
A Die Sets

B Precision Ground Plates and Flat Bars

C Lifting and Clamping Devices

Shanks, Lifter Studs and Lifting Hooks, Eyebolts
Clamping Claws, Screws and Bolts

D Guide Elements

E Ground Precision Components

F Springs

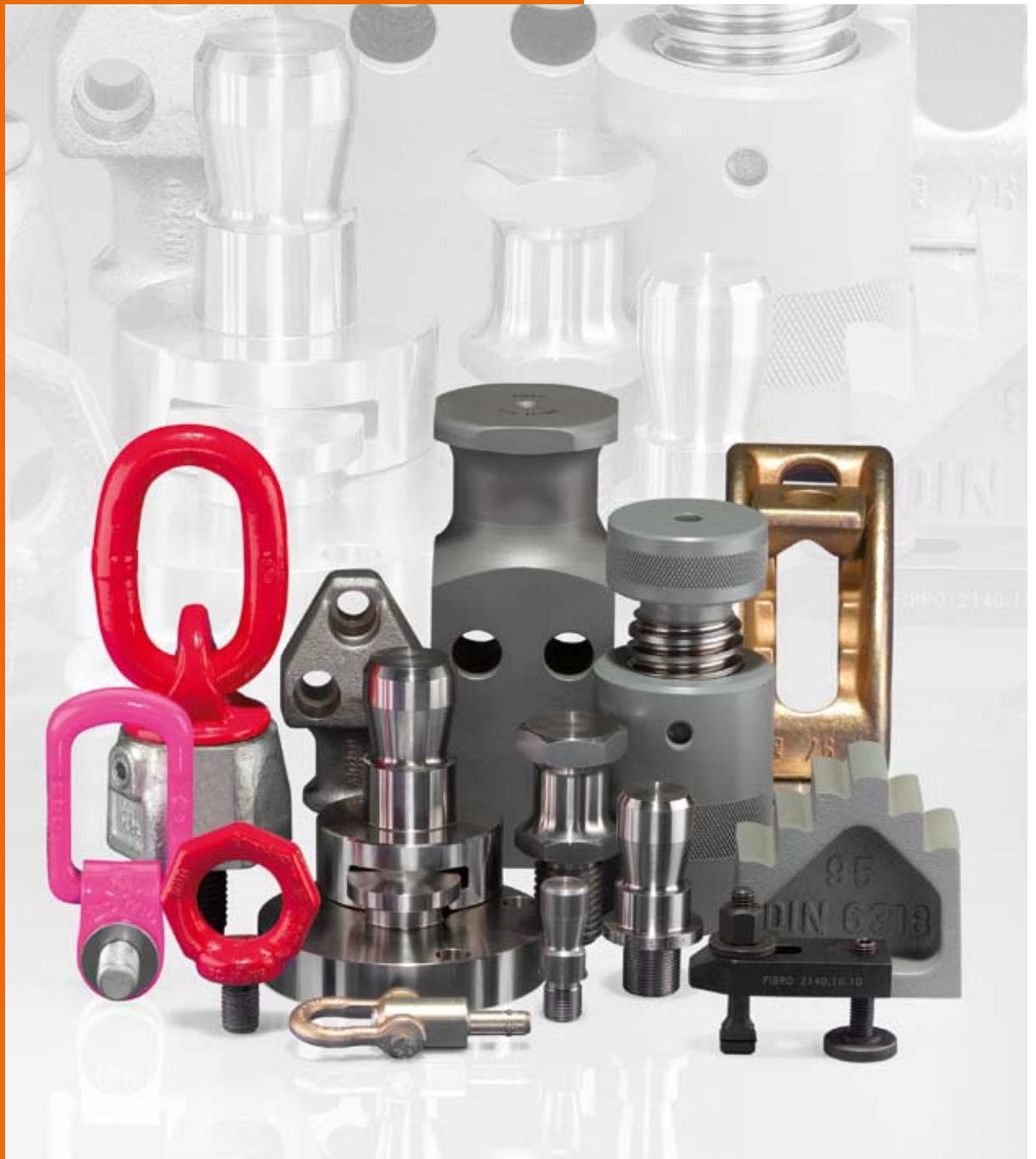
G Elastomer-Bars, -Sheets, -Sections

H FIBRO Chemical Tooling Aids

J Peripheral Equipment

K Cam Units


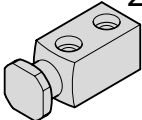

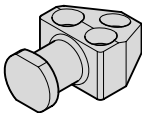

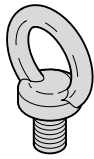
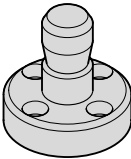

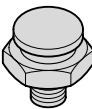
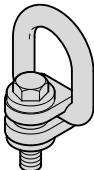
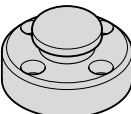

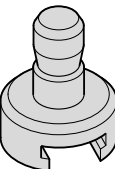

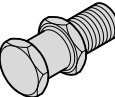

L Standard Parts for Mould Making



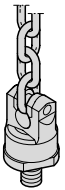
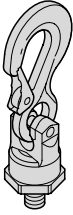
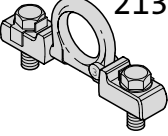
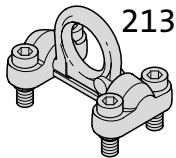
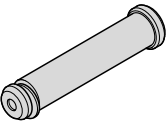
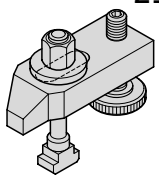
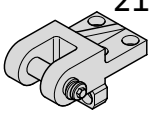
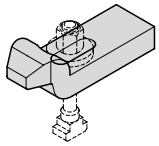
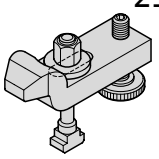
Lifting and Clamping Devices

A large, empty rectangular box with rounded corners, occupying most of the page. It is intended for drawing or writing.

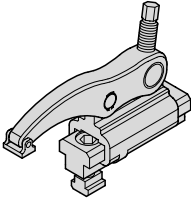
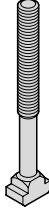
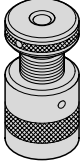
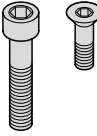
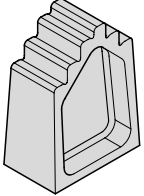

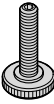



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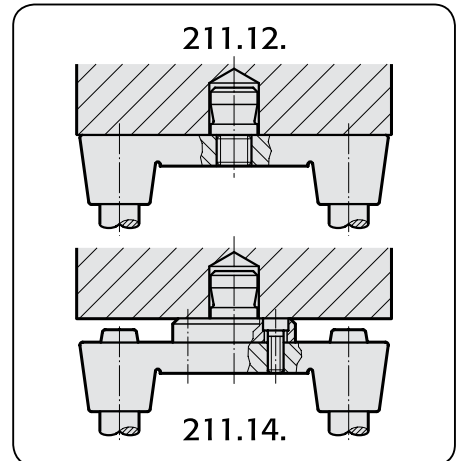
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Die Set Accessories

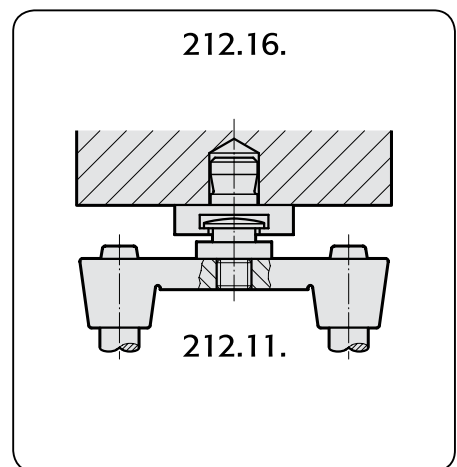
Threaded Die Set Shanks

Most single-column presses have shank adaptor bores in the ram. Their dimensions are standardized under DIN 810.
Dies up to medium size are mostly mounted with shanks to DIN ISO 10242.
FIBRO Shanks are made to highest specifications for concentricity and squareness.



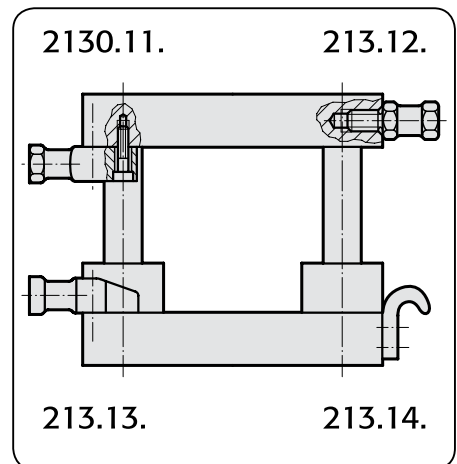
Die Set Coupling Spigots and Spigot Holders

Where frequent die changes are the rule and stripping forces are moderate, these spigots and holders help to reduce down time in the press shop.



Lifting Aids for Die Sets etc.

These accessories facilitate the hoisting of medium and heavy dies; their use helps to prevent accidents.



Die Set Shanks
with and without Collar
Die Set Shanks, ~DIN ISO 10242

FIBRO

211.13.

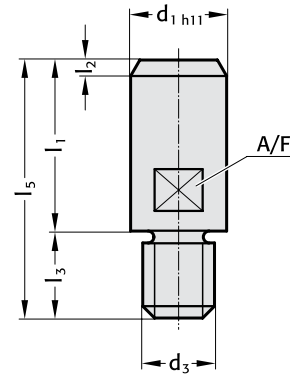
211.14.

211.11.

211.12.



211.11.

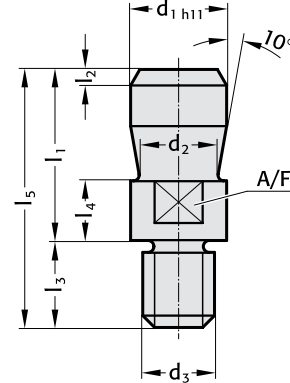


211.11. Threaded Die Set Shanks

Order No	d ₁	d ₃	l ₁	l ₂	l ₃	l ₅	A/F
211.11.20.016	20	M16X1,5	40	3	18	58	17
25.016	25	M16X1,5	45	4	23	68	21
020	25	M20x1,5	45	4	23	68	21
211.11.32.020	32	M20x1,5	56	4	23	79	27
024	32	M24x1,5	56	4	23	79	27
211.11.40.024	40	M24x1,5	70	5	23	93	36
030	40	M30x2	70	5	23	93	36
211.11.50.030	50	M30x2	80	6	28	108	41
65.042	65	M42x3	100	8	28	128	55



211.12.

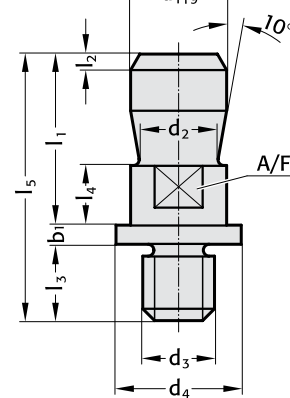


211.12. Threaded Die Set Shanks
~DIN ISO 10242-1

Order No	d ₁	d ₂	d ₃	l ₁	l ₂	l ₃	l ₄	l ₅	A/F
211.12.20.016	20	15	M16x1,5	40	2	18	12	58	17
25.016	25	20	M16x1,5	45	2,5	23	16	68	21
020	25	20	M20x1,5	45	2,5	23	16	68	21
211.12.32.020	32	25	M20x1,5	56	3	23	16	79	27
024	32	25	M24x1,5	56	3	23	16	79	27
211.12.40.024	40	32	M24x1,5	70	4	23	26	93	36
027	40	32	M27x2	70	4	23	26	93	36
030	40	32	M30x2	70	4	23	26	93	36
211.12.50.030	50	42	M30x2	80	5	28	26	108	41
65.042	65	53	M42x3	100	8	28	26	128	55



211.13.

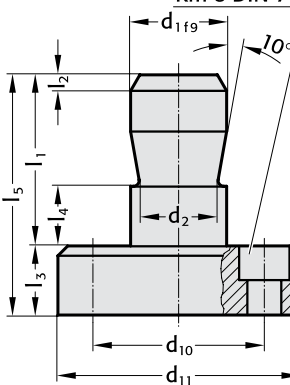


211.13. Threaded Die Set Shanks with Collar

Order No	d ₁	d ₂	d ₃	d ₄	l ₁	l ₂	l ₃	l ₄	l ₅	A/F
211.13.20.016	20	15	M16x1,5	28	40	2	16	12	61	17
25.016	25	20	M16x1,5	34	45	2,5	16	16	66	21
020	25	20	M20x1,5	34	45	2,5	20	16	70	21
211.13.32.020	32	25	M20x1,5	42	56	3	20	16	82	27
024	32	25	M24x1,5	42	56	3	24	16	86	27
211.13.40.024	40	32	M24x1,5	52	70	4	24	26	102	36
030	40	32	M30x2	52	70	4	30	26	108	36
211.13.50.030	50	42	M30x2	62	80	5	30	26	118	41



211.14.



211.14. Bolt-On Die Set Shanks ~DIN ISO 10242-2

Order No	d ₁	d ₂	d ₁₀	d ₁₁	l ₁	l ₂	l ₃	l ₄	l ₅
211.14.20.063	20	15	45	63	40	2	18	12	58
25.063	25	20	45	63	45	2,5	18	16	63
080	25	20	63	80	45	2,5	18	16	63
211.14.32.097	32	25	80	97	56	3	23	16	79
122	32	25	105	122	56	3	23	16	79
211.14.40.097	40	32	80	97	70	4	23	26	93
122	40	32	105	122	70	4	23	26	93

FIBRO

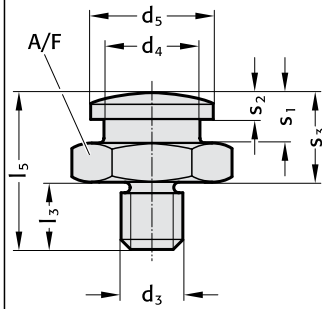
212.11. 212.16.
212.15. 213.12.

Die Set Coupling Spigots Spigot Holders Screw-In Lifter Studs, VDI 3366

212.11. Die Set Coupling Spigots

Order No	d ₃	d ₄	d ₅	l ₃	l ₅	s ₁	s ₂	s ₃	A/F
212.11.016	M16x1,5	25	32	18	32	13	6.5	23	36
020	M20x1,5	32	48	23	48	19	9.5	41	50
024	M24x1,5	32	48	23	48	19	9.5	41	50
030	M30x2	32	48	23	48	19	9.5	43	60

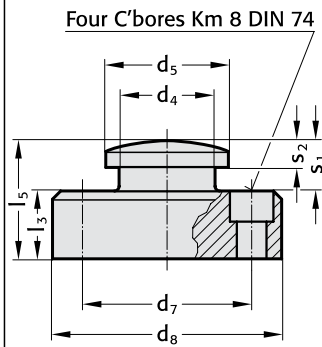
212.11.



212.15. Die Set Coupling Spigots

Order No	d ₄	d ₅	d ₇	d ₈	l ₃	l ₅	s ₁	s ₂
212.15.063	25	32	46	63	18	31	13	6.5
080	32	48	63	80	18	37	19	9.5
097	32	48	80	97	23	42	19	9.5
122	32	48	105	122	23	42	19	9.5

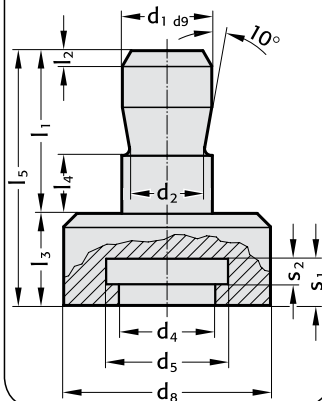
212.15.



212.16. Spigot Holders

Order No	d ₁	d ₂	d ₄	d ₅	d ₈	l ₁	l ₂	l ₃	l ₄	s ₁	s ₂
212.16.025	25	20	26	33	56	45	4	25	16	12.6	7
032	32	25	33	49	80	56	4	30	16	18.6	10
040	40	32	33	49	80	70	5	30	26	18.6	10

212.16.

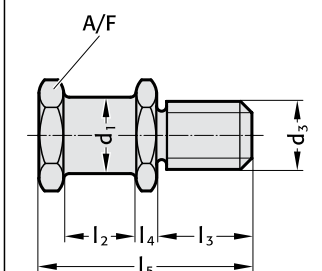


213.12. Screw-In Lifter Studs, VDI 3366

Order No	d ₁	d ₃	l ₂	l ₃	l ₄	l ₅	A/F	lifting capacity
213.12.016	16	M16	20	28	5	58	24	320
020	20	M20	22	34	6	68	30	500
024	25	M24	25	38	8	78	36	1000
030	32	M30	32	45	10	95	41	1500
036	40	M36	40	56	12	118	50	2500

213.12.

VDI 3366

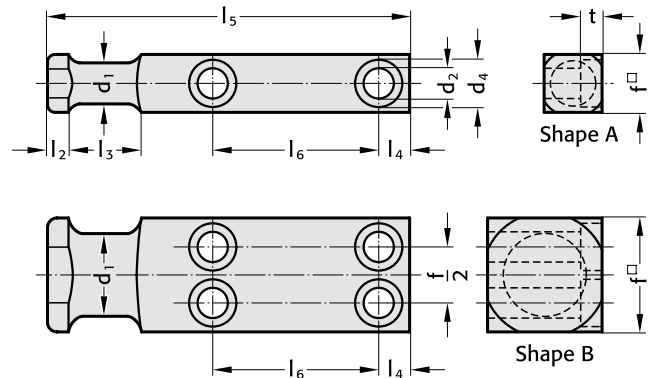


Lifter Studs VDI 3366
Lifter Studs with cable securing device

2130.11.
2130.12.

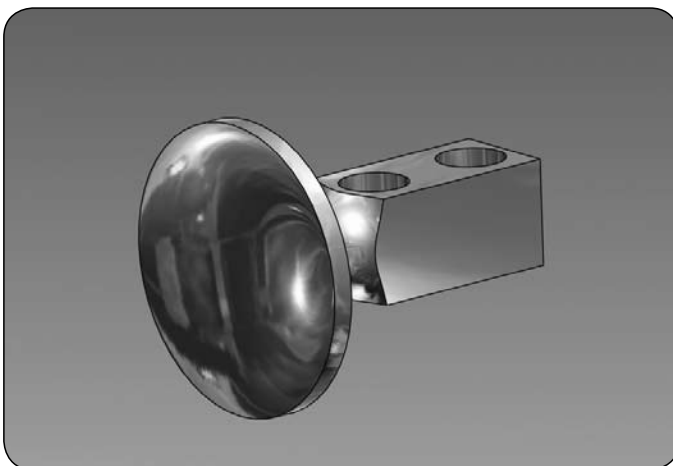


2130.11. Lifter Studs VDI 3366

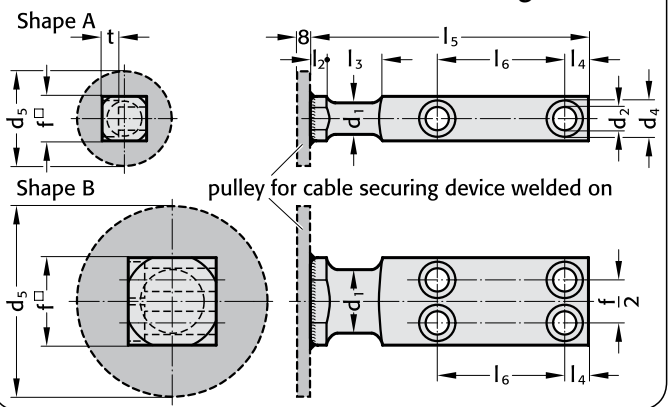


2130.11. Lifter Studs VDI 3366

Order No	Shape:	d ₁	d ₂	d ₄	f	l ₂	l ₃	l ₄	l ₅	l ₆	t	carrying capacity
												kg
2130.11.020	A	16	9	15	20	6	20	10	80	34	9	320
2130.11.025	A	20	11	18	25	8	25	10	90	37	11	630
2130.11.035	A	25	13.5	20	35	8	30	12	100	38	13	1250
2130.11.040	A	32	17.5	26	40	10	32	16	120	46	17.5	2000
2130.11.050	A	40	22	33	50	10	40	18	140	54	21.5	3200
2130.11.060	A	50	26	40	60	12	45	22	160	59	25.5	5000
2130.11.080	B	63	22	33	80	12	50	20	200	78	21.5	8000
2130.11.100	B	80	26	40	100	15	65	25	250	100	25.5	12500
2130.11.120	B	100	33	48	120	15	80	30	300	125	32	20000



2130.12. Lifter Studs with cable securing device



2130.12. Lifter Studs with cable securing device

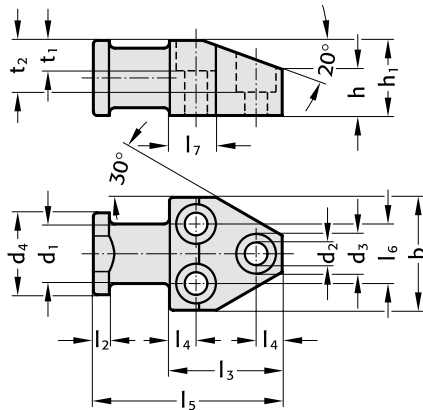
Order No	Shape:	d ₁	d ₂	d ₄	d ₅	f	l ₂	l ₃	l ₄	l ₅	l ₆	t	carrying capacity
													kg
2130.12.020	A	16	9	15	60	20	6	20	10	80	34	9	320
2130.12.025	A	20	11	18	70	25	8	25	10	90	37	11	630
2130.12.035	A	25	13.5	20	70	35	8	30	12	100	38	13	1250
2130.12.040	A	32	17.5	26	110	40	10	32	16	120	46	17.5	2000
2130.12.050	A	40	22	33	110	50	10	40	18	140	54	21.5	3200
2130.12.060	A	50	26	40	150	60	12	45	22	160	59	25.5	5000
2130.12.080	B	63	22	33	150	80	12	50	20	200	78	21.5	8000
2130.12.100	B	80	26	40	150	100	15	65	25	250	100	25.5	12500
2130.12.120	B	100	33	48	150	120	15	80	30	300	125	32	20000

FIBRO

213.13.
213.10.

Lifter Studs Lifting Eyebolts

213.13. Lifter Studs

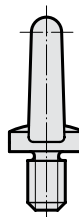
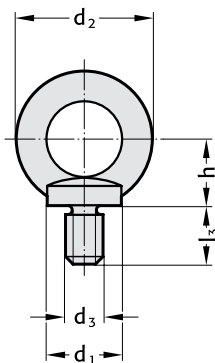


213.13. Lifter Studs

Order No	b	d ₁	d ₂	d ₃	d ₄	h	h ₁	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	t ₁	t ₂	carrying capacity kg
213.13.060	60	32	13.5	20	44	24	40	8	60	14	100	32	24	15	29	2000
080	80	40	17.5	26	60	32	50	10	70	16	120	44	26	20	35.5	3500
100	100	50	22	33	70	40	65	12	88	20	145	56	30	25	46.5	6000

213.10. Lifting Eyebolts

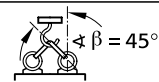
DIN 580



213.10. Lifting Eyebolts DIN 580



carrying capacity
for one screw



carrying capacity
for two screws altogether

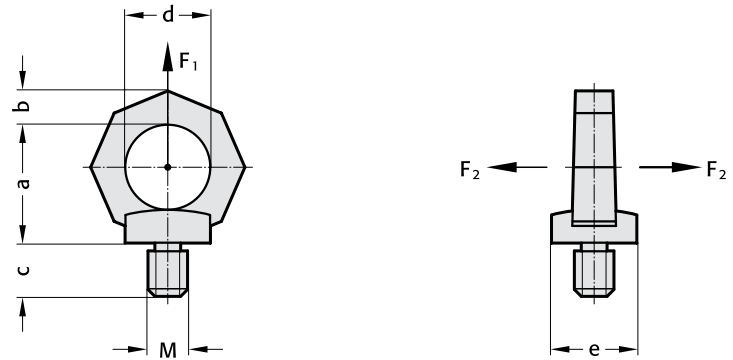
Order No	d ₁	d ₂	d ₃	h	l ₃	t	t
213.10.008	20	36	M8	18	13	0.14	0.1
213.10.010	25	45	M10	22	17	0.23	0.17
213.10.012	30	54	M12	26	20.5	0.34	0.24
213.10.016	35	63	M16	30	27	0.7	0.5
213.10.020	40	72	M20	35	30	1.2	0.86
213.10.024	50	90	M24	45	36	1.8	1.29
213.10.030	60	108	M30	55	45	3.2	2.3
213.10.036	70	126	M36	65	54	4.6	3.3

High-Tensile Eyebolts

2131.10.



2131.10.



Description:

During use check that the eyebolt is firmly seated.
 Rotation during the lifting operation must be avoided.
 It will not rotate automatically to the correct load angle.
 Not approved for mining applications.

Note:

Material: 1.6541, heavy duty heat treated, 100% electromagnetically crack tested, to EN 1677-1, safety factor 4:1.
 Format: = octagonal, Grade 8.
 Colour: = red, colour coded, Grade 8.
 Identification: clear indication of permissible load for F₂ category critical loads (not permissible for DIN 580).
 Minimum screw-in depth: 1 x M into steel (min. St37)
 1.25 x M into castings (min. GG25)
 2 x M into aluminium
 2.5 x M into magnesium alloys

2131.10. High-Tensile Eyebolts

Order No	a	b	c	d	M	e
2131.10.006	35	11	12	25	M6	25
008	35	11	12	25	M8	25
010	35	11	15	25	M10	25
012	41	13	18	30	M12	30
014	48	15	21	35	M14	35
016	48	15	24	35	M16	35
020	55	17	30	40	M20	40
024	70	21	36	50	M24	50
030	85	26	45	60	M30	60
036	130	43	54	90	M36	100
042	130	43	63	90	M42	100
048	130	43	67	90	M48	100

Max. carried load "G" in tonnes for various types of attachment

Type of attachment	F ₁	F ₂	2 symmetrical		2 asymmetrical	3 and 4 symmetrical		3 and 4 asymmetrical
Arrangement of the suspension points								
Number of lines	1	1	2	2	2 symmetrical	2	3 and 4 symmetrical	3 and 4
Angle of inclination/load direction	0°	90°	0°	90°	0-45° 45-60°	asymmetrical	0-45° 45-60°	asymmetrical
carried load in tonnes								
Order No	2131.10.006	0,4	0,8					
	008	0,8	1,6					
	010	1	2					
	012	1,6	3,2					
	014	3	6					
	016	4	8					
	020	6	12					
	024	8	16					
	030	12	24					
	036	16	32					
	042	24	48					
	048	32	64					

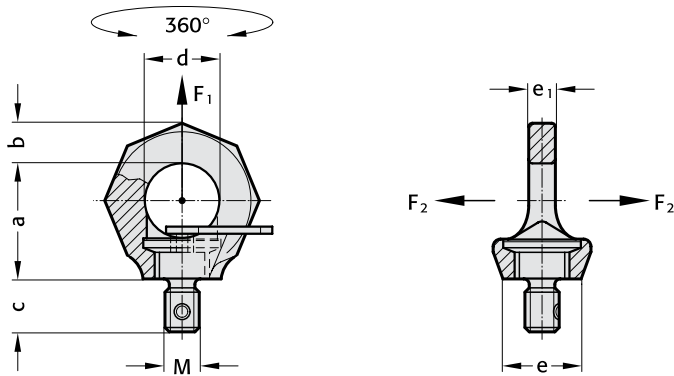
We recommend that you use the eyebolt that is adjustable in the direction of force for the type of suspension with no details of carried loads!

FIBRO

2131.11.

Eyebolts, rotatable

2131.11.



Description:

During use check that the hexagon socket screw is firmly seated. Can be set for the direction of application so that there is no accidental turning and flipping over. Captive hexagon socket screw.
No tools are required as the hexagon socket screw is supplied with a hardened star profile key. The star profile key engages in the hexagon socket. It can be screwed and unscrewed by hand.

Make sure that the ring is free to rotate through 360° when the unit is screwed in.

Note:

Material: 1.6541, forged, heavy duty heat treated.
100% electromagnetic crack initiation to DIN 5691, EN 1677-4, safety factor 4:1.

Format: stellate – clearly distinguishable to DIN 580, eye bolt

Colour: striking, fluorescent pink powder coating

Identification: clear indication of permissible load for the loading capacity in the plane of the ring.

Minimum screw-in depth: 1 x M into steel (min. St37)
1.25 x M into castings (min. GG25)
2 x M into aluminium
2.5 x M in into magnesium alloys

2131.11. Eyebolts rotatable

Order No	a	b	c	d	e	e ₁	M
2131.11.008	34	11	12	25	25	8.5	M8
010	34	11	15	25	25	8.5	M10
012	42	13	18	30	30	10	M12
016	49	15	24	35	35	14	M16
020	57	17	30	40	40	16	M20
024	69	21	36	48	48	19	M24
030	86	26	45	60	60	24	M30
036	103	32	54	72	75	29	M36
042	120	38	63	82	85	34	M42
048	137	43	72	94	100	38	M48

Max. carried load "G" in tonnes for various types of attachment

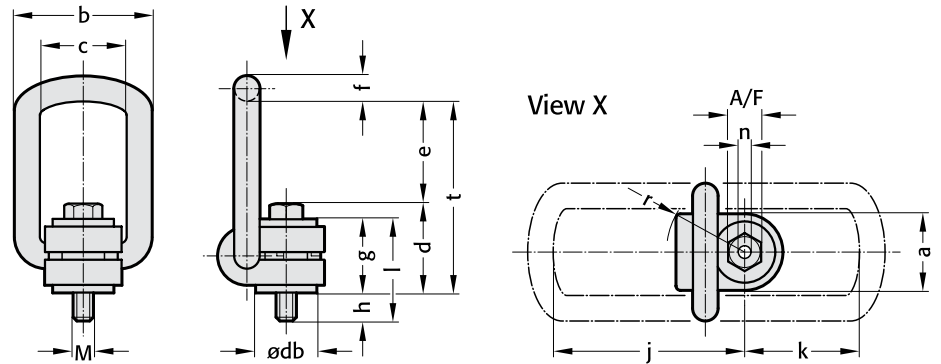
Type of attachment	Arrangement of the suspension points									
Number of lines	1	1	2	2	2	2	2	3 and 4	3 and 4	3 and 4
Angle of inclination/load direction	0°	90°	0°	90°	0-45°	45-60°	asymmetrical	0-45°	45-60°	asymmetrical
carried load in tonnes										
Order No 2131.11.008	1	0,4	2	0,8	0,56	0,4	0,4	0,84	0,6	0,4
010	1	0,4	2	0,8	0,56	0,4	0,4	0,84	0,6	0,4
012	2	0,75	4	1,5	1	0,75	0,75	1,6	1,12	0,75
016	4	1,5	8	3	2,1	1,5	1,5	3,15	2,25	1,5
020	6	2,3	12	4,6	3,22	2,3	2,3	4,83	3,45	2,3
024	8	3,2	16	6,4	4,48	3,2	3,2	6,7	4,8	3,2
030	12	4,5	24	9	6,3	4,5	4,5	9,4	6,7	4,5
036	16	7	32	14	9,8	7	7	14,7	10,5	7
042	24	9	48	18	12,6	9	9	18,9	13,5	9
048	32	12	64	24	16,8	12	12	25,2	18	12

Hoisting Snap Links - omnidirectional

2131.15.



2131.15.



Description:

The hinged unit is free to rotate through 360°, self-align with the direction of pull and folding. The hoisting Snap Link must be installed in the stress direction before loading, must be able to move freely and may not be supported at an angle. Do not rotate under load. Full load bearing capacity in any direction. Complete with a 100% crack-checked outer and inner hexagonal bolt for universal tool use.

2131.15. Hoisting Snap Link - omnidirectional

Order No	Weight in kg	b																tightening torque Nm	
		a	max.	c	d	e	f	g	h Standard	j	k	l Standard	M	n	A/F	r	t		db
2131.15.008.036	0.3	30	54	34	35	40	10	29	11	75	45	40	M8	5	13	32	75	24	30
2131.15.010.036	0.32	30	54	34	36	39	10	29	16	75	45	45	M10	6	17	32	75	24	60
2131.15.012.036	0.33	32	54	34	37	38	10	29	21	75	45	50	M12	8	19	32	75	26	100
2131.15.016.036	0.55	33	56	36	46	39	13.5	36	24	86	47	60	M16	10	24	38	85	30	150
2131.15.020.050	1.3	50	82	54	55	55	16.5	43	32	113	64	75	M20	12	30	48	110	45	250
2131.15.024.050	1.5	50	82	54	58	67	18	43	37	130	78	80	M24	14	36	48	125	45	400
2131.15.027.065	3.1	60	103	65	78	69	22.5	61	39	151	80	100	M27	0	41	67	147	60	400
2131.15.030.065	3.3	60	103	65	80	67	22.5	61	49	151	80	110	M30	17	46	67	147	60	500
2131.15.036.065	3.4	60	103	65	72	74	22.5	55	52	151	80	107	M36	0	55	67	146	60	700
2131.15.036.080	6.2	77	122	82	100	97	26.5	77	63	205	110	140	M36	22	55	87	197	70	800
2131.15.042.080	6.7	77	122	82	103	94	26.5	77	73	205	110	150	M42	24	65	87	197	70	1000
2131.15.042.100	11.2	95	156	100	113	109	36	87	63	230	130	150	M42	24	65	100	222	85	1500
2131.15.048.100	11.6	95	156	100	117	105	36	87	73	230	130	160	M48	27	75	100	222	95	2000

Max. load "G" in tonnes for various types of attachment

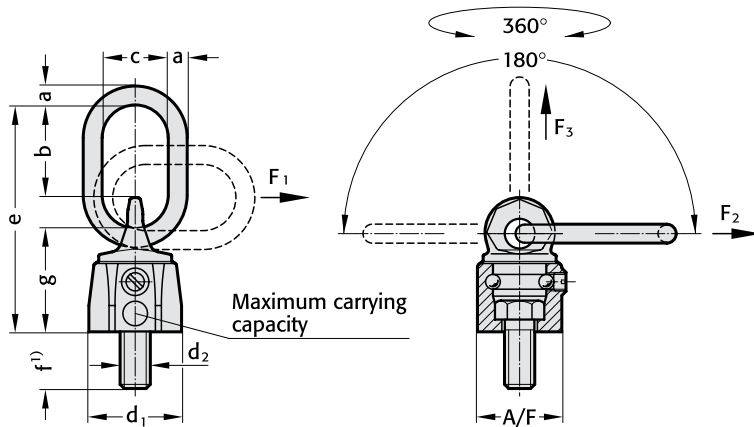
Type of attachment	Arrangement of the suspension points	G										
		1	1	2	2	2 symmetrical	2	3 and 4 symmetrical	3 and 4			
Number of lines	Angle of inclination/load direction	0°	90°	0°	90°	0-45°	0-60°	asymmetrical	0-45°	0-60°	symmetrical	
Order No	Thread	carried load in tonnes										
2131.15.008.036	M 8	0,3	0,3	0,6	0,6	0,42	0,3	0,3	0,63	0,45	0,3	
2131.15.010.036	M10	0,63	0,63	1,26	1,26	0,88	0,63	0,63	1,32	0,95	0,63	
2131.15.012.036	M12	1,0	1,0	2,0	2,0	1,4	1,0	1,0	2,1	1,5	1,0	
2131.15.016.036	M16	1,5	1,5	3,0	3,0	2,1	1,5	1,5	3,15	2,25	1,5	
2131.15.020.050	M20	2,5	2,5	5,0	5,0	3,5	2,5	2,5	5,25	3,75	2,5	
2131.15.024.050	M24	4,0	4,0	8,0	8,0	5,6	4,0	4,0	8,4	6,0	4,0	
2131.15.027.065	M27	4,0	4,0	8,0	8,0	5,6	4,0	4,0	8,4	6,0	4,0	
2131.15.030.065	M30	5,0	5,0	10,0	10,0	7,0	5,0	5,0	10,5	7,5	5,0	
2131.15.036.065	M36	7,0	7,0	14,0	14,0	9,8	7,0	7,0	14,7	10,5	7,0	
2131.15.036.080	M36	8,0	8,0	16,0	16,0	11,2	8,0	8,0	16,8	12,0	8,0	
2131.15.042.080	M42	10,0	10,0	20,0	20,0	14,0	10,0	10,0	21,0	15,0	10,0	
2131.15.042.100	M42	15,0	15,0	30,0	30,0	21,0	15,0	15,0	31,5	22,5	15,0	
2131.15.048.100	M48	20,0	20,0	40,0	40,0	28,0	20,0	20,0	42,0	30,0	20,0	

FIBRO

2131.20.

**Rotary Safety Eye Bolts,
light duty,
with ball bearings**

2131.20.



Description:

For loads that are turned and rotated.
 Mounted on ball-bearings – can be rotated through 360° under load (F₃).
 Cannot be rotated under full load at 90° to the threaded fixing (F₁, F₂).
 Not suitable for extended rotational movement when fully loaded.
 Can be loaded on all sides with a safety factor 4:1.
 High-strength suspension eye conforming to EN 1677 part 4, colour: red
 1) Other thread lengths available upon request.

Note:

Ensure that the bolting surface is flat.
 The threaded connection on the transported load must be suitable for transferring forces.
 Minimum screw-in depth: 1 x d₂ in steel (min. St37)
 1,25 x d₂ in cast iron (min. GG25)
 2 x d₂ in aluminium
 2,5 x d₂ in aluminium-magnesium alloys.

2131.20. Rotary Safety Eye Bolts, light duty, with ball bearings

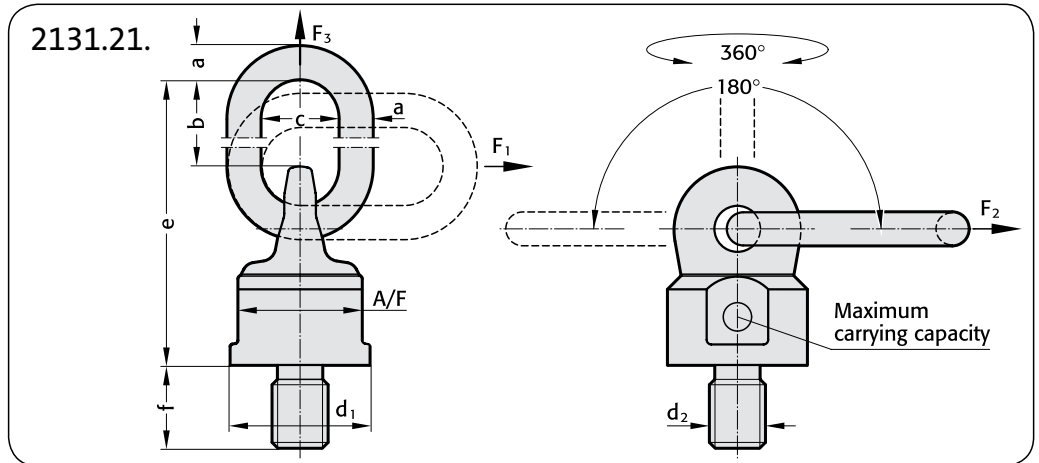
Order No	Rated carrying capacity in t for F ₁	a	b	c	d ₁	d ₂	e	f	g	A/F
2131.20.008.013	0.3	8	33	29	30	8	76	13	36	28
2131.20.010.017	0.45	8	33	29	36	10	78	17	38	30

Max. load “G” in tonnes for various types of attachment

Type of attachment	F ₃		F ₁ (F ₂)		2 symmetrical		2 asymmetrical	3 and 4 symmetrical		3 and 4 asymmetrical	
Arrangement of the suspension points											
Number of lines	1	1	2	2	2 symmetrical		2	3 and 4 symmetrical		3 and 4	
Angle of inclination/load direction	0°	90°	0°	90°	0–45°	45–60°	asymmetrical	0–45°	45–60°	asymmetrical	
Order No	Thread										
carried load in tonnes											
2131.20.008.013	M 8	0,6	0,3 (0,4)	1,2	0,6 (0,8)	0,42 (0,56)	0,3 (0,4)	0,3 (0,4)	0,63 (0,84)	0,45 (0,6)	0,3 (0,4)
2131.20.010.017	M10	0,9	0,45 (0,6)	1,8	0,9 (1,2)	0,63 (0,84)	0,45 (0,6)	0,45 (0,6)	0,95 (1,26)	0,68 (0,9)	0,45 (0,6)

Rotary Safety Eye Bolts, with ball bearings, heavy duty

2131.21.



Description:

For loads that are turned and rotated.
 Mounted on ball-bearings – can be rotated through 360° under load (F_3).
 Cannot be rotated under full load at 90° to the threaded fixing (F_1, F_2).
 Not suitable for extended rotational movement when fully loaded.
 Can be loaded on all sides with safety factor 4:1.
 Colour: red.

Note:

Ensure that the bolting surface is flat.
 The threaded connection on the transported load must be suitable for transferring forces.
 Minimum screw-in depth: 1x d_2 in steel
 2x d_2 in aluminium
 1,25x d_2 in cast iron
 2,5x d_2 in aluminium-magnesium alloys.

2131.21. Rotary Safety Eye Bolts, with ball bearings, heavy duty

Order No	Rated capacity in t									
	F_1	a	b	c	d_1	d_2	e	f	A/F	
2131.21.036	8	22	87	50	90	36	210	54	80	
042	10	26	112	65	98	42	240	63	85	
045	10	26	112	65	98	45	240	67	85	
048	10	26	112	65	98	48	240	68	85	
056	15	32	120	70	120	56	280	84	95	
064	15	32	120	70	120	64	280	95	95	
090	35	40	125	80	170	90	332	135	130	

Max. load "G" in tonnes for various types of attachment

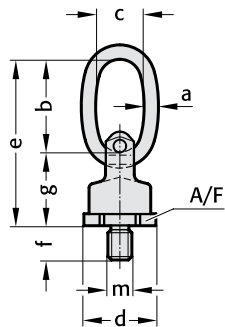
Type of attachment	Arrangement of the suspension point										
Number of lines	1		2		2 asymmetrical		2 asymmetrical.		3 u. 4 asymmetrical		3 und 4
Angle of inclination/load direction	0°	90°	0°	90°	0-45°	45-60°	asymmetrical.	0-45°	45-60°	asymmetrical	
Order No	Thread										
	carried load in tonnes										
2131.21.036	M36	12,5	8 (10)	25	16 (20)	11,2 (14)	8 (10)	8 (10)	16,8 (21)	12 (15)	8 (10)
042	M42	16	10 (12,5)	32	20 (25)	14 (17,5)	10 (12,5)	10 (12,5)	21 (26,2)	15 (18,8)	10 (12,5)
045	[M45]	16	10 (12,5)	32	20 (25)	14 (17,5)	10 (12,5)	10 (12,5)	21 (26,2)	15 (18,8)	10 (12,5)
048	M48	16	10 (12,5)	32	20 (25)	14 (17,5)	10 (12,5)	10 (12,5)	21 (26,2)	15 (18,8)	10 (12,5)
056	M56	25	15 (18)	50	30 (36)	21 (25,2)	15 (18)	15 (18)	31,5 (38)	22,5 (27)	15 (18)
064	M64	25	15 (18)	50	30 (36)	21 (25,2)	15 (18)	15 (18)	31,5 (38)	22,5 (27)	15 (18)
090	M90	35	35 (40)	70	70 (80)	49 (56)	35 (40)	35 (40)	73,5 (84)	52,5 (60)	35 (40)

FIBRO

2131.25.

Universal Rotary Safety Eyebolts with Oval Ring

2131.25.



Execution:

The first generation of lifting means with double ball bearing for smooth non-jerking action tipping, rotating and turning.

Also rotates 90° in direction of screwing in with full load. Not suitable for extended rotational movement when fully loaded.

The special design avoids damage to lifting elements and the valuable load when turning. For ring hoists, slings, cables, hooks etc.

2131.25. Universal Rotary Safety Eyebolts with Oval Ring

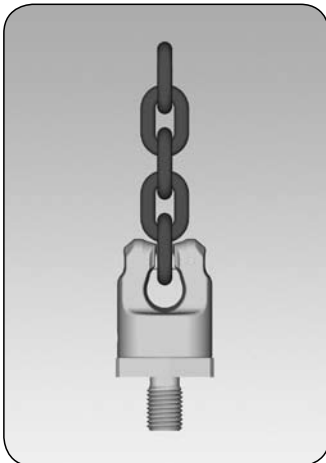
Order No	Rated load capacity in tonnes	a	b	c	d	e	f	g	m	A/F
2131.25.012	0.63	9	65	35	40	105	18	41	M12	36
016	1.5	11	65	35	46	115	24	50	M16	41
020	2.5	13	75	40	61	135	30	61	M20	55
024	4.0	16	95	45	78	172	36	77	M24	70
030	5.0	21	130	60	95	223	45	93	M30	85
036	8.0	24	140	65	100	242	54	102	M36	90

Max. load "G" in tonnes for various types of attachment

Type of attachment	1		2		2 symmetrical		2	3 and 4 symmetrical		3 and 4
Arrangement of the suspension points										
Number of lines	1	1	2	2	2 symmetrical	2 symmetrical	2	3 and 4 symmetrical	3 and 4 symmetrical	3 and 4 asymmetrical
Angle of inclination/load direction	0°	90°	0°	90°	0-45°	45-60°	asymmetrical	0-45°	45-60°	asymmetrical
Order no	carried load in tonnes									
2131.25.012	0,63	0,63	1,26	1,26	0,88	0,63	0,63	1,32	0,95	0,63
2131.25.016	1,5	1,5	3,0	3,0	2,1	1,5	1,5	3,15	2,25	1,5
2131.25.020	2,5	2,5	5,0	5,0	3,5	2,5	2,5	5,25	3,75	2,5
2131.25.024	4,0	4,0	8,0	8,0	5,6	4,0	4,0	8,4	6,0	4,0
2131.25.030	6,5	5,0	13,0	10,0	7	5	5	10,5	7,5	5,0
2131.25.036	10,0	8,0	20,0	16,0	11,2	8,0	8,0	16,8	12,0	8,0

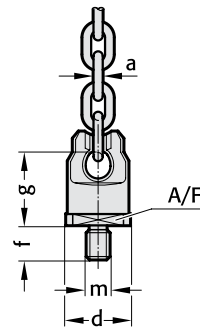
Universal Rotary Safety Eyebolts for Grade 10 chain

2131.26.



2131.26.

Supplied without chain.



Execution:

The first generation of lifting means with double ball bearing for smooth non-jerking action tipping, rotating and turning.

Also rotates 90° in direction of screwing in with full load.
Not suitable for extended rotational movement when fully loaded.

The special design avoids damage to lifting elements and the valuable load when turning. For ring hoists, slings, cables, hooks etc.

Note:

Universal Rotary Safety Eyebolts for chains: Use only Grade 10 chains.

2131.26. Universal Rotary Safety Eyebolts for Grade 10 chain

Order No	Rated load capacity in tonnes	a Chain connection	d	f	g	m	A/F
2131.26.012	0.63	4	40	18	41	M12	36
016	1.5	6	46	24	50	M16	41
020	2.5	8	61	30	61	M20	55
024	4.0	10	78	36	77	M24	70
030	5.0	13	95	45	93	M30	85
036	8.0	16	100	54	102	M36	90

Max. load "G" in tonnes for various types of attachment

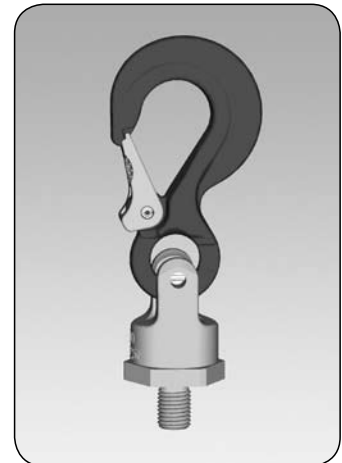
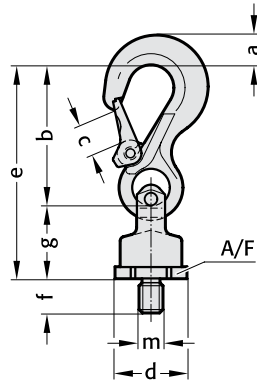
Type of attachment	1		2		2 symmetrical		3 and 4 symmetrical		3 and 4 asymmetrical	
Arrangement of the suspension points										
Number of lines	1	1	2	2	2	2	3	3	4	4
Angle of inclination/load direction	0°	90°	0°	90°	0-45°	45-60°	0-45°	45-60°	0-45°	45-60°
Order no	carried load in tonnes									
2131.26.012	0,63	0,63	1,26	1,26	0,88	0,63	0,63	1,32	0,95	0,63
2131.26.016	1,5	1,5	3,0	3,0	2,1	1,5	1,5	3,15	2,25	1,5
2131.26.020	2,5	2,5	5,0	5,0	3,5	2,5	2,5	5,25	3,75	2,5
2131.26.024	4,0	4,0	8,0	8,0	5,6	4,0	4,0	8,4	6,0	4,0
2131.26.030	6,5	5,0	13,0	10,0	7	5	5	10,5	7,5	5,0
2131.26.036	10,0	8,0	20,0	16,0	11,2	8,0	8,0	16,8	12,0	8,0

FIBRO

2131.23.

Universal Rotary Safety Eyebolts with Eye Hooks

2131.23.



Execution:

The first generation of lifting means with double ball bearing for smooth non-jerking action tipping, rotating and turning.

Also rotates 90° in direction of screwing in with full load.
Not suitable for extended rotational movement when fully loaded.

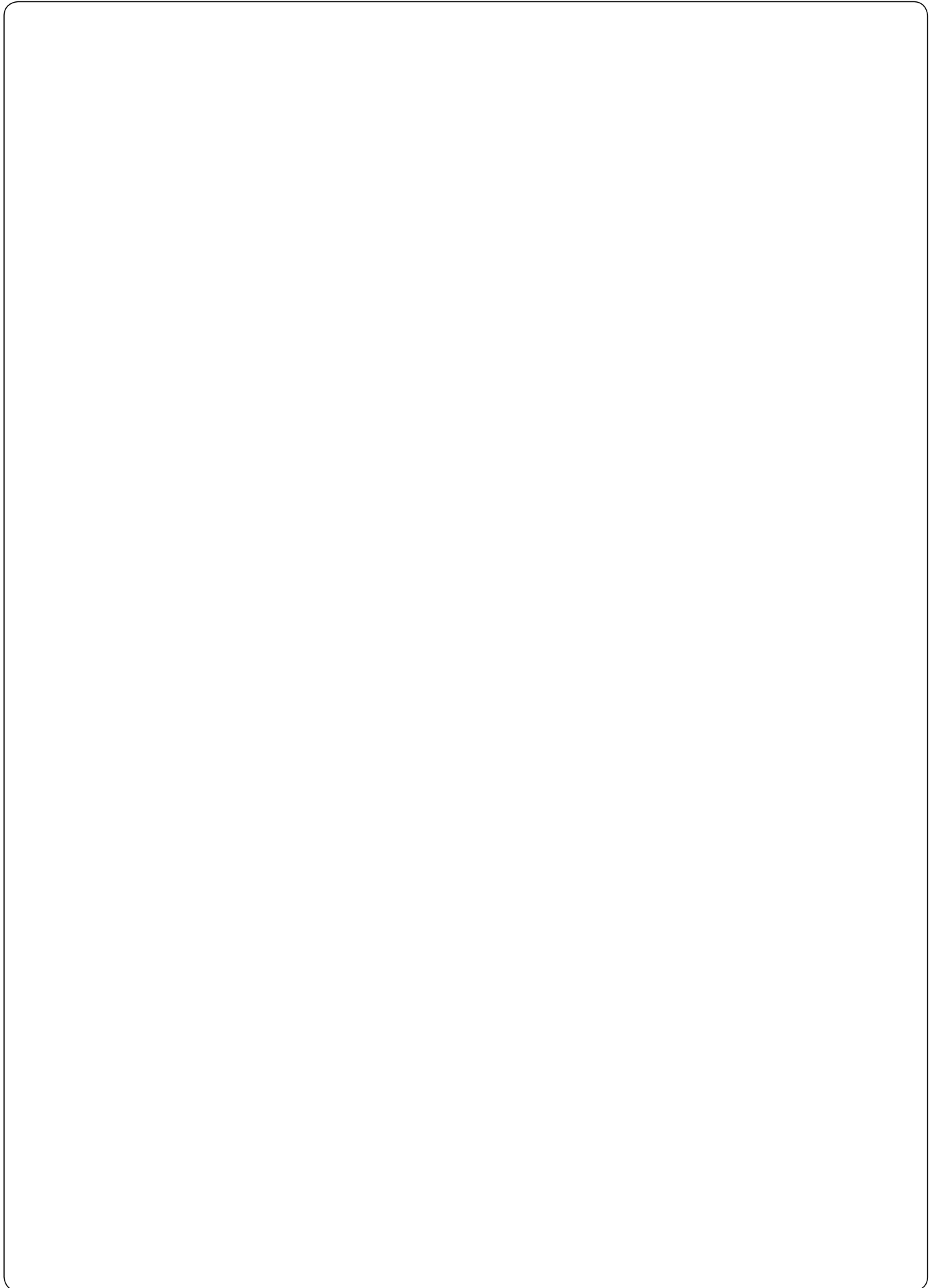
The special design avoids damage to lifting elements and the valuable load when turning. For ring hoists, slings, cables, hooks etc.

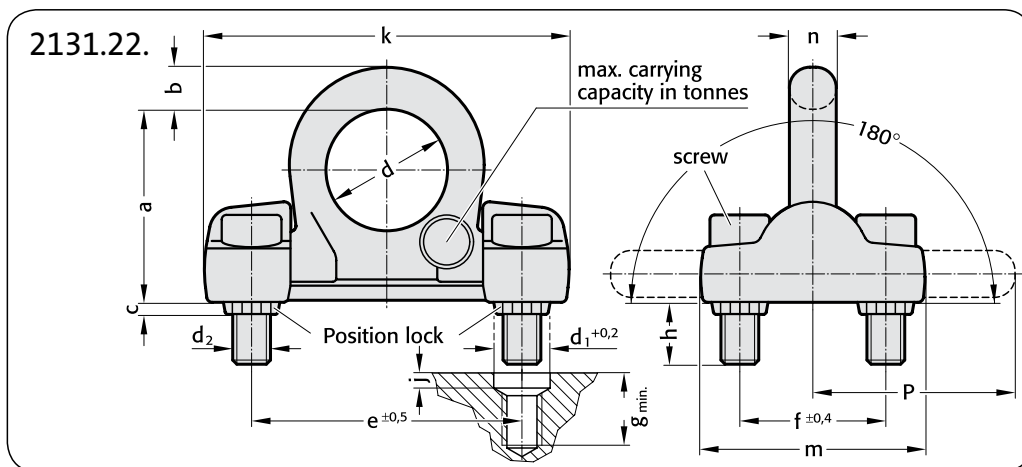
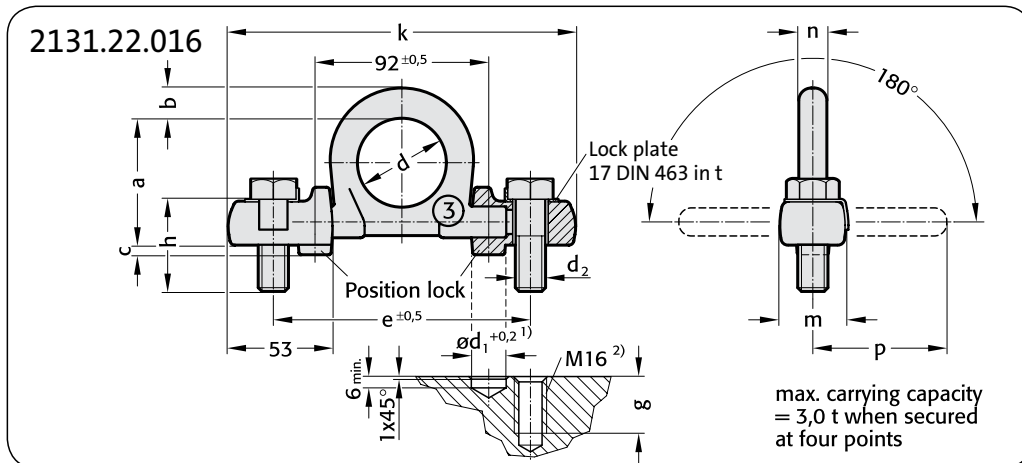
2131.23. Universal Rotary Safety Eyebolts with Eye Hooks

Order No	Rated load capacity in tonnes	a	b	c	d	e	f	g	m	A/F
2131.23.012	0.63	13	75	18	40	116	18	41	M12	36
016	1.5	20	97	25	46	147	24	50	M16	41
020	2.5	28	126	30	61	187	30	61	M20	55
024	4.0	36	150	35	78	227	36	77	M24	70
030	5.0	37	174	40	95	267	45	93	M30	85
036	8.0	49	208	48	100	310	54	102	M36	90

Max. load "G" in tonnes for various types of attachment

Type of attachment	1		2		2 symmetrical		2 asymmetrical		3 and 4 symmetrical		3 and 4 asymmetrical
Arrangement of the suspension points											
Number of lines	1	1	2	2	2 symmetrical	2 asymmetrical	2	3 and 4 symmetrical	3 and 4 symmetrical	3 and 4 asymmetrical	
Angle of inclination/load direction	0°	90°	0°	90°	0-45°	45-60°	asymmetrical	0-45°	45-60°	asymmetrical	
Order no	carried load in tonnes										
2131.23.012	0,63	0,63	1,26	1,26	0,88	0,63	0,63	1,32	0,95	0,63	
2131.23.016	1,5	1,5	3,0	3,0	2,1	1,5	1,5	3,15	2,25	1,5	
2131.23.020	2,5	2,5	5,0	5,0	3,5	2,5	2,5	5,25	3,75	2,5	
2131.23.024	4,0	4,0	8,0	8,0	5,6	4,0	4,0	8,4	6,0	4,0	
2131.23.030	6,5	5,0	13,0	10,0	7	5,0	5,0	10,5	7,5	5,0	
2131.23.036	10,0	8,0	20,0	16,0	11,2	8,0	8,0	16,8	12,0	8,0	





Description:

The position locks protect the fixing bolts against bending and shear stresses. The ring can be folded down, red.

Note:

- 1) Drill the holes for the position locks first.
- 2) Fix the ring block in the position lock and then tap the holes. Ensure that the bolting surface is flat. See also loading of eyebolts.

The threaded connection on the transported load must be suitable for transferring forces.

- Minimum thread depth:
- 1×d₂ in steel (min. St.37)
 - 1.25×d₂ in cast iron (min. GG25)
 - 2×d₂ in aluminium
 - 2.5×d₂ in aluminium-magnesium alloys

Fixing:

- Only use 100% crack tested bolts.
- Once bolts have been in use for some time, check that they are firmly seated.
- Minimum grade of screws see table: "Y".
- 2131.22.016: Only use hexagonal bolts to ISO 4014. Fit washers before tightening and securing bolts (tightening torque 160 ±20 Nm).
- 2131.22.020/030: Use only Rud marked hexagon socket head screws conforming to ISO 4762 .

2131.22. Ring Blocks

Order No	carrying capacity in t																	
		a	b	c	d	d ₁	d ₂	e	f	g	h	j	k	m	n	Y	p	
2131.22.016	3	67	16	5	48	18	M16	136	-	30	50	-	178	34	16	10.9	71	
020	8	103	22	6	65	30	M20	143	78	50	45	8	194	120	25	8.8	100	
030	16	131	30	8	90	46	M30	198	104	70	63	10	270	170	32	12.9	134	

Max. carried load "G" in tonnes for various types of attachment

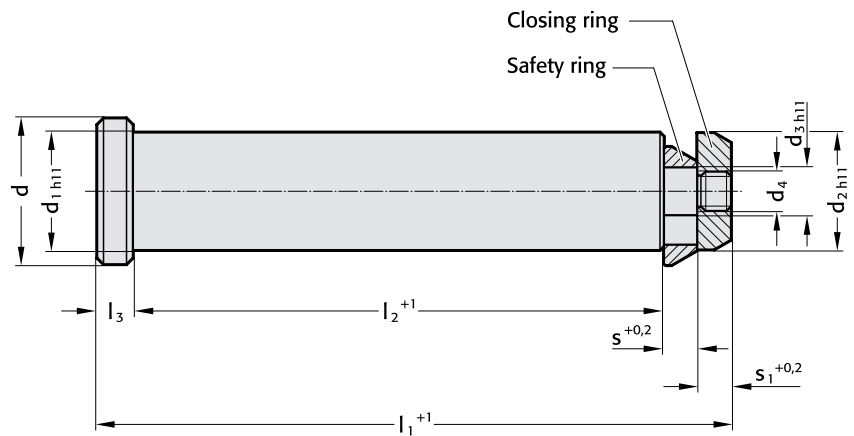
Type of attachment											
Arrangement of the suspension points											
Number of lines	1	1	2	2	2 symmetrical	2	3 and 4 symmetrical	3 and 4			
Angle of inclination/load direction	0°	90°	0°	90°	0-45°	45-60°	asymmetrical	0-45°	45-60°	asymmetrical	
Order No	Thread										
	carried load in tonnes										
2131.22.016	2 × M16	3	3	6	6	4,2	3	3	6,3	4,5	3
020	4 × M20	10	10	20	20	14	10	10	21	15	10
030	4 × M30	16	16	32	32	22,4	16	16	33,6	24	16

Die Lifting Bolts with Safety Ring to VDI 3366

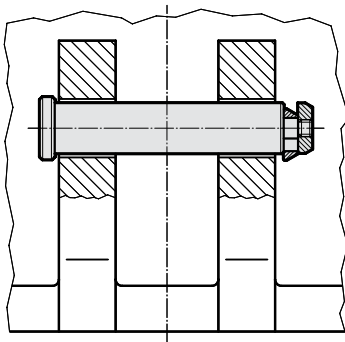
2132.10.



2132.10.



Installation example:



2132.10. Die Lifting Bolts with Safety Ring to VDI 3366

max. carrying capacity*
(2 die lifting bolts)

Order No	in kg	d	d ₁	d ₂	d ₃	d ₄	l ₁	l ₂	l ₃	s	s ₁
2132.10.032	6400	40	32	32	13	M10	175	145	10	10	10
2132.10.040	10000	50	40	40	16	M12	225	188	10	14	13
2132.10.050	16000	60	50	50	24	M20	273	230	11	16	16
2132.10.063	25000	75	63	63	30	M24	347	295	14	18	20
2132.10.076	63000	95	76	76	40	M36	422	360	15	20	27

*The maximum permissible load capacity is to be calculated such that two bolts on their own are capable of carrying or turning the tool.

Ordering Code (example):

Die Lifting Bolt with Safety Ring
to VDI 3366 = 2132.10.
d₁ = 32 mm = 032
Order No = 2132.10.032

Note:

It is important to ensure that there is safety clearance on both outer sides of the cast cheeks and that there is room for installation on one side.

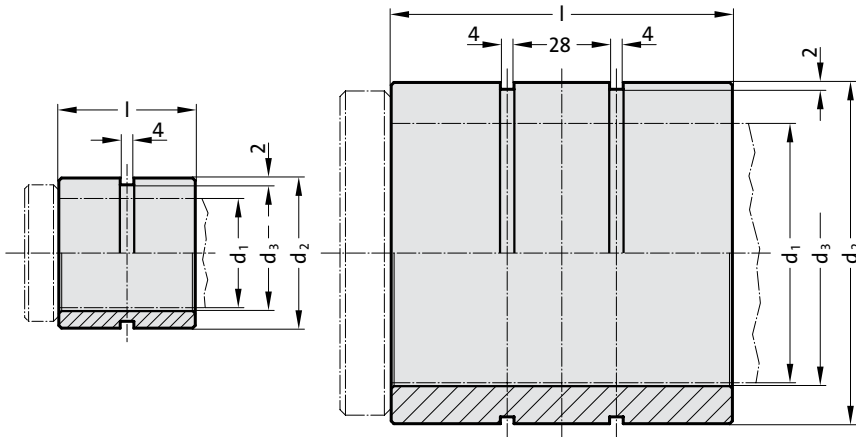
The Lifting bolt must always be introduced from the outside of the tool towards the middle.

FIBRO

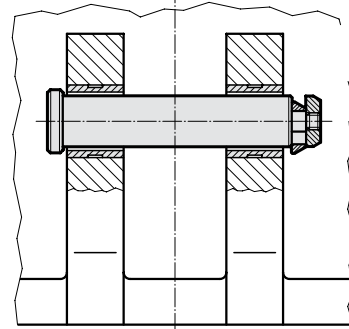
2132.10.03..1

Bushes for Lifting Bolts VDI

2132.10.03..1



Installation example:



Description:

Bush for casting-in for lifting bolts 2132.10.

Material:

Steel

2132.10.03..1 Bushes for Lifting Bolts VDI

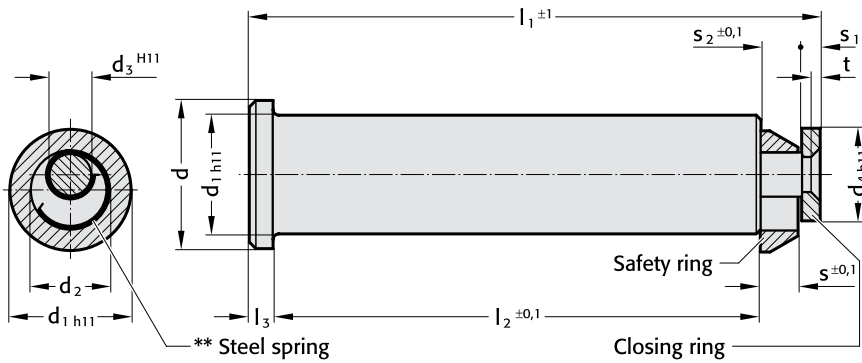
Order No	carrying capacity per lifting bolt in kg	d ₁	d ₂	d ₃	l	Number of grooves
2132.10.03.032.1.1	3200	32	44	34	40	1
2132.10.03.040.2.1	5000	40	52	42	50	1
2132.10.03.050.3.1	8000	50	62	52	60	1
2132.10.03.063.4.1	12000	63	75	65	80	1
2132.10.03.076.5.1	25000	76	100	78	100	2
2132.10.03.076.6.1	31500	76	105	78	100	2

Ordering Code (example):

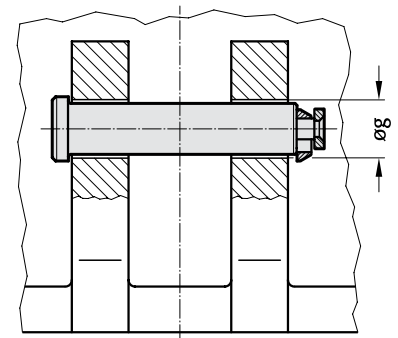
Bush for lifting bolt = 2132.10. 1
 to VDI Standard = 03.
 Nominal diameter d₁ = 50 mm = 050.
 Bush Size 3 = 3.
 Order No = 2132.10.03.050.3.1



2132.11.



Mounting Examples:



Note:

It is important to ensure that there is safety clearance on both outer sides of the cast cheeks and that there is room for installation on one side.

The lifter bolt must always be introduced from the outside of the tool towards the middle.

2132.11. Die Lifting Bolts with Safety Ring to CNOMO Standard

max. carrying capacity* (2 die lifting bolts)

Order No	in kg	d	d ₁	d ₂	d ₃	d ₄	l ₁	l ₂	l ₃	s	s ₁	s ₂	t
2132.11.032	6400	40	32	22	12	25	154	132	6	10	5	11	2.5
040	10000	50	40	28	16	32	197.75	170	8	12.5	6	13.75	3
050	16000	63	50	36	20	40	247.6	212	10	16	8	17.6	4
063	25000	80	63	45	25	50	309	265	12	20	10	22	5

* The maximum permissible load capacity is to be calculated such that two bolts on their own are capable of carrying or turning the tool.
 ** Steel spring included.

Ordering Code (example):

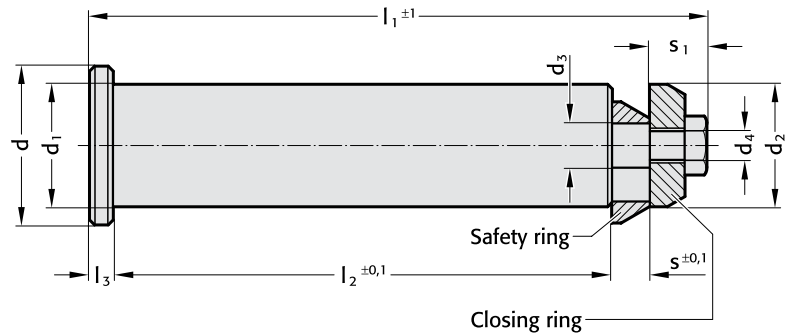
Die Lifting Bolts with Safety Ring to CNOMO-Norm = 2132.11.
 d₁ = 32 mm = 032
 Order No = 2132.11.032

Die Lifting Bolts with Safety Ring
for Lifting Flange 2133.12.

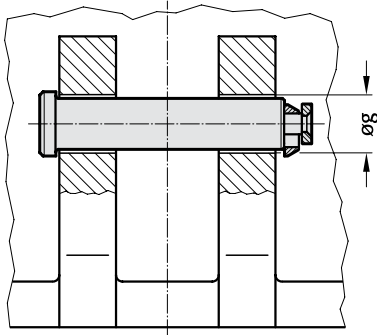
2133.12. .1



2133.12. .1



Mounting Examples:



2133.12. .1 Die Lifting Bolts with Safety Ring for Lifting Flange 2133.12.

Order No	max. carrying capacity* (2 die lifting bolts) in kg	g	d	d ₁	d ₂	d ₃	d ₄	l ₁	l ₂	l ₃	s	s ₁
2133.12.016.1	1200	16	25	15.6	15.6	6	M5	102.5	77	6	8	11.5
021.1	2000	21	30	20.6	20.6	7	M6	113.5	86	6	8	13.5
026.1	4000	26	35	25.6	25.6	9	M6	128.5	100	6	9	13.5
034.1	8000	34	43	33	33	12	M8	166.5	135	6	10	15.5
044.1	14000	44	53	43	43	16	M12	215.5	175	8	12	20.5

Note:

It is important to ensure that there is safety clearance on both outer sides of the cast cheeks and that there is room for installation on one side.

The lifter bolt must always be introduced from the outside of the tool towards the middle.

* The maximum permissible load capacity d₁ is to be calculated such that two bolts on their own are capable of carrying or turning the tool

Ordering Code (example):

Die Lifting Bolts with Safety Ring
for Lifting Flange 2133.12. = 2133.12. .1
g = 16 mm = 016
Order No = 2133.12.016.1

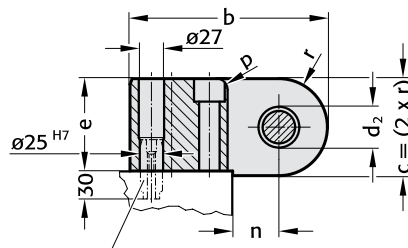
FIBRO

2133.11.
2133.11.025.065

Lifting Flanges with Bolt, with Safety Ring, to BMW Centering Pins

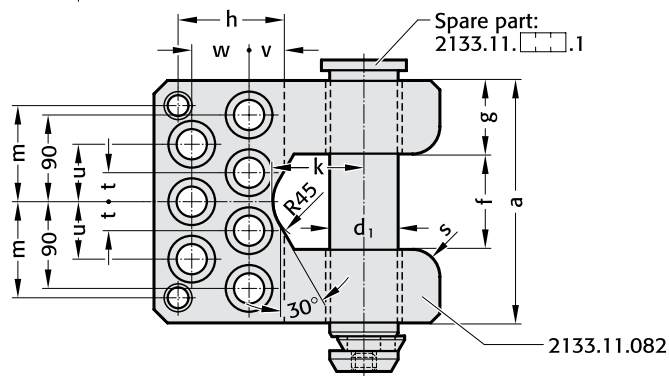
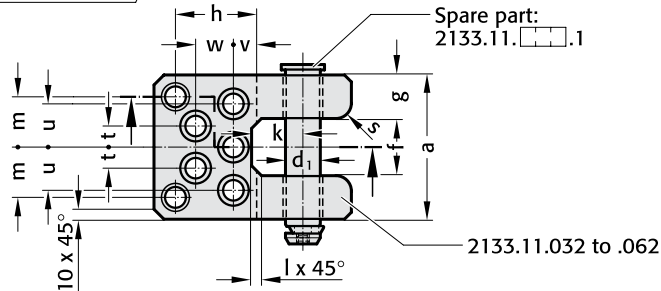
2133.11.

Application:
for base plate
and top plate



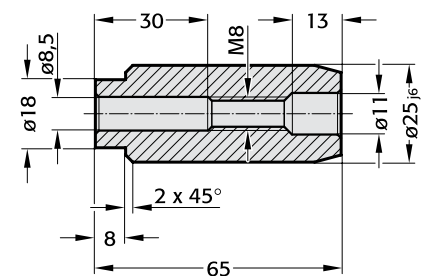
order separately:

Centering pin
2133.11.025.065



2133.11.025.065

Centering Pin, order separately



Screw not included, use socket head cap screws M6x60 DIN EN ISO 4762.

2133.11. Lifting Flanges with Bolt, with Safety Ring, to BMW

Order No	max. carrying capacity* (2 lifting flanges) in kg	d ₁	d ₂	a	b	c	e	f	g	h	k	l	m	n	p	s	t	u	v	w	Socket head cap screw
																					DIN EN ISO 4762
2133.11.032	6400	30	32	126	185	80	75	50	38	85	50	10	45	40	12	16	20	40	30	35	M16x90
042	9000	40	42	150	210	100	95	60	45	87	55	10	52	50	12	20	22.5	45	25	40	M20x120
052	16000	50	52	175	240	120	115	75	50	95	70	15	62.5	60	16	24	25	50	35	45	M24x140
062	20000	60	62	200	280	140	130	80	60	120	80	15	75	65	20	30	30	60	45	60	M30x160
082	36000	80	82	250	300	160	150	100	75	105	95	0	100	90	20	30	30	60	30	60	M30x180

*The maximum permissible load capacity is to be calculated such that two lifting flanges one their own are capable of carrying or turning the tool.

Ordering Code (example)

Lifting Flange with Bolt, with Safety Ring, to BMW = 2133.11.

d₂ = 32 mm = 032

Order no = 2133.11.032

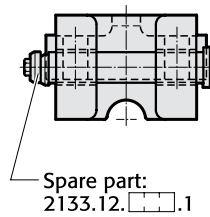
Lifting Flanges with Bolt,
with Safety Ring

2133.12.

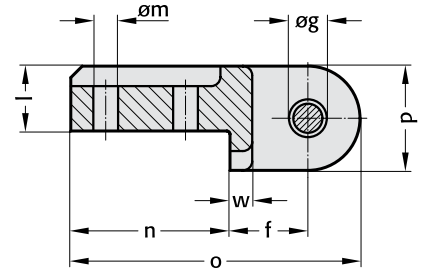


2133.12.

Shape A



Spare part:
2133.12.□.1

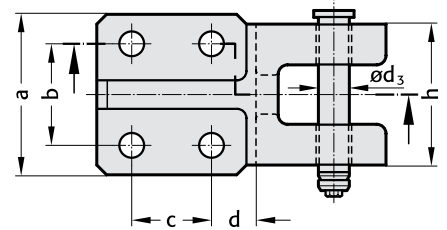


Ordering Code
(example):

Lifting Flange with Bolt,
with Safety Ring
Shape A = 2133.12.

g = 21 mm = 021

Order no = 2133.12.021



2133.12. Lifting Flanges with Bolt, with Safety Ring

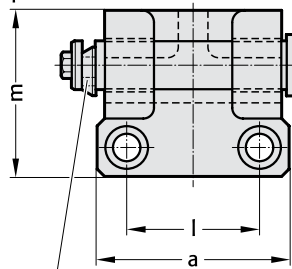
Order No	Shape	max. carrying capacity* (2 lifting flanges) in kg	g													
			a	b	c	d	f	H13	h	l	m	n	o	p	w	d ₃
2133.12.016	A	1200	80	50	40	22.5	39	16	70	32	12.5	80	145	52	11	15.6
021	A	2000	90	60	40	27.5	42	21	79	36	16.5	90	160	56	13	20.6
026	A	4000	100	65	65	32.5	60	26	90	50	21	120	215	70	20	25.6

* The maximum permissible load capacity is to be calculated such that two lifting flanges on their own are capable of carrying or turning the tool.

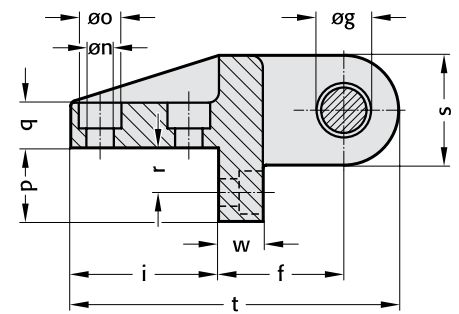


2133.12.

Shape B



Spare part:
2133.12.□.1

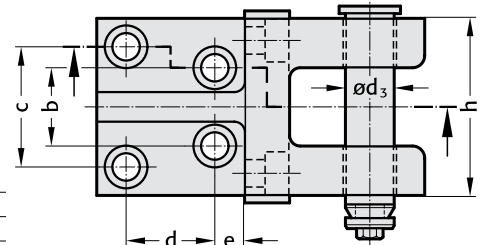


Ordering Code (example):

Lifting Flange with Bolt, with Safety
Ring, Shape B = 2133.12.

g = 34 mm = 034

Order no = 2133.12.034



2133.12. Lifting Flanges with Bolt, with Safety Ring

Order no	Shape	max. carrying capacity* (2 lifting flanges) in kg	g																			
			a	b	c	d	e	f	H13	h	i	l	m	n	o	p	q	r	s	t	w	d ₃
2133.12.034	B	8000	135	56	84	60	20	85	34	125	100	96	111	18	28	50	30	30	72	221	30	33
2133.12.044	B	14000	180	80	110	70	30	100	44	160	125	130	140	22	36	60	40	35	90	270	40	43

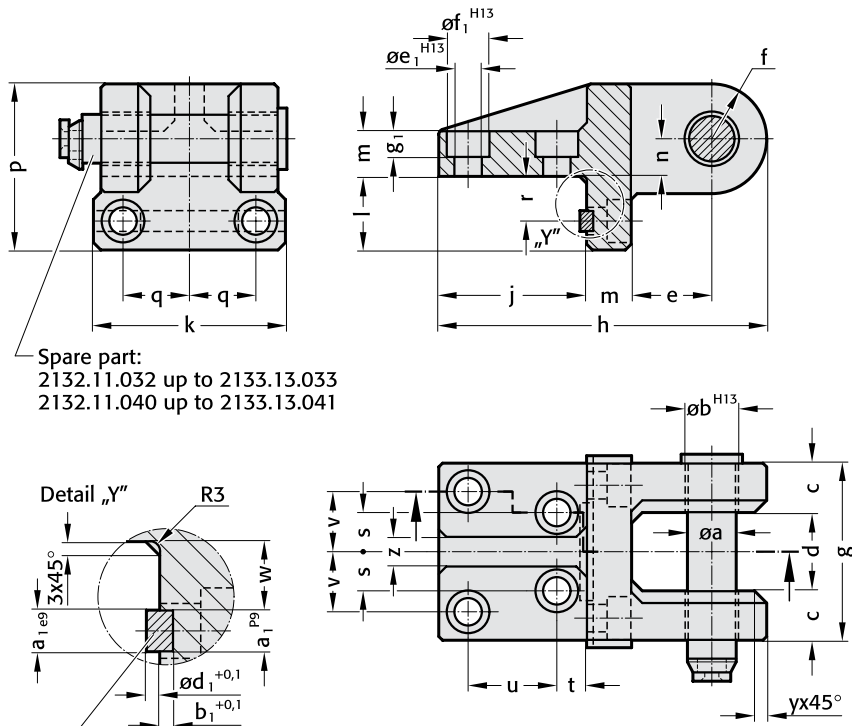
* The maximum permissible load capacity is to be calculated such that two lifting flanges on their own are capable of carrying or turning the tool.

FIBRO

2133.13.

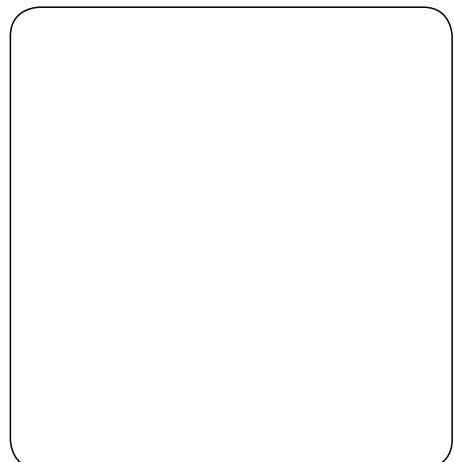
Lifting Flanges with Bolt,
with Feather Key to CNOMO

2133.13.



Spare part:
2132.11.032 up to 2133.13.033
2132.11.040 up to 2133.13.041

Feather key 14x 9x 63 to DIN 6885 up to 2133.13.033
Feather key 16x10x100 to DIN 6885 up to 2133.13.041



2133.13. Lifting Flanges with Bolt, with Feather Key to CNOMO

max. carrying
capacity*
(2 lifting flanges)

Order No	in kg	a	b	c	d	e	f	g	h	j	k	l	m	n	p	q	r	s	t	u	v	w	y	z	a ₁	b ₁	d ₁	e ₁	f ₁	g ₁
2133.13.033	8000	32	33	35	55	55	36	125	221	100	135	50	30	25	111	48	30	28	20	60	42	24	10	20	14	4.5	4.5	18	28	17
2133.13.041	12600	40	41	50	60	60	45	160	270	125	180	60	40	35	140	65	35	40	30	70	55	27	12.5	25	16	5	5	22	36	21

* The maximum permissible load capacity is to be calculated such that two lifting flanges on their own are capable of carrying or turning the tool.

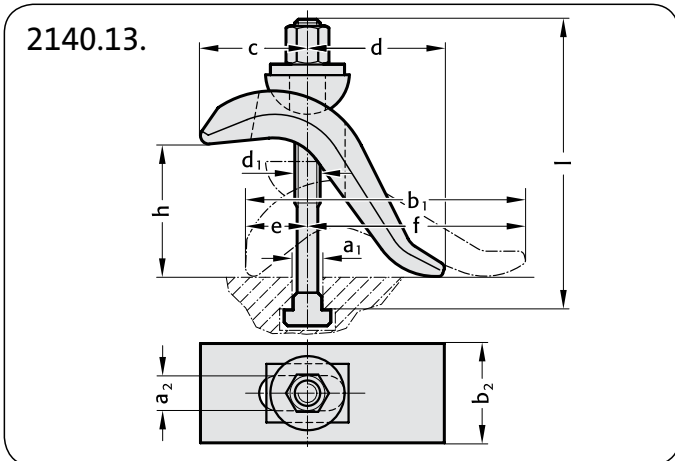
Ordering Code (example)

Lifting Flange with Bolt,
with Feather Key to CNOMO = 2133.13.
Øb = 33 mm = 033
Order No. = 2133.13.033

FIBRO

2140.13.
2140.14.

Clamping Claws, infinitely variable



2140.13. Clamping Claws, infinitely variable

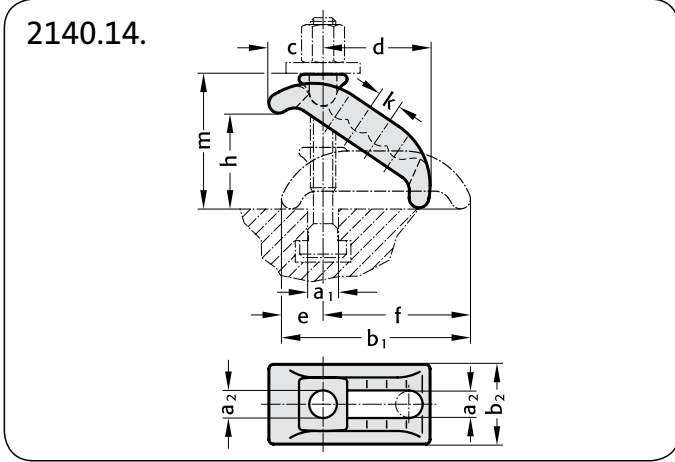
a ₁	a ₂	b ₁	b ₂	c	d	e	f	Clamping height h	Clamping bolt d ₁ x a ₁ x l
12	17	140	50	55	60	30	110	0 - 50	M12x12x125
14	17	140	50	55	60	30	110	0 - 50	M12x14x125
16	17	140	50	55	60	30	110	0 - 75	M16x16x160
18	17	140	50	55	60	30	110	0 - 75	M16x18x160
16	21	175	60	70	80	40	135	0 - 65	M16x16x160
18	21	175	60	70	80	40	135	0 - 65	M16x18x160
22	21	175	60	70	80	40	135	0 - 85	M20x22x200

Material:
Steel, forged and head-treated tempered in burnishing clay.

Note:
Clamping claws quickly span very different clamping heights without the need for additional supports and take up very little space on the machine table. They are designed for maximum loads and are particularly suitable for clamping cutting and punching tools.

Supplied with clamping bolts, see page C39 for suitable clamping bolts.

Ordering Code (example):
 Clamp, infinitely variable = 2140.13.
 a₁ = 12 mm = 12.
 a₂ = 17 mm = 17
 Order No = 2140.13.12.17



2140.14. Clamping Claws, infinitely variable

a ₁	a ₂	b ₁	b ₂	c	d	e	f	k	m	h _{max}
12 o. 14	13	88	38	28	48	23	68	14	52	35
16 o. 18	18	130	56	38	74	29	101	18	80	55
20 o. 22	22	140	66	46	80	32	112	20	98	65
24 o. 28	26	174	76	52	100	39	135	24	110	75
36	32	200	90	61	110	44	156	28	118	80

Material:
Forged and heat-treated steel, galvanised and yellow passivated.

Note:
Clamping claws quickly span very different clamping heights without the need for additional supports and take up very little space on the machine table. They are designed for maximum loads and are particularly suitable for clamping cutting and punching tools.

Supplied without clamping bolts – see page C39 for suitable clamping bolts.

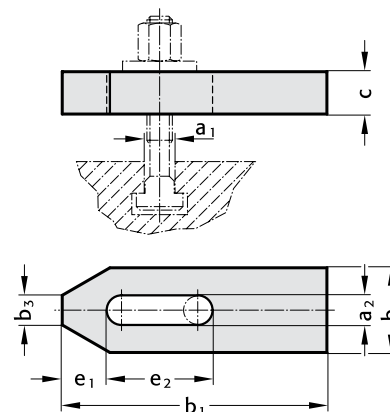
Ordering Code (example):
 Clamp, infinitely variable = 2140.14.
 a₂ = 18 mm = 18
 Order No = 2140.14.18

Clamps, DIN 6314
Clamps, straight, with setscrew

2140.16.
2140.10.



2140.16.



Material:

Heat-treated steel, painted.

Note:

Holding and contact surfaces are plane-parallel.
High clamping forces can be achieved by using high-strength bolts conforming to DIN 787. The dimensions of the holding strap should be matched to the strength of the bolts.

Supplied without clamping bolts – see page C39 for suitable clamping bolts.

Ordering Code (example):

Clamp DIN 6314	=	2140.16.
a ₂ = 11 mm	=	11.
b ₁ = 80 mm	=	080
Order No	=	2140.16.11.080

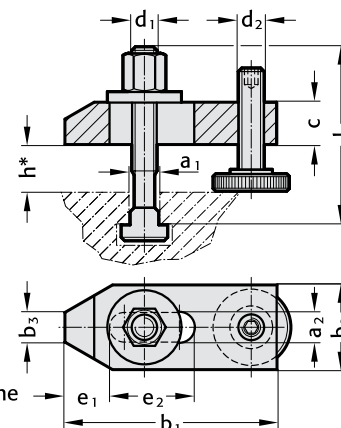
2140.16. Clamps DIN 6314

a ₁	a ₂	b ₁	b ₂	b ₃	c	e ₁	e ₂
8	9	60	25	10	12	13	22
10	11	80	30	12	15	15	30
12 o. 14	14	100	40	14	20	21	40
12 o. 14	14	125	40	14	20	21	50
16 o. 18	18	125	50	18	25	26	45
16 o. 18	18	160	50	18	25	26	65
20 o. 22	22	160	60	22	30	30	60
20 o. 22	22	200	60	22	30	30	80
24	26	200	70	26	30	35	80
24	26	250	70	26	35*	35	105

* does not conform to DIN



2140.10.



* depends on the groove depth

Material:

Heat-treated steel, painted.

Note:

Supplied with clamping bolts and setscrews for T grooves conforming to DIN 787 8.8 with nuts and washers.

Ordering Code (example):

Clamp, straight, with setscrew	=	2140.10.
a ₁ = 12 mm	=	12
Order No	=	2140.10.12

2140.10. Clamps, straight

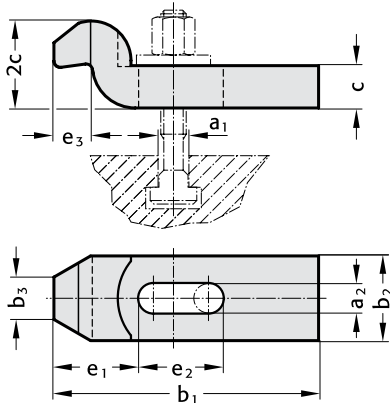
a ₁	a ₂	b ₁	b ₂	b ₃	c	d ₁	d ₂	e ₁	e ₂	h	Clamping bolt d ₁ x a ₁ x l
10	11	80	30	12	15	M10	M10	15	30	8 - 32	M10x10x80
12	14	100	40	14	20	M12	M12	21	40	10 - 40	M12x12x100
14	14	100	40	14	20	M12	M12	21	40	10 - 38	M12x14x100
16	18	125	50	18	25	M16	M16	26	45	13 - 49	M16x16x125
18	18	125	50	18	25	M16	M16	26	45	13 - 46	M16x18x125
20	22	160	60	22	30	M20	M20	30	60	16 - 65	M20x20x160
22	22	160	60	22	30	M20	M20	30	60	16 - 65	M20x22x160

FIBRO

2140.18.
2140.11.

Clamps, goose neck shape DIN 6316
Clamps, goose neck shape with setscrew

2140.18.



2140.18. Clamps, goose neck shape DIN 6316

a ₁	a ₂	b ₁	b ₂	b ₃	c	e ₁	e ₂	e ₃
8	9	80	25	12	12	25	25	9
10	11	100	30	15	15	32	32	12
12 o. 14	14	125	40	20	20	40	40	16
16 o. 18	18	125	50	25	25	49	40	20
16 o. 18	18	160	50	25	25	49	50	20
20 o. 22	22	160	60	30	30	55	55	24
20 o. 22	22	200	60	30	30	55	70	24
24	26	200	70	35	30	72	60	28
24	26	250	70	35	35*	72	80	28

* does not conform to DIN

Material:

Heat-treated steel, painted.

Note:

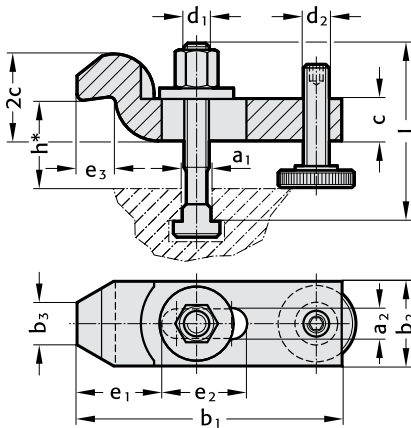
Holding and contact surfaces are plane-parallel.
High clamping forces can be achieved by using high-strength bolts conforming to DIN 787.
The dimensions of the holding strap should be matched to the strength of the bolts.

Supplied without clamping bolts – see page C39 for suitable clamping bolts.

Ordering Code (example):

Clamp, goose neck shape DIN 6316	=	2140.18.
a ₂ = 14 mm	=	14.
b ₁ = 125 mm	=	125
Order No	=	2140.18.14.125

2140.11.



* depends on the groove depth



2140.11. Clamps, goose neck shape

a ₁	a ₂	b ₁	b ₂	b ₃	c	d ₁	d ₂	e ₁	e ₂	e ₃	h	Clamping bolt d ₁ x a ₁ x l
10	11	100	30	15	15	M10	M10	32	32	12	22-46	M10x10x80
12	14	125	40	20	20	M12	M12	40	40	16	28-58	M12x12x100
14	14	125	40	20	20	M12	M12	40	40	16	28-56	M12x14x100
16	18	160	50	25	25	M16	M16	49	50	20	36-72	M16x16x125
18	18	160	50	25	25	M16	M16	49	50	20	36-69	M16x18x125
20	22	200	60	30	30	M20	M20	55	70	24	43-92	M20x20x160
22	22	200	60	30	30	M20	M20	55	70	24	43-92	M20x22x160

Material:

Heat-treated steel, painted.

Note:

Supplied with clamping bolts and setscrews for T grooves conforming to DIN 787 8.8 with nuts and washers.

Ordering Code (example):

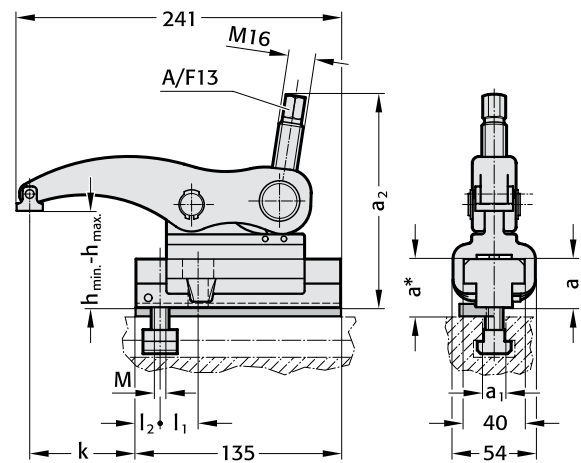
Clamp, goose neck shape, with setscrew	=	2140.11.
a ₁ = 14 mm	=	14
Order No	=	2140.11.14

**Power Clamps, sliding .
Power Clamp Accessories**

**2140.21.
2140.21.00.**



2140.21.



Description:

Power Clamp, sliding. Robust clamp for variable sizes and with sliding base.

Material:

High tensile steel, forged

Note:

- Clamping force 25 kN - tightening torque 100 Nm
- Included, for 0 – 69 mm clamping height:
 - Clamp jaw 2140.21.00.01
 - Sliding block DIN 508 with machine screw, property class 12.9

Benefits:

- Clamping force up to 25 kN
- double articulation means less wear
- designed to deflect swarf
- used in T grooves 14 - 28 mm and Grid pallets M12 und M16
- 4 jaw versions
- variable jaw capacity 0 - 69 mm

2140.21.

Order No	M	a ₁	h _{min.} –h _{max.}	a	a ₂	k	l ₁	l ₂
2140.21.14.063	12	14	0 – 63	32	135	32 – 97	16	25
2140.21.16.063	12	16						
2140.21.18.069	16	18	3 – 69*	38*	141		20	30
2140.21.20.069	16	20						
2140.21.22.069	16	22						
2140.21.24.069	16	24						
2140.21.28.069	16	28						

* for width a₁ from 18 mm on including a foot for safe bridging when used along the groove

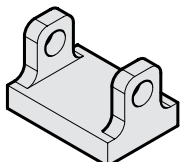
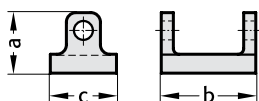
Ordering Code (example):

Power clamp, sliding	=	2140.21.
a ₁ = 16 mm	=	16.
h _{max.} = 69 mm	=	069
Order No	=	2140.21.16.069

2140.21.00.01

Clamp jaw, smooth complete with clamping pin ISO 8740 - 4 x 24 stainless steel, Clamping force up to 25 kN

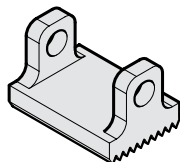
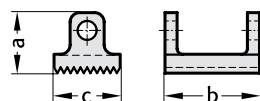
Dimensions: a = 16 mm
b = 25 mm
c = 17,5 mm



2140.21.00.02

Clamp jaw, grooved complete with clamping pin ISO 8740 - 4 x 24 stainless steel, Clamping force up to 25 kN

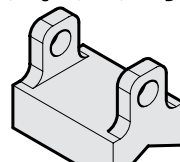
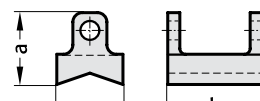
Dimensions: a = 16 mm
b = 25 mm
c = 17,5 mm



2140.21.00.03

Clamp jaw, V-block, longitudinal Clamping jaw for cylindrical workpieces, complete with clamping pin ISO 8740 - 4 x 24 stainless steel, Clamping force up to 25 kN

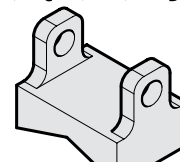
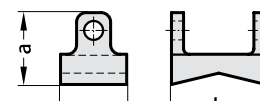
Dimensions: a = 19 mm
b = 25 mm
c = 17,5 mm



2140.21.00.04

Clamp jaw, V-block, transverse Clamping jaw for cylindrical workpieces, complete with clamping pin ISO 8740 - 4 x 24 stainless steel, Clamping force up to 25 kN

Dimensions: a = 19 mm
b = 25 mm
c = 17,5 mm

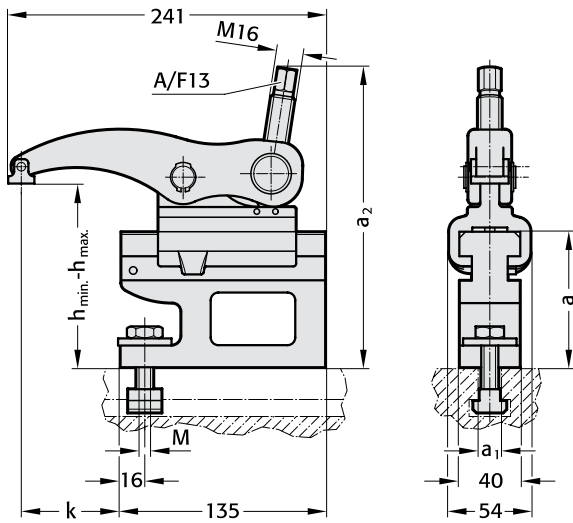


FIBRO

2140.21.
2140.21.00.

Power Clamps, sliding Power Clamp Accessories

2140.21.



2140.21.

Order No	M	a ₁	h _{min.} - h _{max.}	a	a ₂	k
2140.21.14.120	12	14	60 – 120	90	193	32-97
2140.21.16.120	12	16				
2140.21.18.120	16	18				
2140.21.20.120	16	20				
2140.21.22.120	16	22				
2140.21.24.120	16	24				
2140.21.28.120	16	28				
2140.21.14.180	12	14	120 – 180	150	253	
2140.21.16.180	12	16				
2140.21.18.180	16	18				
2140.21.20.180	16	20				
2140.21.22.180	16	22				
2140.21.24.180	16	24				
2140.21.28.180	16	28				

Ordering Code (example):

Power clamp, sliding	=	2140.21.
a ₁ = 16 mm	=	16.
h _{max.} = 120 mm	=	120
Order No	=	2140.21.16.120

Description:

Power Clamp, sliding. Robust clamp for variable sizes and with sliding base.

Material:

High tensile steel, forged

Note:

Clamping force 25 kN - tightening torque 100 Nm

Included, for 60 - 180 mm clamping height:

- Clamp jaw 2140.21.00.01
- Sliding block DIN 508 with machine screw DIN 933 and washer DIN 6340, property class 12.9

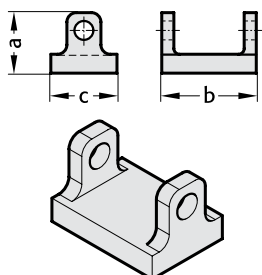
Benefits:

- Clamping force up to 25 kN
- double articulation means less wear
- designed to deflect swarf
- used in T grooves 14 - 28 mm and Grid pallets M12 und M16
- 4 jaw versions
- variable jaw capacity 60 – 180 mm

2140.21.00.01

Clamp jaw, smooth complete with clamping pin ISO 8740 - 4 x 24 stainless steel, Clamping force up to 25 kN

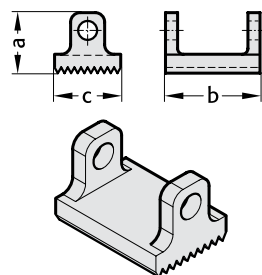
Dimensions: a = 16 mm
b = 25 mm
c = 17,5 mm



2140.21.00.02

Clamp jaw, grooved complete with clamping pin ISO 8740 - 4 x 24 stainless steel, Clamping force up to 25 kN

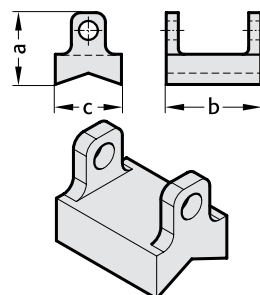
Dimensions: a = 16 mm
b = 25 mm
c = 17,5 mm



2140.21.00.03

Clamp jaw, V-block, longitudinal Clamping jaw for cylindrical workpieces, complete with clamping pin ISO 8740 - 4 x 24 stainless steel, Clamping force up to 25 kN

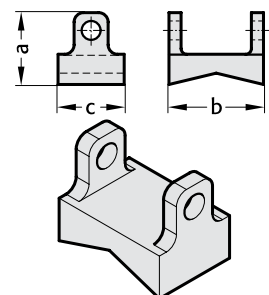
Dimensions: a = 19 mm
b = 25 mm
c = 17,5 mm



2140.21.00.04

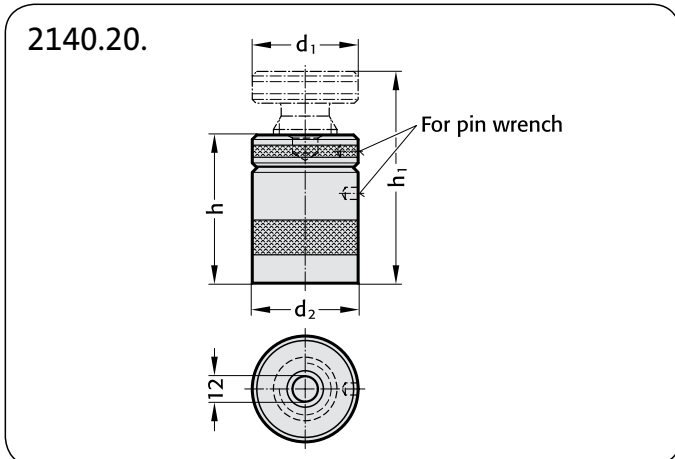
Clamp jaw, V-block, transverse Clamping jaw for cylindrical workpieces, complete with clamping pin ISO 8740 - 4 x 24 stainless steel, Clamping force up to 25 kN

Dimensions: a = 19 mm
b = 25 mm
c = 17,5 mm



**Supports, adjustable
Stepped Blocks, DIN 6318/DIN 6318 B**

**2140.20.
2140.19.**



Material:
Heat-treated steel, painted.

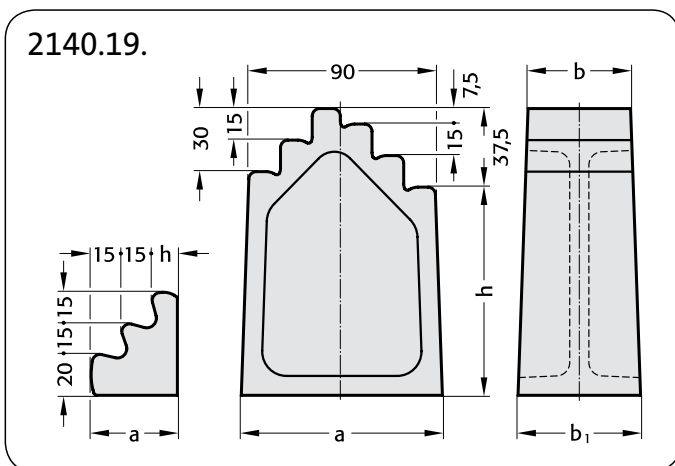
Note:
Centring hole diameter 12 mm.
Spindle with self-locking trapezoidal thread and end lock.

Ordering Code (example):

Support, adjustable, with flat contact surface	=	2140.20.
h = 42 mm	=	042
Order No	=	2140.20.042

2140.20. Supports, adjustable

h	h ₁	d ₁	d ₂	F _{max} in daN
42	52	50	50	6000
50	70	50	50	6000
70	100	50	50	6000
100	140	65	70	10000
140	210	70	80	17000
190	300	80	100	35000



Material:
Engineering cast iron, painted.

Note:
Holding and contact surfaces are plane-parallel. High clamping forces can be achieved by using high-strength bolts conforming to DIN 787. The dimensions of the holding strap should be matched to the strength of the bolts.

Ordering Code (example):

Stepped Block, DIN 6318	=	2140.19.
Size 95	=	095.
b = 50 mm	=	050
Order No	=	2140.19.095.050

2140.19. Stepped Blocks DIN 6318/DIN 6318 B

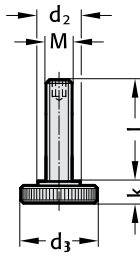
Size h + 37,5	a	b	b ₁	h
50	42,5	50	50	12,5
95	95	50	55	57,5
140	100	50	60	102,5
185	105	50	65	147,5
230	110	50	70	192,5
275	115	50	75	237,5
50	42,5	80	80	12,5
95	95	80	85	57,5
140	100	80	90	102,5

FIBRO

2140.02.
2140.32.

Setscrews Hexagon Nuts, DIN 6330 B

2140.02.



2140.02. Setscrews

M	d ₂	d ₃	k	l
M10	16	30	8	39
M12	20	36	10	48
M16	25	42	13	55
M20	25	50	16	69
M24	34	60	20	87

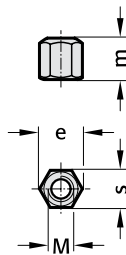
Material:

Heat-treated
Strength class 8.8

Ordering Code (example):

Setscrew = 2140.02.
M16 = 16
Order No = 2140.02.16

2140.32.



2140.32. Hexagon Nuts, DIN 6330 B

M	e	m	s = A/F
M8	15	12	13
M10	18.4	15	16
M12	20.7	18	18
M14	24.2	21	21
M16	27.7	24	24
M18	31.2	27	27
M20	34.6	30	30
M22	39.2	33	34
M24	41.5	36	36
M30	53.1	45	46

Material:

Heat-treated
Strength class 10.9

Note:

Use washers conforming to DIN 6340.

Ordering Code (example):

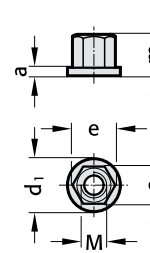
Hexagon Nut, DIN 6330 B = 2140.32.
M20 = 20
Order No = 2140.32.20

**Hexagon Collar Nuts, DIN 6331
Washers, DIN 6340**

**2140.33.
2140.34.**



2140.33.



Material:

Turned and milled
Heat-treated
Strength class 10.9
Thread length 1,5xM

2140.33. Hexagon Collar Nuts, DIN 6331

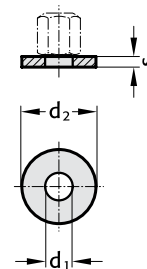
M	a	d ₁	e	m	s
M8	3.5	18	15	12	13
M10	4	22	18.4	15	16
M12	4	25	20.7	18	18
M14	4.5	28	24.2	21	21
M16	5	31	27.7	24	24
M18	5	34	31.2	27	27
M20	6	37	34.6	30	30
M22	6	40	39.2	33	34
M24	6	45	41.5	36	36
M30	6	58	53.1	45	46

Ordering Code (example):

Hexagon Collar Nut, DIN 6331 = 2140.33.
M12 = 12
Order No = 2140.33.12



2140.34.



Material:

Heat-treated
Strength 1200–1400 N/mm²

2140.34. Washers, DIN 6340

M	d ₁	d ₂	s
M8	8.4	23	4
M10	10.5	28	4
M12	13	35	5
M14	15	40	5
M16	17	45	6
M18	19	45	6
M20	21	50	6
M22	23	50	8
M24	25	60	8
M30	31	68	10

Ordering Code (example):

Washer, DIN 6340 = 2140.34.
M10 = 10
Order No = 2140.34.10

FIBRO

2140.30.

T-Head Bolts, DIN 787

2140.30. T-Head Bolts, DIN 787

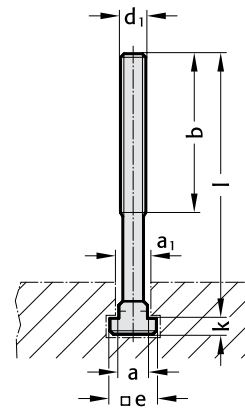
a ₁	a	b	d ₁	e	k	l
8	7.7	22	M8	13	6	32
8	7.7	35	M8	13	6	50
8	7.7	50	M8	13	6	80
10	9.7	30	M10	15	6	40
10	9.7	45	M10	15	6	63
10	9.7	60	M10	15	6	100
12	11.7	35	M12	18	7	50
12	11.7	40	M12	18	7	63
12	11.7	55	M12	18	7	80
12	11.7	75	M12	18	7	125
12	11.7	120	M12	18	7	200
14	13.7	35	M12	22	8	50
14	13.7	45	M12	22	8	63
14	13.7	55	M12	22	8	80
14	13.7	75	M12	22	8	125
14	13.7	120	M12	22	8	200
16	15.7	45	M14	25	9	63
16	15.7	65	M14	25	9	100
16	15.7	125	M14	25	9	160
16	15.7	150	M14	25	9	250
16	15.7	45	M16	25	9	63
16	15.7	55	M16	25	9	80
16	15.7	65	M16	25	9	100
16	15.7	100	M16	25	9	160
16	15.7	125	M16	25	9	200
16	15.7	150	M16	25	9	250
18	17.7	45	M16	28	10	63
18	17.7	55	M16	28	10	80
18	17.7	65	M16	28	10	100
18	17.7	100	M16	28	10	160
18	17.7	125	M16	28	10	200
18	17.7	150	M16	28	10	250
20	19.7	55	M20	32	12	80
20	19.7	65	M20	32	12	100
20	19.7	85	M20	32	12	125
20	19.7	110	M20	32	12	160
20	19.7	125	M20	32	12	200
20	19.7	150	M20	32	12	250
20	19.7	190	M20	32	12	315
22	21.7	55	M20	35	14	80
22	21.7	65	M20	35	14	100
22	21.7	85	M20	35	14	125
22	21.7	110	M20	35	14	160
22	21.7	125	M20	35	14	200
22	21.7	150	M20	35	14	250
22	21.7	190	M20	35	14	315
24	23.7	70	M24	40	16	100
24	23.7	85	M24	40	16	125
24	23.7	110	M24	40	16	160
24	23.7	125	M24	40	16	200
24	23.7	150	M24	40	16	250
24	23.7	190	M24	40	16	315
24	23.7	240	M24	40	16	400
28	27.7	70	M24	44	18	100
28	27.7	85	M24	44	18	125
28	27.7	110	M24	44	18	160
28	27.7	125	M24	44	18	200
28	27.7	150	M24	44	18	250
28	27.7	190	M24	44	18	315
28	27.7	240	M24	44	18	400
36	35.6	80	M30	54	22	125
36	35.6	110	M30	54	22	160
36	35.6	135	M30	54	22	200
36	35.6	150	M30	54	22	250
36	35.6	200	M30	54	22	315
36	35.6	300	M30	54	22	500

Ordering Code (example):

T-Head Bolt, DIN 787	=	2140.30.
d ₁ = M14	=	14.
a ₁ = 16 mm	=	16.
l = 160 mm	=	160
Order No	=	2140.30.14.16.160



2140.30.



Material:

Forged, T-slot milled,
rolled thread

M 8 – M12 heat-treated to strength class 10.9

M14 – M30 heat-treated to strength class 8.8

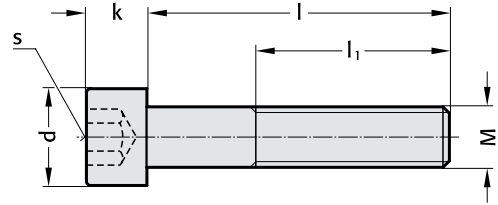
Hexagon Socket Head Cap Screws,
DIN EN ISO 4762
Strength class 8.8

FIBRO

2192.10.



2192.10.



2192.10. Cap Screws, DIN EN ISO 4762

Strength class 8.8

M	l	l ₁	d	k	s	M	l	l ₁	d	k	s
4	12	10	7	4	3	16	40	34	24	16	14
4	16	14	7	4	3	16	45	39	24	16	14
4	20	18	7	4	3	16	50	44	24	16	14
4	25	23	7	4	3	16	55	49	24	16	14
5	20	18	8.5	5	4	16	60	54	24	16	14
5	25	23	8.5	5	4	16	100	44	24	16	14
5	30	22	8.5	5	4	20	50	42	30	20	17
6	16	13	10	6	5	20	60	52	30	20	17
6	20	17	10	6	5	20	70	62	30	20	17
6	25	22	10	6	5	20	90	52	30	20	17
6	30	27	10	6	5	20	120	52	30	20	17
6	35	24	10	6	5	24	60	51	36	24	19
6	40	24	10	6	5	24	70	61	36	24	19
6	45	24	10	6	5	24	80	71	36	24	19
6	50	24	10	6	5	24	120	60	36	24	19
6	55	24	10	6	5	24	140	60	36	24	19
6	60	24	10	6	5	30	140	72	72	20	22
6	70	24	10	6	5						
6	80	24	10	6	5						
6	90	24	10	6	5						
8	16	12	13	8	6						
8	20	16	13	8	6						
8	25	21	13	8	6						
8	30	26	13	8	6						
8	35	31	13	8	6						
8	40	28	13	8	6						
8	45	28	13	8	6						
8	50	28	13	8	6						
8	60	28	13	8	6						
10	16	11	16	10	8						
10	20	15	16	10	8						
10	25	20	16	10	8						
10	30	25	16	10	8						
10	35	30	16	10	8						
10	40	35	16	10	8						
10	50	32	16	10	8						
10	60	32	16	10	8						
12	25	20	18	12	10						
12	30	25	18	12	10						
12	35	30	18	12	10						
12	40	35	18	12	10						
12	45	40	18	12	10						
12	50	45	18	12	10						
12	70	36	18	12	10						
12	80	36	18	12	10						
16	30	24	24	16	14						
16	35	29	24	16	14						

Ordering Code (example):

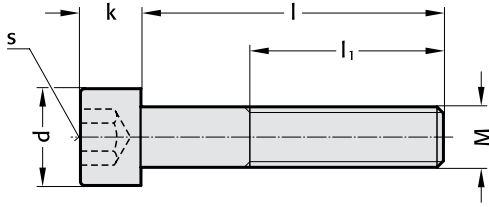
Cap Screw = 2192.10
 Thread M8 = .08
 Length 50 mm = .050
 Order No = 2192.10.08.050

FIBRO

2192.12.

Hexagon Socket Head Cap Screws,
DIN EN ISO 4762
Strength class 12.9

2192.12.



2192.12. CapScrews, DIN EN ISO 4762

Strength class 12.9

M	l	l ₁	d	k	s	M	l	l ₁	d	k	s	M	l	l ₁	d	k	s
3	8	6	5.5	3	2.5	10	100	32	16	10	8	20	120	52	30	20	17
4	10	8	7	4	3	10	110	32	16	10	8	20	130	52	30	20	17
6	10	7	10	6	5	10	120	32	16	10	8	20	140	52	30	20	17
6	20	17	10	6	5	10	130	32	16	10	8	20	150	52	30	20	17
6	25	22	10	6	5	10	150	32	16	10	8	20	160	52	30	20	17
6	30	27	10	6	5	10	180	32	16	10	8	20	180	52	30	20	17
6	35	24	10	6	5	10	220	32	16	10	8	20	190	52	30	20	17
6	40	24	10	6	5	12	40	35	18	12	10	20	200	52	30	20	17
6	45	24	10	6	5	12	45	40	18	12	10	20	220	52	30	20	17
6	50	24	10	6	5	12	50	45	18	12	10	20	230	52	30	20	17
6	55	24	10	6	5	12	55	36	18	12	10	20	240	52	30	20	17
6	60	24	10	6	5	12	60	36	18	12	10	20	260	52	30	20	17
6	70	24	10	6	5	12	70	36	18	12	10	20	280	52	30	20	17
6	80	24	10	6	5	12	80	36	18	12	10	20	300	52	30	20	17
6	85	24	10	6	5	12	90	36	18	12	10	24	130	60	36	24	19
6	90	24	10	6	5	12	100	36	18	12	10	24	140	60	36	24	19
6	100	24	10	6	5	12	110	36	18	12	10	24	150	60	36	24	19
6	160	24	10	6	5	12	120	36	18	12	10	24	160	60	36	24	19
6	200	24	10	6	5	12	130	36	18	12	10	24	180	60	36	24	19
8	16	12	13	8	6	12	140	36	18	12	10	24	200	60	36	24	19
8	30	26	13	8	6	12	150	36	18	12	10						
8	35	31	13	8	6	12	180	36	18	12	10						
8	40	28	13	8	6	12	220	36	18	12	10						
8	45	28	13	8	6	16	40	34	24	16	14						
8	50	28	13	8	6	16	50	44	24	16	14						
8	55	28	13	8	6	16	60	54	24	16	14						
8	60	28	13	8	6	16	65	44	24	16	14						
8	70	28	13	8	6	16	70	44	24	16	14						
8	75	28	13	8	6	16	80	44	24	16	14						
8	80	28	13	8	6	16	90	44	24	16	14						
8	90	28	13	8	6	16	100	44	24	16	14						
8	100	28	13	8	6	16	110	44	24	16	14						
8	110	28	13	8	6	16	120	44	24	16	14						
8	120	28	13	8	6	16	130	44	24	16	14						
10	30	25	16	10	8	16	140	44	24	16	14						
10	35	30	16	10	8	16	150	44	24	16	14						
10	40	35	16	10	8	16	160	44	24	16	14						
10	45	32	16	10	8	16	180	44	24	16	14						
10	50	32	16	10	8	16	200	44	24	16	14						
10	55	32	16	10	8	16	220	44	24	16	14						
10	60	32	16	10	8	16	240	44	24	16	14						
10	65	32	16	10	8	16	260	44	24	16	14						
10	70	32	16	10	8	16	280	44	24	16	14						
10	75	32	16	10	8	16	300	44	24	16	14						
10	80	32	16	10	8	20	100	52	30	20	17						
10	90	32	16	10	8	20	110	52	30	20	17						

Ordering Code (example):

Cap Screw = 2192.12
 Thread M8 = .08
 Length 100 mm = .100
 Order No = 2192.12.08.100

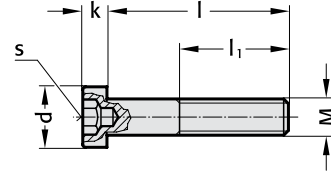
Hexagon Socket Head Cap Screws, DIN 6912 with low profile head

FIBRO

2192.20.



2192.20.



2192.20. Cap screws, DIN 6912

Strength class 8.8 = Code No 0.

M	l	l ₁	d	k	s
4	8	6	7	2.8	3
4	10	8	7	2.8	3
4	12	10	7	2.8	3
4	16	14	7	2.8	3
4	20	14	7	2.8	3
4	25	14	7	2.8	3
4	30	14	7	2.8	3
4	35	14	7	2.8	3
4	40	14	7	2.8	3
5	8	5.4	8.5	3.5	4
5	10	7.4	8.5	3.5	4
5	12	9.4	8.5	3.5	4
5	20	17.4	8.5	3.5	4
5	25	16	8.5	3.5	4
5	30	16	8.5	3.5	4
5	35	16	8.5	3.5	4
5	40	16	8.5	3.5	4
6	8	4.3	10	4	5
6	10	6.3	10	4	5
6	12	8.3	10	4	5
6	16	12.3	10	4	5
6	18	14.3	10	4	5
6	20	16.3	10	4	5
6	25	21.3	10	4	5
6	30	18	10	4	5
6	35	18	10	4	5
6	40	18	10	4	5
6	45	18	10	4	5
6	50	18	10	4	5
8	12	7.3	13	5	6
8	16	11.3	13	5	6
8	18	13.3	13	5	6
8	20	15.3	13	5	6
8	25	20.3	13	5	6
8	30	22	13	5	6
8	35	22	13	5	6
8	40	22	13	5	6
8	45	22	13	5	6
8	50	22	13	5	6
8	60	22	13	5	6
10	20	14.5	16	6.5	8
10	25	19.5	16	6.5	8
10	30	25.5	16	6.5	8
10	60	26	16	6.5	8
10	80	26	16	6.5	8
10	90	26	16	6.5	8
12	30	20	18	7.5	10
12	35	25	18	7.5	10

Ordering Code (example):

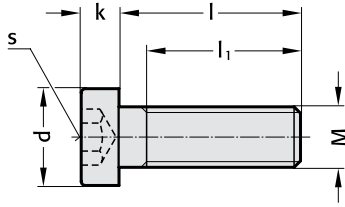
Cap Screw = 2192.20
 Thread M6 = .06
 Length 25 mm = .025
 Order No = 2192.20.06.025

FIBRO

2192.40.

Hexagon Socket Head Cap Screw,
DIN 7984
with low profile head

2192.40.



2192.40. Cap screws, DIN 7984

Strength class 8.8 = Code No 0.

M	l	l ₁	d	k	s
4	8	5.9	7	2.8	2.5
4	10	7.9	7	2.8	2.5
4	12	9.9	7	2.8	2.5
4	16	13.9	7	2.8	2.5
4	20	17.9	7	2.8	2.5
4	25	14	7	2.8	2.5
4	30	14	7	2.8	2.5
4	35	14	7	2.8	2.5
4	40	14	7	2.8	2.5
5	8	5.6	8.5	3.5	3
5	10	7.6	8.5	3.5	3
5	12	9.6	8.5	3.5	3
5	16	13.6	8.5	3.5	3
5	20	17.6	8.5	3.5	3
5	25	22.6	8.5	3.5	3
5	30	16	8.5	3.5	3
5	35	16	8.5	3.5	3
5	40	16	8.5	3.5	3
6	10	7	10	4	4
6	12	9	10	4	4
6	16	13	10	4	4
6	20	17	10	4	4
6	25	22	10	4	4
6	30	18	10	4	4
6	35	18	10	4	4
6	40	18	10	4	4
8	12	8.25	13	5	5
8	16	12.25	13	5	5
8	20	16.25	13	5	5
8	25	21.25	13	5	5
8	30	26.25	13	5	5
8	35	22	13	5	5
8	40	22	13	5	5
8	45	22	13	5	5
8	50	22	13	5	5
8	60	22	13	5	5
10	20	15.5	16	6	7
10	25	20.5	16	6	7
10	30	25.5	16	6	7
10	60	26	16	6	7
10	80	26	16	6	7
10	90	26	16	6	7
12	30	24.75	18	7	8
12	35	29.75	18	7	8

Ordering Code (example):

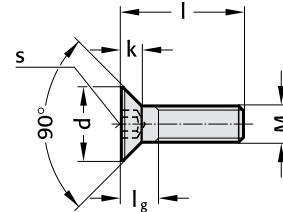
Cap Screw = 2192.40
Thread M6 = .06
Length 20 mm = .020
Order No = 2192.40.06.020

**Hexagon Socket Countersunk Head Cap Screws,
DIN 7991/ISO 10642**

2192.30.



2192.30.



2192.30. Countersunk Head Cap Screws DIN 7991/ISO 10642

Strength class 8.8 = Code No 0.

M	l	l _g	d	k	s
3	6	3.2	6	1.7	2
3	8	3.2	6	1.7	2
3	10	3.2	6	1.7	2
4	8	4.4	8	2.3	2.5
5	10	5.2	10	2.8	3
5	12	5.2	10	2.8	3
6	10	6.3	12	3.3	4
6	12	6.3	12	3.3	4
6	16	6.3	12	3.3	4
6	20	6.3	12	3.3	4
6	25	6.3	12	3.3	4
8	16	8.2	16	4.4	5
8	20	8.2	16	4.4	5
8	25	8.2	16	4.4	5
10	20	10	20	5.5	6
10	25	10	20	5.5	6
12	30	11.8	24	6.5	8

Ordering Code (example):

Countersunk = 2192.30
 Head Cap Screw
 Thread M6 = .06
 Length 16 mm = .016
 Order No = 2192.30.06.016

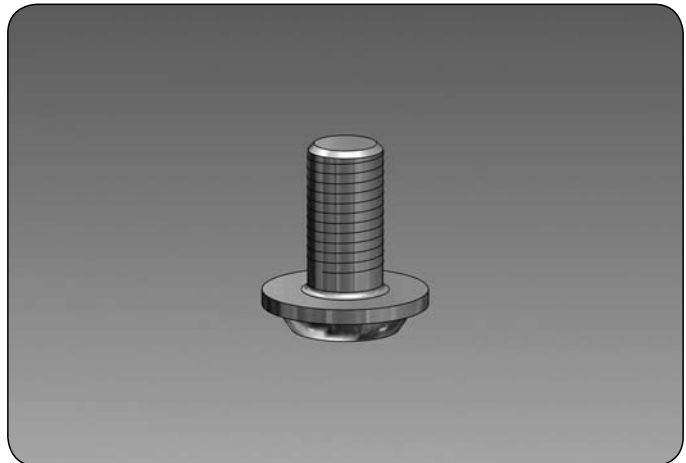
FIBRO

2192.61.

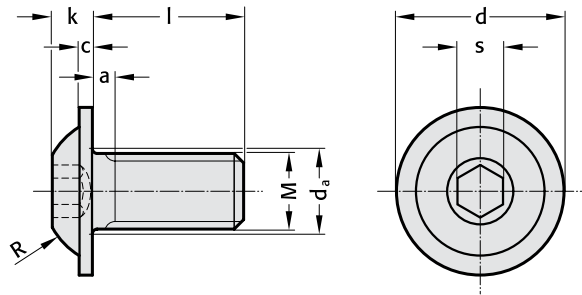
Flat Mushroom Head Screws with hexagon socket

2192.61. Flat mushroom head screws

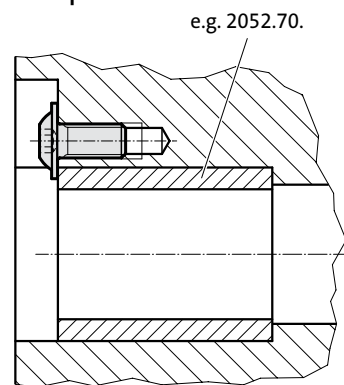
M	l	k	s	c	a	d _a	d	R
6	12	3.2	4	1.2	2	7	13.27	5.6
6	16	3.2	4	1.2	2	7	13.27	5.6
6	20	3.2	4	1.2	2	7	13.27	5.6
8	16	4.3	5	1.5	2.5	9.2	17.77	7.5
8	20	4.3	5	1.5	2.5	9.2	17.77	7.5
8	25	4.3	5	1.5	2.5	9.2	17.77	7.5
10	20	5.3	6	1.75	3	11.2	22.18	10



2192.61.



Installation example



Material:

Strength class 10.9 = Code No 1.

Ordering Code (example):

Flat mushroom head screw	=	2192.61
Thread	8 mm	= .08
Length	16 mm	= .016
Order No	=	2192.61.08.016

Clamping Tool Sets

2140.01.01.




Clamping tool set

with clamping jaws and screw paste.

The clamping tool sets are designed for machine tools with bedplates that have fixing slots and they contain all the necessary components for fast clamping of tools, devices and workpieces. All parts are interchangeable and complementary to each other. They are made of high tensile steel to DIN or company standards. Bolt items strength class 8 or 10. The wooden box has a detachable hinged cover.

2140.01.01.

Order No		2140. 01.01.10.10			2140. 01.01.12.12			2140. 01.01.12.14			2140. 01.01.14.16			2140. 01.01.16.16			2140. 01.01.16.18			
Contents		M 10×10			M 12×12			M 12×14			M 14×16			M 16×16			M 16×18			
Universal- clamping units	Size	1	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3		
	No.	4	4	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
Step clamps	Size	11×80			14×100			14×100			14×100		14×160		18×125			18×125		
	No.	4			4			4			2		4		4			4		
Screws for fixing slots DIN 787 (Order No 2140.30.)	Lenght	100	63	40	125	80	50	125	80	50	63	100	160	160	100	63	160	100	63	
	No.	4	4	2	4	4	2	4	4	2	2	4	4	4	4	2	4	4	2	
Pin screws	Lenght	80			100			100			125			125			125			
	No.	4			4			4			4			4			4			
Hexagonal nuts 1,5 d deep	Size	M10			M12			M12			M14			M16			M16			
	No.	6			6			6			6			6			6			
Conical sockets, similar to DIN	Size	M10			M12			M12			M14			M16			M16			
	No.	6			6			6			6			6			6			
Extension nuts 3 d deep	Size	M10			M12			M12			M14			M16			M16			
	No.	4			4			4			4			4			4			
Clamping jaws, tye Bulle	Size	12			12			14			16			16			18			
	No.	4			4			4			4			4			4			
T-slot scraper	Size	-			-			14-20			14-20			14-20			14-20			
	No.	-			-			1			1			1			1			
Ring/open ended spanners	Size	16×16			18×18			18×18			22×22			24×24			24×24			
	No.	1			1			1			1			1			1			
Screw paste	No.																		1	

2140.01.02.


Clamping Tool Sets

Clamping tool sets

With spring-mounted clamp holder and screw paste.
Description as 2140.01.01 but without clamping jaws.
Contains 4 spring-mounted clamp holders instead.



2140.01.02.

Order No		2140. 01.02.10.10	2140. 01.02.12.12	2140. 01.02.12.14	2140. 01.02.16.16	2140. 01.02.16.18	2140. 01.02.20.20	2140. 01.02.20.22	2140. 01.02.20.24
Contents		M 10×10	M 12×12	M 12×14	M 16×16	M 16×18	M 20×20	M 20×22	M 20×24
Universal clamping units	Size	1 2 3	2 3	2 3	2 3	2 3	2 3	2 3	2 3
	No.	4 4 2	4 4	4 4	4 4	4 4	4 4	4 4	4 4
Step clamps	Size	11×80	14×100	14×100	18×125	18×125	22×160	22×160	22×160
	No.	4	4	4	4	4	4	4	4
Screws for fixing slots DIN 787 (Order no. 2140.30.)	Lenght	100 63	125 80	125 80	160 100	160 100	200 125	200 125	—
	No.	4 4	4 4	4 4	4 4	4 4	4 4	4 4	—
Pin screws	Lenght	80	100	100	125	125	125	125	200 125
	No.	4	4	4	4	4	4	4	4 8
Hexagonal nuts 1.5 d deep	Size	M10	M12	M12	M16	M16	M20	M20	M20
	No.	6	4	4	4	4	6	6	6
Conical sockets, similar to DIN	Size	M10	M12	M12	M16	M16	M20	M20	M20
	No.	6	6	6	6	6	6	6	6
Extension nuts 3 d deep	Size	M10	M12	M12	M16	M16	M20	M20	M20
	No.	4	4	4	4	4	4	4	4
T-slot scraper	Size	—	—	14-20	14-20	14-20	14-20	22-32	22-32
	No.	—	—	1	1	1	1	1	1
Ring/open ended spanners	Size	16×16	18×18	18×18	24×24	24×24	30×30	30×30	30×30
	No.	1	1	1	1	1	1	1	1
Nuts for fixing slots	Size	—	—	—	—	—	—	—	M 20×24
	No.	—	—	—	—	—	—	—	8
Clamp holders	Size	1	2	2	3	3	4	4	4
	No.	4	4	4	4	4	4	4	4
Screw paste	No.				1				

