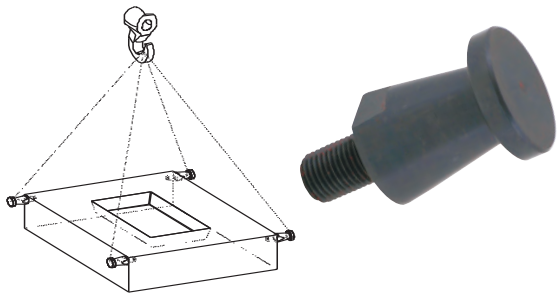
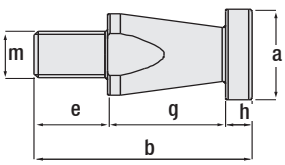
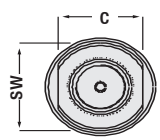


Die Lifting Bolt

Code: 2730



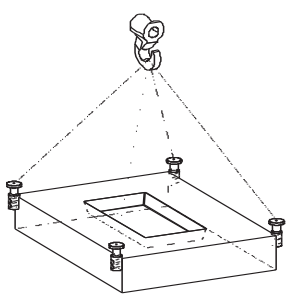


Carrying Bolt Thread Dimensions: M 16 x 2 thread - M20 x 2.5 thread
Carrying Load of a Lug : 2730.16 / 660 Kg.
2730.20 / 1000 Kg.

m	a	b	c	SW	e	g	h
M16	39	85	35	30	30	45	10
M20	39	85	35	30	30	45	10

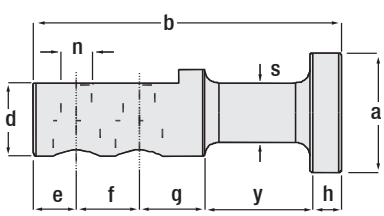
Order: 2730.m

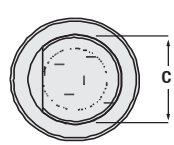
Material: CK45 DIN
Black Coated



Die Lifting Lug

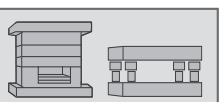
Code: 2750



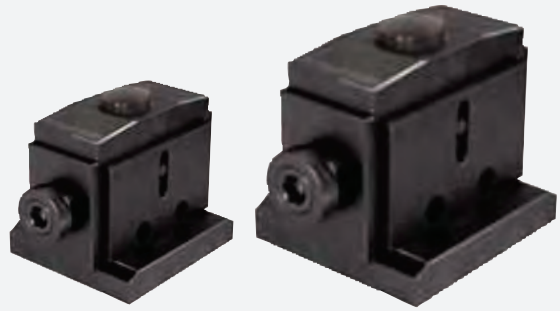


Lug Clamping Screw Size : M10 x 35 cylinder head cap screw "12.9" / 2 pcs.
Carrying Load of a Lug : 400 Kg. **/ Example:** 4 lugs 2.5 tons

a	b	c	d	e	f	g	h	ı	n	s
44	108	32	27	15	22	23	11	37	11	22



Order: 2750.a

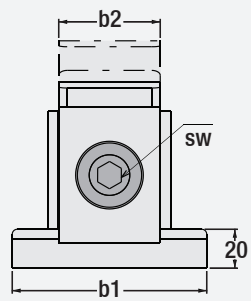


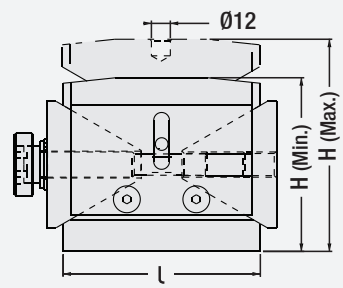
Wedge - Support Block

Code: 1520

With this block, lifting and sliding positions of large die / mould are provided.

Centering hole with spherical, buttress gear head is 12 mm





Block surface is machined precision and is designed especially supporting or lifting of heavy parts. Quite robust construction is allowed to do precision and smooth height setting as 1 / 10 mm precisely, height setting can be done with knurled screw or allen key, double effects are generated precision vertical motion without great stroke and lateral sliding. It can be used at large machine tools and processing of heavy cast and forging especially after stamping.

Code: 1520

H /Min.	H Max.	b1	b2	L	sw	Kgf ↓	Weight Kg.
50	63	-	40	63	8	4000	1.90
100	125	115	60	125	14	10000	9.90
170	190	145	80	175	22	25000	28.4

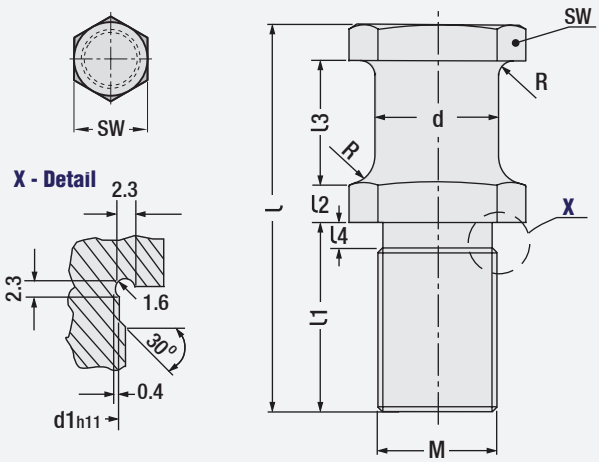
Block Support
* This product is especially designed to support and carry heavy parts.
* Material: CK45 DIN
* Hardness: 35 -38 HRC
* Black Coated

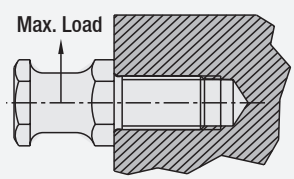
Order: 1520. H x b1

Die Lifting Bolt - Heavy Duty

Code: G47

VDI 3366





It can be mounted on lateral surface of die plate.

Reference:
VDI 3366

When used for transport purpose 4 pcs.
When used for die turning 2 pcs. of bolts are used.
Max. load should not be exceeded during operation.

Code: G47

M Thread	1 Bolt Max. Load Kg.	Ø d	Ø d1	l mm	l1 mm	l2 mm	l3 mm	l4 mm	Radius R	Head SW
M16	250	16	12	58	28	5	20	3	5	24
M20	500	20	16	68	34	6	22	3	5	30
M24	1000	25	19	78	38	8	25	4	6	36
M30	1500	32	24	95	45	10	32	5	6	41
M36	2500	40	30	118	56	12	40	5	8	50

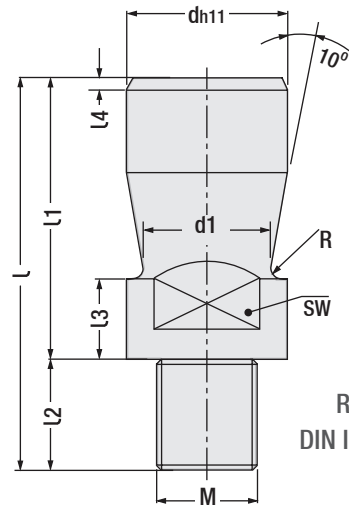
Order: G47. M

Material: 1.0503 (CK45)
700 - 800 N mm^2

Die Lifting Bolt

DIN ISO 10242-1

Code: G54



Reference:
DIN ISO 10242 - 1

Clamping bolts are components providing connection of upper group of die to the ram group of press.
Clamping bolt is mounted to the die by the help of threaded, due to exposed forces such as press counting force etc. it should be mounted to the upper plate very well.

Code: G54

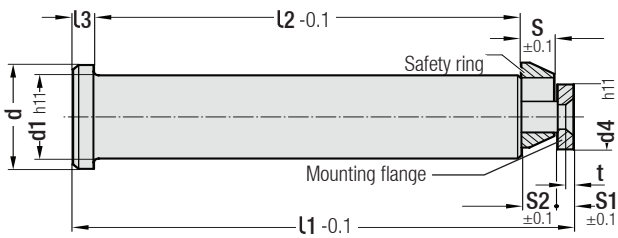
M Thread	Ø d	Ø d1	l mm	l1 mm	l2 mm	l3 mm	l4 mm	r	SW
M16 x 1.5	20	15	58	40	18	12	2	2.5	17
	25	20	68	45	23	16	2.5		21
M20 x 1.5	25	20	68	45	23	16	2.5	2.5	21
	32	25	79	56		16	3		27
M24 x 1.5	32	25	79	56	23	16	3	2.5	27
	40	32	93	70		26	4	4	36
M27 x 2	40	32	93	70	23	26	4	4	36
M30 X 2	40	32	93	70	23	26	4	4	36
	50	42	108	80	28		5		41
M42 x 3	65	53	128	100	28	26	8	6.5	55

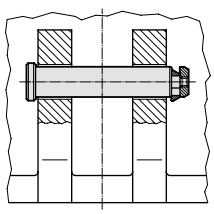
Order:
G54. M x d

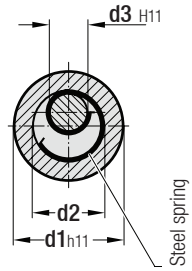
Die Lifting Pin - CNOMO

Code: G153

CNOMO Norm EM24.50.4000 02/2014







Code: G153

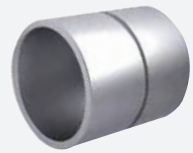
d1	d	d2	d3	d4	l1	l2	l3
32	40	22	12	25	154	132	6
40	50	28	16	32	197.75	170	8
50	63	36	20	40	247.6	212	10
63	80	45	25	50	309	265	12

Code: G153

d1	S	S1	S2	t	Max. Cap. 2 Pins
32	10	5	11	2.5	12000 Kg
40	12.5	6	13.75	3	18.000 Kg
50	16	8	17.6	4	28.000 Kg
63	20	10	22	5	45.000 Kg

Order: G153.d1

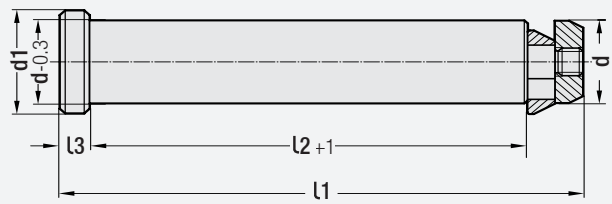
Bush for Lifting Pin Code: G51.1

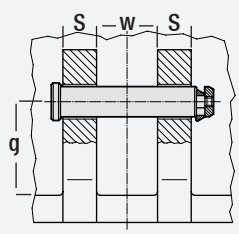


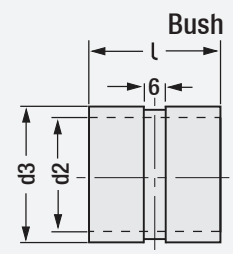
Code: G51

Die Lifting Pin / WDX 22 - 60

FORD Norm WDX 22 - 60







Code: G51 Code: G51.1

d	d1	l1	l2	l3	S	w	g	d2	d3	l
35	45	165	124	10	30	50	60	**37**	45	30
50	63	230	189	10	50	70	65	**52**	60	50
63	76	320	279	10	80	100	70	**65**	75	80
80	89	370	319	15	100	100	80	**82**	90	100

Lifting Pin Capacity

d	Max. Load	Max. Capacity
35	1500 Kg	3000 Kg
50	5000 Kg	10000 Kg
63	20000 Kg	40000 Kg
80	30000 Kg	60000 Kg

* Due to safety reasons, die weight should not exceed maximum load that 2 lifting pins can bear (max. capacity). Max. load should be considered.
* Lifting equipment should be correctly mounted on workpieces on which they are used.
* Damaged - broken parts should not be used.

G51.d (Pin)
G51.1 .d2 (Bush)

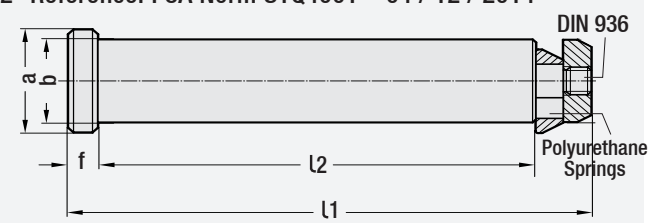
Material: 1.7131 (CK45)

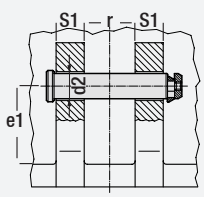
Die Lifting Pin - FCA

Code: G55

1- Reference: FCA Norm STQ4002 04 / 12 / 2014

2- Reference: FCA Norm STQ4001 04 / 12 / 2014





* Lifting equipment should be correctly mounted on workpieces on which they are used.
* Damaged - broken parts should not be used.

2- Reference: FCA Norm STQ4001 04 / 12 / 2014

a	b h11	d2	e1	f	l1	l2	R	S1	Max. Load Kg	Max. Capacity Kg
25	15.6	16	28	6	102.5	77	11	29.5	600	1200
30	20.6	21	29	6	113.5	86	13	33	1000	2000
35	25.6	26	40	6	128.5	100	20	35	2000	4000
43	33	34	55	6	166.5	135	55	35	4000	8000
53	43	44	60	8	210.5	175	60	50	7000	14000

1- Reference: FCA Norm STQ4002 04 / 12 / 2014

a	b h11	d2	e1	f	l1	l2	R	S1	Max. Load Kg	Max. Capacity Kg
38	29	30	60	6	178.5	150	60	40	2000	4000
43	33	35	65	6	200.5	170	60	50	3200	6400
53	43	45	85	8	233	195	80	50	5000	10000
65	53	55	105	10	282	235	100	60	8000	16000
65	53	55	75	10	227	180	65	50	8000	16000
78	63	65	130	12	352.5	295	120	80	12000	24000
78	63	65	100	12	272.5	215	80	60	13000	26000
95	78	81	150	14	421.5	355	140	100	30000	60000

Due to safety reasons, die weight should not exceed maximum load that 2 lifting pins can bear.

Order: STQ1
G55. a x l2

Order: STQ2
G55. a x l2

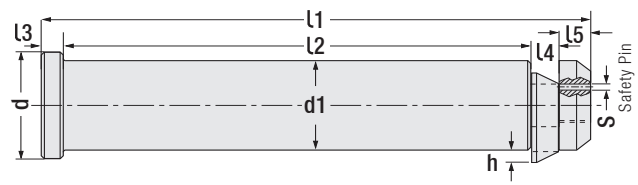
Bush for Lifting Pin

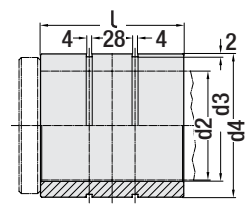
Code: G52.1

Die Lifting Pin - VDI 3366

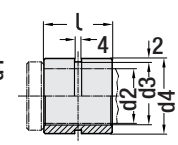
Code: G52

Reference: VDI 3366 Standard 03 / 1997

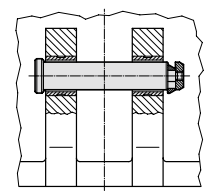




Form - B



Form - A



Code: G52

d1 h11	d Ø	l1 +1	l2 +1	l3 mm	l4 mm	l5 mm	h +0.2	S Safety Pin
32	40	175	145	10	9	10	4	3x10
40	50	225	188	10	13	13	6	4x12
50	65	273	230	11	15	16	6	4x15
63	75	347	295	14	17	20	7.5	5x20
76	95	422	360	15	19	27	8	5x25

Bush for Lifting Pin

Code: G52.1

d1 h11	Max. Load Kg.	Max. Capacity Kg.	d2 +1	d3	d4	l	Form
32	3200	6400	32	34	44	40	Form A
40	5000	10000	40	42	52	50	
50	8000	16000	50	52	62	60	
63	12500	25000	63	65	75	80	
76	31500	63000	76	78	100	100	Form B
-	-	-	76	78	105	100	

G52. d1 (Pin)
G52.1 . d2 x d4 (Bush)

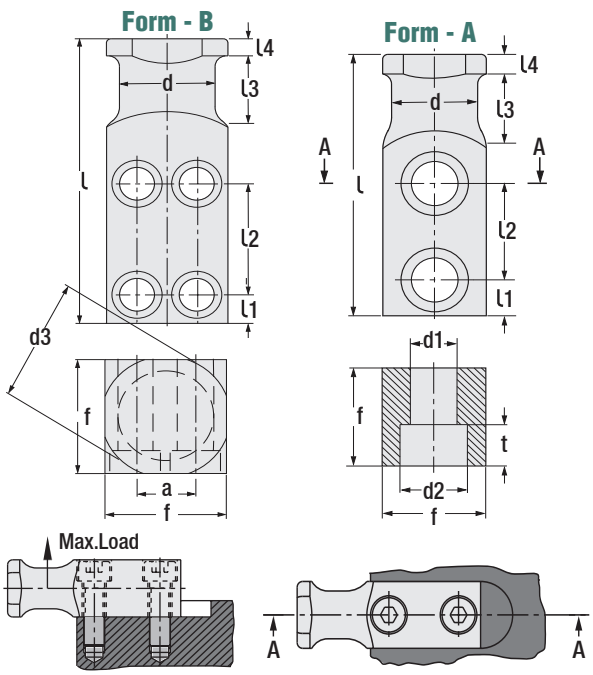
Die Lifting Lug - VDI 3366

Code: G134

NEW

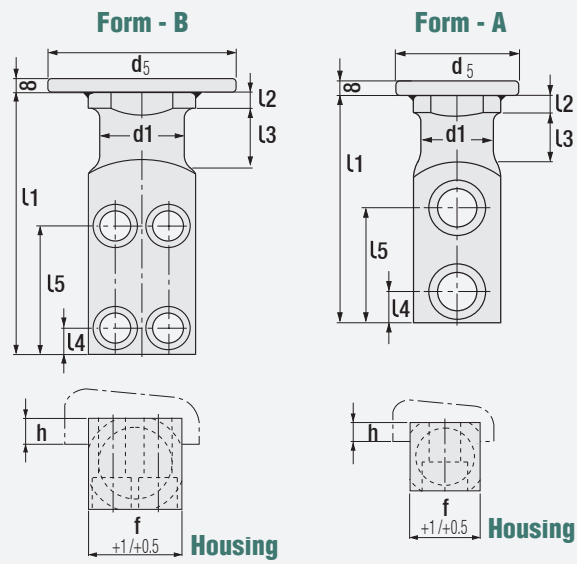
Die Lifting Lug with Rope Stop Safety

Code: G58



f	l	l1	l2	l3	l4	Screw	a	Form
20	80	10	34	20	6	M8 x25	-	Form A
25	90	10	37	25	8	M10 x30	-	
35	100	12	38	30	8	M12 x40	-	
40	120	16	46	32	10	M16 x45	-	
50	140	18	56	40	10	M20 x60	-	
60	160	22	59	45	12	M24 x70	-	
80	200	20	78	50	12	M20 x90	40	Form B
100	250	25	100	65	15	M24 x110	50	
120	300	30	125	80	15	M30 x130	60	

f	d	d1	d2	d3	t	Max.Load	Max.Capacity
20	16	9.5	14.5	24	9	320 Kg.	640 Kg.
25	20	11.5	17.5	30	11	630 Kg.	1260 Kg.
35	25	14	20	40	13	1250 Kg.	2500 Kg.
40	32	18	26	50	17.5	2000 Kg.	4000 Kg.
50	40	23	33	60	21.5	3200 Kg.	6400 Kg.
60	50	27	39	70	25.5	5000 Kg.	10000 Kg.
80	63	23	33	90	21.5	8000 Kg.	16000 Kg.
100	80	27	39	110	25.5	12500 Kg.	25000 Kg.
120	100	33	48	130	32	20000 Kg.	40000 Kg.



Code: G58

f	h	l1	l2	l3	l4	l5	Screw	Form
20	6	80	6	20	10	44	M8 x25	Form A
25	8	90	8	25	10	47	M10 x30	
35	10	100	8	30	12	50	M12 x40	
40	10	120	10	32	16	62	M16 x45	
50	12	140	10	40	18	72	M20 x60	
60	14	160	12	45	22	81	M24 x70	
80	16	200	12	50	20	98	M20 x90	Form B
100	18	250	15	65	25	125	M24 x110	
120	20	300	15	80	30	155	M30 x130	

f	d1	d5	Max.Load	Max.Capacity	Form
20	16	60	320 Kg.	640 Kg.	Form A
25	20	70	630 Kg.	1260 Kg.	
35	25	70	1250 Kg.	2500 Kg.	
40	32	110	2000 Kg.	4000 Kg.	
50	40	110	3200 Kg.	6400 Kg.	
60	50	150	5000 Kg.	10000 Kg.	
80	63	150	8000 Kg.	16000 Kg.	Form B
100	80	150	12500 Kg.	25000 Kg.	
120	100	150	20000 Kg.	40000 Kg.	

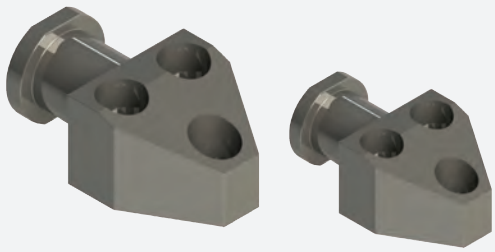
Due to safety reasons, die weight should not exceed maximum load that 2 lifting pins can bear.

Order: G134. f

Material: 1.0503 700 ÷ 800 N / mm²

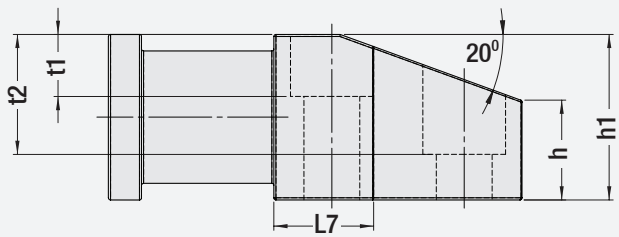
Order: G58.f

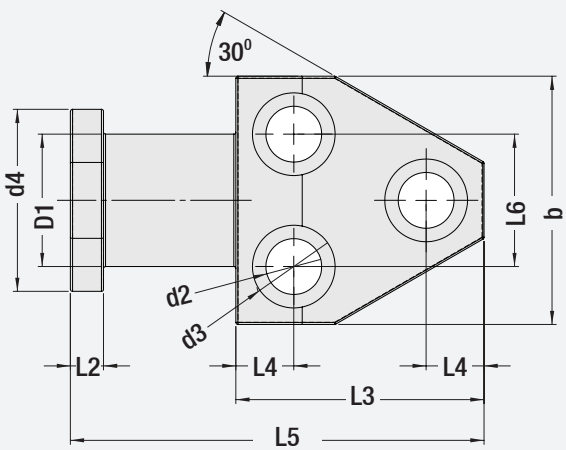
NEW



Die Lifting Lug

Code: G160





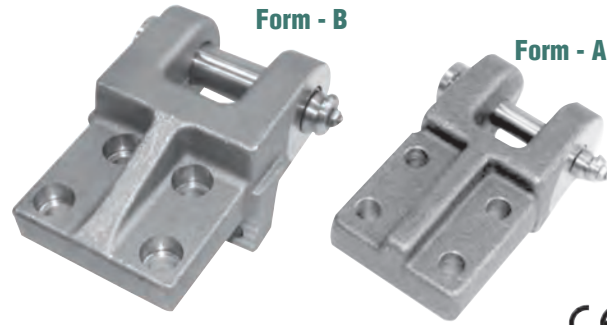
Code: G160

D1	b	d2	d3	d4	h	h1	L2	L3
32	60	13.5	20	44	24	40	8	60
40	80	17.5	26	60	32	50	10	70
50	100	22	33	70	40	65	12	88

D1	L4	L5	L6	L7	t1	t2	Max. Lifting Kg.
32	14	100	32	24	15	29	2000
40	16	120	44	26	20	35.5	3500
50	20	145	56	30	25	46.5	6000

Order: **G160. D1**

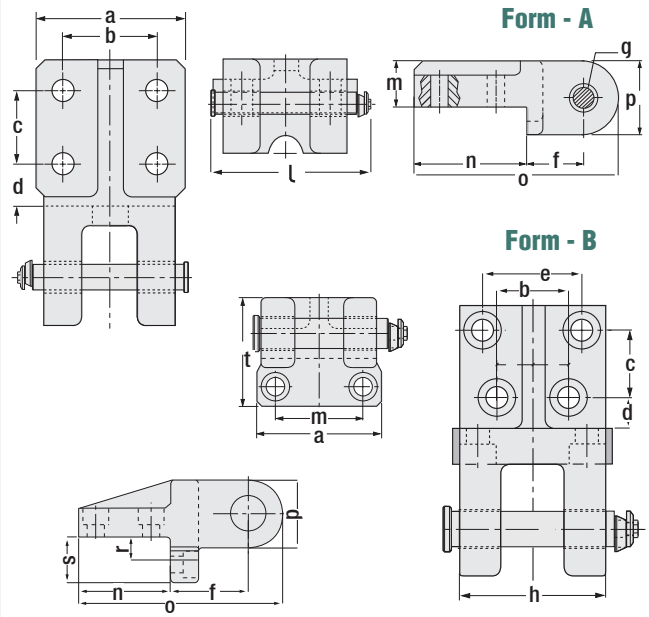
Due to safety reasons, die weight should not exceed maximum load that 2 lifting pins can bear.



Die Lifting Bracket - FCA

Code: G53

Reference: FCA Norm STQ 40001 04 / 12 / 2014



Code: G53

a	b	c	d	e	f	Form	Max. Load Kg.	Max. Capacity Kg.
80	50	40	22.5	-	39	Form A	600	1200
90	60	40	27.5	-	42		1000	2000
100	65	65	32.5	-	60		2000	4000
135	56	60	20	84	85	Form B	4000	8000
180	80	70	30	110	100		7000	14000

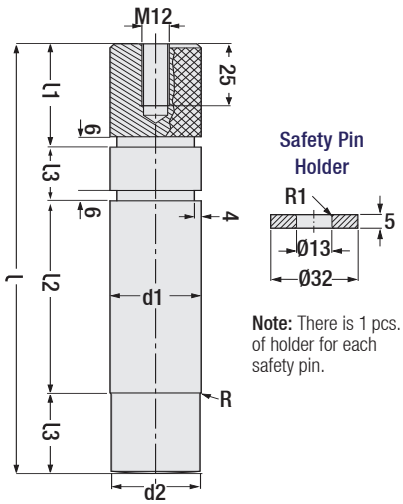
a	g	h	l	m	n	o	r	s	t	p
80	16	70	102.5	32	80	145	-	-	-	52
90	21	79	113.5	36	90	160	-	-	-	56
100	26	90	128.5	50	120	215	-	-	-	70
135	34	125	166.5	96	100	221	30	50	111	72
180	44	160	210.5	130	125	270	35	60	40	90

Order: **G53. a x Form**

Safety Pin - VDI

Code: G57

Reference: VDI 3365



Note: There is 1 pcs. of holder for each safety pin.

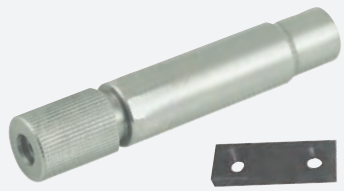
Code: G57

d1 e8	d2 +0.05	R	Load Capacity
32	29	4	500 Kg
32	29	4	500 Kg
40	37	5	750 Kg
40	37	5	750 Kg
50	47	6	1250 Kg
50	47	6	1250 Kg
63	60	6	2500 Kg
63	60	6	2500 Kg

d1 e8	l	l1	l2	l3
32	130	22	58	25
32	147	22	75	25
40	171	32	75	32
40	191	32	95	32
50	207	32	95	40
50	232	32	120	40
63	252	32	120	50
63	287	32	155	50

Order: G57. d1 x l

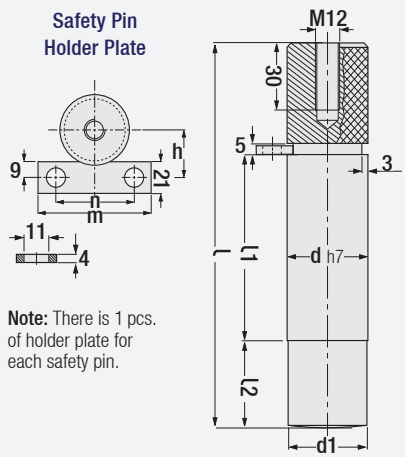
Material: 1.7131 (C30) 800 ÷ 1000 N / mm²



Safety Pin - FCA

Code: G56

Reference: FCA 230.GSG.16



Note: There is 1 pcs. of holder plate for each safety pin.

Code: G56

d	d1	h	m	n
30	29	22	50	35
40	39	27	65	45
50	49	32	70	50

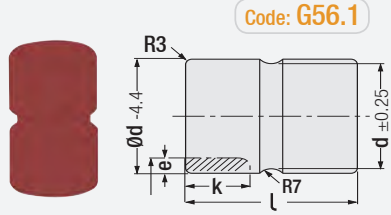
d	l	l1	l2
30	155	87	33
40	193	109	39
50	229	131	43

Order: G56. d

Material: 1.7131 (1.6511)

Shock Absorber for Safetiy Pin

Code: G56.1



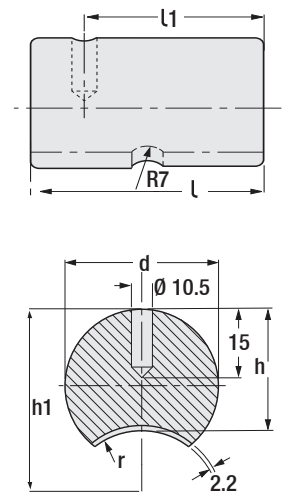
Pin Diameter	d	l	e	k	Max. Press
40	50	70	8	25	%16
50	63	80	8	30	%12

Order: G56.1 x d

Material: Polyurethane 90 Shore

Code: G57.2

Shock Absorber for Safetiy Pin



Code: G57.2

d ± 0.25	h	h1	r
40	32	50	18
50	40	63	23
63	51	86	35

d ± 0.25	l	l1
40	60	45
50	80	60
63	80	60

* It should be used with safety pins. G57.2 product is compatible with the product code G57.
* It is an impact and speed retarder product.
* Hardness of polyurethane material is 90 shore.
* All dimensions without tolerance are in EN 22 768-1 mm standards.

Order: G57.2 x d

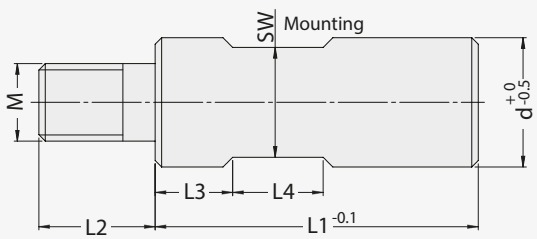
Material: Polyurethane 90 Shore

NEW

Support Bolt for Mould

Code:G159

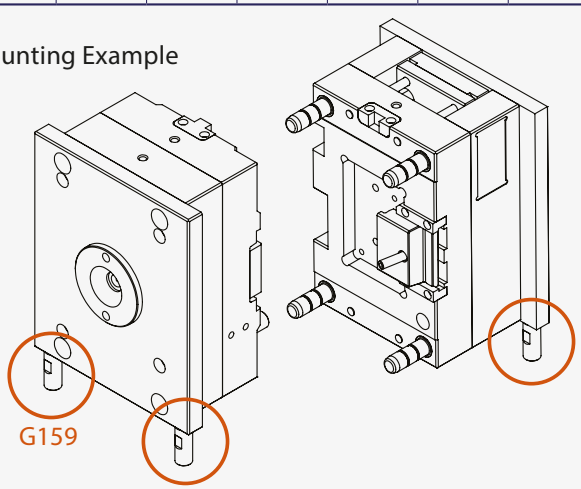
These bolts form a gap on mould surfaces in order to prevent damage to water unions and cooling hose systems protruding on injection mould surfaces and hydraulic - pneumatic core systems. Minimum four bolts should be used according to each mould size. Especially, it is used to protect protruding parts of moulds during shelf forming.



Code:G159

d - 0.5	M Metric	L1 mm	L2 mm	L3 mm	L4 mm	SW Mounting
20	M.12	35	18	14	12	17
		50				
		80				
32	M.16	35	24	18	12	27
		50				
		80				
		120				
39	M.20	80	30	24	16	32
		120				

Mounting Example



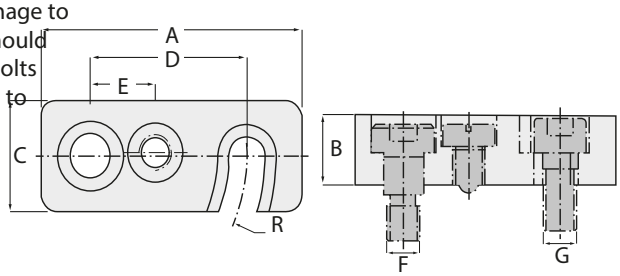
Order: G159.d x L1

Material:CK45

NEW

Die & Mould Safety Latch

Code:G103



Code:G103

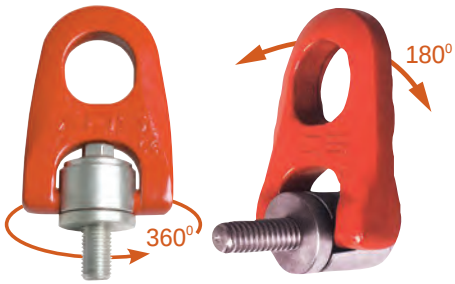
A mm	B mm	C mm	D mm	E mm	F mm	G mm	R rdy
50	12	20	30	14	M6	M6	30
63	16	25	38	17	M8	M8	38
80	20	32	48	20	M10	M10	48

Order: G103.A

Material:1.0503 Steel Forging Sandblasting

Die & Mould Safety Latch This system is mounted outside of the die & mould. It is used to carry the mould safely. It is fixed on the mould with cylinder head cap screw. Other cylinder head cap screw hole is drilled a the opposite party. Mounting or demounting can be easily done with s plunger. It is a compact product having no loose parts. It has no protru parts as a clamping lock.

Brand of proven success



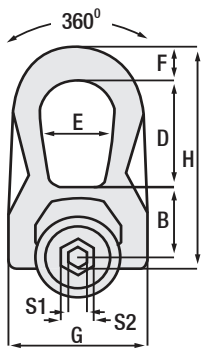

Ball Bearing System

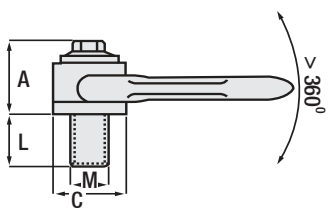
Double Swivel Ring - Eyebolt

Code: AK400

Class > 8CE
Safety Factor
5 : 1

Min. Breaking
Load (MBL)
= 5 x WLL Ton



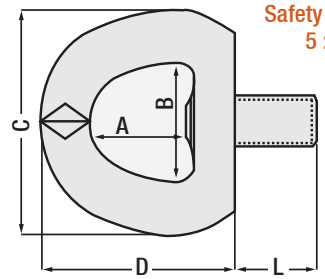


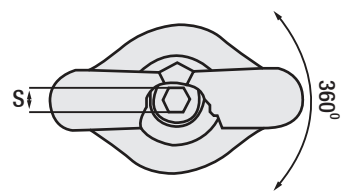
Lifting equipment manufactured as forging in Turkey, has been registered that its production quality is in European standards with **"Approval of Material Manufacturer"** certificate given by Germanischer Lloyd.

Heavy Tonnage Swivel Ring Eyebolt

Code: AK450

Class > 8CE
Safety Factor
5 : 1





Code: AK400

M	L	S1	S2	A	B	C	D	E	F	G	H
M8	15	8	16	33	30	30	27	29	14	53	85
M10	20	8	16	33	30	30	27	29	14	53	85
M12	20	8	16	33	30	30	27	29	14	53	85
M14	35	8	20	45	42	45	36	38	17	76	120
M16	35	8	20	45	42	45	36	38	17	76	120
M18	35	8	20	45	42	45	36	38	17	76	120
M20	35	8	20	45	42	45	36	38	17	76	120
M24	40	14	24	62	55	60	55	60	25	117	165
M30	40	14	24	62	55	60	55	60	25	117	165

Maximum Lifting Load (Safety Factor ≥ 5:1) P=Ton

M	p	p	p	p	45° p	60° p	45° p	60° p
M8	0.3	0.6	0.3	0.6	0.4	0.3	0.6	0.3
M10	0.6	1.2	0.6	1.2	0.8	0.6	1.3	0.6
M12	1.0	2.0	1.0	2.0	1.4	1.0	2.1	1.0
M14	1.3	2.6	1.3	2.6	1.8	1.3	2.7	1.3
M16	1.6	3.2	1.6	3.2	2.2	1.6	3.4	1.6
M18	2.0	4.0	2.0	4.0	2.8	2.0	4.2	2.0
M20	2.5	5.0	2.5	5.0	3.5	2.5	5.3	2.5
M24	4.0	8.0	4.0	8.0	5.6	4.0	8.4	4.0
M30	6.3	12.6	6.3	12.6	8.8	6.3	13.2	6.3

p : Load / Capacity Eyebolt

Order:
AK400. M

Code: AK450

M	L	S	A	B	C	D
M8	12	6	38	45	90	78
M10	15	6	38	45	90	78
M12	18	8	38	45	90	78
M16	27	8	38	45	90	78
M20	30	8	38	45	90	78
M24	36	14	58	70	134	115
M30	45	14	58	70	134	115
M36	54	14	88	94	190	166
M42	63	14	88	94	190	166
M48	68	19	88	94	190	166

Maximum Lifting Load (Safety Factor ≥ 5:1) P=Ton

M	p	p	p	p	45° p	60° p	45° p	60° p
M8	0.3	0.6	0.3	0.6	0.4	0.3	0.6	0.3
M10	0.6	1.2	0.6	1.2	0.8	0.6	1.3	0.6
M12	1.0	2.0	1.0	2.0	1.4	1.0	2.1	1.0
M16	1.6	3.2	1.6	3.2	2.2	1.6	3.4	1.6
M20	2.5	5.0	2.5	5.0	3.5	2.5	5.3	2.5
M24	4.0	8.0	4.0	8.0	5.6	4.0	8.4	4.0
M30	6.3	12.6	6.3	12.6	8.8	6.3	13.2	6.3
M36	10.0	20.0	10.0	20.0	14.0	10.0	21.0	10.0
M42	12.5	25.0	12.5	25.0	17.5	12.5	26.3	12.5
M48	15.0	30.0	15.0	30.0	21.0	15.0	31.5	15.0

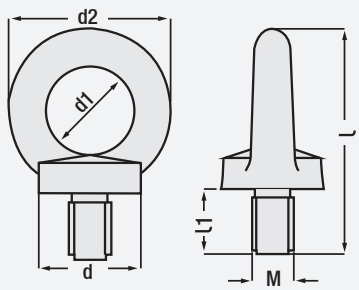
Order:
AK450. M

Material: Class > 8CE
Safety Certificated

Lifting Eyebolt

DIN 580

Code: G141



Order:
G141. M

Material: C15 Forged
EYEBOLT: Class > 8
EYENUT: Class > 8

Usage:
Standard: G141
Heavy Duty: AK-580C

Lifting Eyebolt: It is loaded only with forces making maximum 45° angle with vertical or circular plane, not allowed to other loadings, however such liftings are oftenly unavoidable. Please plan selection of eyebolt suitable to safety bearing in advance (its safety is provided).

Code: G141

M x Thread	d	d2	d1	l	l1	Weight	Z1 Ton	Z2 Ton
M8 x 1.25	20	36	20	49	13	70 gr.	0.15	0.09
M10 x 1.50	25	45	25	63	17	100 gr.	0.23	0.15
M12 x 1.75	30	54	30	73.5	20.5	180 gr.	0.34	0.20
M14 x 2.0	30	54	30	73.5	20.5	200 gr.	0.46	0.30
M16 x 2.0	35	63	35	89	27	280 gr.	0.70	0.50
M18 x 2.50	35	63	35	89	27	330 gr.	0.90	0.60
M20 x 2.50	40	72	40	101	30	420 gr.	1.20	0.80
M24 x 3.0	50	90	50	126	36	830 gr.	1.80	1.25
M30 x 3.50	65	108	60	154	45	1.66 kg.	3.60	2.50
M36 x 4.0	75	126	70	182	54	2.65 kg.	5.10	3.60
M42 x 4.50	85	144	80	210	63	4.03 kg.	7.00	4.90
M48 x 5.0	100	166	90	236	68	8.80 kg.	8.60	5.90

For Heavy Duty Parts

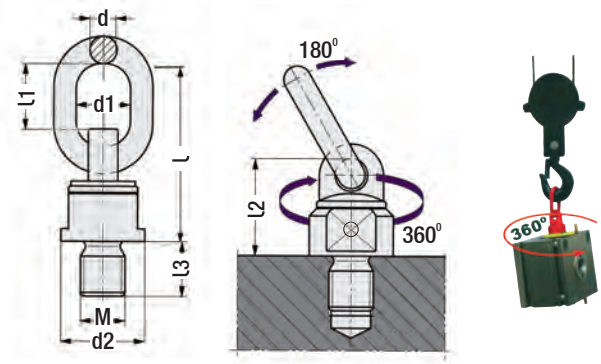
Order:
AK-582S
EYENUT

Order:
AK-580C
EYEBOLT

EYEBOLT (Heavy d.) AK - 580C: M27 / M30 / M36 / M42 / M45 / M48 / M56 / M60
EYENUT (Heavy d.) AK - 582S: M27 / M30 / M36 / M42 / M45 / M48 / M56 / M60

Rotary Safety Eyebolt

Code: G140



Rotary Safety Eyebolt: By absorbing sudden and rigid motion during lifting - bending and breaking of sling / rope / chain that can be occurred due to swinging of load, it will amortise costs above possible damages with safety lifting and carrying. Special forged steel (class 8) product, 4 times safety against fracture in rotation direction of full load, hinged rotary design that can be taken correct position and be turned axially by aligning movable ring 180° in loaded position.

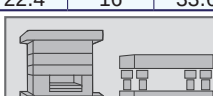
Code: G140

M x Thread	d	d1	d2	l	l1	l2	l3	Weight
M8 x 1.25	12	30	40	98	44	46	12	0.5 kg.
M10 x 1.50	12	30	40	98	44	46	19	0.5 kg.
M12 x 1.75	12	30	40	98	44	46	19	0.5 kg.
M16 x 2.0	12	30	40	98	44	46	31.8	0.5 kg.
M20 x 2.50	20	40	70	160	67	75	38.1	2.5 kg.
M24 x 3.0	20	40	70	160	67	75	38.1	2.5 kg.
M30 x 3.50	22	51	79	206	95	91	50	4.0 kg.
M36 x 4.0	22	51	79	206	95	91	54	4.0 kg.
M42 x 4.50	26	65	93	230.5	108	100.5	63	6.0 kg.
M48 x 5.0	26	65	93	230.5	108	100.5	68	6.0 kg.
M56 x 5.5	32	70	105	278	120	132	84	11.0 kg.
M64 x 6.0	32	70	105	278	120	132	95	11.0 kg.

Maximum Lifting Load (Safety Factor ≥ 5:1) P=Ton

Product	Vertical 0°		Lateral 90°		Two Angled 0-45° / 45-60°		Four Angled 0-45° / 45-60°	
M8 x 1.25	0.6		0.3		0.4	0.3	0.6	0.4
M10 x 1.50	0.9		0.45		0.6	0.45	0.9	0.6
M12 x 1.75	1.2		0.6		0.8	0.6	1.2	0.9
M16 x 2.0	2.6		1.3		1.8	1.3	2.7	1.9
M20 x 2.50	4		2		2.8	2	4.2	3
M24 x 3.0	7		3.5		4.9	3.5	7.3	5.2
M30 x 3.50	10		5		7	5	10.5	7.5
M36 x 4.0	15		8		11.2	8	16.8	12
M42 x 4.50	17		12		16.8	12	25.2	18
M48 x 5.0	18		13		18.2	13	27.3	19.5
M56 x 4.0	28		16		22.4	16	33.6	24
M64 x 6.0	28		16		22.4	16	33.6	24

Order: **G140. M**



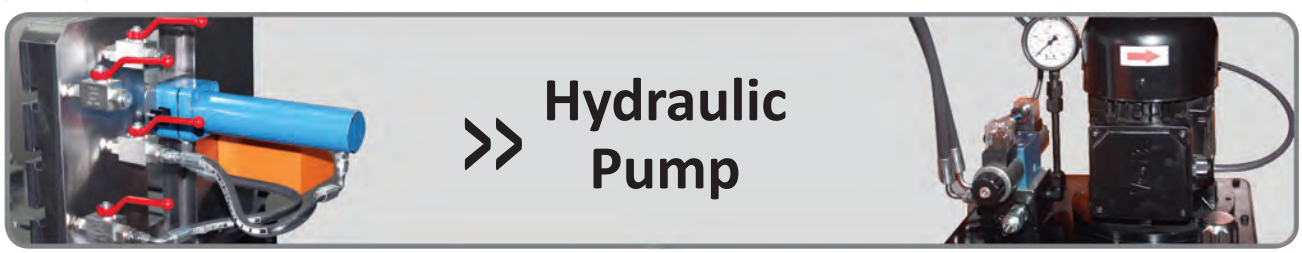
Mould Testing & Assembly Unit

Mould Delivery: No problem / successful

We maintain our innovative investments with the force we have taken from mould masters. We also present **"Mould Testing & Assembly Unit"** and **"Core System with Hydraulic Piston"** (page 266) which we hope that they support mould production with proud. We are sure that these products will be useful for mould collection and offer you a joyful working environment with quick and easy mounting.

Mould Testing Unit: It provides easy mounting and control possibility for your moulds with its suitable sizes and durable steel construction in anywhere of your workshop (by forklift). It enables to open your mould blocks / to separate plates easily by providing sliding motions with air cushions on the table of the unit. In this way, the plates can be moved forward - reverse easily (with the logic of cnc machine) and your operations on moulds are ready.

Hydraulic Power : It is mounted in the unit; the controls of hydraulic system which can be mounted to the mould if required (with the logic of injection machine) and injection motion controls, especially ejector works and other core / slider systems are monitored and their adjustments may be done in precision position on the unit. These motions can also be monitored.



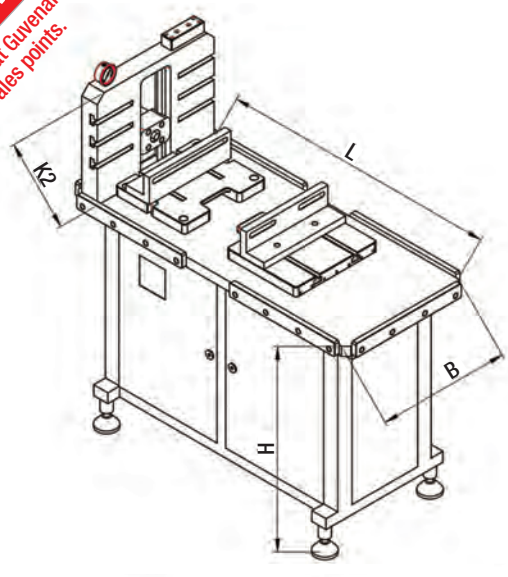
Compressed Air Energy: The air equipment on the unit enables you to test water/ cooling channels in your moulds with a manometer (air bar measuring) by installing it in your existing air system in the workshop. It provides support for you to detect leakages and problems in the water cooling channels with the pressure monitored in manometer counter. This system prevents corrosion in your new moulds because it does not use water. The existing air energy will make contribution to your other mounting works.

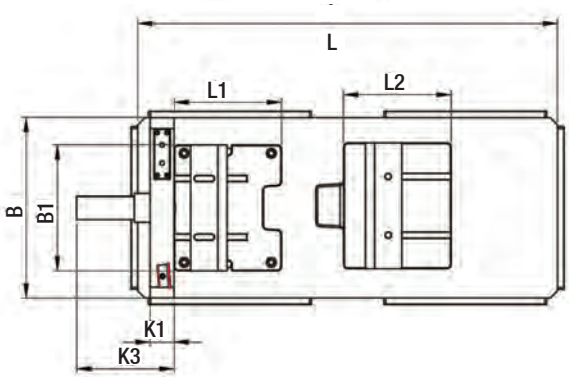
Except above mentioned important working possibilities of mould testing unit, it is a compact (with no effusing part) and innovative product equipped with table safety retainers / supports, mould angulation thrusts - electrical panel, air control buttons - hydraulic unit control counter - hydraulic valve - hydraulic piston tool - moving piston slot and holder - fixed plate and pins - moving plate control - mould ejector and connection plates.
All spare part and services are given by our company.

NEW
Only at Guvenal sales points.

Mould Testing & Assembly Unit

Code: TEST..





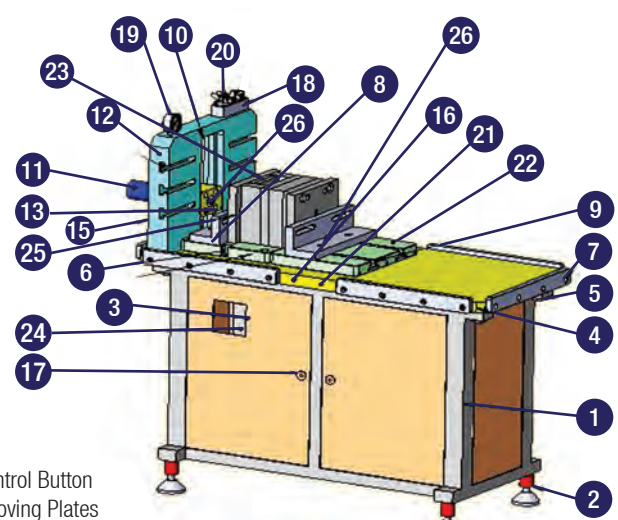
Perfect mould table that enables fast / easy opening and closing of moulds in accordance with the occupational safety principles and carrying out repair and mounting works on moulds and monitoring precision and performing many tests.

You can watch introductory video of mould testing unit at **www.guvenal.net**

Order Code	Max. Capacity Loading	Air Power	Electrical Motor Power	Unit Weight	L mm	H mm	L1 mm	L2 mm	B mm	B1 mm	K1 mm	K2 mm	K3 mm	Unit Price
TEST3	3000 Kg.	6 Bar	3 Kw	530 Kg.	1156	854	296	296	496	346	66	400	268	4.590 €
TEST4	3000 Kg.	6 Bar	3 Kw	-	1396	854	346	696	696	596	76	600	280	6.490 €
TEST5	5000 Kg.	8 Bar	5 Kw	-	1596	664	446	896	896	746	96	646	300	9.690 €

Mould Testing Unit Schema / Descriptions:

1 - Steel Profile (60 x 40 x 3) Chassis
2 - Powerful Metal Screw Pressing Feet
3 - Hydraulic Pressure Plexy Transparent Indicator
4 - Moving (precision ground) Unit Table
5 - Table Chassis Skid Plates
6 - Fixed Plate Pins
7 - Table Safety Side Holders
8 - Fixed (precision ground) Plate for Mould
9 - Chuck "T" Channels
10 - Moving Piston Slot
11 - Hydraulic Piston Arm
12 - Air Outlet for Water / Cooling Channel Test
13 - Moving, Hydraulic Piston Holder
14 - Precision Ground (for small moulds) Set Square
15 - Electrical Panel
16 - Air Control Button
17 - Openable Unit Cover
18 - Extra Hydraulic Distribution Control Button
19 - Air Control / Manometer
20 - Hydraulic Distribution Valves



21 - Moving Plate Control Button
22 - Air Cushioned Moving Plates
23 - Precision Ground Mould Ejector Plate
24 - Hydraulic Unit
25 - Precision Ground Mould Connection Plates
26 - Hydraulic Piston Extension Tool

Lifting Sling

Code: GPS

(Double-layer, polyester)

Load Capacity	A mm	L Sling Length (Meter)							
		1	2	3	4	5	6	8	10
1 Ton	25								
2 Ton	50								
3 Ton	75								
4 Ton	100								
5 Ton	125								
6 Ton	150								
8 Ton	200								
10 Ton	250								

Safety coefficient of polyester sling in accordance with **EN1492 -1** is 6 times of each type of slings. It is produced from 100% double layer polyester webbing. Reinforcement lifting eye - colour / load coded low coefficient of elongation - EN1492-1 : 2000.

Lifting Position / Capacity, Ton

Sling Colour Load	% 100	% 80	% 200	0°-45° % 140	45°-60° % 100
Purple	1 Ton	0.8	2 Ton	1.4	1 Ton
Green	2 Ton	1.6	4 Ton	2.8	2 Ton
Yellow	3 Ton	2.4	6 Ton	4.2	3 Ton
Grey	4 Ton	3.2	8 Ton	5.6	4 Ton
Red	5 Ton	4.0	10	7.0	5 Ton
Brown	6 Ton	4.8	12	8.4	6 Ton
Blue	8 Ton	6.4	16	11.2	8 Ton
Orange	10	8.0	20	14	10

Order:
GPS. Load x Lenght

Ratchet Strap

Code: NL35.08 (8 Meters)

Code: NL50.10 (10 Meters)

Work Safety Products

Footwear with protective steel toe

Code : EA

Safety Footwear

Order	Number
EA.39	No.39
EA.40	No.40
EA.41	No.41
EA.42	No.42
EA.43	No.43
EA.44	No.44
EA.45	No.45

Order	Product
IGZ	Safety Goggles
TGB	Face Mask
SGK	Face Guard

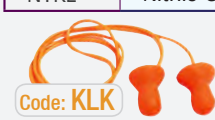
Code: NTEL

Code: TDEL

Code: ASPEST

Industiral Gloves

Order	Product
NTEL	Industrial Glove - Basic
TDEL	Safety Glove - Leather
ASPEST	Thermal Protection Glove
KDEL	Welder Glove
MLEL	Latex Glove
KBEL	Cloth Glove
BLEL	Rubber Glove
NTKL	Nitrile Glove - Basic



Code: KLK

Code: KBK

Code: EBBR

Work Safety Products

Order	Product
EBBR	Safety Helmet
EBBH	Safety Helmet with Air Channel
KBK	Ear Protection
KLK	Earplug
STM	Dust Mask
VTM	Dust Mask with Valve

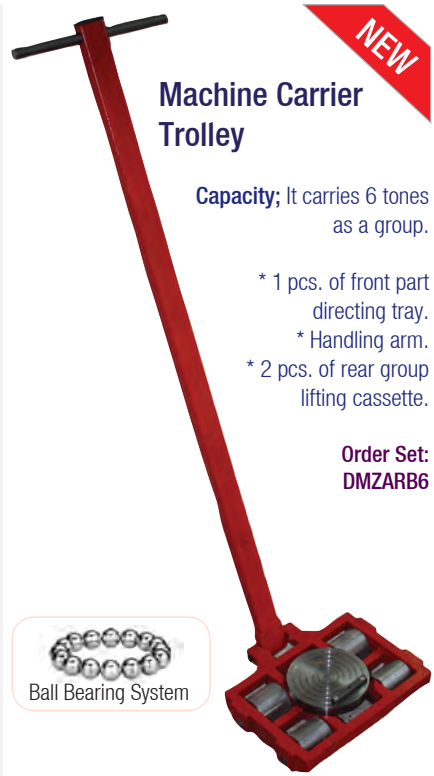
NEW

Machine Carrier Trolley

Capacity; It carries 6 tones as a group.

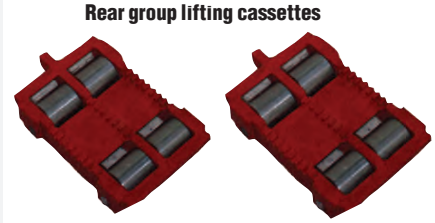
* 1 pcs. of front part directing tray.
* Handling arm.
* 2 pcs. of rear group lifting cassette.

Order Set: DMZARB6



Ball Bearing System

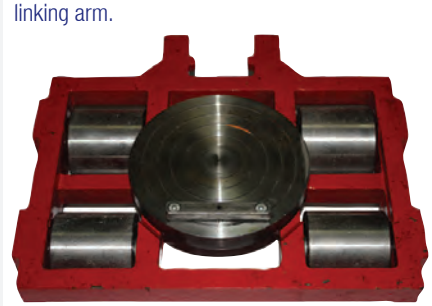
Rear group lifting cassettes



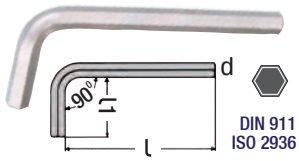
Order Code: DMZARB6

The trolleys are designed as hard balanced and without deformation. The trolleys are equipped with quite high robust **metal structured**, non-deformed wheels. For safety operation, it should be used when the **linking arm** is inserted to the cassette.

It means that all movable / traveler rotary jointed wheels are loaded equally even unleveled surfaces in case of closed cassette. Thanks to closed cassette, it provides to move high resistant, bearing preventing friction even at heavy loads. It is used at concrete surfaces in internal and external environment. For heavier or larger loads, a few cassette may be used simultaneously. If required, it is combined with linking arm.



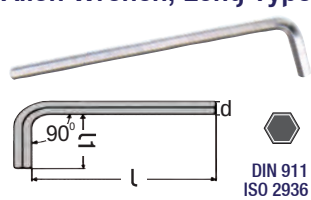
Allen Wrench



DIN 911
ISO 2936

Order	d	l	l1
AA.15	1.5	45	15
AA.20	2	50	17
AA.25	2.5	57	20
AA.30	3	64	22
AA.35	3.5	68	25
AA.40	4	72	28
AA.45	4.5	78	30
AA.50	5	83	32
AA.60	6	94	37
AA.70	7	99	40
AA.80	8	105	43
AA.90	9	111	46
AA.100	10	119	49
AA.120	12	134	56
AA.140	14	140	56
AA.160	16	165	75
AA.170	17	160	63
AA.190	19	180	70
AA.220	22	200	80
AA.240	24	224	90
AA.270	27	250	100

Allen Wrench, Long Type



DIN 911
ISO 2936

Order	d	l	l1
AU.20	2	100	16
AU.25	2.5	112	18
AU.30	3	126	20
AU.35	3.5	135	21
AU.40	4	140	25
AU.45	4.5	150	25
AU.50	5	160	28
AU.60	6	180	32
AU.70	7	190	34
AU.80	8	200	36
AU.90	9	212	38
AU.100	10	224	40
AU.110	11	240	42
AU.120	12	250	45
AU.130	13	266	50
AU.140	14	280	56
AU.170	17	320	63

Allen Wrench Set

Order	Diameter
AAS10 (10pcs)	2-2.5-3-4 5-6-7-8 9-10
AAS12 (12pcs)	2-2.5-3-4 5-6-7-8-9 10-12

Die & Mould Mounting Kit

Code: G111300

Capacity: 16 mm
Torque: 38.4 Kgm
Length: 180
Air Inlet: 1/4"
Air Pressure: 90 Psi (6.3 Kgm)

1/2" Air Nutrunner

1/2" Allen End

Code: G1113..

There is 1 pcs. allen end per dimension in the Die & Mould Mounting Kit.

Order	d	l	In Kit
111306	6	60 mm	1 pcs.
111308	8		1 pcs.
111310	10		1 pcs.
111312	12		1 pcs.
111314	14		1 pcs.

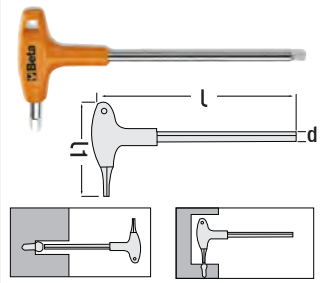
Round Head Allen Wrench

Order	d	l	l1
BA.20	2	50	16
BA.25	2.5	60	18
BA.30	3	63	20
BA.40	4	70	25
BA.50	5	80	28
BA.60	6	90	32
BA.80	8	100	36
BA.100	10	112	38

Key Wrench for Torx Head

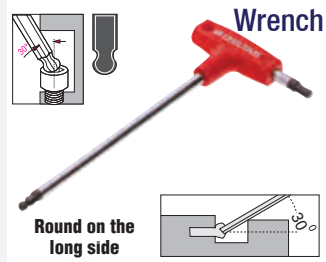
Order	d	l	l1
TX.T6	T6	42	16
TX.T7	T7	48	16
TX.T8	T8	48	16
TX.T9	T9	48	16
TX.T10	T10	51	17
TX.T15	T15	54	18
TX.T20	T20	57	19
TX.T25	T25	60	20

Hexagon Key Wrench



Order	d	l	l1
TA.20	2	139	52
TA.25	2.5	153	55
TA.30	3	153	55
TA.35	3.5	179	70
TA.40	4	179	70
TA.45	4.5	200	84
TA.50	5	200	84
TA.60	6	221	103
TA.70	7	236	106
TA.80	8	255	117
TA.100	10	285	132

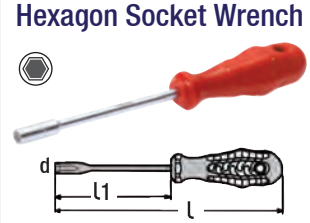
Round Head Hex. Key Wrench



Round on the long side

Order	d	l	l1
BT.25	2.5	153	55
BT.30	3	153	55
BT.40	4	179	70
BT.50	5	200	84
BT.60	6	221	103
BT.80	8	255	117

Hexagon Socket Wrench



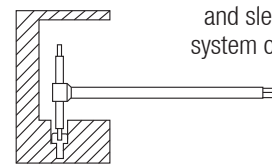
Order	d	l	l1
LA.4	4	210	125
LA.6	6	210	125
LA.7	7	220	125
LA.8	8	220	125
LA.10	10	220	125
LA.12	12	230	125
LA.14	14	230	125

NEW

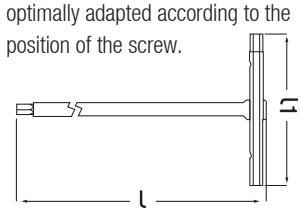
"T" Allen Wrench

Code: AKH

Functional use with strong steel thick body and sleeve system on it

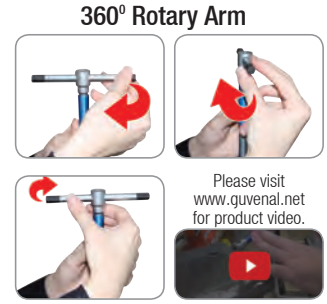


"T" Type Triple Hexagon Head Allen Wrench: Free / quick rotating via cold-rolled hexagon profile and sleeve on it and it is ready to process with robust and free insert handle. Chrome vanadium steel and black ends are suitable for screws in depth under high torques. Thanks to its handle, screwdriver set can be optimally adapted according to the position of the screw.



Order: AKH	Dia	l	l1
AKH.03	3	125	63
AKH.04	4	180	87
AKH.05	5	180	90
AKH.06	6	210	105
AKH.08	8	250	125
AKH.10	10	300	145
AKH.12	12	320	160
AKH.14	14	340	165

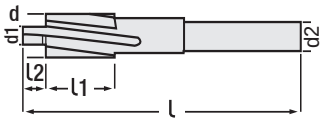
360° Rotary Arm



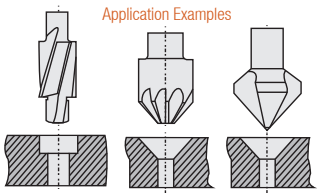
Please visit www.guvenal.net for product video.

Code: ICF

Socket Cap Screw Counterbore



Application Examples

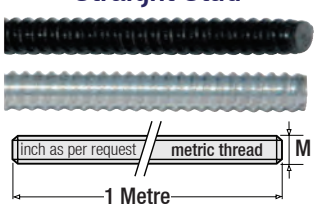


Hex-socket head location | Countersunk head location | Large Countersunk head location

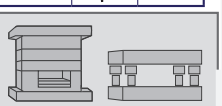
M	d	d1	d2	l	l1	l2
M3	6	3.2	5	71	14	4
M4	8	4.3				
M5	10	5.3	8	80	18	6
M6	11	6.4				
M8	15	8.4	12.5	100	22	8
M10	18	10.5				10
M12	20	13				12
M14	24	15				14
M16	26	17				16
M18	30	19				18
M20	33	20				20

Order: ICF. M x d

Straight Stud



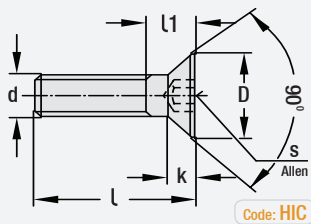
Order	M	Steel	INOX
GSM.3	M3	√	
GSM.4	M4	√	
GSM.5	M5	√	
GSM.6	M6	√	√
GSM.8	M8	√	√
GSM.10	M10	√	√
GSM.12	M12	√	√
GSM.14	M14	√	√
GSM.16	M16	√	√
GSM.18	M18	√	
GSM.20	M20	√	
GSM.22	M22	√	
GSM.24	M24	√	



Order / Code: HIC. d x L

Countersunk Head Screw

Class: 10.9 DIN 7991

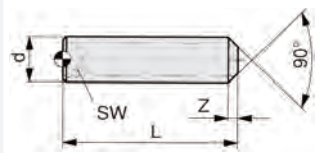


Code: HIC

d (M)	l mm	l1	D	k	s
M3 x 05	8	3.2	6	1.7	2
	10				
	15				
M4 x 07	10	4.4	8	2.3	2.5
	15				
	20				
	25				
	30				
M5 x 08	10	5.2	10	2.8	3
	15				
	20				
	25				
	30				
	35				
	40				
M6 x 1	10	6.3	12	3.3	4
	15				
	20				
	25				
	30				
	35				
	40				
M8 x 1.25	10	8.2	16	4.4	5
	15				
	20				
	25				
	30				
	35				
	40				
	50				
M10 x 1.50	15	10	20	5.5	6
	20				
	25				
	30				
	35				
	40				
	50				
	60				
M12 x 1.75	20	11.8	24	6.5	8
	25				
	30				
	35				
	40				
	50				
	60				
M16 x 2	25	15.4	30	8.5	10
	30				
	35				
	40				
	50				
	60				
	70				

Order / Code: SEC. d x L

Hex-socket Set Screws



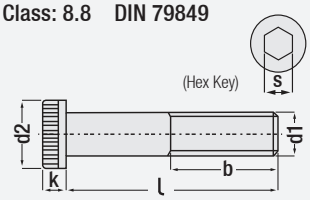
Code: SEC

d	l mm	Z	SW
M3 x 05	8	0.5	1.5
	10		
	15		
M4 x 07	8	0.7	2
	10		
	15		
	20		
M5 x 08	10	0.75	2.5
	15		
	20		
	25		
	30		
M6 x 1	10	1.0	3.0
	15		
	20		
	25		
	30		
	35		
	40		
M8 x 1.25	10	1.2	4.0
	15		
	20		
	25		
	30		
	35		
	40		
	45		
	50		
M10 x 1.50	10	1.5	5.0
	15		
	20		
	25		
	30		
	35		
	40		
	45		
	50		
M12 x 1.75	10	2.0	6.0
	15		
	20		
	25		
	30		
	35		
	40		
	45		
	50		
	55		
	60		
M14 x 2	20	2	7
	25		
	30		
	35		
	40		
	50		
	60		
M16 x 2	20	2	8
	25		
	30		
	35		
	40		
	50		
	60		

Order / Code: DKM. d1 x L

Low Head Socket Cap Screw

Class: 8.8 DIN 79849

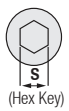


Code: DKM

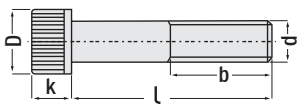
d1 (M)	l mm	b	d2	k	s
M4	10	8	7	2.8	2.5
	12	10			
	16	14			
	20	14			
	25	14			
M5	10	8	8,5	3,5	3
	12	10			
	16	14			
	20	16			
	25	16			
	30	16			
	35	16			
	40	16			
	50	16			
M6	10	8	10	4	4
	12	10			
	16	14			
	20	18			
	25	18			
	30	18			
	35	18			
	40	18			
	50	18			
M8	16	14	13	5	5
	20	18			
	25	22			
	30	22			
	35	22			
	40	22			
	50	22			
	60	22			
M10	16	14	16	6	7
	20	18			
	25	22			
	30	26			
	35	26			
	40	26			
	50	26			
	60	26			
M12	20	18	18	7	8
	25	23			
	30	28			
	35	30			
	40	30			
	50	30			
	60	30			

Hex-Socket Head Cap Screw

Code: IMB



DIN ISO 4762
Class: 12.9



d (M)	l mm	b	D	k	s
M3 x 05	10	8.5	5.5	3	2.5
	15	15			
	20	18			
	25	23			
	30	20			
M4 x 07	10	8	7	4	3
	15	14			
	20	18			
	25	23			
	30	20			
	35	20			
	40	20			
	45	20			
	50	20			
	60	20			
	70	20			
	80	20			
	90	20			
	100	20			
M5 x 08	10	8	8.6	5	4
	15	14			
	20	18			
	25	23			
	30	22			
	35	22			
	40	22			
	45	22			
	50	22			
	60	22			
	70	22			
	80	22			
	90	22			
	100	22			
	110	22			
	120	22			
	130	22			
	150	22			

Order: IMB. d x l

d (M)	l mm	b	D	k	s
M6 x 1	10	7	10	6	5
	15	13			
	20	17			
	25	22			
	30	27			
	35	24			
	40	24			
	45	24			
	50	24			
	55	24			
	60	24			
	70	24			
	80	24			
	90	24			
	100	24			
	120	24			
	130	24			
	150	24			
	160	24			
M8 x 1.25	10	8	13	8	6
	15	13			
	20	17			
	25	22			
	30	27			
	35	32			
	40	28			
	45	28			
	50	28			
	55	28			
	60	28			
	70	28			
	80	28			
	90	28			
	100	28			
	120	28			
	130	28			
	140	28			
	150	28			
	160	28			
	180	28			
	200	28			
M10 x 1.50	20	16	16	10	8
	25	21			
	30	26			
	35	31			
	40	36			
	45	32			
	50	32			
	55	32			
	60	32			
	70	32			
	80	32			
	90	32			
	100	32			
	110	32			
	120	32			
	130	32			
	150	32			
	160	32			
	180	32			
	200	32			
	260	32			
	300	32			

d (M)	l mm	b	D	k	s
M12 x 1.75	20	15	18	12	10
	25	20			
	30	25			
	35	30			
	40	35			
	45	40			
	50	45			
	55	36			
	60	36			
	70	36			
	80	36			
	90	36			
	100	36			
	110	36			
	120	36			
	130	36			
	150	36			
	160	36			
	180	36			
	200	36			
	260	36			
	300	36			
M14 x 2	30	24	21	14	12
	35	29			
	40	34			
	45	39			
	50	44			
	60	44			
	70	44			
	80	44			
	90	44			
	100	44			
	110	44			
	120	44			
	130	44			
	150	44			
	160	44			
	180	44			
	200	44			
	240	44			
	260	44			
	300	44			
M16 x 2	30	24	24	16	14
	35	29			
	40	34			
	45	39			
	50	44			
	55	49			
	60	54			
	70	44			
	80	44			
	90	44			
	100	44			
	110	44			
	120	44			
	130	44			
	140	44			
	150	44			
	160	44			
	180	44			
	200	44			
	220	44			
	240	44			
	260	44			
	300	44			

d (M)	l mm	b	D	k	s
M18 x 2.50	40	34	27	18	14
	50	43			
	60	53			
	70	52			
	80	52			
	100	52			
	120	52			
	140	52			
	160	52			
	180	52			
	200	52			
	220	52			
	240	52			
	260	52			
	300	52			
M20 x 2.50	40	34	30	20	17
	50	43			
	60	53			
	70	52			
	80	52			
	90	52			
	100	52			
	120	52			
	140	52			
	160	52			
	180	52			
	200	52			
	220	52			
	240	52			
	260	52			
	300	52			
M24 x 3	50	50	36	24	19
	60	52			
	70	61			
	80	71			
	90	60			
	100	60			
	120	60			
	140	60			
	150	60			
	160	60			
	180	60			
	200	60			
	220	60			
	240	60			
	260	60			
	300	60