

CONVEYANCE COMPONENTS FOR AUTOMOTIVE DIES

CONVEYANCE COMPONENTS FOR AUTOMOTIVE DIES



Product name Catalog No.	COILED MATERIAL GUIDES CILG	MATERIAL GUIDES MCG MCGN MCGE	MATERIAL GUIDE ROLLER SETS GBSR GBSL GBSS	MATERIAL GUIDE ROLLER SETS GDRT□ GDRT□W GDRT□T
Page	1073	1074	1075 1076	1077



MATERIAL GUIDE ROLLER SETS EGDR EGDRW EGDRT	MATERIAL GUIDE ROLLER SETS GDRA	SHEET LIFTER UNITS SLM	MATERIAL FEED LIFTER UNITS ZORW□	SHEET LIFTERS SLCES	MATERIAL LIFTERS SRL
1078	1078	1079	1079	1080	1080



LIFTER UNITS LTH CLTH	LIFTER UNITS HAMMC	LIFTER UNITS HAMMD40 HAMMD63 HAMMD80	LIFTER UNITS HAMMR	LIFTER UNITS MALT40	AIR CYLINDERS FOR LIFTER UNITS LTHCT LTHCS
1081	1083	1085 1087 1089	1091	1093	1095



LIFTING PADS VCH VCHT	AIR TUBE ONE-TOUCH JOINTS M-PC M-POC	AIR TUBE ONE-TOUCH JOINTS M-PL M-POL	AIR TUBES M-UB	SPECIAL TUBE CUTTERS M-TCN	AIR TUBE BRACKETS DAHK-A DAHK-B DAHK-C DAHK-D DAHK-E
1096	1097	1097	1098	1098	1099



TUBING TERMINALS TAHK-A TAHK-B TAHK-C TAHK-D	AIR MANIFOLDS DMFDA DMFDB	MISGRIPPING SENSOR UNITS - LIGHTWEIGHT TYPE - MGUG□ MGUC□ MGUE□ MGUL□	MISGRIPPING SENSOR UNITS - HIGH-RIGIDITY TYPE - MGUA□ MGU□	JUNCTION BOXES WITH TERMINAL BLOCKS JBX160 JBX100	HOOKS FOR TRANSPORT DEVICES DVJ
1099	1100	1101	1102	1103	1104



CURL CORD HOOKS DKLH	ROLLER CARRIERS GCQ GCW GCE GCR	ROLLER CARRIERS CORO	BALL CARRIERS GORO	BALL CARRIERS GORON	EMBOSSED SHOOTER PLATES EBSP
1104	1105	1107	1107	1107	1108



CHAINS FOR SCRAP SHOOTERS SRT SRTN	GENERAL PURPOSE CHAINS CN	CHAIN JOINTS JT	SHEET SUPPORT GAUGES - WEIGHT ADJUST TYPE - RSTL LKNG	SHEET SUPPORT GAUGES LKG	FLANGE LIFTERS FLOF
1109	1109	1109	1111	1112	1113



LIFT PLATES / GAUGE PLATES / ADVANCE PINS FOR FLOF FLANGE LIFTERS FLLP FLGP□ FLAP	FLANGE LIFTERS - OIL-FREE BASE MOUNTING TYPE - FLSF50 FLSF80	FLANGE LIFTERS - OIL-FREE SIDE MOUNTING TYPE - FLSHF50	FLANGE LIFTERS - WITH OIL GROOVE EMBEDDED TYPE - FLAOE□
1115	1117 1118	1119	1120



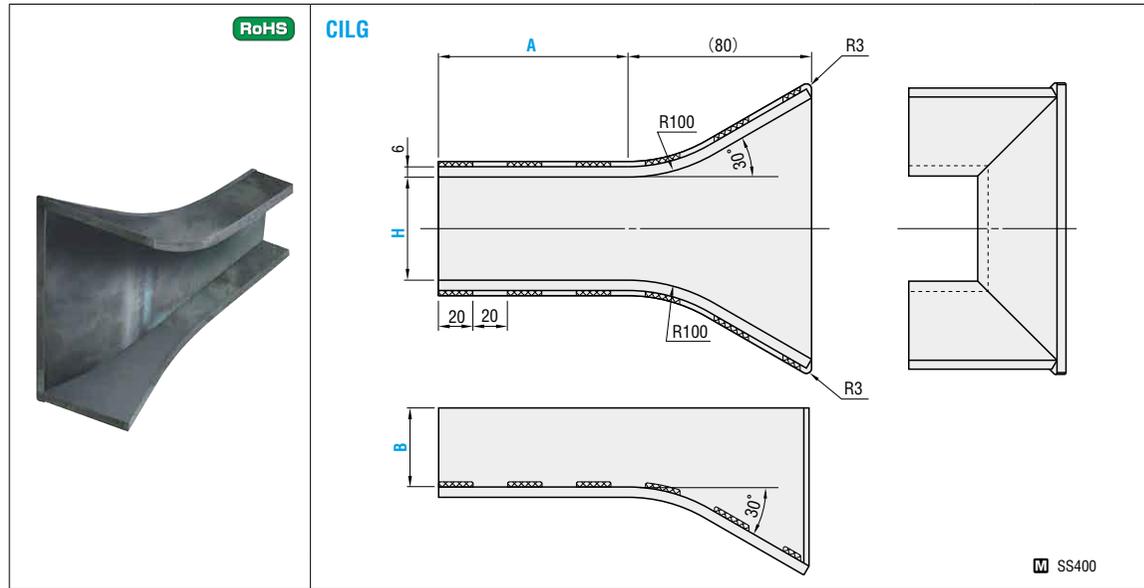
FLANGE LIFTERS - WITH OIL GROOVE EMBEDDED TYPE - FLOE□	FLANGE LIFTERS - WITH OIL GROOVE EMBEDDED TYPE - FLSE□	LIFTER BLOCKS / SIDE GAUGES / REAR GAUGES / PRELOAD PINS FLOLB□ FLOSG FLORG FLAP	LIFTER GUIDE POST SETS LGPFP□ LGPSP LGPD□
1121	1123	1125	1127 1128



PUSHERS - REGULAR TYPE - DABP	PUSHERS - COMPACT TYPE - DABPT	ROTARY JOINTS / CONNECTOR PLATES - FOR PUSHER SPRING HEAD INSTALLATION - PKAD TFPB
1129	1130	1131

COILED MATERIAL GUIDES

MATERIAL GUIDES



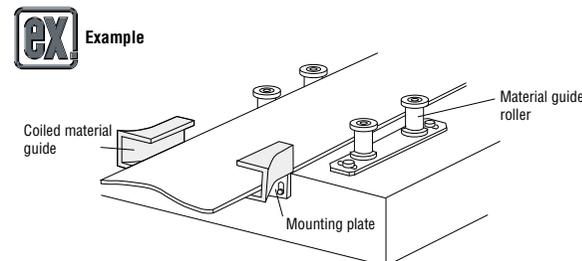
Catalog No.		A	B	H
Type				
CILG	60	40	60	30
	70			50
	80			60
	90			50
	100			60
	110			

Order Catalog No. — B — H
CILG-100 — 60 — 50

Days to Ship **Quotation**

Alterations Catalog No. — B — H — (AC)
CILG-100 — 60 — 60 — AC95

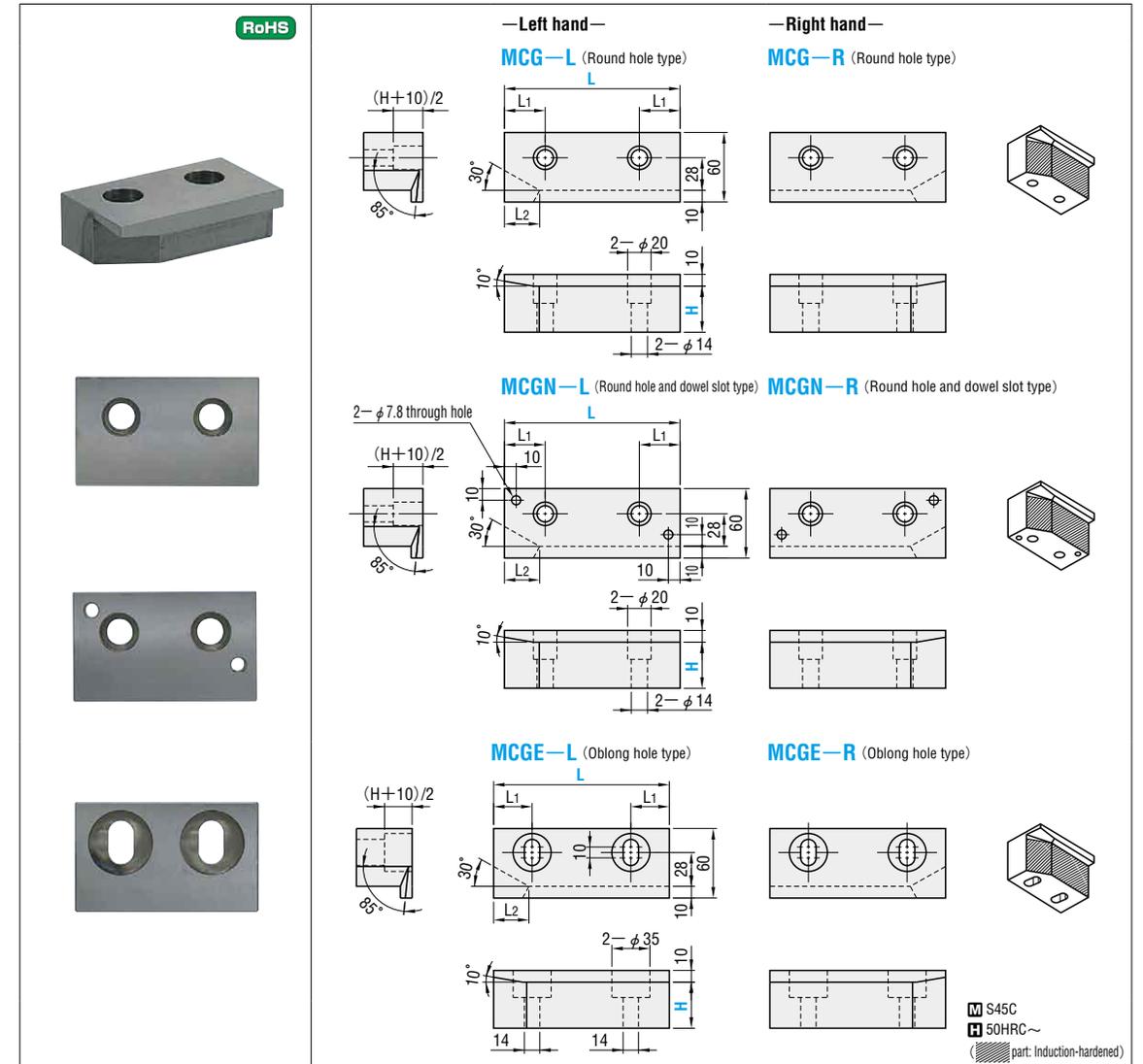
Alteration	Code	Spec.	1Code
	AC	Dimension A change 5mm increments 60 < AC < 110	Quotation



- Features**
- This flared guide for feed of coiled materials allows the materials to be fed smoothly, without running up on the guides due to warpage or meandering.
 - Because there is a large amount of freedom when determining the mounting position, these products are compatible with a broad range of material sizes.
 - ※Mount these guides by means of angle stays, mounting plates, or similar means.

Price **Quotation**

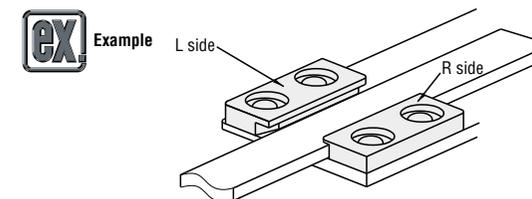
Catalog No.		A	B	H	Base unit price 1~10 pieces
Type					
CILG	60	40	60	30	
				50	
				60	
	70	40	60	30	
				50	
				60	
	80	40	60	30	
				50	
				60	
	90	40	60	30	
				50	
				60	
	100	40	60	30	
				50	
				60	
110	40	60	30		
			50		
			60		



L1	L2	Catalog No.		L	H
		Type	Mounting direction		10mm increments
25	30	MCG	R	100	20~70
		MCGN	L	150	
		MCGE			

Order Catalog No. — L — H
MCG-R — 100 — 50

Days to Ship **Quotation**



Price **Quotation**

Type	H	Base unit price 1~19 pieces	
		L100	L150
MCG-L MCG-R	20		
	30		
	40		
	50		
	60		
MCGN-L MCGN-R	20		
	30		
	40		
	50		
	60		
MCGE-L MCGE-R	20		
	30		
	40		
	50		
	60		

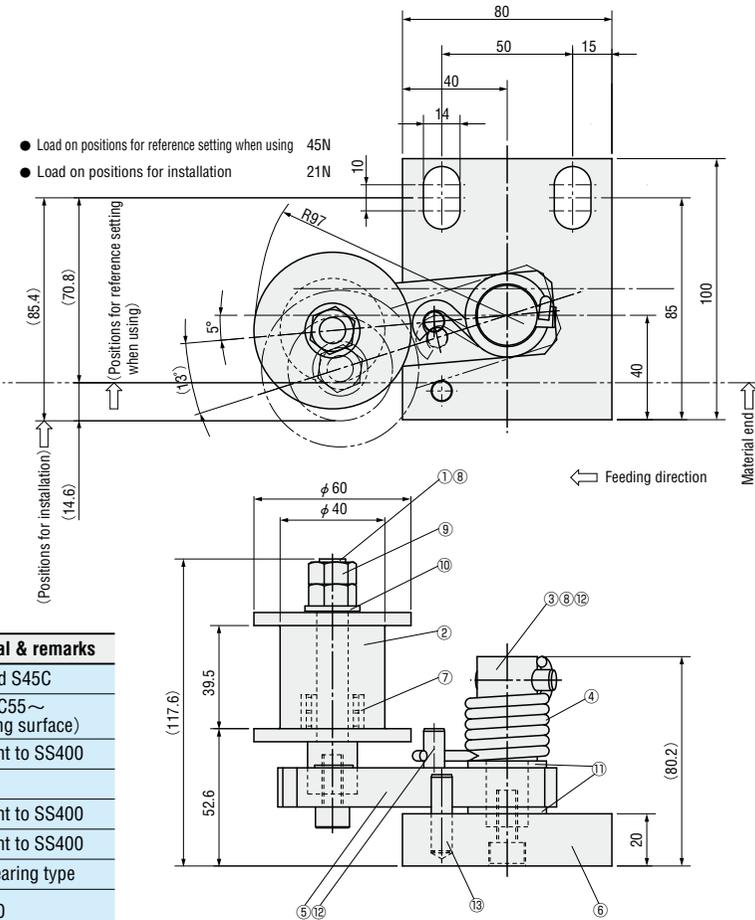
MATERIAL GUIDE ROLLER SETS



GBSR (R type)
GBSL (L type)

Ⓛ type GBSL is shown in the graph.

Drawing: GBSR (R type)



GBSR (L) components list

No.	Name	Qty.	Material & remarks
①	Roller dowel pin	1	Tempered S45C
②	Guide roller	1	40Cr HRC55~ (operating surface)
③	Arm dowel pin	1	Equivalent to SS400
④	Spring	1	65Mn
⑤	Roller arm	1	Equivalent to SS400
⑥	Roller base	1	Equivalent to SS400
⑦	Bearing	1	Roller Bearing type
⑧	Hexagon socket head cap bolt	2	M8 × 20
⑨	Hexagon nut	2	M10
⑩	Washer	1	For M10
⑪	Washer	2	For M16
⑫	Dowel pin	2	φ 8×30
⑬	Dowel pin with female thread	1	φ 8×30

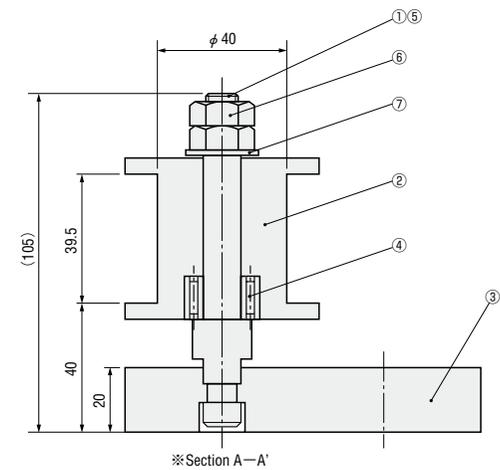
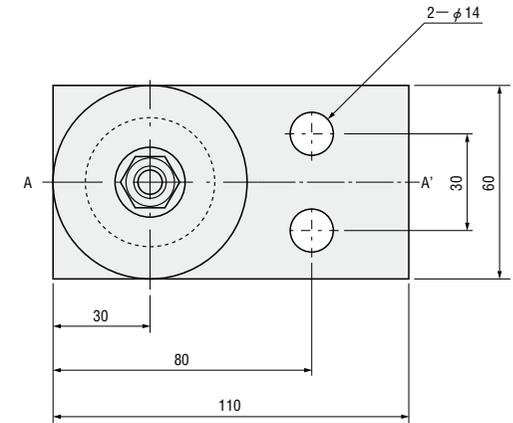
Order
GBSR

Days to Ship

Price



GBSS



GBSS components list

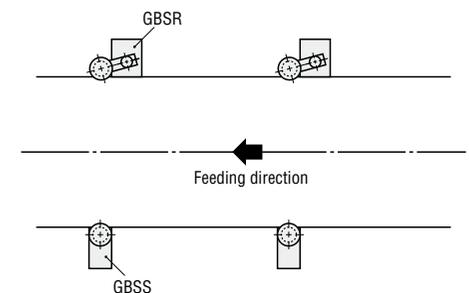
No.	Name	Qty.	Material & remarks
①	Roller dowel pin	1	Tempered S45C
②	Guide roller	1	40Cr HRC55~ (operating surface)
③	Roller base	1	Equivalent to SS400
④	Bearing	1	Needle type
⑤	Hexagon socket head cap bolt	1	M8 × 20
⑥	Hexagon nut	2	For M10
⑦	Washer	1	For M16

Order
GBSS

Days to Ship

Price

Example



CONVEYANCE COMPONENTS FOR AUTOMOTIVE DIES

MATERIAL GUIDE ROLLER SETS

—BEARING TYPE—

MATERIAL GUIDE ROLLER SETS

—OIL-FREE BUSHING TYPE—

Single guide **GDRTA** (Roller bearing type)
GDRTB (Ball bearing type)

M8×1.25 (DP16)

Double guides **GDRTAW** (Roller bearing type)
GDRTBW (Ball bearing type)

This product was discontinued in 2017.
Catalog No. : GDRTAW GDRTBW

① SCM415
② 55HRC~
③ SS400
④ Hexagon socket head set bolt (Cone point)
Single guide 1 piece

Guide roller unit **GDRTAT** (Roller bearing type)
GDRTBT (Ball bearing type)

④ Hexagon socket head set bolt (Cone point) 1 piece

Details of A

Set parts

T	H	ℓ	d	A	B	C	P	R	E	F	D ₁	Catalog No. Type	D	W	Base unit price 1~9 sets Single guide
48	40	5	10	95	30	10	73	5.5	20	1.5	14	(Roller bearing type) GDRTA	30	38	Quotation
54	75	8	25	145	55	20	115	6.5	35	5.5	32	GDRTAW	55	70	
86	75	8	25	145	55	20	115	6.5	35	5.5	32	(Ball bearing type) GDRTB	30	38	
54	40	5	9	95	30	10	73	5.5	20	1.5	12	(Ball bearing type) GDRTB	55	38	Quotation
86	75	8	20	145	55	20	115	6.5	35	5.5	32	GDRTBW	30	38	
86	75	8	20	145	55	20	115	6.5	35	5.5	32		55	70	

Individual parts

T	H	ℓ	d	F	D ₁	L	t	d ₁	S	N	Catalog No. Type	D	W	Base unit price 1~9 pieces
48	40	5	10	1.5	14	67	5.5	8	2.5	7	(Roller bearing type) GDRTA	30	38	Quotation
54	75	8	25	5.5	32	92	9.5	22	5	17	GDRTAT	55	38	
86	75	8	25	5.5	32	124	9.5	22	5	17	(Ball bearing type) GDRTB	30	38	
48	40	5	9	1.5	12	67	5.5	7	2.5	7	(Ball bearing type) GDRTB	55	38	Quotation
54	75	8	20	5.5	32	92	9.5	17	5	17	GDRTBT	30	38	
86	75	8	20	5.5	32	124	9.5	17	5	17		55	70	

EX Example Example of mounting hole machining when used as individual parts

Fasten from the side using the provided hexagon socket screw.

Order Catalog No. — W
GDRTA 55 — 38

Days to Ship **Quotation**

Price **Quotation**

Single guide **EGDR**

Double guides **EGDRW**

This product was discontinued in 2017.
Catalog No. : EGDRW

① Roller
② SCM415
③ 55HRC~
④ CSR (Spool retainer)
⑤ Hexagon socket head cap bolt
⑥ Oil-free bushing (LF type)
⑦ Snap ring (C type)
⑧ Spacer
⑨ Spring washer
⑩ Mounting plate
⑪ SS400

Guide roller unit **EGDRT**

① Roller
② SCM415
③ 55HRC~
④ CSR (Spool retainer)
⑤ Hexagon socket head cap bolt
⑥ Oil-free bushing (LF type)
⑦ Snap ring (C type)
⑧ Spacer
⑨ Spring washer
D30---CBW10 1 piece
D55---CBW16 1 piece

Set parts

T	H	ℓ	d	d ₁	A	B	C	P	R	E	F	D ₁	Catalog No. Type	D	W	Base unit price 1~9 sets Single guide
48	40	5	16	18	95	30	10	73	5.5	20	19	24	EGDR	30	38	Quotation
54	75	8	25	28	145	55	20	115	6.5	35	30.5	36	EGDRW	55	38	
86	75	8	25	28	145	55	20	115	6.5	35	30.5	36		70	70	

Individual parts

T	H	L	ℓ	d	F	S	D ₁	d ₁	M	Catalog No. Type	D	W	Base unit price 1~9 pieces
48	40	51	5	16	19	15	24	18	10	EGDRT	30	38	Quotation
54	75	59.5	8	25	30.5	26	36	28	16	EGDRT	55	38	
86	75	91.5	8	25	30.5	24	36	28	16		70	70	

Order Catalog No. — W
EGDR 55 — 38

Days to Ship **Quotation**

Price **Quotation**

Single guide **GDRA**

① SKS93
② 55~60HRC
③ SS400

Double guides **GDRAW**

This product was discontinued in 2017.
Catalog No. : GDRAW

Order Catalog No. — W
GDRA 30 — 38

Days to Ship **Quotation**

Price **Quotation**

Set parts

T	H	W	ℓ	d	A	B	C	P	R	E	Catalog No. Type	D	Base unit price 1~9 pieces
50	40	40	5	10	90	30	10	66	5.5	20	GDRA	30	Quotation
70	70	54	8	25	130	50	15	100	6.5	30		55	

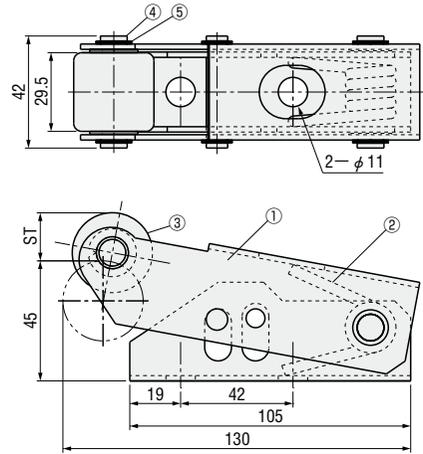
CONVEYANCE COMPONENTS FOR AUTOMOTIVES

SHEET LIFTER UNITS / MATERIAL FEED LIFTER UNITS

SHEET LIFTERS / MATERIAL LIFTERS

Sheet lifter units

SLM



- ① SPC Black oxide (Fe₃O₄)
 - ② SWP-A
 - ③ SS400 Carburizing and quenching
 - ④ S45C Black oxide (Fe₃O₄)
 - ⑤ Oil-free bushing
- ※ Fixing bolt (M10 × 2) is NOT provided.

Lifting load P (N)		Catalog No.		
min.	max.	Type	Stroke ST (mm)	Initial load P (N)
35	65	SLM	18	35
50	85			50
35	85		28	35
50	105			50



Catalog No. SLM28-50

Quotation

Material feed lifter units

RoHS

Alloy steel roller type

ZORWMS
ZORWHS

Resin roller type

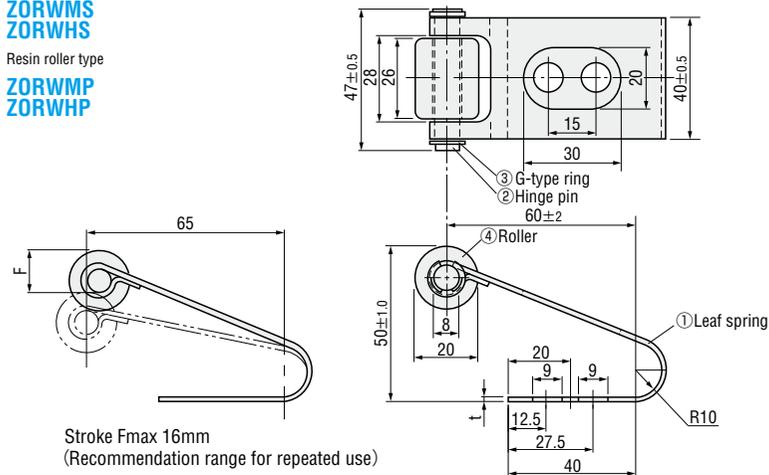
ZORWMP
ZORWHP



Resin roller type



- ① SK5M
 - ② S45C
 - ③ IWATA RING G-8
 - ④ Alloy steel roller type
 - ⑤ S45C ⑥ 45HRC~
- Resin roller type
 Outside Polyacetal resin (POM)
 Inside S45C
 CB8-20 2pcs.



t	N/mm (kgf/mm)	Type	Catalog No.
1.4	5.88 {0.60}	Alloy steel roller type	ZORWMS
1.6	8.43 {0.86}		ZORWHS

t	N/mm (kgf/mm)	Type	Catalog No.
1.4	5.88 {0.60}	Resin roller type	ZORWMP
1.6	8.43 {0.86}		ZORWHP

● Load (kgf) = Load N × 0.101972

Order Catalog No. ZORWMS

Price Quotation

Days to Ship Quotation

Sheet lifters

RoHS

SLCES



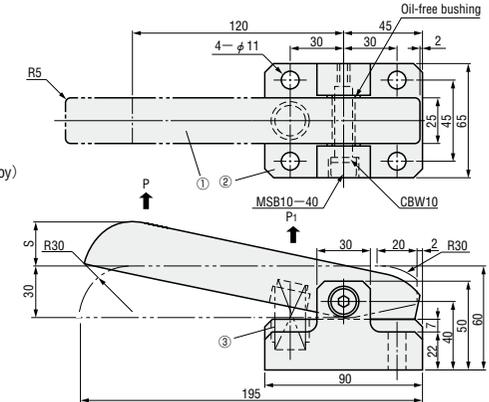
SLCE



SLC

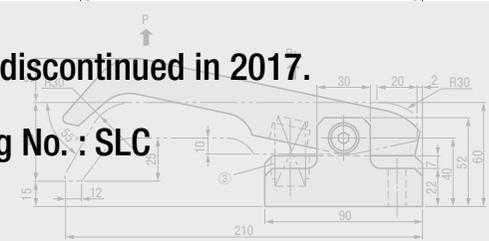


SLCES (Sheet bar: S45C)
SLCE (Sheet bar: copper alloy)



This product was discontinued in 2017.

Catalog No.: SLC



- ① Sheet bar SLCES S45C
SLCE Copper alloy
- ② Block FC250

Lifting load P N (kgf)		Spring load P _s N (kgf)		Coil spring (color)		Stroke S	Catalog No.	
min.	max.	min.	max.	③			Type	No.
18.3 {1.9}	24.5 {2.5}	73 {7.5}	98 {10.0}	SWU17-50 (Light blue)		20	SLCES	20U
29.3 {3.0}	39.2 {4.0}	117 {12.0}	157 {16.0}	SWR17-50 (Ivory)			SLCE	20R
54.9 {5.6}	73.5 {7.5}	220 {22.5}	294 {30.0}	SWS17-50 (Orange)		25	SLC	20S
16.9 {1.7}	24.5 {2.5}	67 {6.9}	98 {10.0}	SWU17-50 (Light blue)			SLC	25U
27.0 {2.8}	39.2 {4.0}	108 {11.0}	157 {16.0}	SWR17-50 (Ivory)			SLC	25R
51.0 {5.2}	73.5 {7.5}	202 {20.6}	294 {30.0}	SWS17-50 (Orange)			SLC	25S

⚠ Avoid using at the full stroke. It is recommended the stroke be set approximately 1mm shorter than the full stroke.

● Load (kgf) = Load N × 0.101972

Order Catalog No. SLCE 20S

Price Quotation

Days to Ship Quotation

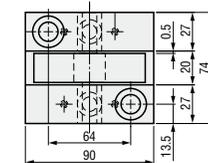
Alterations Catalog No. (HTC-HTM) SLCES20U - HTM

Alterations	Code	Spec.
	HTC	HF induction hardening on the upper surface (Sheet bar body only) 55HRC~ ⚠ Cannot be used for SLCE.
	HTM	Sheet bar body plated (Electroless nickel plating) ⚠ Cannot be used for SLCE.

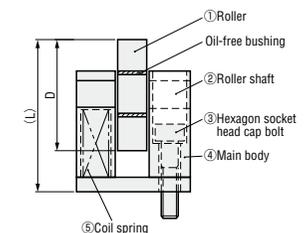
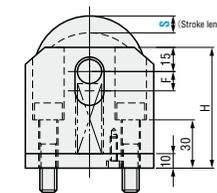
Material lifters

RoHS

SRL



- ① SUJ2 ② 55~62HRC
- ② SUJ2 ③ 55~62HRC
- ③ LB12-50 2pcs.
- ④ SS400
- ⑤ S=10 → SWF20-45 2pcs.
S=20 → SWR21-65 2pcs.



D	H	F	(L)	N (kgf) min.	N (kgf) max.	Catalog No.	
						Type	S
60	75	12	90	165 {16.8}	439 {44.8}	SRL	10
80	95	22	120	108 {11.0}	469 {47.8}		20

Order Catalog No. SRL 20

Days to Ship Quotation

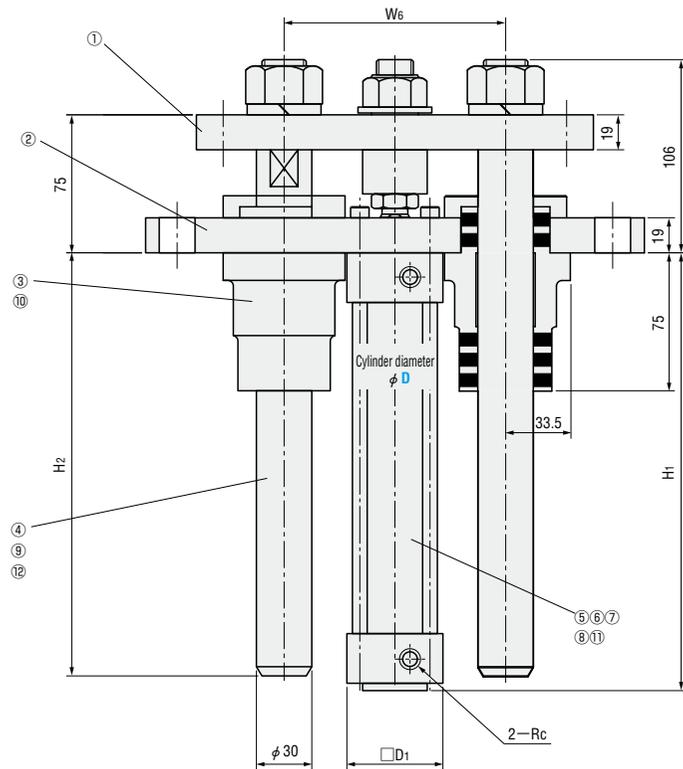
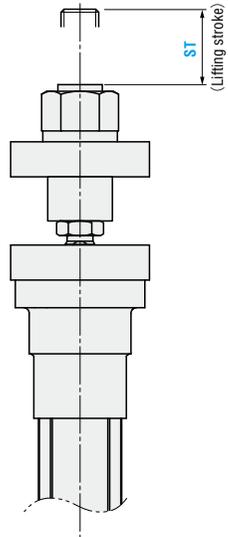
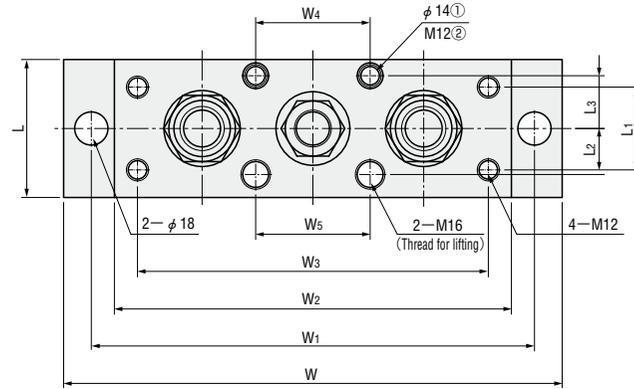
Price Quotation

CONVENIENCE COMPONENTS FOR AUTOMOTIVE DIE

LIFTER UNITS

— COMPACT TYPE —

HAMMC



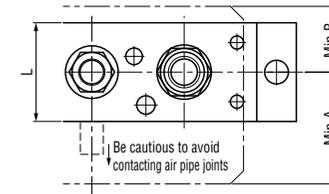
■ Components list

No.	Name	Qty.	Material & remarks	No.	Name	Qty.	Material & remarks
①	Lifting plate	1	Equivalent to SS400	⑦	Hexagon socket head cap bolt	4	M6 (for D = 40) M8 (for D = 63)
②	Mounting base plate	1	Equivalent to SS400	⑧	Nut	1	M20
③	Guide bushing	2	FC250 oil-free	⑨	Nut	2	M24
④	Guide bar	2	S45C HRC50 ~ 60	⑩	Hexagon socket head cap bolt	4	M12 × 35
⑤	Cylinder	1	Made by AIRTAC (for D = 40) Made by AIRTAC (for D = 63)	⑪	Flat washer	1	For M20
⑥	Link block	1	Equivalent to SS400	⑫	Spring washer	2	For M24

H1	H2	Rc	D1	W	W1	W2	W3	W4	W5	W6	L	L1	L2	L3	Catalog No.	Cylinder dia. (D)	Stroke ST
138	130	1/4	52	270	240	215	190	66	60	120	75	45	25	28	HAMMC	40	50
163	155																75
188	180																100
213	205																125
238	230																150
263	255																175
288	280																200
313	305																225
338	330																250
363	355																275
388	380																300
148	130																3/8
173	155	75															
198	180	100															
223	205	125															
248	230	150															
273	255	175															
298	280	200															
323	305	225															
348	330	250															
373	355	275															
398	380	300															

ex Example

See the illustration for the space for casting installation.



● Actual cylinder output
Air pressure: 500kPa
φ 40: approx. 600×0.7=420N
φ 63: approx. 1500×0.7=1050N

Cylinder dia. (D)	L	A	B
40	75	85	50
63	90	95	60



Alterations

Alteration	Code	Spec.
Cylinder change	S	Change to SMC cylinder



Order **Catalog No.** HAMMC (D) 40 - ST 150



Days to Ship **Quotation**

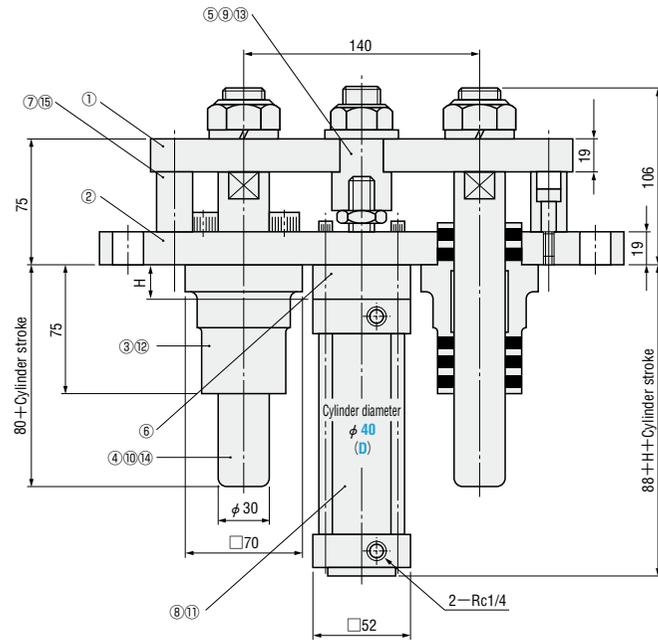
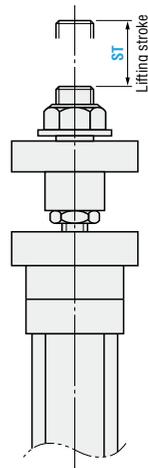
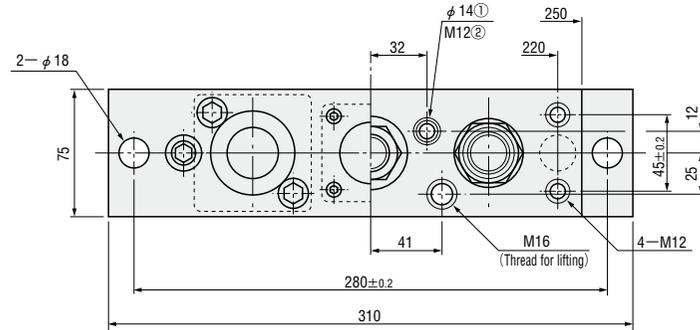


Price **Quotation**

CONVEYANCE COMPONENTS FOR AUTOMOTIVES

LIFTER UNITS

HAMMD40



Components list

No.	Name	Qty.	Material & remarks	No.	Name	Qty.	Material & remarks
①	Lifting plate	1	Equivalent to SS400	⑨	Nut	1	M20
②	Mounting base plate	1	Equivalent to SS400	⑩	Nut	2	M24
③	Guide bushing	2	FC250 oil-free	⑪	Hexagon socket head cap bolt	4	M6
④	Guide bar	2	S45C HRC50 ~ 60	⑫	Hexagon socket head cap bolt	4	M12 × 35
⑤	Link block	1	Equivalent to SS400	⑬	Flat washer	1	For M20
⑥	Padding block	1	Equivalent to SS400	⑭	Spring washer	2	For M24
⑦	Cushion block	2	Urethane	⑮	Hexagon socket head cap bolt	2	M8 × 30
⑧	Cylinder	1	Made by AIRTAC				

Lifting stroke ST	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Height of retainer H	40	30	20	10	—	40	30	20	10	—	40	30	20	10	—
Cylinder stroke	50					100					150				

Lifting stroke ST	160	170	180	190	200	210	220	230	240	250
Height of retainer H	40	30	20	10	—	40	30	20	10	—
Cylinder stroke	200					250				

Catalog No.	Cylinder dia. (D)	Lifting stroke ST 10mm increment
HAMMD	40	10~50
		60~100
		110~150
		160~200
		210~250

● Actual cylinder output
Air pressure: 500kPa
approx. $600 \times 0.7 = 420N$

Order **Catalog No.** **(D)** - **ST**
HAMMD 40 - 110

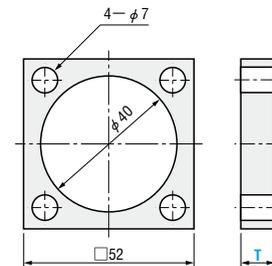
Days to Ship **Quotation**

Price **Quotation**

Alterations **Catalog No.** **(D)** - **ST** - **(S)**
HAMMD 40 - 110 - S

Alteration	Code	Spec.
Cylinder change	S	Change to SMC cylinder

Retainer (6) For LIFTER UNITS HAMMG



Equivalent to SS400

Catalog No.	(D)	T
HAMMG	40	10
		20
		30
		40

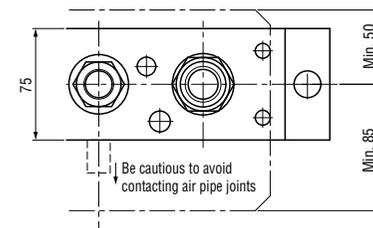
Order **Catalog No.** **(D)** - **T**
HAMMG 40 - 30

Days to Ship **Quotation**

Price **Quotation**

Example

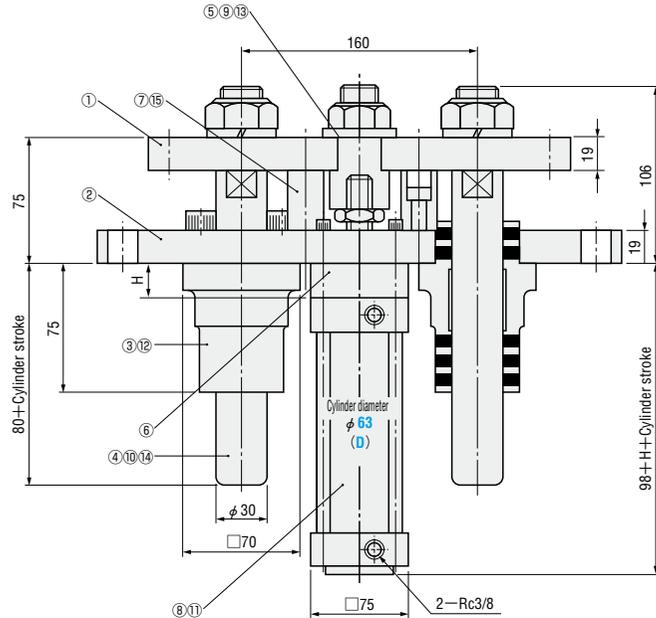
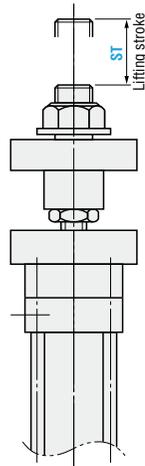
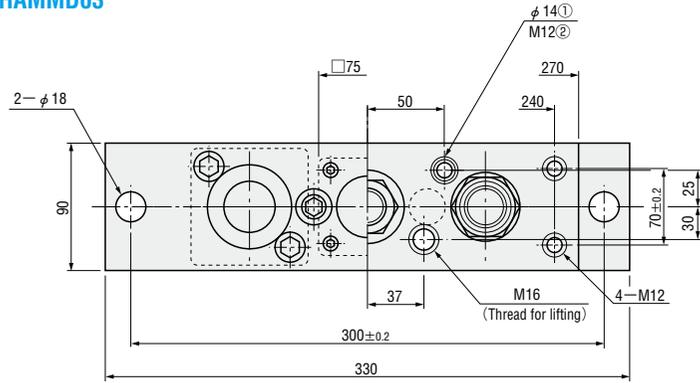
See the illustration for the space for casting installation.



LIFTER UNITS



HAMMD63



Components list

No.	Name	Qty.	Material & remarks
①	Lifting plate	1	Equivalent to SS400
②	Mounting base plate	1	Equivalent to SS400
③	Guide bushing	2	FC250 oil-free
④	Guide bar	2	S45C HRC50 ~ 60
⑤	Link block	1	S45C
⑥	Padding block	1	Equivalent to SS400
⑦	Cusion block	2	Urethane
⑧	Cylinder	1	Made by AIRTAC

No.	Name	Qty.	Material & remarks
⑨	Nut	1	M20
⑩	Nut	2	M24
⑪	Hexagon socket head cap bolt	4	M8
⑫	Hexagon socket head cap bolt	4	M12 × 35
⑬	Flat washer	1	For M20
⑭	Spring washer	2	For M24
⑮	Hexagon socket head cap bolt	2	M8 × 30

Lifting stroke ST	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Height of retainer H	40	30	20	10	—	40	30	20	10	—	40	30	20	10	—
Cylinder stroke	50					100					150				

Lifting stroke ST	160	170	180	190	200	210	220	230	240	250
Height of retainer H	40	30	20	10	—	40	30	20	10	—
Cylinder stroke	200					250				

Catalog No.	Cylinder dia. (D)	Lifting stroke ST 10mm increment
HAMMD	63	10~50
		60~100
		110~150
		160~200
		210~250

● Actual cylinder output
Air pressure: 500kPa
approx. 1500×0.7=1050N

Order Catalog No. (D) - ST
HAMMD 63 - 160

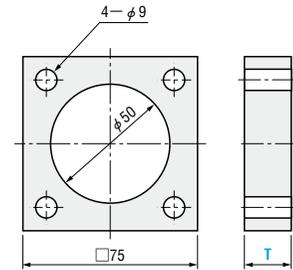
Days to Ship **Quotation**

Price **Quotation**

Alterations Catalog No. (D) - ST - (S)
HAMMD 63 - 160 - S

Alteration	Code	Spec.
Cylinder change	S	Change to SMC cylinder

Retainer (⑥) For LIFTER UNITS HAMMG



Catalog No.	(D)	T
HAMMG	63	10
		20
		30
		40

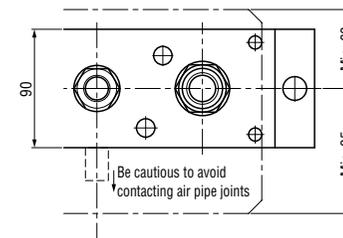
Order Catalog No. (D) - T
HAMMG 63 - 10

Days to Ship **Quotation**

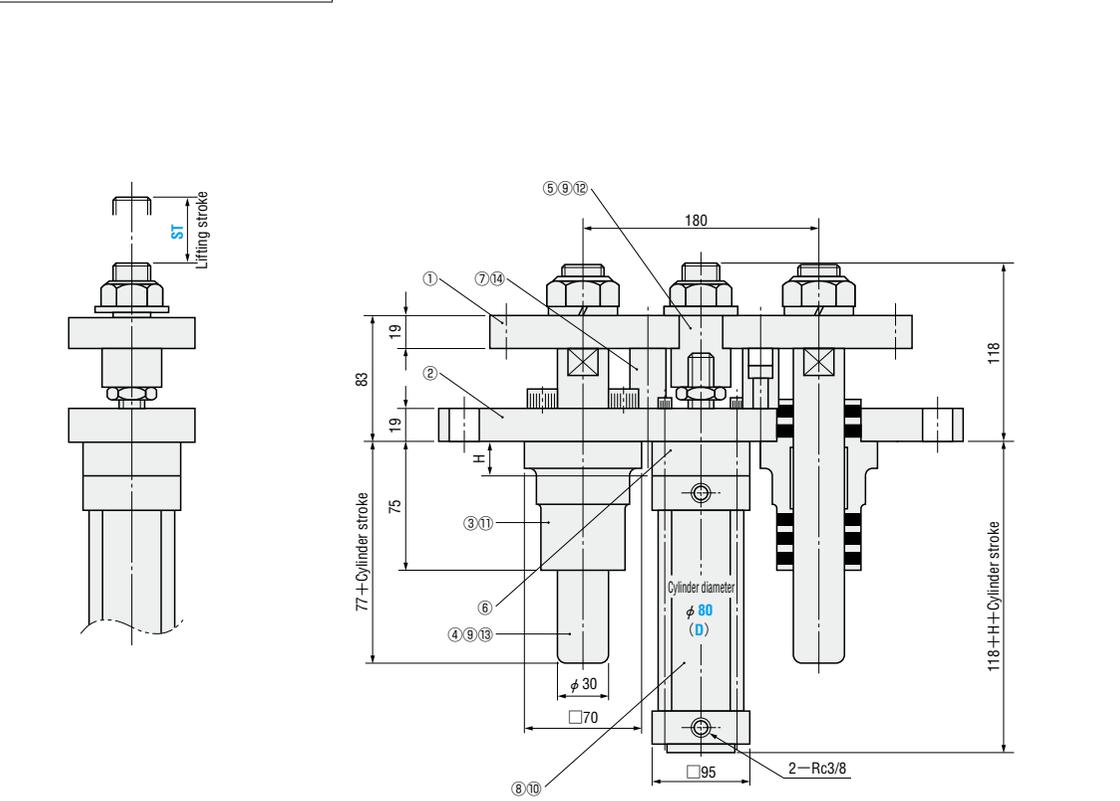
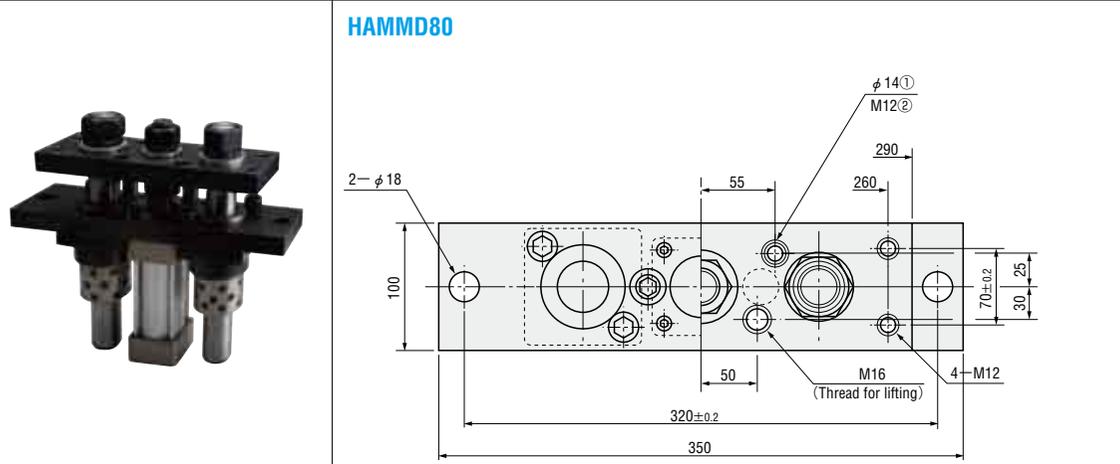
Price **Quotation**

ex Example

See the illustration for the space for casting installation.



LIFTER UNITS



Components list

No.	Name	Qty.	Material & remarks	No.	Name	Qty.	Material & remarks
①	Lifting plate	1	Equivalent to SS400	⑨	Nut	3	M24
②	Mounting base plate	1	Equivalent to SS400	⑩	Hexagon socket head cap bolt	4	M10
③	Guide bushing	2	FC250 oil-free	⑪	Hexagon socket head cap bolt	4	M12 × 35
④	Guide bar	2	S45C HRC50 ~ 60	⑫	Flat washer	1	For M24
⑤	Link block	1	S45C	⑬	Spring washer	2	For M24
⑥	Padding block	1	Equivalent to SS400	⑭	Hexagon socket head cap bolt	2	M8 × 30
⑦	Cusion block	2	Urethane				
⑧	Cylinder	1	Made by AIRTAC				

Lifting stroke ST	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Height of retainer H	40	30	20	10	—	40	30	20	10	—	40	30	20	10	—
Cylinder stroke	50					100					150				

Lifting stroke ST	160	170	180	190	200	210	220	230	240	250
Height of retainer H	40	30	20	10	—	40	30	20	10	—
Cylinder stroke	200					250				

Catalog No.	Cylinder dia. (D)	Lifting stroke ST 10mm increment
HAMMD	80	10~50
		60~100
		110~150
		160~200
		210~250

● Actual cylinder output
Air pressure: 500kPa
approx. 2450×0.7=1715N

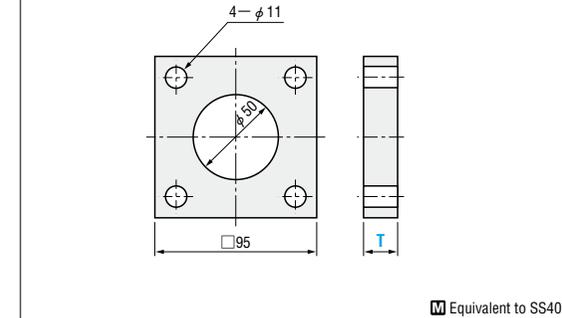
Order **Catalog No.** **(D)** - **ST**
HAMMD 80 - 120

Days to Ship **Quotation**

Price **Quotation**

Alteration	Code	Spec.
Cylinder change	S	Change to SMC cylinder

Retainer (6) For LIFTER UNITS HAMMG



Catalog No.	(D)	T
HAMMG	80	10
		20
		30
		40

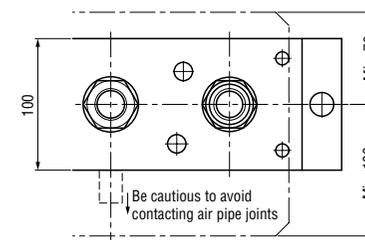
Order **Catalog No.** **(D)** - **T**
HAMMG 80 - 20

Days to Ship **Quotation**

Price **Quotation**

Example

See the illustration for the space for casting installation.

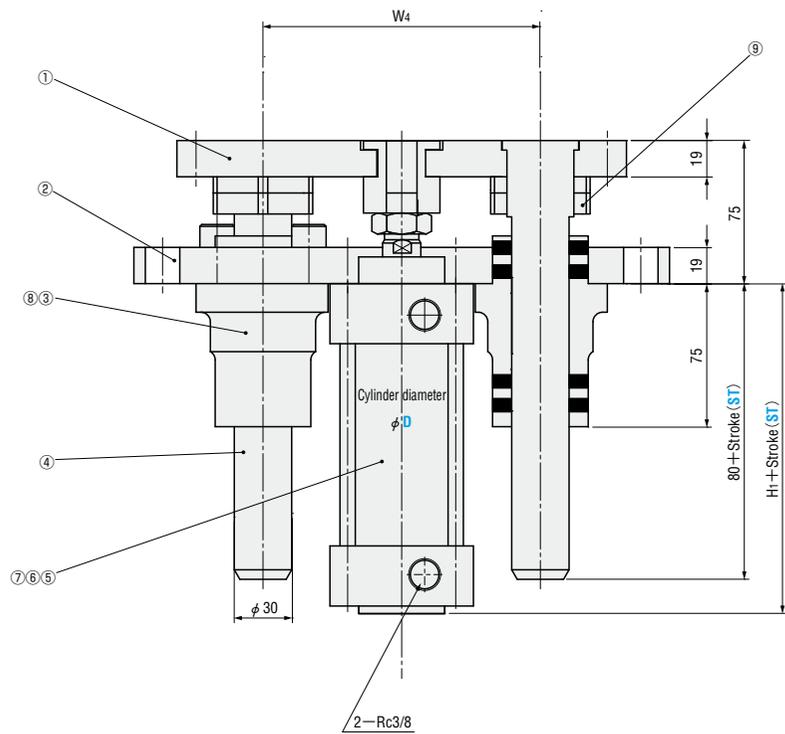
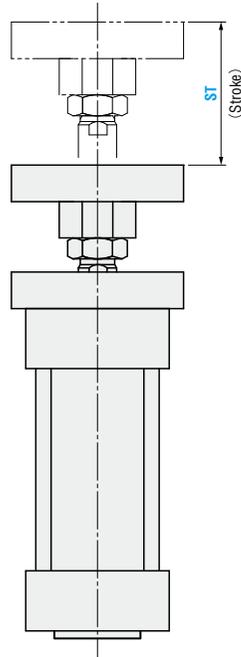
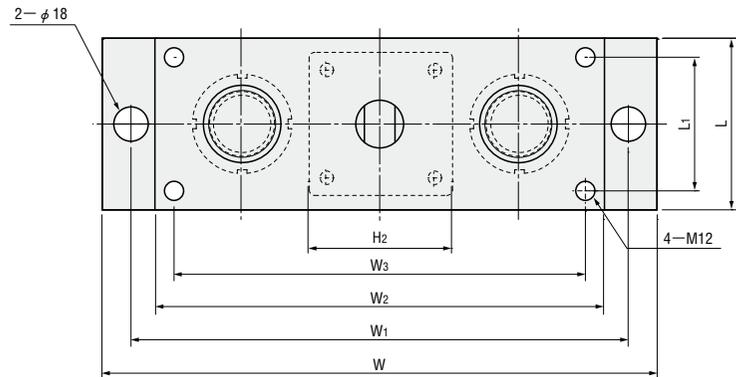


LIFTER UNITS

— FLAT SURFACE TYPE —



HAMMR



■ Components list

No.	Name	Qty.	Material & remarks
①	Lifting plate	1	Equivalent to SS400
②	Mounting base plate	1	Equivalent to SS400
③	Guide bushing	2	FC250 oil-free
④	Guide bar	2	S45C HRC50~60
⑤	Cylinder	1	Made by AIRTAC (for D=40) Made by AIRTAC (for D=63)

No.	Name	Qty.	Material & remarks
⑥	Link block	1	S45C
⑦	Hexagon socket head cap bolt	4	M 6 × 35 (For D=40) M 8 × 35 (For D=63)
⑧	Hexagon socket head cap bolt	4	M12 × 35
⑨	Nut	2	M35

H1	H2	Rc	W	W1	W2	W3	W4	L	L1	Catalog No.	Cylinder dia. D	Stroke ST
88	52	1/4	270	240	215	190	120	75	45	HAMMR	40	50
												75
												100
												125
												150
												175
												200
												225
98	75	3/8	290	260	235	215	145	90	70	HAMMR	63	50
												75
												100
												125
												150
												175
												200
												225
250												
275												
300												

Order **Catalog No.** HAMMR **D** 40 **ST** 100

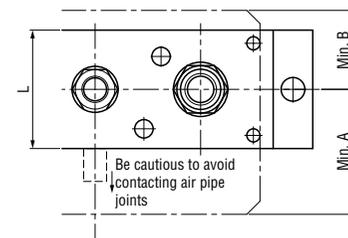
Alterations **Catalog No.** HAMMR **(D)** 40 **ST** 100 **(S)** S

Days to Ship **Quotation**

Price **Quotation**

Example

See the illustration for the space for casting installation.



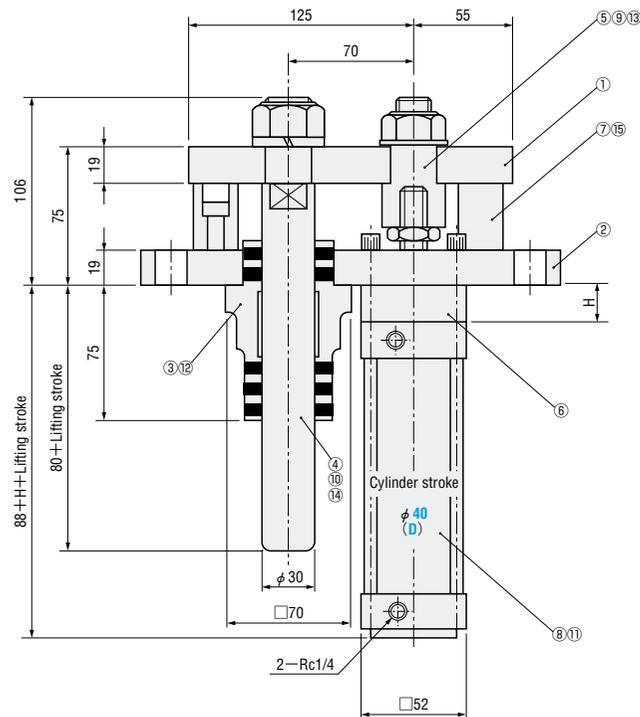
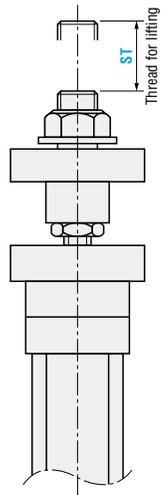
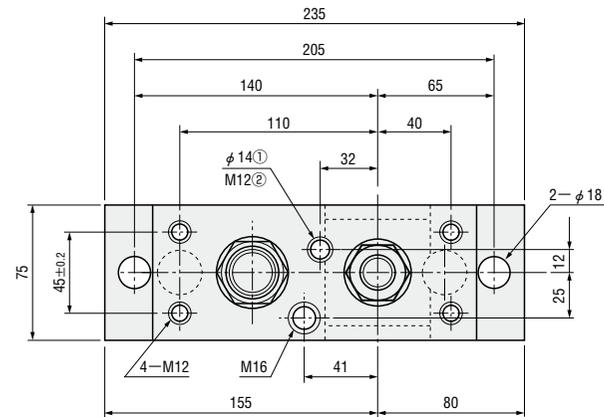
- Actual cylinder output
Air pressure: 500kPa
φ 40: approx. 600×0.7=420N
φ 63: approx. 1500×0.7=1050N

D	L	A	B
40	75	85	50
63	90	95	60

LIFTER UNITS

— MINI TYPE —

MALT40



Components list

No.	Name	Qty.	Material & remarks
①	Lifting plate	1	Equivalent to SS400
②	Mounting base plate	1	Equivalent to SS400
③	Guide bushing	1	FC250 oil-free
④	Guide bar	1	S45C HRC50~60
⑤	Link block	1	Equivalent to SS400
⑥	Padding block	1	Equivalent to SS400
⑦	Cusion block	2	Urethane
⑧	Cylinder	1	Made by AIRTAC

No.	Name	Qty.	Material & remarks
⑨	Nut	1	M20
⑩	Nut	1	M24
⑪	Hexagon socket head cap bolt	4	M6
⑫	Hexagon socket head cap bolt	2	M12×35
⑬	Flat washer	1	For M20
⑭	Spring washer	1	For M24
⑮	Hexagon socket head cap bolt	2	M8×30

Stroke ST	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
Height of retainer H	40	30	20	10	—	40	30	20	10	—	40	30	20	10	—
Cylinder stroke	50					100					150				

Stroke ST	160	170	180	190	200	210	220	230	240	250
Height of retainer H	40	30	20	10	—	40	30	20	10	—
Cylinder stroke	200					250				

Catalog No.	Cylinder dia. (D)	Stroke ST 10mm increment
MALT	40	10~50
		60~100
		110~150
		160~200
		210~250

●When actual cylinder output air pressure is 500kPa, it is approx. $600 \times 0.7 = 420N$.

Order **Catalog No.** MALT **(D)** 40 **—** **ST** 100

Days to Ship **Quotation**

Price **Quotation**

Alterations **Catalog No.** MALT **(D)** 40 **—** **ST** 100 **—** **(S)** S

Alteration	Code	Spec.
Cylinder change	S	Change to SMC cylinder

Retainer (6) For MALT40
HAMMG

Equivalent to SS400

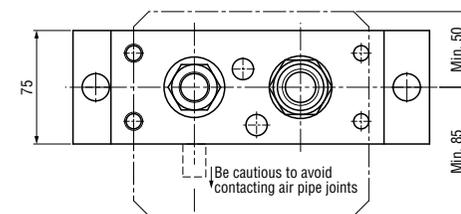
Catalog No.	(D)	T
HAMMG	40	10
		20
		30
		40

Order **Catalog No.** HAMMG **(D)** 40 **—** **T** 30

Days to Ship **Quotation**

Price **Quotation**

Example **ex**
See the illustration for the space for casting installation.



AIR CYLINDERS FOR LIFTER UNITS

LIFTING PADS

RoHS



LTHCT
(product of TANHAY)

This product was discontinued in 2017.
Catalog No. : LTHCT

LTHCS
(product of SMC)

Air cylinder specifications

Type	LTHCS
Cylinder tube inner diameter	φ 40 φ 63
Catalog No.	MB
Operating method	Double acting single rod
Guaranteed pressure resistance	1.5MPa (15.3kgf/cm ²)
Maximum operating pressure	1.0MPa (10.2kgf/cm ²)
Minimum operating pressure	0.05MPa (0.5kgf/cm ²)
Ambient temperature and air temperature during use	-10~70°C
Piston speed	50~1000mm/s
Stroke length tolerance	+1.0 0
Cushion	Both sides (air cushion)
Connection port diameter	φ 40 : Rc (PT) 1/4 φ 63 : Rc (PT) 3/8
Mounting type	Basic

Theoretical output of air cylinder (N) [Operation direction: OUT]

Cylinder inner diameter	Max. operating pressure (MPa)				
	0.2	0.3	0.4	0.5	0.6
φ 40	251	377	503	629	754
φ 63	623	935	1247	1559	1870

Load (kgf) = Load (N) × 0.101972

B	C	E	F	G	MA	MB	J	N	P	V	A	Catalog No.		Base unit price	
												Type	Cylinder inner diameter		
60	44	32	10	15	8	1	M6	27	Rc1/4	5	139	LTHCT (product of TANHAY)	40	50	Quotation
											189		63	100	
85	64	40	10	17	10	1	M8	31	Rc3/8	9	154	LTHCS (product of SMC)	40	50	
											204		63	100	
52	38	35	13	14	16	4	M6	27	Rc1/4	4	138		40	50	
											188		40	100	
75	56.5	45	14	16.5	16	5	M8	31.5	Rc3/8	9	148		63	50	
											198		63	100	

Order

Catalog No. —

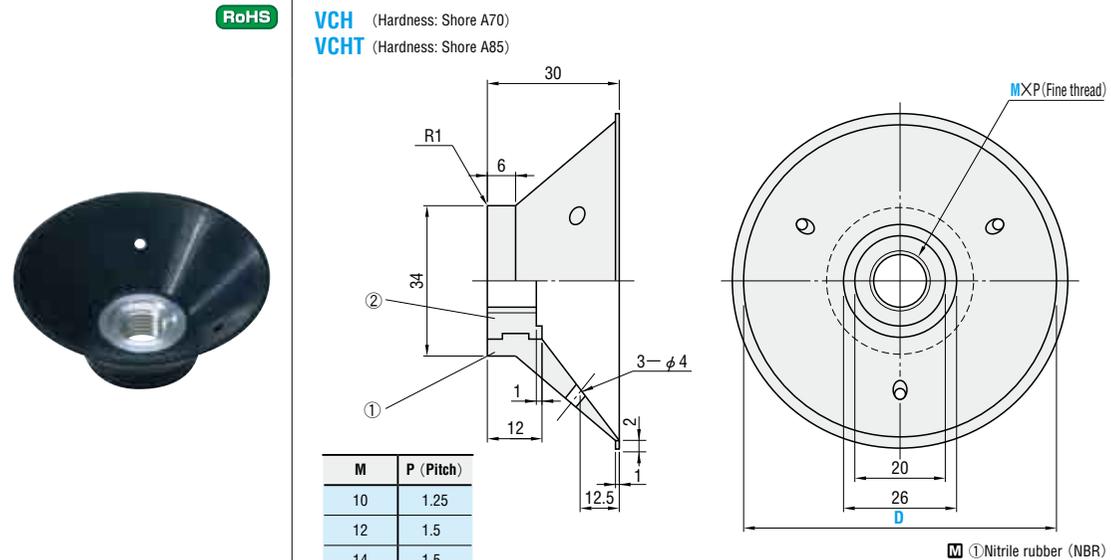
Type Cylinder inner diameter — Stroke

LTHCT 40 — 100

Days to Ship **Quotation**

RoHS

VCH (Hardness: Shore A70)
VCHT (Hardness: Shore A85)



M	P (Pitch)
10	1.25
12	1.5
14	1.5

① Nitrile rubber (NBR)
② Aluminum (A5052)

① (Shore)	Catalog No.		M			Base unit price
	Type	D	1~9 pieces			
A70	VCH	50	10	12	14	Quotation
		70				
A85	VCHT	70	12	14		

⚠ Please verify the thread diameter of the air cylinder piston rod before ordering.
⚠ These pads cannot be used for the piston rods of LTHCT and LTHCS shown on the page at left.

Order Catalog No. —

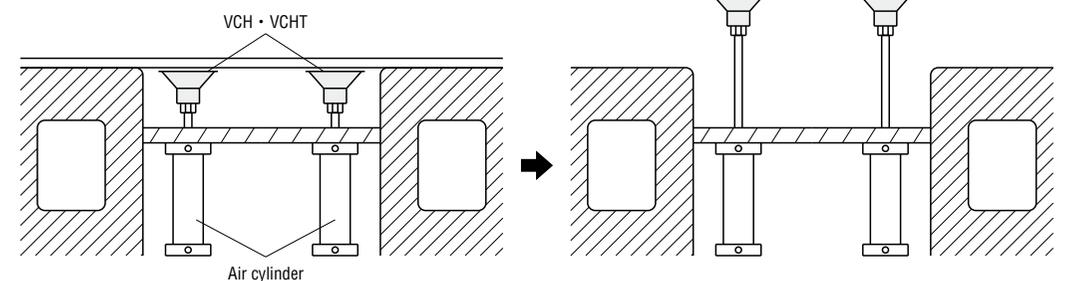
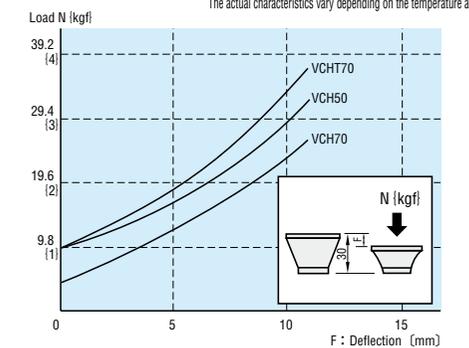
VCH 50 — 10

Days to Ship **Quotation**

Price **Quotation**

Example By attaching these products directly to commercially available air cylinders, they can be used to lift up workpieces.

Deflection vs. load characteristics graph This graph shows the quasi-static characteristics. The actual characteristics vary depending on the temperature and speed.

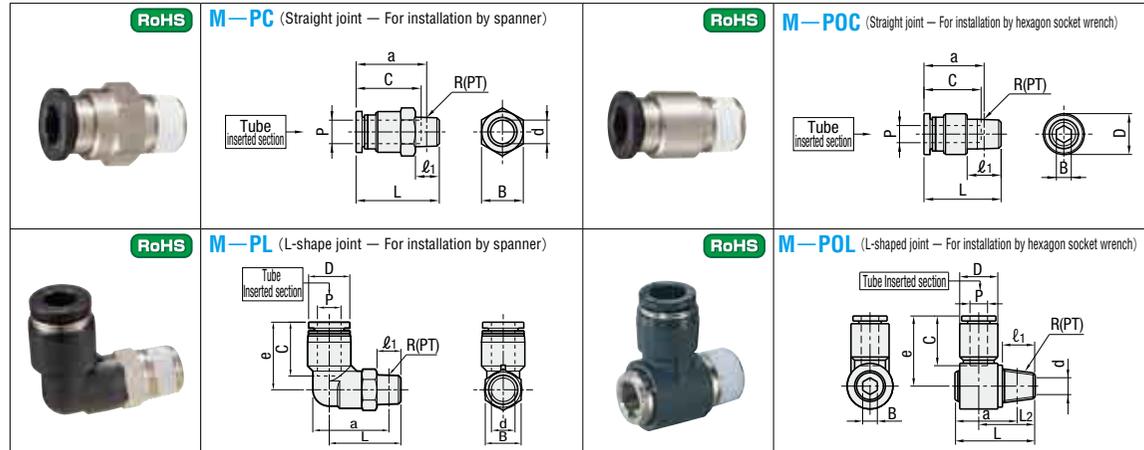


CONVENIENCE COMPONENTS FOR AUTOMOTIVES

AIR TUBE ONE-TOUCH JOINTS

M Main body: Brass (C3604) + Nickel plating
 Open ring: Polyacetal resin (POM)
 Threads: Brass (C3604) + Nickel plating
 Threads: JIS B0203 taper pipe threads R (PT)
 ※The threads are coated with sealant.

☞ An air tube one-touch joint is a single component. It cannot be disassembled.



Tube insertion hole		d	L	a	B	ℓ ₁	R (PT)	Catalog No.	Base unit price
Hole diameter P	Depth C							Type	No.
4	14.9	3	21.0	17.0	10	8	1/8	M-PC	4-01
			22.5	16.5	14	11	1/4		4-02
			22.3	18.3	12	8	1/8		6-01
6	17	5	23.7	17.6	14	11	1/4		6-02
			24.5	18.1	17	12	3/8		6-03
			27.9	23.9	14	8	1/8		8-01
8	18.2	7	26.6	20.6	14	11	1/4		8-02
			25.5	19.2	17	12	3/8		8-03
			30.3	26.3	17	8	1/8		10-01
10	20.7	9	29.8	23.8	17	11	1/4		10-02
			29.3	23.0	14	12	3/8		10-03
			8.5	35.9	29.9	11	1/4		12-02
12	23.3	11	31.9	25.6	21	12	3/8	12-03	

Tube insertion hole		D	Hexagon wrench hole	L	a	ℓ ₁	R (PT)	Catalog No.	Base unit price
Hole diameter P	Depth C		φ d					Type	No.
4	14.9	9.7	○2.5	20.0	16.0	8	1/8	M-POC	4-01
			11.8	22.1	18.1				11
6	17	13.7	○4	21.3	15.2	11	1/4		6-02
			8	18.2	13.7	○5	25.9		21.9
10	20.7	17.5	○6			25.1	19.1		11
				12	23.3	20.8	○8		22.2
29.8	23.8	11	1/4						10-02
29.3	23.0	12	3/8	10-03					
31.9	25.6	12	3/8	12-03					

Tube insertion hole		D	d	L	a	e	B	ℓ ₁	R (PT)	Catalog No.	Base unit price	
Hole diameter P	Depth C									Type	No.	
4	14.9	10	2.8	22.0	23.0	18.7	10	8	1/8	M-PL	4-01	
				29.0	28.0	20.7	14	11	1/4		4-02	
				22.5	24.8	20.3	10	8	1/8		6-01	
6	17	12.5	4.3	28.0	28.2	21.8	14	11	1/4		6-02	
				31.5	29.7	23.8	17	12	3/8		6-03	
				8	18.1	14.5	6.7	24.0	27.3		22.7	12
28.0	29.3	23.7	14	11				1/4	8-02			
31.0	31.9	24.7	17	12				3/8	8-03			
10	20.2	17.5	8	25.0	29.8	25.5	12	8	1/8		10-01	
				8	28.5	31.3	26.0	14	11		1/4	10-02
				8.3	32.0	34.4	27.0	17	12		3/8	10-03
12	23.4	21	10	29.8	34.3	29.3	14	11	1/4		12-02	
				32.5	36.7	30.0	17	12	3/8	12-03		

Tube insertion hole		Hexagon wrench size	D	d	L	L ₂	a	e	ℓ ₁	R (PT)	Catalog No.	Base unit price		
Hole diameter P	Depth C	φ B									Type	No.		
6	17	○5	13	4.6	24	15.4	20	24	8	1/8	M-POL	6-01		
					27	18.4	21					11	1/4	6-02
					27	15.9	23					8	1/8	8-01
8	18	○8	14	6	30	18.9	24	11	1/4	8-02				
					31	19.9	24.7	12	3/8	8-03				
					10	20	○10	18	8	34		20.9	28	11
35	21.9	28.7	12	3/8	10-03									
39	23.9	32.7	12	3/8	12-03									

Order **Catalog No.** **M-PC 4-01**
M-POC 6-02
M-PL 10-03
M-POL 6-01

Days to Ship **Quotation**

Price **Quotation**

Guide page at right

AIR TUBES / SPECIAL TUBE CUTTERS



Tube outer dia.	Tube inner dia.	Min. bend radius	Operating pressure range	Catalog No.		Full length L	Color	Base unit price 1~9 pieces
				Type	No.			
4	2.5	10	0~700 kPa (0~7kgf/cm ²)	M-UB	0425	20	B (Black) C (Clear)	Quotation
6	4	15			0640			
8	5	20			0850			
10	6.5	27			1065			
12	8	35			1280			

☞ Full length L is in units of meters.

Order **Catalog No.** - **L** - **Color**
M-UB 0640 - 20 - B

Days to Ship **Quotation**

Price **Quotation**

Precautions for use

- The air tubes can be used for air only. (They cannot be used for water or oil.)
- When connecting air tubes to one-touch joints, cut both ends of the tube so that they are perpendicular.
 If the tube end is cut at an angle, the tube may separate from the joint or air leakage may occur.



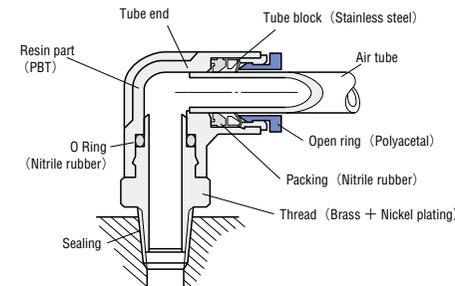
Catalog No.	Base unit price			Order	Catalog No.
	1~9	10~19	20~29		
M-TCN	Quotation			Days to Ship	Quotation
	Price			Price	Quotation

Features of the special tube cutter

- Using the special tube cutter allows cutting work to be done easily due to the effects of the tube guide R.
 Tube guide R ①For large diameters (tube outer diameter of 10mm or more)
 ②For small diameters (tube outer diameter of 8mm or less)
- Do not use the special tube cutter to cut tubes other than M-UB or to cut electric wires, as doing so may damage the cutters and render them unable to cut the tubes.
- The special tube cutters are consumable parts. Replace them at the appropriate times.

Guide to one-touch joints

L-shaped joint structure



Features

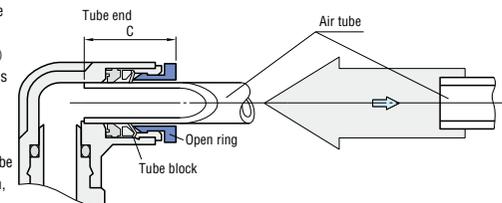
- Tubes can be attached and detached with a single action.
- With an L-shaped joint (M-PL, M-POL), the tube direction can be changed by turning the resin part after the joint has been screwed into place.

Specifications

Fluid used	Air
Operating pressure range kPa (kgf/cm ²)	0~900 (0~9)
Service temperature range °C	0~60

Connecting and disconnecting a tube

- Connecting a tube**
 - Be sure that the cut surface of tube is perpendicular and there is no damage to or deformation of the tube.
 - Insert the tube to the tube end depth (dimension C) of the socket.
 (Refer to the specification tables for dimension C details.)
 - After connecting the tube, pull it and make sure that it does not come out.
- Disconnecting a tube**
 - While pressing evenly on the tube release ring, pull the tube out toward you. (When the tube release ring is pressed in, the tube lock disengages from the tube.)



Precautions

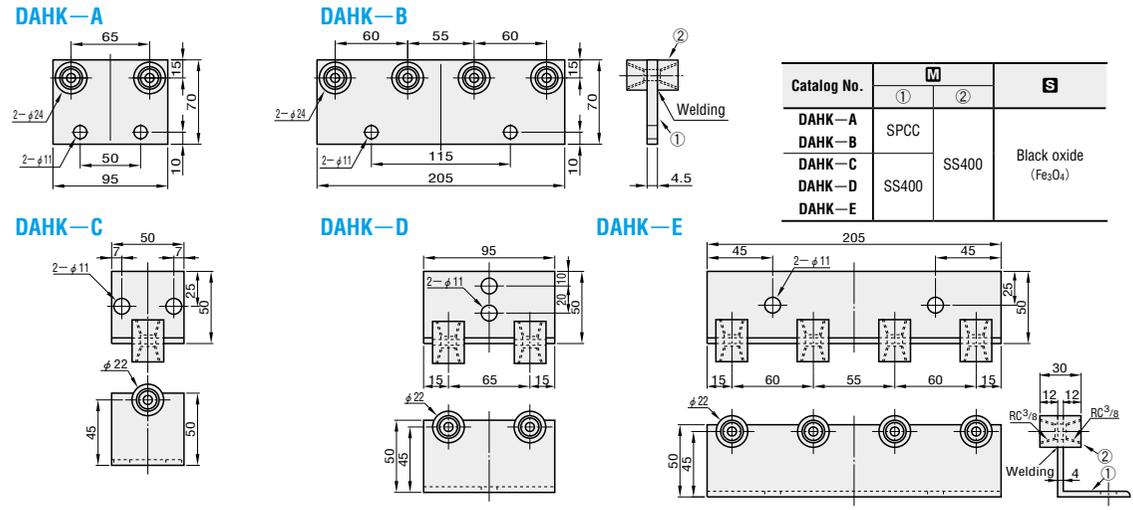
- Before disconnecting a tube, confirm that the pressure inside the tube is zero.
- DO NOT TOUCH the release ring when the tube is pressurized.
- Do not apply any tension, twisting, bending or other load to the one-touch joints. (Such loads may damage the joint body.)

AIR TUBE BRACKETS / TUBING TERMINALS

AIR MANIFOLDS



RoHS



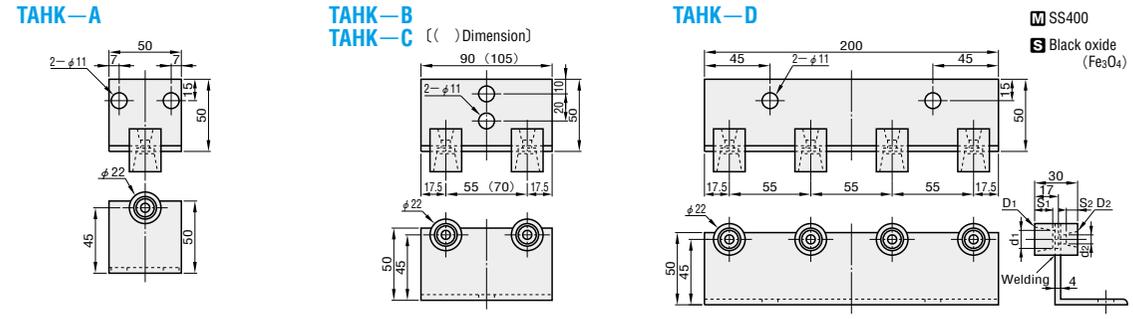
Catalog No.	Base unit price
DAHK-A	1~9 pieces
DAHK-B	Quotation
DAHK-C	
DAHK-D	
DAHK-E	

Order Catalog No. DAHK-A Days to Ship Quotation

Price Quotation

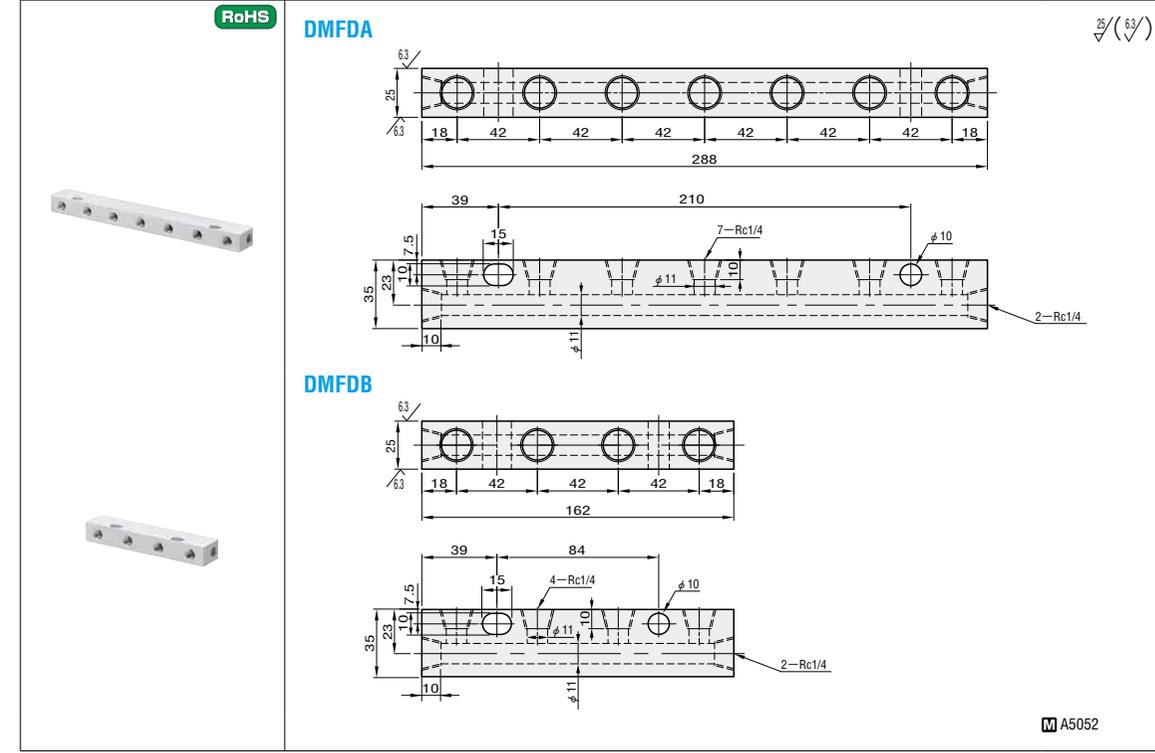


RoHS



RC (PT)		d ₁	d ₂	S ₁	S ₂	Catalog No.		Base unit price 1~9 pieces				
D ₁	D ₂					Type	No.	TAHK-A	TAHK-B	TAHK-C	TAHK-D	
3/8	1/8	12	6	12	8	TAHK-A	1	Quotation				
	1/4		11		TAHK-B	2						
	3/8		12		TAHK-C	3						

Order Catalog No. TAHK-D-2 Days to Ship Quotation Price Quotation



Catalog No.	Base unit price
DMFDA	1~4 pieces
DMFDB	Quotation

Order Catalog No. DMFDA Days to Ship Quotation

Price Quotation

CONVENIENCE COMPONENTS FOR AUTOMOTIVES

MISGRIPPING SENSOR UNITS

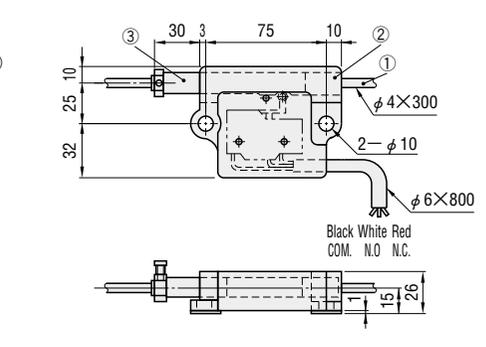
—LIGHTWEIGHT TYPE—

MISGRIPPING SENSOR UNITS

—HIGH-RIGIDITY TYPE—



MGUG MGUCN
(Switchless type)

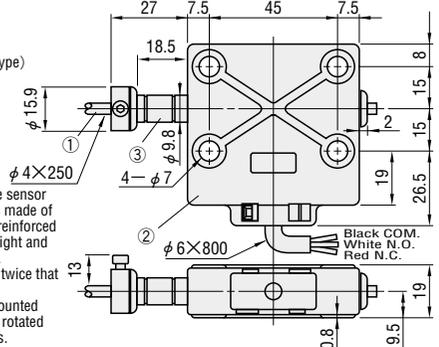


① Check bar
② Protective cover
③ Rod bar

● Microswitch (product of OMRON)
MGUC Z-15GW2255-B 32666
MGUE-MGUL-MGUG D2SW-3L2H 13558
13559



MGUE MGULN
(Switchless type)



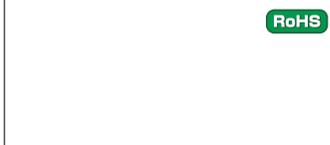
① Check bar
② Protective cover
③ Rod bar

● Microswitch (product of OMRON)
MGUC Z-15GW2255-B 32666
MGUE-MGUL-MGUG D2SW-3L2H 13558
13559

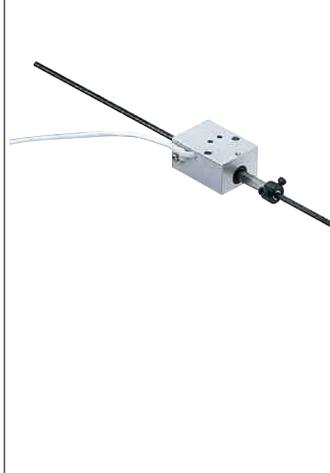
① Check bar M SWP-A SS400 (MGUL-MGULN)
② Protective cover M Nylon, reinforced nylon (MGUG-MGUGN)
③ Rod bar M Polyacetal

● Microswitch (product of OMRON)
MGUC Z-15GW2255-B 32666
MGUE-MGUL-MGUG D2SW-3L2H 13558
13559

① MGUC can be mounted from either side.



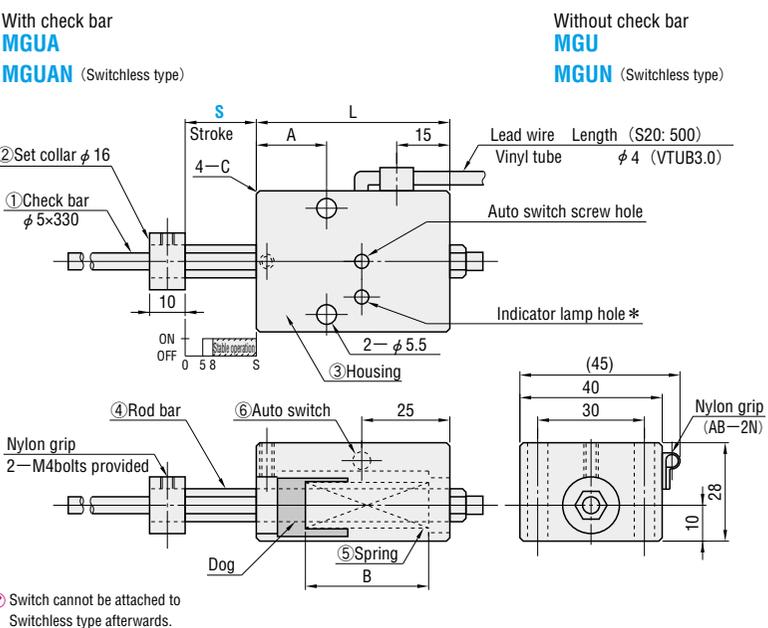
MGUA MGUN
(Switchless type)



① Check bar
② Set collar
③ Housing
④ Rod bar
⑤ Spring
⑥ Auto switch

With check bar
MGUA
MGUAN (Switchless type)

Without check bar
MGU
MGUN (Switchless type)



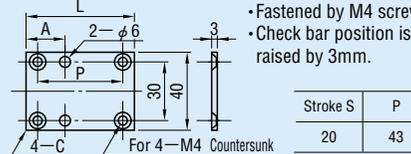
Stroke S, Length L, Lead wire Length (S20: 500), Vinyl tube φ4 (VTUB3.0), Auto switch screw hole, Indicator lamp hole*, Nylon grip (AB-2N), Dog, 2-M4bolts provided.

Switch cannot be attached to Switchless type afterwards.

① M SS400	S Black oxide (Fe ₃ O ₄)	⑥ Automatic switch D-A90 (without indicator lamp) (product of SMC)
② M Aluminum alloy	S Electroless nickel plating	Applicable load IC circuit, relay, PLC
③ M SS400		Load voltage AC 24V or less AC 48V or less AC 100V or less
④ M Equivalent to SWOC-V		Max. load current 50mA 40mA 20mA

L	A	B	C	⑤ Spring	Catalog No. Type	Stroke S	Base unit price 1~99 pieces		Order	Catalog No.	
							With check bar	Without check bar			
55	20	35	0.3	WY13-45	MGUA MGU MGUAN MGUN (Switchless type)	20	Quotation	Quotation	Order	MGUA 20	
										Days to Ship	Quotation
										Price	Quotation

Alterations Catalog No. — (A93-DP)
MGUA 20 — A93

Alteration	Automatic switch change	Addition of protective cover on lower part of unit body														
Code	A93	DP														
Spec.	<p>Changed to type with operation check indicator lamp.</p> <table border="1"> <tr><td>Automatic switch product number</td><td>D-A93 (product of SMC)</td></tr> <tr><td>Applicable load</td><td>Relay, PLC</td></tr> <tr><td>Load voltage</td><td>24V DC 100V AC</td></tr> <tr><td>Load current range and Max. load current</td><td>5~40mA 5~20mA</td></tr> <tr><td>Indicator lamp</td><td>Red LED illuminates when switch is ON.</td></tr> </table>	Automatic switch product number	D-A93 (product of SMC)	Applicable load	Relay, PLC	Load voltage	24V DC 100V AC	Load current range and Max. load current	5~40mA 5~20mA	Indicator lamp	Red LED illuminates when switch is ON.	<p>Fastened by M4 screws. Check bar position is raised by 3mm.</p>  <table border="1"> <tr><td>Stroke S</td><td>P</td></tr> <tr><td>20</td><td>43</td></tr> </table>	Stroke S	P	20	43
Automatic switch product number	D-A93 (product of SMC)															
Applicable load	Relay, PLC															
Load voltage	24V DC 100V AC															
Load current range and Max. load current	5~40mA 5~20mA															
Indicator lamp	Red LED illuminates when switch is ON.															
Stroke S	P															
20	43															
1Code	Quotation	Quotation														

Order Catalog No.
MGUG
MGUCN

Days to Ship Quotation

Price Quotation

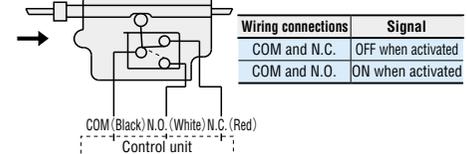
Catalog No.	Base unit price 1~19 pieces	Catalog No.	Base unit price 1~19 pieces	Catalog No.	Base unit price 1~19 pieces	Catalog No.	Base unit price 1~19 pieces
MGUG MGUCN	Quotation	MGUC MGUCN	Quotation	MGUE MGUCN	Quotation	MGUL MGUCN	Quotation

● Operation

Check bar motion	Rod bar motion	Status	Length of stroke	
			MGUC-MGUE-MGUG	MGUL
		Advance end	0mm	0mm
		Switch ON	5±1mm	5±1mm
		Stable detection	8mm	8mm
		Reverse end	15mm	50mm

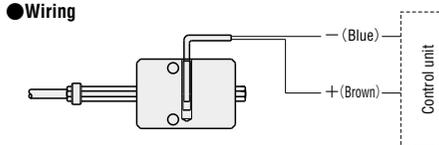
● How to use

The built-in microswitch in the misgripping sensor unit is activated when the unit rod is pressed. It outputs a signal when the grip fingers have failed to grasp the workpiece (misgrip). Therefore, wire the unit so that the press machine stops when the signal is output.

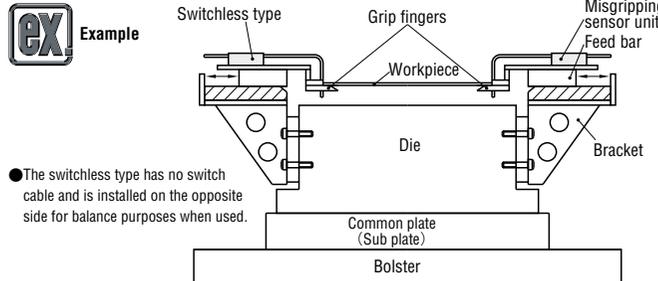


Wiring connections	Signal
COM and N.C.	OFF when activated
COM and N.O.	ON when activated

● Wiring



● Example

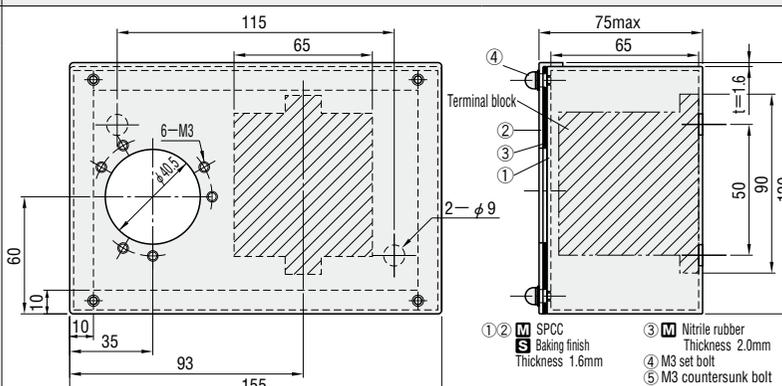
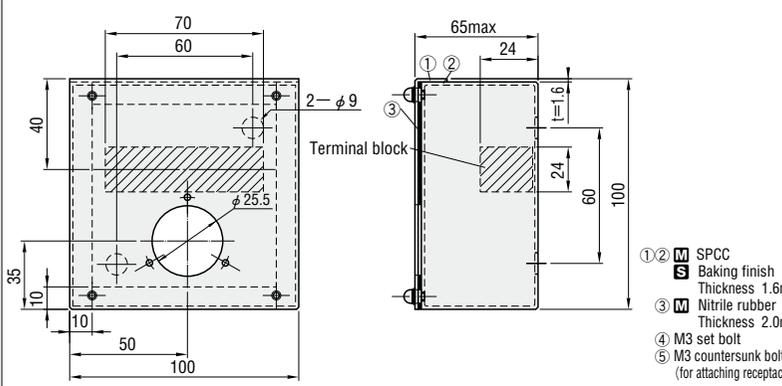


● The switchless type has no switch cable and is installed on the opposite side for balance purposes when used.

- The load used is an induction load.
- The wire length is 5m or longer.
- The load voltage is 100V AC or higher.

JUNCTION BOXES WITH TERMINAL BLOCKS

HOOKS FOR TRANSPORT DEVICES / CURL CORD HOOKS

Type	Shape
JBX160 RoHS 	 <p>① ② M SPCC S Baking finish Thickness 1.6mm</p> <p>③ M Nitrile rubber Thickness 2.0mm</p> <p>④ M3 set bolt</p> <p>⑤ M3 countersunk bolt (for attaching receptacle)</p>
JBX100 RoHS 	 <p>① ② M SPCC S Baking finish Thickness 1.6mm</p> <p>③ M Nitrile rubber Thickness 2.0mm</p> <p>④ M3 set bolt</p> <p>⑤ M3 countersunk bolt (for attaching receptacle)</p>

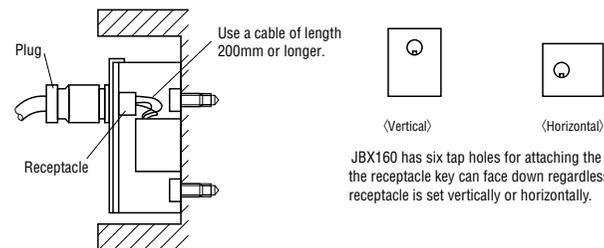
Receptacle	Terminal block spec.						Catalog No.		Base unit price
	Applicable standard	Terminal block	Rating Voltage (V) Current (A)	Cable	Terminal screw	Number of contacts	Type	No.	
Nanaboshi Scientific NCS25□R	RTK—10M—8P	250 15	1.25mm ²	M3	6	JBX	100	Quotation	
Nanaboshi Scientific NCS40□R	BNDH15LW	600 21	2mm ²	M3.5	12		160		

Order Catalog No.
JBX 100

Price Quotation

Days to Ship Quotation

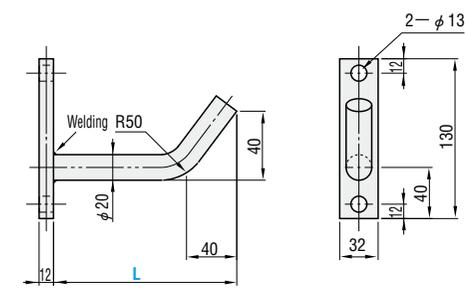
Example ■ Example of JBX attachment ■ Direction of receptacle key (JBX160)



JBX160 has six tap holes for attaching the receptacle so that the receptacle key can face down regardless of whether the receptacle is set vertically or horizontally.

To attach the junction box to the die, insert two M8 bolts through the back of the box and fasten the box in place. Please note that this product does not include a hole for the cable from the sensor.

■ Selection of receptacle
Select an appropriate type of receptacle that suits the specifications of the press machine.

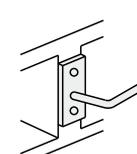
Hooks for transport devices	RoHS	DVJ
		

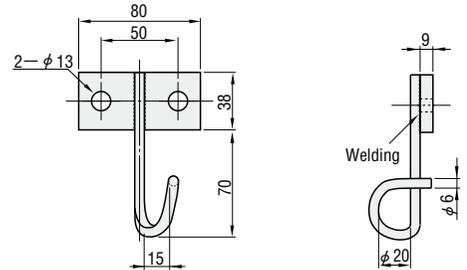
Catalog No.	Base unit price
Type	L
DVJ	100
	150

Order Catalog No.
DVJ 100

Days to Ship Quotation

Price Quotation

ex Example 

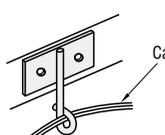
Curl cord hooks	RoHS	DKLH
		

Catalog No.	Base unit price
Type	No.
DKLH	80

Order Catalog No.
DKLH 80

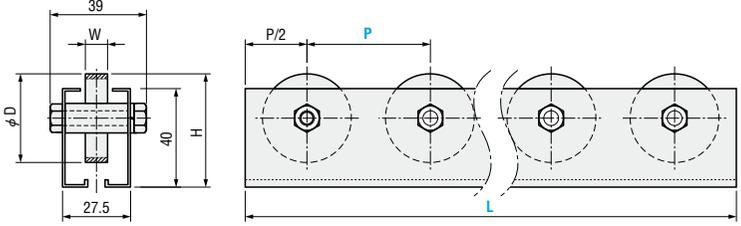
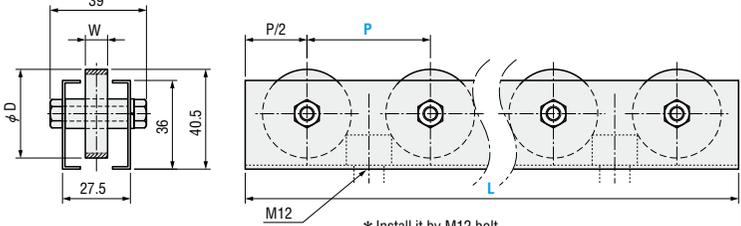
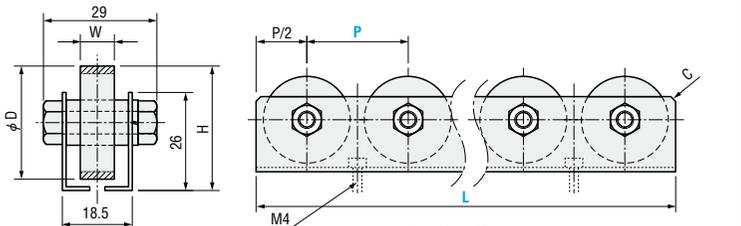
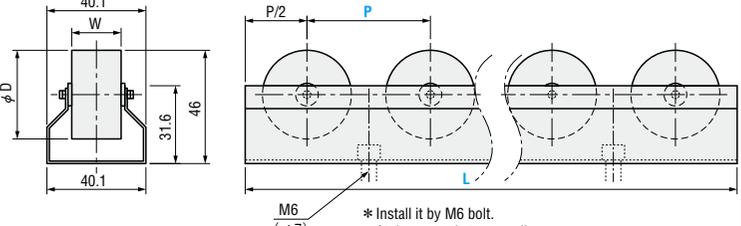
Days to Ship Quotation

Price Quotation

ex Example 

CONVEYANCE COMPONENTS FOR AUTOMOTIVES

ROLLER CARRIERS

	<p>GCQ</p>  <p>Parts of roller are rubber liner.</p>
	<p>GCW</p>  <p>* Install it by M12 bolt.</p> <p>Parts of roller are rubber liner.</p>
	<p>GCE</p>  <p>* Install it by M4 bolt.</p> <p>Parts of roller are rubber liner.</p>
	<p>GCR</p>  <p>* Install it by M6 bolt. At the center between rollers</p>

Profile type	Roller model O.D.(D) type	Withstand load Roller No. (kg)	Roller size O.D.(D)×Width(W)×Shaft dia.	Standard length	Remarks Roller type
GCQ	36S	40	36 × 9 × 6	2000 3000	Machined wheel (S)
	36P	20	36 × 12 × 6		Press wheel (P)
	40R	25	40 × 9 × 6		Rubber liner (R)
GCW	36S	40	36 × 9 × 6	2000	Machined wheel (S)
	36P	20	36 × 12 × 6		Press wheel (P)
	40R	25	40 × 9 × 6		Rubber liner (R)
GCE	25S	30	25.4 × 9 × 6	1800 2000	Machined wheel (S)
	25P	15	25.4 × 7.5 × 6		Press wheel (P)
	30R	20	30 × 9 × 6		Rubber liner (R)
GCR	36CA	10	36 × 20 × 3.2	2000	Resin wheel without Anti-static agent (CA)

D	W	H	Catalog No.		Thread pitch P	Full length change L
			Profile type	Roller model		
36	9	46	GCQ	36S	50 · 75	L ≤ 3000
	12			36P		
40	9	48	GCW	40R	50 · 75	L ≤ 2000
36	9	—		36S		
	12		36P			
25.4	9	30.7	GCE	25S	30 · 35	L ≤ 2000
	7.5			25P		
30	9	33	GCR	30R	40 · 50	L ≤ 2000
36	20	—		36CA		



Order

Catalog No. - P - * L

Profile type Roller model

GCQ 36P - 50 - 2500

● Set dimension L to a multiple of P (pitch).
But if standard length (top surface) is not a multiple of pitch,
adjust length at both ends.



Days to Ship

Quotation



Price

Quotation

ROLLER CARRIERS / BALL CARRIERS

EMBOSSED SHOOTER PLATES

Roller carriers RoHS **CORO**

① **M** SS400 **M** 55HRC~ (Carburizing)
② **M** SPCC

Ⓜ (L) dimension is a value for reference only.
Ⓜ Roller load resistance: 20kg/roller

L	Catalog No.	A Number of rollers	Base unit price 1~9 pieces
(105)	CORO	3	Quotation
(140)		4	
(175)		5	
(210)		6	
(245)		7	
(280)		8	
(315)		9	
(350)		10	
(385)		11	
(420)		12	
(455)		13	
(490)		14	
(525)		15	

L	Catalog No.	A Number of rollers	Base unit price 1~9 pieces
(560)	CORO	16	Quotation
(595)		17	
(630)		18	
(665)		19	
(700)		20	
(735)		21	
(770)		22	
(805)		23	
(840)		24	
(875)		25	
(910)		26	
(945)		27	
(980)		28	

Ball carriers RoHS **GORO**

① **M** SUJ2
②③ **M** SPCC

Ⓜ (L) dimension is a value for reference only.
Ⓜ Ball load resistance: 8kg/ball

L	Catalog No.	A Number of balls	Base unit price 1~9 pieces
(200)	GORO	4	Quotation
(300)		6	
(400)		8	
(500)		10	
(600)		12	
(700)		14	
(800)		16	
(900)		18	
(1000)		20	
(1100)		22	
(1200)		24	

Order Catalog No. - A
CORO - 10
GORO - 8

Days to Ship **Quotation**

Price **Quotation**

Ball carriers (individual part) RoHS **GORON**

①② **M** SUJ2
③ **M** SUS304
④ **M** SPCC

Catalog No.	D	D ₁	L	L ₁	H	P	a	d	Load resistance N (kgf)	Weight (g)	Base unit price 1~9 pieces
GORON	41.3	24	10.2	(9.1)	4	30	3.5	15.875	78.4 (8)	45	Quotation

Order Catalog No. **GORON**

Days to Ship **Quotation**

Price **Quotation**

Example

CORO
GORO → Material

GORON
Conveyor bend point

Surface shape RoHS **EBSP**

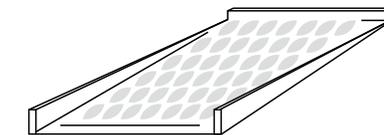
M SUS304

Catalog No.	A	B	Base unit price
EBSP	500	1000	4,700
	1000	1000	8,000
		2000	15,000

Order Catalog No. - A - B
EBSP - 500 - 1000

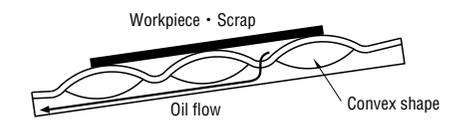
Days to Ship **Quotation**

ex Example



After cutting the plate to the required dimensions, attach it to the scrap shooter by welding or other means.

Features



- Because the contact area with scrap is small, this product is suitable for scrap shooters which can only be inclined at a small angle (minimum effective angle: 12 degrees).
- Prevents adhesion caused by lubricating oil.

CONVEYANCE COMPONENTS FOR AUTOMOTIVES

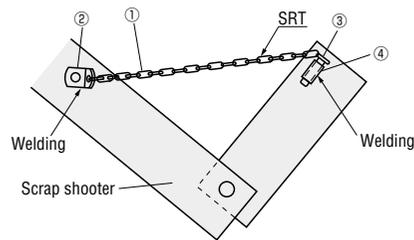
CHAINS FOR SCRAP SHOOTERS/GENERAL PURPOSE CHAINS/CHAIN JOINTS

Chains for scrap shooters RoHS **SRT**
SRTN (No welding to ③ pin)

① SS400 Bright chromate
② SPCC
③ SS400
④ SS400

Catalog No.	L
SRT	200
SRTN	300
	400
	500

ex Example



Order -
SRT - 300

Days to Ship **Quotation**

Price **Quotation**

General purpose chains RoHS **CN3** (Chain diameter = $\phi 3$) **CN5** (Chain diameter = $\phi 5$)

Withstand load: 100kg (CN3), 200kg (CN5)
SS400 Bright chromate

Catalog No.		L
Type	No.	100mm increment
CN	3	100~1000
		1100~2000
	5	100~1000
		1100~2000

Days to Ship **Quotation**

Price **Quotation**

Order -
CN 3 - 300

Chain joints RoHS **JT3** (Chain diameter = $\phi 3$) **JT5** (Chain diameter = $\phi 5$)

Withstand load: 50kg (JT3), 100kg (JT5)
SS400 Bright chromate

Catalog No.	
Type	No.
JT	3
	5

Order **JT 3**

Days to Ship **Quotation**

Price **Quotation**



CONVEYANCE COMPONENTS FOR AUTOMOTIVES

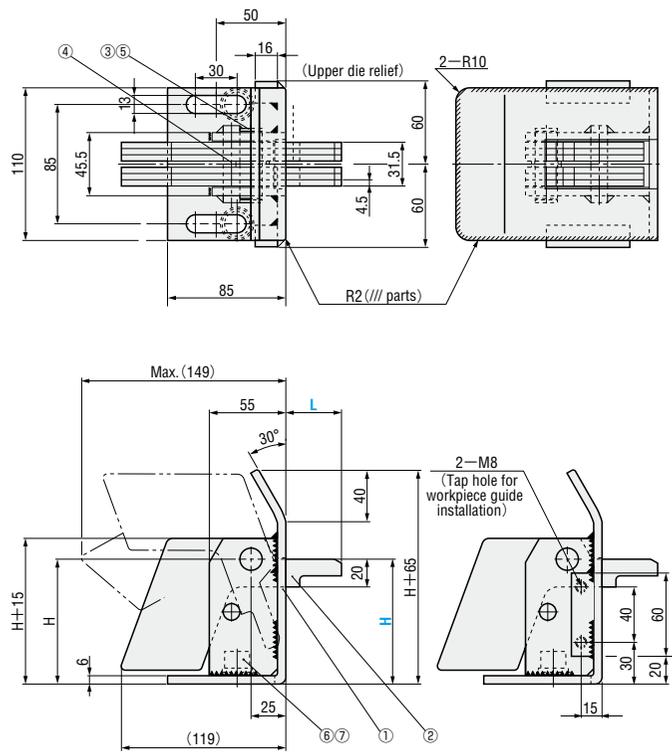
SHEET SUPPORT GAUGES

—WEIGHT ADJUST TYPE—

SHEET SUPPORT GAUGES



LKNG



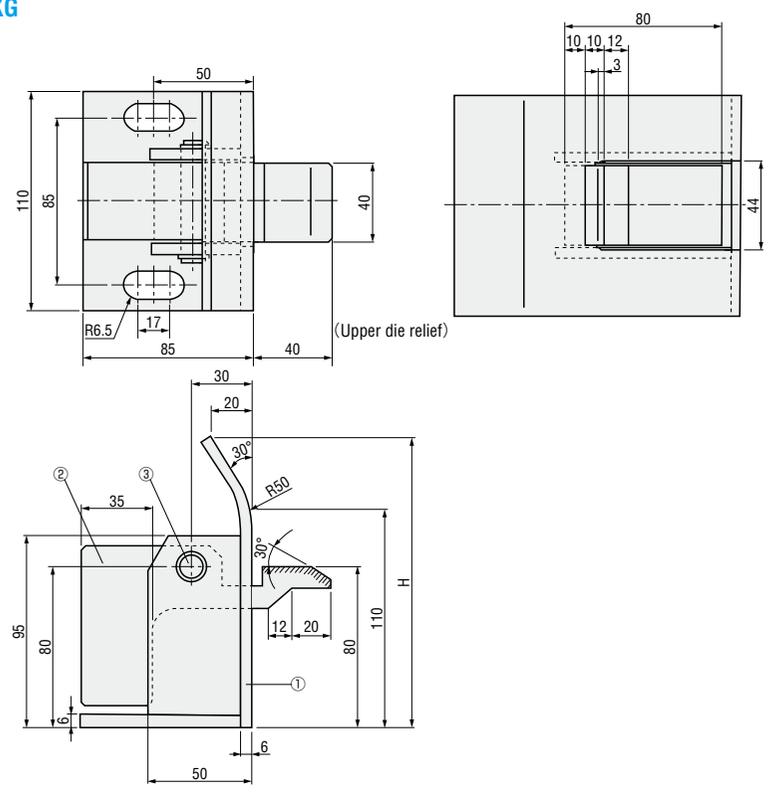
Components list

No.	Name	Qty.	Material & remarks
①	Gauge	1	SPC
②	Support plate	6	SPC
③	Dowel pin	1	S45C
④	Shim	5	SGP (1 pc installed with 4 pcs. provided.)
⑤	C-ring	2	Shaft dia. φ 16
⑥	Hexagon socket head cap bolt	2	M12×30
⑦	Washer	2	For M12

* To swing the support plate, it needs a load of approx. 500 g/pc.



LKG



* /// part is induction hardening HRC45~

Components list

No.	Name	Qty.	Material & remarks
①	Gauge (with base)	1	SS400
②	Support plate	1	S45C
③	Dowel pin	1	S45C With C-ring

Catalog No.	H	L
LKNG	90	20
	120	
	150	
	180	

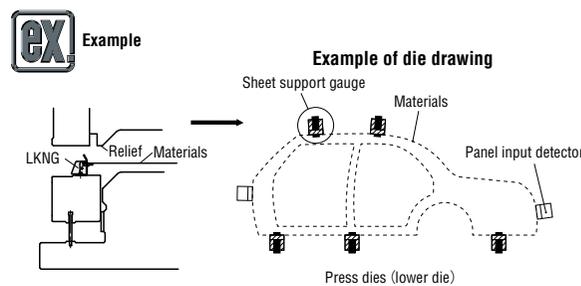
Support plate (②)

Catalog No.	L
RSTL	20
	40

Order	Catalog No.	H	L
	LKNG	90	20
	RSTL		20

Days to Ship **Quotation**

Price **Quotation**



- Can reduce damages when putting into blanks.
- Amount of support plate can be adjusted within the range from 2 pcs. to 7 pcs. (6 pcs. is as standard) according to the weight of blanks.
- Please perform upper die relief to avoid contacting gauge body and support plate. (Relief is about 10mm)

Catalog No.	H
LKG	145

Order

Catalog No.	H
LKG	145

Days to Ship **Quotation**

Price **Quotation**

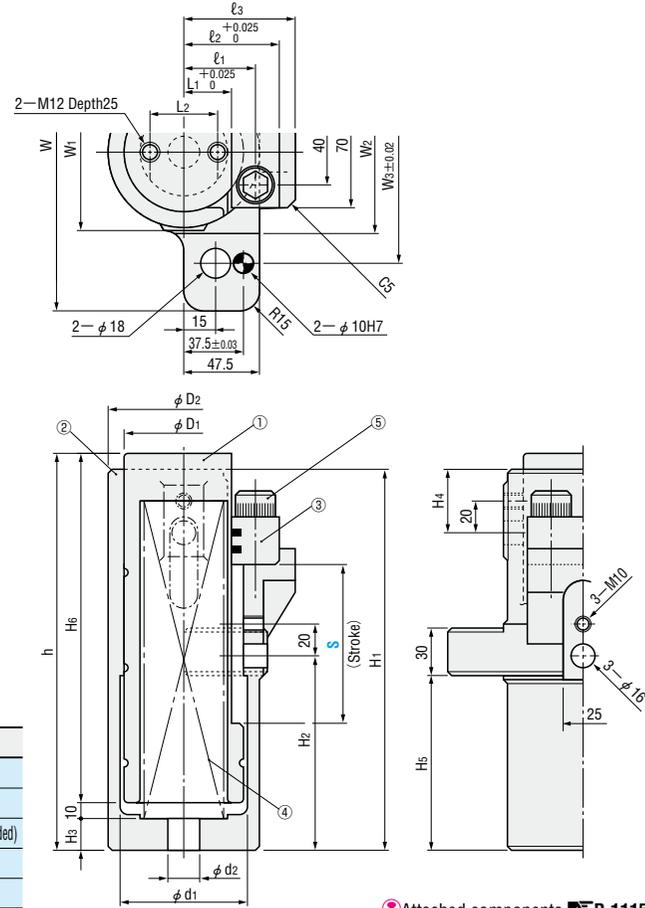
- Compared to blank weight, if the weight of support plate ② is not enough, add a counterweight before using.
- To swing the support plate, it needs a load of approx. 1.2Kg.
- Please perform upper die relief to avoid contacting gauge body and support plate. (Relief is about 10mm)

CONVEYANCE COMPONENTS FOR AUTOMOTIVES

FLANGE LIFTERS

— WITH OIL GROOVE —

FLOF



Components list

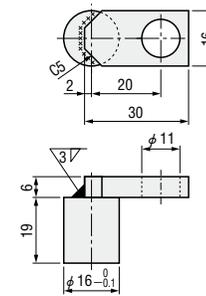
No.	Name	Qty.	Material & remarks
①	Sliding guide bar	1	FCD450
②	Base	1	FC250
③	Stopper	1	S45C + Special solid lubricant (embedded)
④	Spring	1	MISUMI
⑤	Hexagon socket head cap bolt	2	M16×60

Attached components P.1115

S	D1	D2	d1	d2	H1	H2	H3	H4	H5	H6	h	L1	L2	ℓ_1	ℓ_2	ℓ_3	W	W1	W2	W3
60	60	80	65	20	150	67.5	15	40	55	135	160	25	30	40	55	65	155	82	84	125
80	65	85	70	20	185	97.5	15	40	75	170	195	25	30	40	55	65	160	87	89	130
120	75	95	80	30	240	122.5	20	45	95	220	250	30	40	45	60	70	170	97	99	140

Spring	During installation		Final		Catalog No.	Stroke S (mm)
	Length (mm)	Load (N)	Length (mm)	Load (N)		
X-SWF40-200	175	313	115	1063	FLOF	60
X-SWL40-250	235	318	155	2014		80
X-SWF50-350	320	336	200	1680		120

Locking pin FLLP



SS400



Order

Catalog No.	S
FLOF	60
FLLP	



Days to Ship

Quotation



Price

Quotation



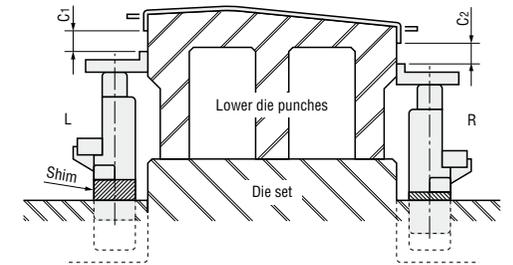
Alterations

Catalog No.	(D · N · T · W)
FLOF60	D - T - W

Alterations	Code	Spec.
Stroke end block	D	Install stroke end block.
40 ± 0.02 , $2-\phi 8H7$	N	Pin hole for machining.
—	T	④ Change to TOHATSU spring.
—	W	③ Change stopper material to copper alloy with special solid lubricant

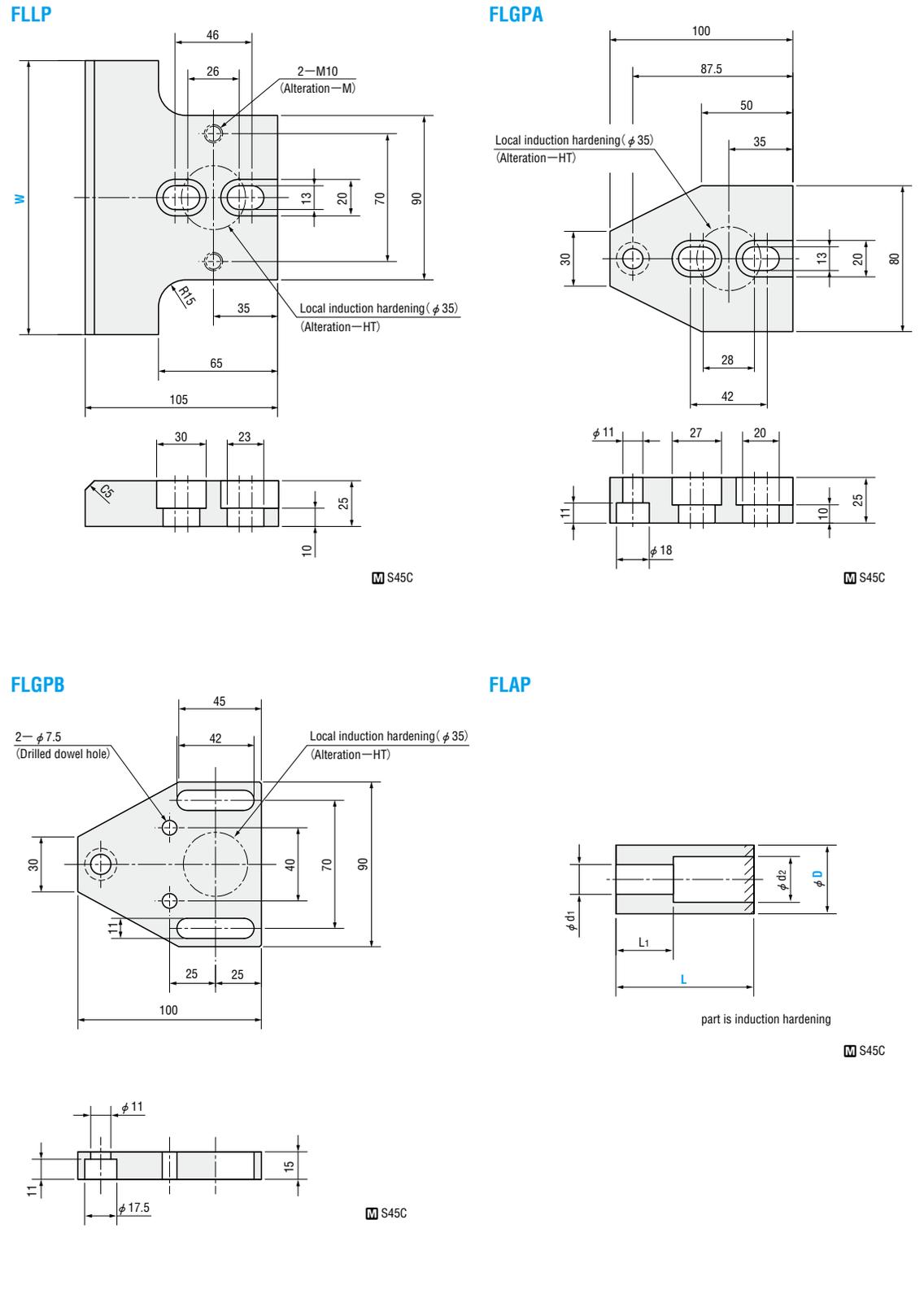


Example



To unify the timing of lifter contact parts, it is necessary to make sure that C_1 equals to C_2 when lifter is at bottom-dead-center. To make C_1 equal to C_2 , use shims to adjust it.

LIFT PLATES / GAUGE PLATES / ADVANCE PINS FOR FLOF FLANGE LIFTERS



Lifting plate FLLP

Catalog No.	W
FLLP	90~150 (10mm increment)

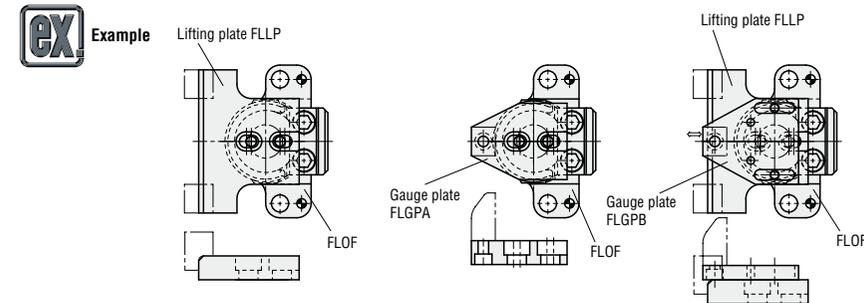
Stroke end plate FLGPA · FLGPB

Catalog No.
FLGPA
FLGPB

Order	Catalog No.	W
	FLLP	100
	FLGPA	
	FLGPB	

Days to Ship	Quotation

Price	Quotation



Alterations	Catalog No.	W	(M · HT)
	FLLP	120	M
	FLGPA		HT

Code	Spec.
M	Machine stroke end plate on lifting plate FLLP Tap holes for installation (2-M10).
HT	The contacting area of preload pin shall be local induction hardening. (See the figure on left page for rough range)

* See the left page for the specifications.

Preload pin FLAP

d1	d2	L1	Catalog No.	D	L 10mm increment
9	14	20	FLAP	25	40~60
		40			70~100
13	20	25			30
		45		35	70~100
		65			110~150

Order	Catalog No.	D	L
	FLAP	25	100

Days to Ship	Quotation

Price	Quotation

FLANGE LIFTERS

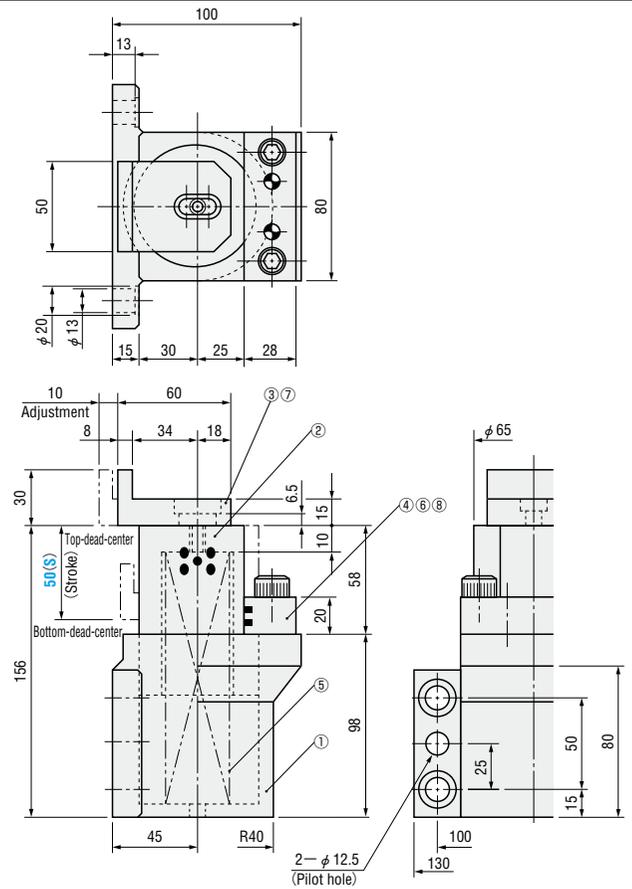
— OIL-FREE SIDE MOUNTING TYPE —

FLANGE LIFTERS

— WITH OIL GROOVE EMBEDDED TYPE —



FLSHF50

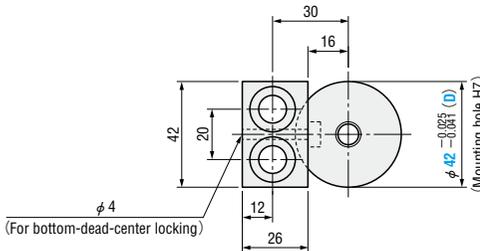


Components list

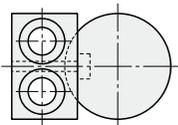
No.	Name	Qty.	Material & remarks
①	Base	1	FC250
②	Sliding guide bar	1	FCD450 + Special solid lubricant (embedded)
③	Lifter block	1	S45C
④	Stopper	1	S45C + Special solid lubricant (embedded)
⑤	Spring	1	X-SWF35-150
⑥	Hexagon socket head cap bolt	2	M12×20
⑦	Hexagon socket head cap bolt	1	M8×20
⑧	Dowel pin	2	φ 8×30



FLAOE



FLAOEN (Without bolt hole)



Components list

No.	Name	Qty.	Material & remarks
①	Sliding guide bar	1	FCD450
②	Stopper	1	S45C
③	Spring	1	MISUMI

Spring		During installation		Final		Catalog No.	Stroke S (mm)
O.D. (mm)	Free length (mm)	Length (mm)	Initial load (N)	Length (mm)	Max. load (N)		
35	150	138	154	88	794	FLSHF	50

H	h	Spring			Catalog No.	D	Stroke S (mm)
		Model	min. (N)	max. (N)			
90	70	X-SWR26-125	97	356	FLAOE FLAOEN	42	40
110	90	X-SWR26-175	115	392			60

Order

Days to Ship

Price

Alterations (W-T) W-T

Code	Spec.
T	⑤ Change to TOHATSU spring
W	④ Change stopper material to copper alloy with special solid lubricant

■ Sliding guide bar (①)

Catalog No.	D	S
FLAOEP (For FLAOE)	42	40
FLAOENP (For FLAOEN)		60

■ Stopper (②)

Catalog No.
FLAOES

Order

Days to Ship

Price

CONVEYANCE COMPONENTS FOR AUTOMOTIVES

FLANGE LIFTERS

— WITH OIL GROOVE EMBEDDED TYPE —

FLOE

D=65

D=80

FLOEN (Without bolt hole)

Components list

No.	Name	Qty.	Material & remarks
①	Sliding guide bar	1	FC250
②	Stopper	1	S45C + Special solid lubricant (embedded)
③	Spring	1	MISUMI
④	Washer	1	S45C

Attached components P.1125

D	Stroke S (mm)	H1	H2	H3	X-SWF		X-SWL		t	D1	d1	d2	L1	L2	ℓ1	ℓ2	W	W1	Spring O.D.
					h1	h2	h1	h2											
65	50	90	55	20	115	155	115	155	10	63	37	13	25	25	39	40	68	48	35
	80	140	85	50	165	230	165	230	15	78	53	18	32	30	49	49	80	54	50
	120	180	125		195	285	240	330	30										

D	Stroke S (mm)	③ Coil spring X-SWF					③ Coil spring X-SWL				
		Free length	During installation		Final		Free length	During installation		Final	
			Length	Load (N)	Length	Load (N)		Length	Load (N)	Length	Load (N)
65	50	175	155	220	105	770	175	155	462	105	1617
80	80	250	230	314	150	1570	250	230	662	150	3310
	120	300	285	197	165	1769	350	330	474	210	3318

Catalog No.	D	S	③ Spring
FLOE FLOEN	65	50	X-SWF X-SWL
	80	80	
		120	

■ Sliding guide bar (①)

Catalog No.	D	S
FLOEP (For FLOE)	65	50
FLOENP (For FLOEN)	80	80
		120

■ Stopper (②)

Catalog No.	Nominal dimension (D)
FLOES	65
	80

■ Washer (④)

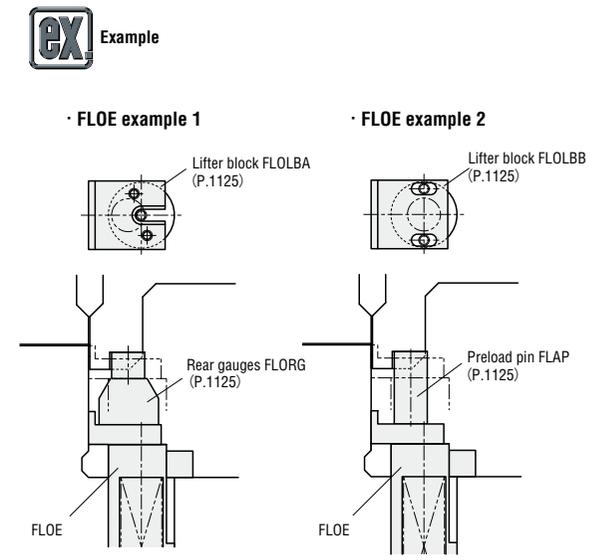
Catalog No.	Nominal dimension (D)
FLOEW	65
	80

Order

Catalog No.	D	S	③ Spring
FLOE	80	120	L
FLOEP	65	50	
FLOES	80		
FLOEW	80		

Days to Ship **Quotation**

Price **Quotation**



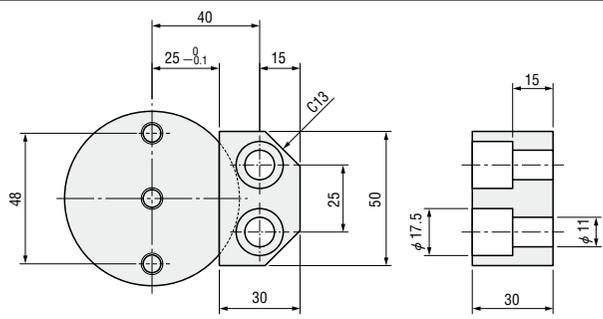
CONVEYANCE COMPONENTS FOR AUTOMOTIVE DIES

FLANGE LIFTERS

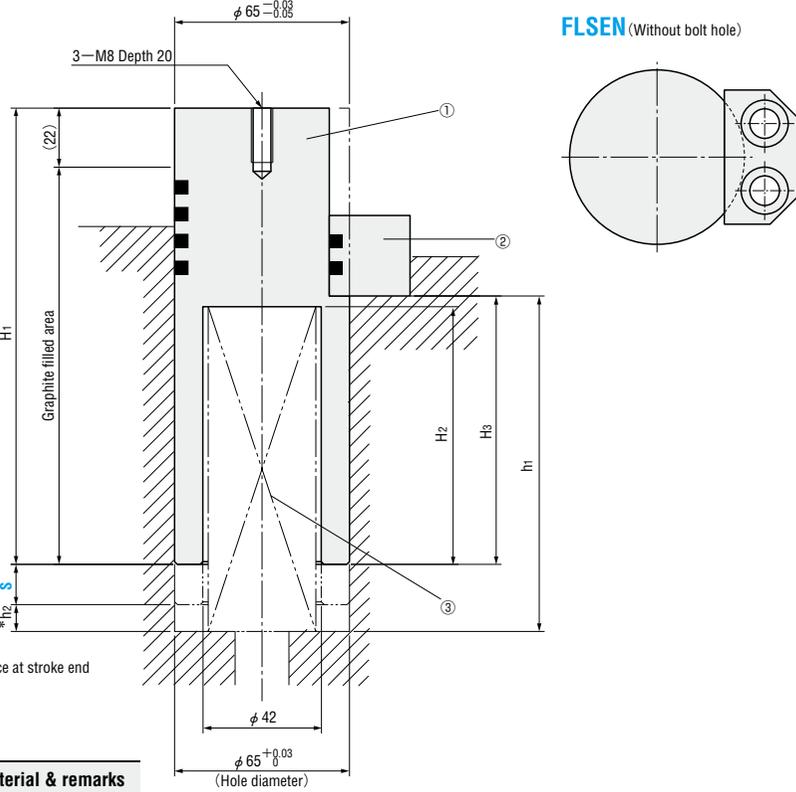
— WITH OIL GROOVE EMBEDDED TYPE —



FLSE



FLSEN (Without bolt hole)



* Clearance at stroke end

① Sliding guide bar
② Stopper
③ Spring

Graphite filled area

(22)

H1
H2
H3
h1

$\phi 65 - 0.03$

$\phi 42$

$\phi 65 + 0.03$
(Hole diameter)

3-M8 Depth 20

$\phi 17.5$

$\phi 11$

C1.6

No.	Name	Qty.	Material & remarks
①	Sliding guide bar	1	FCD450 + Special solid lubricant (embedded)
②	Stopper	1	S45C + Special solid lubricant (embedded)
③	Spring	1	MISUMI

Attached components P.1125

Stroke S (mm)	H1	H2	H3	X—SWF		X—SWL	
				h1	h2	h1	h2
15	170	96	100	125	10	125	10
40			75			125	10
60			55			140	25
80	200	120	65	155	10	205	60
90			55				
100			45				

Stroke S (mm)	③ Spring X—SWF40					③ Spring X—SWL40				
	Free length	During installation		Final		Free length	During installation		Final	
		Length	Load (N)	Length	Load (N)		Length	Load (N)	Length	Load (N)
15	150	121	484	106	735	150	121	1024	106	1553
40	175	146	415		987	175	146	876	106	2084
60	200	166	425	130	1175	200	181	504	121	2094
80	250	210	400		260	704	180	212		
90		220	300		270	528				
100	230	200	280	352						

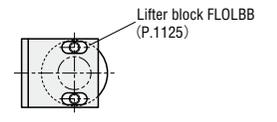
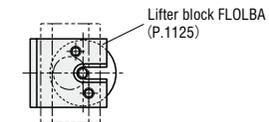
Catalog No.	Stroke S	③ Spring
FLSE FLSEN	15	X—SWF X—SWL
	40	
	60	
	80	
	90	
	100	



Example

·FLSE example 1

·FLSE example 2



■ Sliding pin (①)

Catalog No.	Stroke S
FLSEP (For FLSE) FLSEN (For FLSEN)	15
	40
	60
	80
	90
	100

■ Stopper (②)

Catalog No.
FLSES



Order

Catalog No.	S	③ Spring
FLSE	80	L
FLSEP	90	
FLSES		



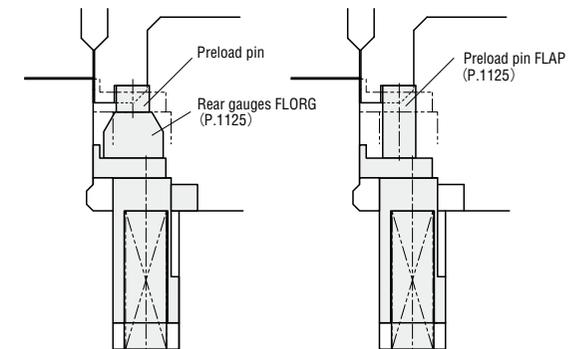
Days to Ship

Quotation



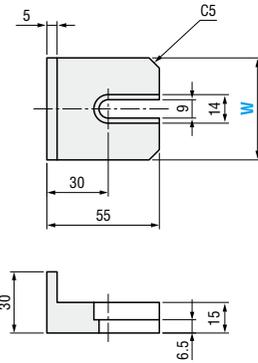
Price

Quotation

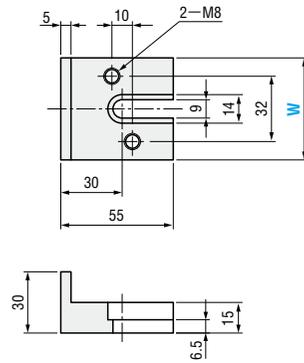


LIFTER BLOCKS / SIDE GAUGES / REAR GAUGES / PRELOAD PINS

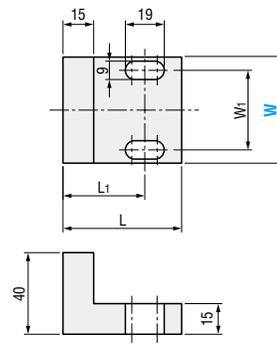
Lifter block **FLOLB**



Lifter block **FLOLBA**

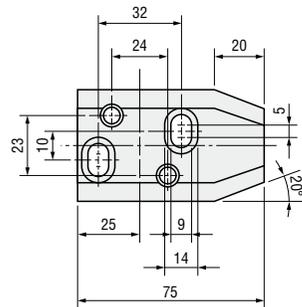
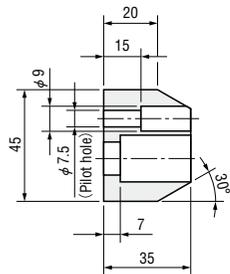


Lifter block **FLOLBB**



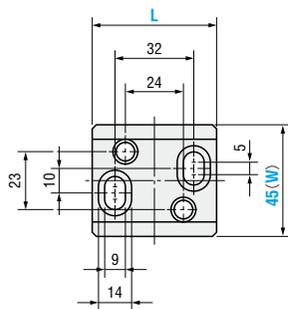
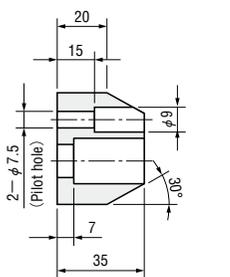
S45C

Side gauge **FLOSG**



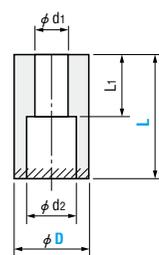
S45C

Rear gauge **FLORG**



S45C

Preload pin **FLAP**



S45C
part is HF induction hardening.

■ Lifter block **FLOLB · FLOLBA · FLOLBB**

FLOLBB dimensions

W	W1	L	L1
52	39	58	40
62	48	64	40
65	55	80	55

Catalog No.	W
FLOLB FLOLBA	45
	50
	60
FLOLBB	52
	62
	75

Order

■ Side gauge **FLOSG**

Order

■ Rear gauge **FLORG**

Catalog No.	W	L
FLORG	45	50
		55

Order -

■ Preload pin **FLAP**

d1	d2	L1	Catalog No.	D	L 10mm increment	
9	14	20	FLAP	25	40~60	
		40			70~100	
13	20	25			30	50~60
		45			35	70~100
		65			110~150	

Order -

Days to Ship

Price

LIFTER GUIDE POST SETS

LGPF
(Float type)

① Lifter guide post **LGPF**

② Stopper **LGPF**

④ Stopper **LGPS**

LGPF components list

No.	Catalog No.	Qty.	Material & remarks
①	LGPF	1	S45C HRC48~
②	LGPF	1	S45C With screws
④	LGPS	2	S45C

■Application: Used on the intramode center of transfer die and progressive die

L	L1	Catalog No.	Stroke S	Catalog No.
120	80	LGPF LGPF	40	LGPF
140	100		60	LGPF
160	120		80	LGPF

Order	Catalog No.	S
	LGPF	40
	LGPF	80
	LGPF	
	LGPF	

Days to Ship **Quotation**

Price **Quotation**

LGPD
(Locating dowel hole type)

③ Lifter guide post **LGPD**

④ Stopper **LGPS**

LGPD components list

No.	Catalog No.	Qty.	Material & remarks
③	LGPD	1	S45C HRC48~
④	LGPS	2	S45C

■Application: Used on the intramode side of progressive die

L	L1	Catalog No.	S	Catalog No.
140	80	LGPD LGPD	40	LGPS
160	100		60	

Order	Catalog No.	S
	LGPD	40
	LGPD	60
	LGPD	

Days to Ship **Quotation**

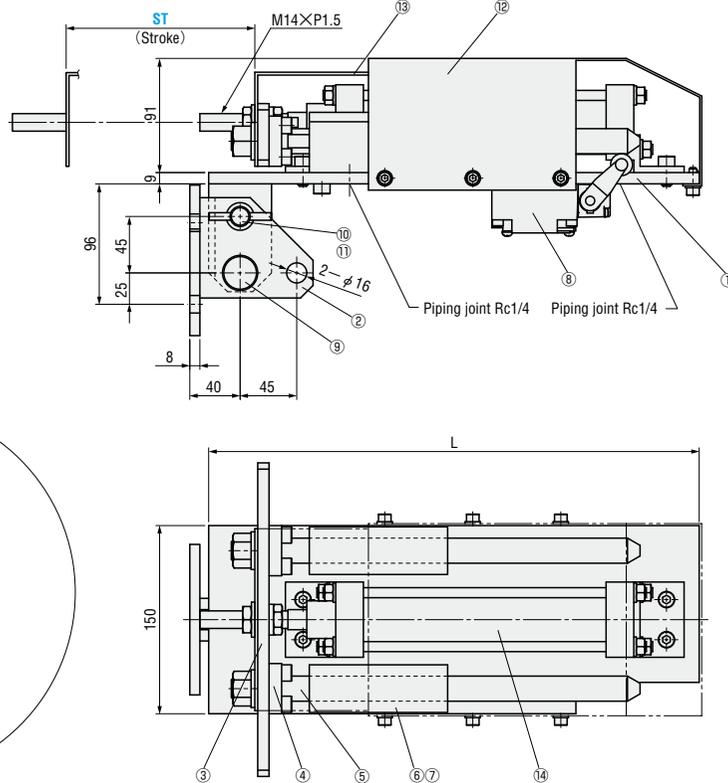
Price **Quotation**

PUSHERS

—REGULAR TYPE—



DABP



ST (Stroke)
M14×P1.5
91
9
96
45
25
8
40
45
Piping joint Rc1/4
Piping joint Rc1/4
1
2
3
4
5
6
7
8
9
10
11
12
13
14

Retraction status
211
120

L
150
3
4
5
6
7
14

91
40
15
35
65
35
120
60
φ120
2-φ14
50
110
200
250

Components list

No.	Name	Qty.	Material & remarks
①	Baseplate	1	Equivalent to SS400
②	Bracket	1	Equivalent to SS400
③	Connector plate	1	Equivalent to SS400
④	Fixed plate	2	Equivalent to SS400
⑤	Guide pin	2	S45C
⑥	Guide bushing holder	2	S45C
⑦	Guide bushing	4	Oil-free
⑧	Limit switch	1	
⑨	Link pin	1	S45C
⑩	Stop pin	1	S45C
⑪	Chain	1	Length 200mm
⑫	Cover	1	SPC
⑬	Cover	1	SPC
⑭	Cylinder	1	Special product

L	Catalog No.	Stroke ST
390	DABP	150
490		250

- When using**
- Can be used for folding and storage of die.
 - For compressing small and medium parts.

Order **Catalog No.** **ST**
DABP 150

Days to Ship **Quotation**

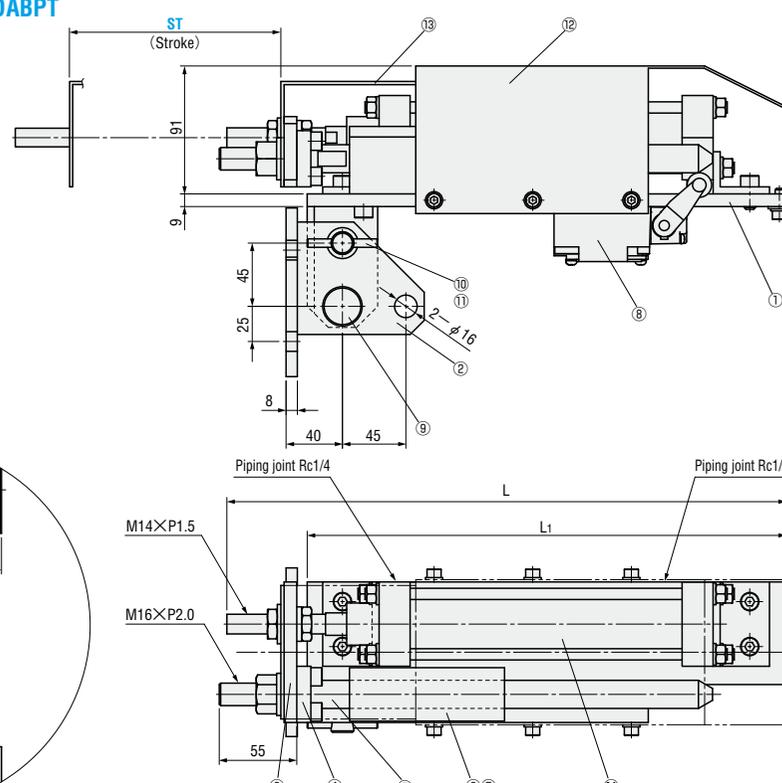
Price **Quotation**

PUSHERS

—COMPACT TYPE—



DABPT



ST (Stroke)
91
9
45
25
8
40
45
Piping joint Rc1/4
Piping joint Rc1/4
1
2
3
4
5
6
7
8
9
10
11
12
13
14

Retraction status
210
120

L
L1
M14×P1.5
M16×P2.0
55
3
4
5
6
7
14

65
40
40
15
35
120
60
φ120
4-φ14
50
30
20
100

Components list

No.	Name	Qty.	Material & remarks
①	Baseplate	1	Equivalent to SS400
②	Bracket	1	Equivalent to SS400
③	Panel	1	Equivalent to SS400
④	Fixed plate	1	Equivalent to SS400
⑤	Guide bar	1	S45C
⑥	Guide bushing holder	1	Equivalent to SS400
⑦	Guide bushing	2	Oil-free
⑧	Limit switch	1	
⑨	Link pin	1	S45C
⑩	Stop pin	1	S45C
⑪	Chain	1	Length 200mm
⑫	Cover	1	SPC
⑬	Cover	1	SPC
⑭	Cylinder	1	Special product

L	L1	Catalog No.	Stroke ST
395	340	DABPT	150
495	440		250

- When using**
- Can be used for folding and storage of die.
 - For compressing small and medium parts.

Order **Catalog No.** **ST**
DABPT 150

Days to Ship **Quotation**

Price **Quotation**

CONVEYANCE COMPONENTS FOR AUTOMOTIVES

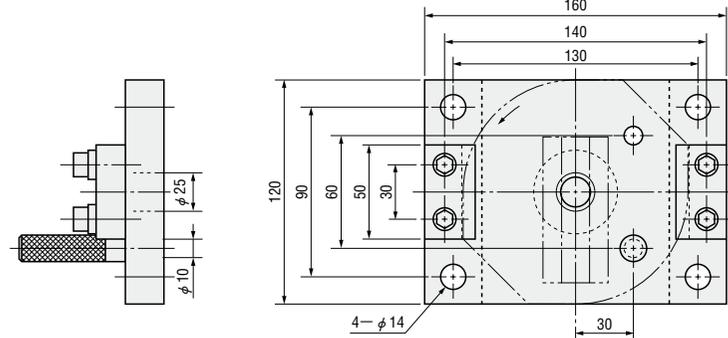
ROTARY JOINTS / CONNECTOR PLATES

— FOR PUSHER SPRING HEAD INSTALLATION —

ROTARY JOINTS

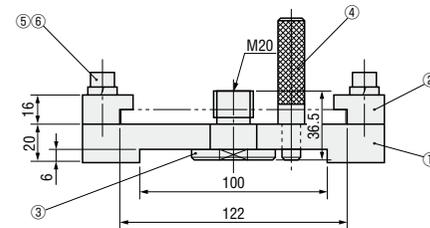


PKAD (Standard type)



Components list

No.	Name	Qty.	Material & remarks
①	Baseplate	1	Equivalent to SS400
②	Side guide rail	2	Equivalent to SS400
③	Pivot pin	1	S45C
④	Dowel pin	1	S45C
⑤	Hexagon socket head cap bolt	4	M8×35
⑥	Spring washer	4	For M8



Order

Catalog No.

PKAD



Days to Ship

Quotation

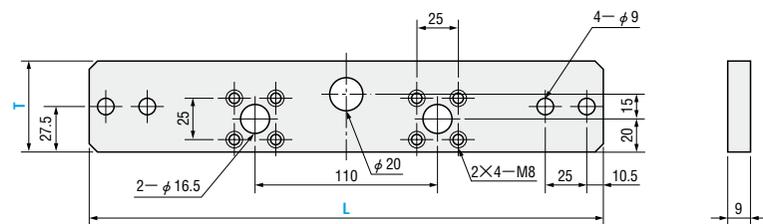


Price

Quotation

CONNECTOR PLATES

TFPB (For DABP, P.1129)



SS400

Catalog No.	T	L 1mm increment
TFPB	55	250~600



Order

Catalog No.

TFPB

T

55

L

255



Days to Ship

Quotation



Price

Quotation



CONVEYANCE COMPONENTS
FOR AUTOMOTIVES