —	4,00 —	4,00 —	4,00
	2,00	1,60 —	1,90 —	2,40 —	2,80 —	3,20 —	3,50 —	4,00 —	4,00 —	4,00
	Zugkraft $N_{R,k}$ [kN]									
	0,50	0,49 —	0,59 —	0,70 —	0,76 ac	0,86 ac	0,97 ac	1,13 ac	1,13 ac	1,13
	0,55	0,61 —	0,75 —	0,89 —	0,95 ac	1,09 ac	1,23 ac	1,43 ac	1,43 ac	1,43
	0,63	0,90 —	1,10 —	1,30 —	1,40 ac	1,60 ac	1,80 ac	2,10 ac	2,10 ac	2,10
	0,75	0,90 —	1,10 —	1,30 —	1,40 ac	1,60 ac	1,80 ac	2,10 ac	2,10 ac	2,10
	0,88	0,90 —	1,10 —	1,30 —	1,40 —	1,60 —	1,80 ac	2,10 ac	2,10 ac	2,10
	1,00	0,90 —	1,10 —	1,30 —	1,40 —	1,60 —	1,80 —	2,20 —	2,20 —	2,20
	1,13	1,00 —	1,20 —	1,40 —	1,50 —	1,70 —	1,90 —	2,30 —	2,30 —	2,30
	1,25	1,00 —	1,20 —	1,40 —	1,50 —	1,70 —	1,90 —	2,30 —	2,30 —	2,30
	1,50	1,00 —	1,20 —	1,40 —	1,50 —	1,70 —	1,90 —	2,30 —	2,30 —	2,30
	1,75	1,00 —	1,20 —	1,40 —	1,50 —	1,70 —	1,90 —	2,30 —	2,30 —	2,30
	2,00	1,00 —	1,20 —	1,40 —	1,50 —	1,70 —	1,90 —	2,30 —	2,30 —	2,30

Versagen von Bauteil I (Lochleibung)

Versagen von Bauteil I (Überknöpfen)

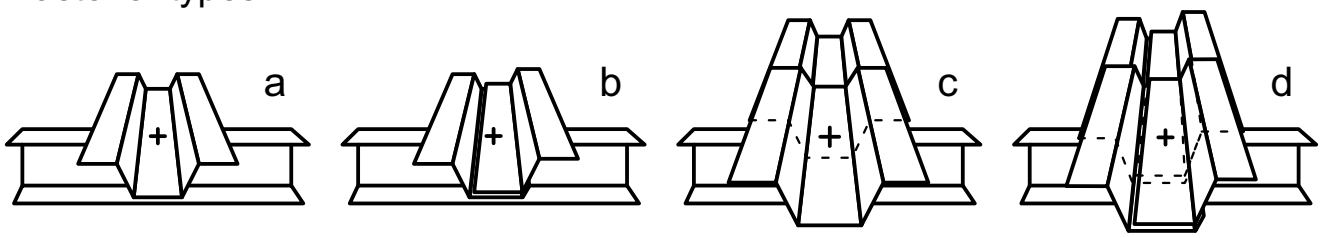


Transverse force $V_{R,k}$ [kN]



Tractive force $N_{R,k}$ [kN]

Fastener types



The fastener types which are permitted in the case of transverse load as a result of temperature without calculational verification are specified in the table next to the permitted forces.

In the case of intermediate values for part thickness I or II, the permissible transverse and tractive values for the thinner part must be selected.

Manufacturer

Guntram End GmbH
Untertürkheimer Str. 20
66117 Saarbrücken
Tel.: +49 [0] 681/ 5 86 01 - 0
Fax: +49 [0] 681/ 5 86 01 - 39
www.GuntramEnd.de

Sales

Guntram End GmbH
Untertürkheimer Str. 20
66117 Saarbrücken
Tel.: +49 [0] 681/ 5 86 01 - 0
Fax: +49 [0] 681/ 5 86 01 - 39
E-Mail: info@GuntramEnd.de



We are certified by DEKRA ISTI GmbH:
- For stainless steel drilling screws and screws types A and BZ under reg. no. ÜZ-001/2004.
- For screws to fasten sandwich profiles under reg. no. ÜZ-002/2004.