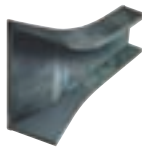


CONVEYANCE COMPONENTS FOR AUTOMOBILE DIES

CONVEYANCE COMPONENTS FOR AUTOMOBILE DIES



Product name Catalog No.	COILED MATERIAL GUIDES CILG	MATERIAL GUIDES MCG MCGN MCGE	MATERIAL GUIDE ROLLER SETS GDRT□ GDRT□W GDRT□T	MATERIAL GUIDE ROLLER SETS EGDR EGDRW EGDRT
Page	921	922	923	924



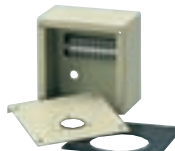
MATERIAL GUIDE ROLLER SETS GDRA	SHEET LIFTER UNITS SRL	MATERIAL FEED LIFTER UNITS ZORW□□	SHEET LIFTERS SLCES	SHEET LIFTERS SLC	SHEET LIFTERS SLCE
924	925	925	926	926	926



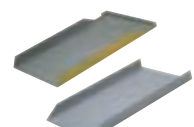
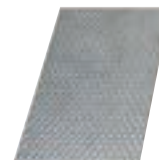
LIFTER UNITS LTH CLTH	AIR CYLINDER LTHCT LTHCS	LIFTING PADS VCH VCHT	AIR TUBE ONE-TOUCH JOINTS M-PC M-POC	AIR TUBE ONE-TOUCH JOINTS M-PL M-POL
927	929	930	931	931



AIR TUBES M-UB	SPECIAL TUBE CUTTERS M-TCN	AIR TUBE BRACKETS DAHK-A DAHK-B DAHK-C DAHK-D DAHK-E	TUBING TERMINALS TAHK-A TAHK-B TAHK-C TAHK-D	AIR MANIFOLDS DMFDA DMFOB
932	932	933	933	934



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	CURL CORD HOOKS DKLH
935	936	937	938	938



ROLLER CARRIERS CORO	BALL CARRIERS GORO	BALL CARRIERS GORON	EMBOSSED SHOOTER PLATES EBSP	SCRAP SHOOTERS SRST□
939	939	939	940	941

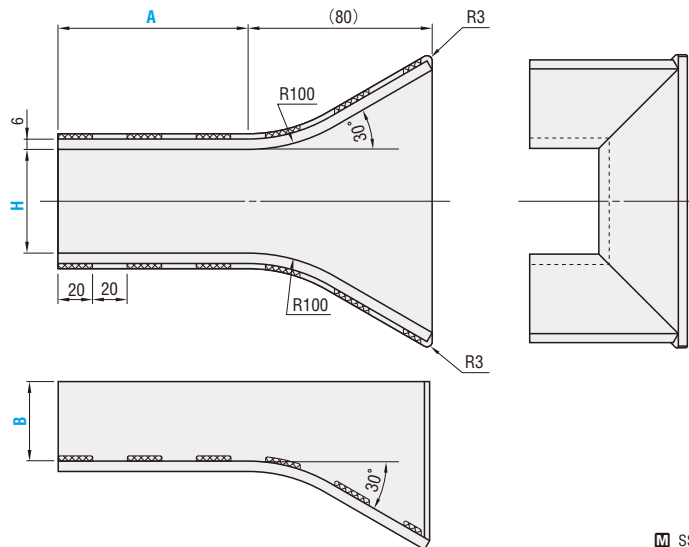
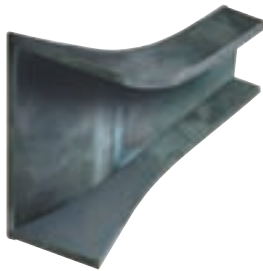


CHAINS FOR SCRAP SHOOTERS		CHAINS, GENERAL PURPOSE	CHAIN JOINTS
SRT	SRTN	CN	JT
942		942	942

COILED MATERIAL GUIDES

RoHS

CILG



SS400

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



Price

Quotation

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



Order

Catalog No. — A — B — H
CILG — 100 — 60 — 50



Days to Ship

Quotation



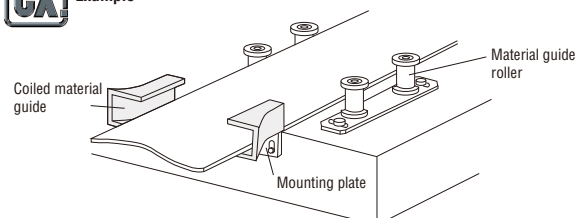
Alterations

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

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



Example



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.

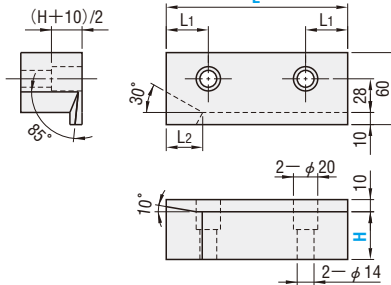
MATERIAL GUIDES

RoHS



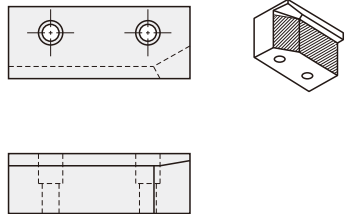
—Left hand—

MCG—L (Round hole type)

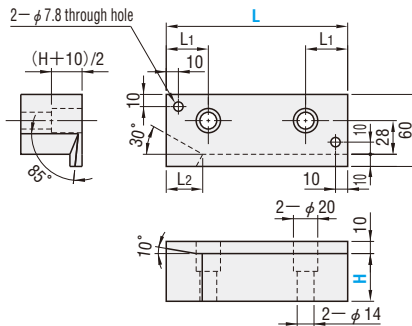


—Right hand—

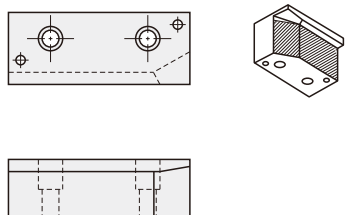
MCG—R (Round hole type)



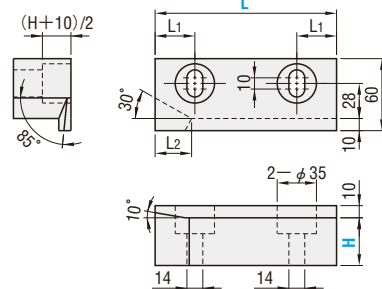
MCGN—L (Round hole and dowel slot type)



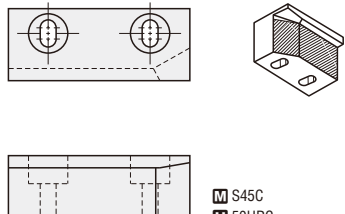
MCGN—R (Round hole and dowel slot type)



MCGE—L (Oblong hole type)



MCGE—R (Oblong hole type)



M S45C
H 50HRC~
(part: Induction-hardened)

L ₁	L ₂	Catalog No.		L	H
		Type	Mounting direction		
25	30	MCG	R	100	20~70
		MCGN	L	150	
35		MCGE			



Price

Quotation



Order

Catalog No. — L — H
MCG—R — 100 — 50

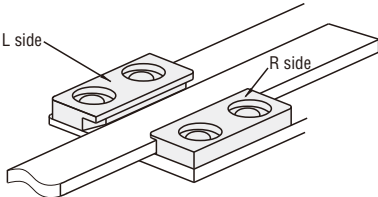


Days to Ship

Quotation



Example



Type	H	Base unit price 1~19 pieces	
		L100	L150
MCG—L MCG—R	20		
	30		
	40		
	50		
	60		
MCGN—L MCGN—R	70		
	20		
	30		
	40		
	50		
MCGE—L MCGE—R	60		
	70		
	20		
	30		
	40		
	50		
	60		
	70		

Quotation

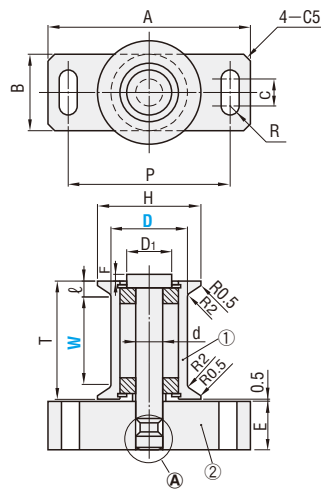
MATERIAL GUIDE ROLLER SETS

—BEARING TYPE—

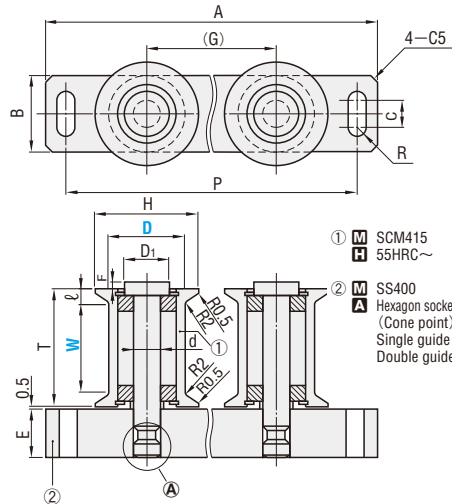
RoHS



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



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

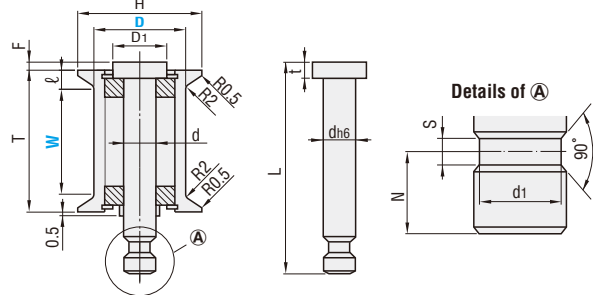


- ① **M** SCM415
55HRC~
② **M** SS400
A Hexagon socket head set screw
(Cone point)
Single guide 1 piece
Double guides 2 pcs.

RoHS



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



- A** Hexagon socket head set screw
(Cone point) 1 piece

Set parts

T	H	ℓ	d	A	B	C	P	R	E	F	(G)	D ₁	Catalog No.		W	Base unit price 1~9 sets	
													Type	D		Single guide	Double guides
48	40	5	10	95 (395)	30	10	73 (373)	5.5	20	1.5	(300)	14	(Roller bearing type)	30	38		
54	75	8	25	145 (445)	55	20	115 (415)	6.5	35	5.5		32	GDRTA	55	38		
86													GDRTAW		70		
48	40	5	9	95 (395)	30	10	73 (373)	5.5	20	1.5	(300)	12	(Ball bearing type)	30	38		
54	75	8	20	145 (445)	55	20	115 (415)	6.5	35	5.5		32	GDRTB	55	38		
86													GDRTBW		70		

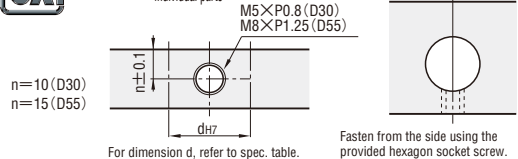
Numbers in () are the dimensions of the double guides (GDRTAW and GDRTBW).

Individual parts

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



Example Example of mounting hole machining when used as individual parts



For dimension d, refer to spec. table.

Fasten from the side using the provided hexagon socket screw.



Order

Catalog No. — W
GDRTA 55 — 38



Days to Ship

Quotation



Price

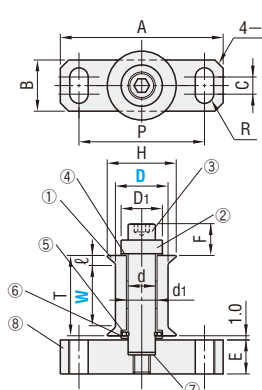
Quotation

MATERIAL GUIDE ROLLER SETS

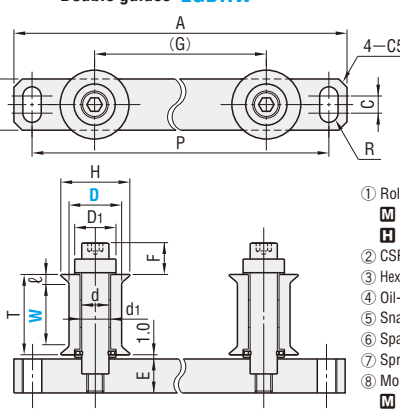
—OIL-FREE BUSHING TYPE—



Single guide EGDR



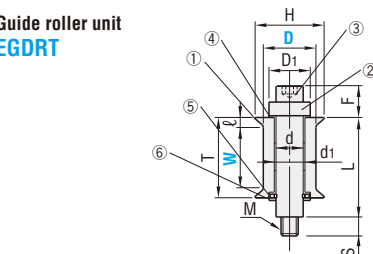
Double guides EGDRW



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



Guide roller unit EGDR



① Roller
M SCM415
H 55HRC~
 ② CSR (Spool retainer)
 ③ Hexagon socket head cap screw
 ④ Oil-free bushing (LF type)
 ⑤ Snap ring (C type)
 ⑥ Spacer
A 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	(G)	D ₁	Catalog No.		Base unit price 1~9 sets	
														Type	D	W	Single guide
48	40	5	16	18	95(395)	30	10	73(373)	5.5	20	19		24	EGDR	30	38	
54	75	8	25	28	145(445)	55	20	115(415)	6.5	35	30.5	(300)	36	EGDRW	55	38	Quotation
86																70	

Numbers in () are the dimensions of the double guides (EGDRW).

Individual parts

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



Order

Catalog No.

EGDR 55

W

38



Days to Ship

Quotation

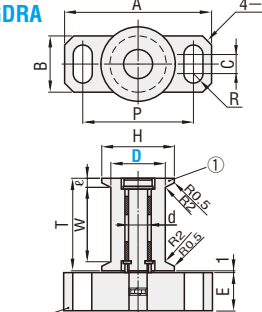


Price

Quotation



GDRA



① **M** SKS93
H 55~60HRC
 ② **M** SS400

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

① **M** SKS93
H 55~60HRC
 ② **M** SS400

① Roller
M SKS93
H 55~60HRC~
 ② CSR (Spool retainer)
 ③ Hexagon socket head cap screw
 ④ Oil-free bushing (LF type)
 ⑤ Snap ring (C type)
 ⑥ Spacer
 ⑦ Spring washer
 ⑧ Mounting plate
M SS400

① Roller
M SKS93
H 55~60HRC~
 ② CSR (Spool retainer)
 ③ Hexagon socket head cap screw
 ④ Oil-free bushing (LF type)
 ⑤ Snap ring (C type)
 ⑥ Spacer
A Spring washer
 D30---CBW10 1 piece
 D55---CBW16 1 piece

① Roller
M SKS93
H 55~60HRC~
 ② CSR (Spool retainer)
 ③ Hexagon socket head cap screw
 ④ Oil-free bushing (LF type)
 ⑤ Snap ring (C type)
 ⑥ Spacer
A Spring washer
 D30---CBW10 1 piece
 D55---CBW16 1 piece

SHEET LIFTER UNITS / MATERIAL FEED LIFTER UNITS

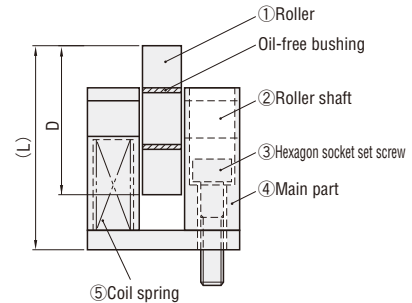
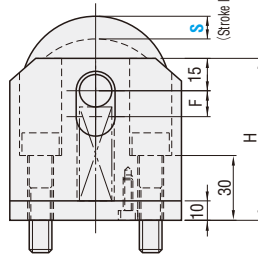
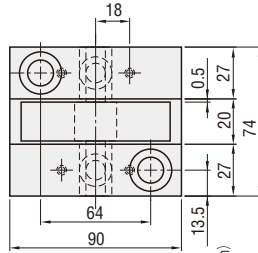
Material lifters

RoHS

SRL



- ① M SK3 H 55~58HRC
- ② M SUJ2 H 55~58HRC
- ③ LB12—50 2 pcs.
- ④ M SS400
- ⑤ S=10 →SWF20—45 2 pcs.
S=20 →SWR21—65 2 pcs.



D	H	F	(L)	N(kgf) min.	N(kgf) max.	Catalog No. Type	S	Base unit price 1~9 pieces
60	75	12	90	165(16.8)	439(44.8)	SRL	10	Quotation
80	95	22	120	108(11.0)	469(47.8)		20	

● Load (kgf)=Load (N)×0.101972



Order

Catalog No.

SRL 20



Price

Quotation



Days to Ship

Quotation

Material feed lifter units

RoHS

Steel roller type

ZORWMS
ZORWHS

Resin roller type

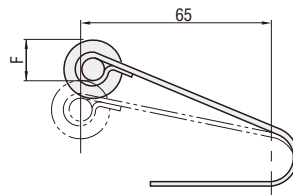
ZORWMP
ZORWHP



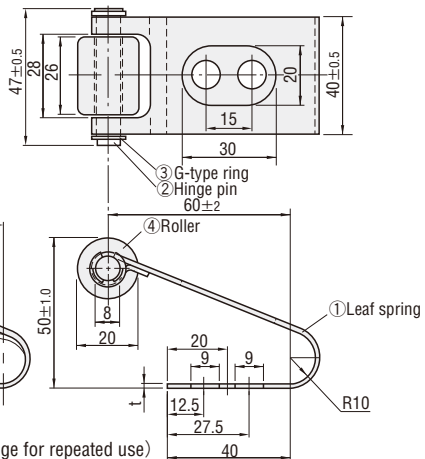
Resin roller type



- ① M SK5M
- ② M S45C
- ③ IWATA RING G-8
- ④ Steel roller type
M S45C H 45HRC~
Resin roller type
M Outside: Polyacetal resin (POM)
Inside: S45C
A CB8—20 2 pcs.



Stroke Fmax 16mm
(Recommendation range for repeated use)



t	N/mm(kgf/mm)	Type	Catalog No.	Base unit price 1~19 pieces
1.4	5.88(0.60)	Steel roller	ZORWMS	Quotation
1.6	8.43(0.86)	type	ZORWHS	

t	N/mm(kgf/mm)	Type	Catalog No.	Base unit price 1~19 pieces
1.4	5.88(0.60)	Resin roller	ZORWMP	Quotation
1.6	8.43(0.86)	type	ZORWHP	

● Load (kgf)=Load (N)×0.101972



Order

Catalog No.

ZORWMS



Days to Ship

Quotation

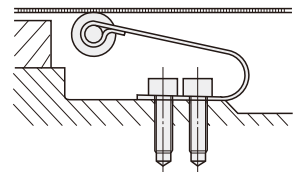


Price

Quotation



Example



SHEET LIFTERS

RoHS

SLCES



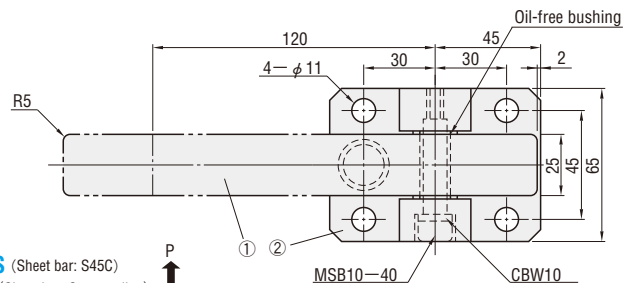
SLCE



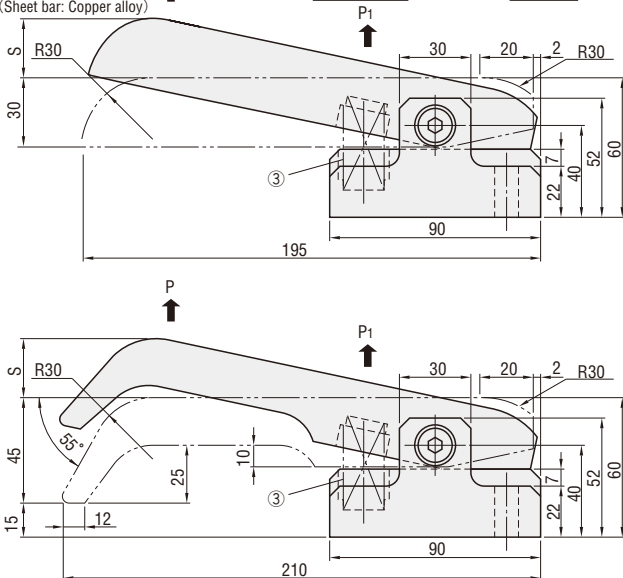
SLC



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



SLC



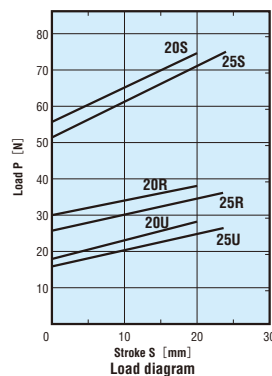
① Sheet bar **M** SLCES S45C
SLCE-SLC Copper alloy

② Block **M** FC250

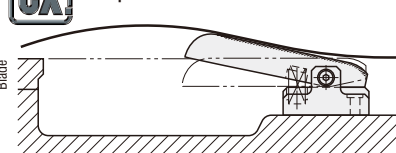
Lifting load P [N(kgf)]		Spring load P ₁ [N(kgf)]		Coil spring (color) ③	Stroke S	Catalog No.		Base unit price 1~9 pieces		
min.	max.	min.	max.			Type	No.	SLCES	SLCE	SLC
18.3(1.9)	24.5(2.5)	73(7.5)	98(10.0)	SWU17-50 (Light blue)	20	SLCES SLCE SLC	20U			
29.3(3.0)	39.2(4.0)	117(12.0)	157(16.0)	SWR17-50 (Ivory)	20		20R			
54.9(5.6)	73.5(7.5)	220(22.5)	294(30.0)	SWS17-50 (Orange)	20		20S			
16.9(1.7)	24.5(2.5)	67(6.9)	98(10.0)	SWU17-50 (Light blue)	25		25U			
27.0(2.8)	39.2(4.0)	108(11.0)	157(16.0)	SWR17-50 (Ivory)	25		25R			
51.0(5.2)	73.5(7.5)	202(20.6)	294(30.0)	SWS17-50 (Orange)	25		25S			

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

Load (kgf) = Load (N) × 0.101972



Example



Catalog No.
SLCE 20S



Days to Ship

Quotation



Price

Quotation



Alterations

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

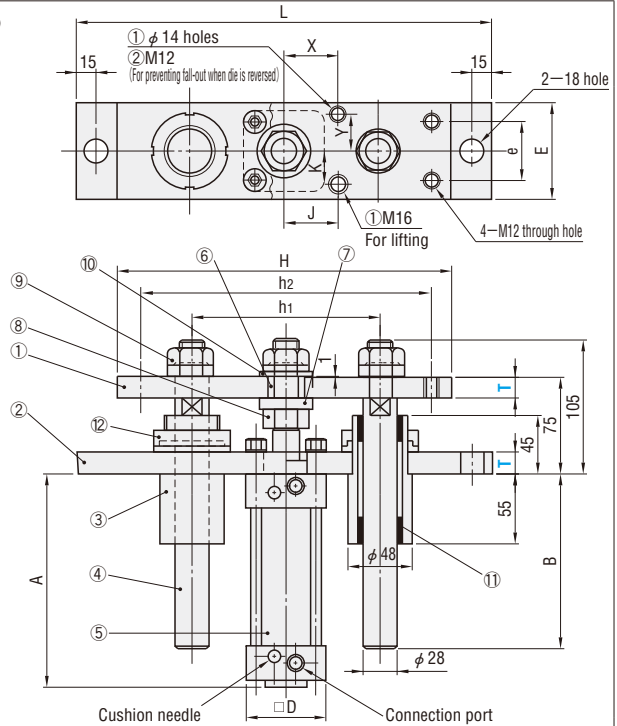
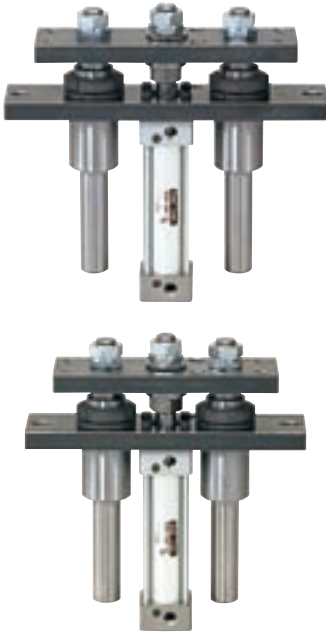
Alteration	Code	Spec.	1Code
	HTC	Induction hardening of the upper surface (Sheet bar body only 55HRC~) ⊗ Cannot be used for SLCE-SLC.	Quotation
	HTM	Sheet bar body Plated (Electroless nickel plating) ⊗ Cannot be used for SLCE-SLC.	

LIFTER UNITS

RoHS

LTH (Standard size)

CLTH (Compact size)



No.	Parts list	M	Quantity	Remarks
①	Lifter plate	SS400	1	
②	Base plate	SS400	1	
③	Guide holder	STKM13A	2	
④	Guide pin	S45C	2	55~60HRC
⑤	Air cylinder		1	For detailed specifications, refer to table at right.
⑥	Collar	STKM13A	1	
⑦	Spacer	SS400	1	
⑧	Hexagon nut	SS400	1	M20×P2.5
⑨	Hard lock nut	SS400	3	M20×P2.5
⑩	Flat washer	SS400	1	For M20
⑪	Oil-free bushing	PTFE resin with filler	4	
⑫	Hard lock nut		2	HLB-08 M40×P1.5

■ Air cylinder (⑤) specifications

⑤ Air cylinder	TANHAY	SMC
Cylinder tube inner diameter	φ 40	φ 63
Catalog No.	TCA2	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	5~60°C	-10~70°C
Piston speed	50~500mm/s	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	

■ Selection method

- Using the table at right, select an appropriate cylinder inner diameter based on the required lift-up force.
- Select the stroke and thickness of each plate according to the conditions of use.

■ Features

- An effective means of lifting up panels and other materials while they are horizontal.
- Two types are available: the standard size and compact size (dimensions L and H are shortened by 35~40mm).
- The size of the base plate can be shortened by alteration (LC) in order to meet needs for more compact sizes.
- An economy type (air cylinder made by TANHAY) is also available. The price is 20% lower than a product of the same size with an SMC air cylinder.
- The plate thickness is selectable.

Lifter unit's lift up force (N)

Cylinder inner diameter	Max. operating pressure (MPa)				
	0.2	0.3	0.4	0.5	0.6
φ 40	126	189	252	315	377
φ 63	312	468	624	780	935

The above values are calculated assuming an air cylinder load factor of 0.5.
Load (kgf)=Load (N)×0.101972

H	h ₁	h ₂	L	E	e	D	J	K	X	Y	A	B	Catalog No.			Stroke	T	Base unit price	
													Type	Air cylinder	Cylinder inner diameter			T=16	T=19
250	140	220	310	75	45	60	30	25	33	28	139	110	LTH (Standard size)	T Economy (product of TANHAY)	40	50	16	Quotation	
											189	160					100		19
270	160	240	330	90	70	85	35	30	48	32	154	110					50		16
											204	160					100		19
											138	110			S (product of SMC)	40	50		16
											163	135					75		19
											188	160					100		
											148	110					50		16
270	160	240	330	90	70	75	35	30	48	32	173	135				75	16		
											198	160				100	19		
											139	110	CLTH (Compact size)	T Economy (product of TANHAY)	40	50	16		
											189	160					100	19	
											154	110					50	16	
											204	160					100	19	
											138	110			S (product of SMC)	40	50	16	
											163	135					75	19	
											188	160					100		
											148	110					50	16	
240	135	210	295	90	70	75	35	30	48	32	173	135				75	16		
											198	160				100	19		

Quotation



Order

Catalog No.			Stroke	T
Type	Air cylinder	Cylinder inner diameter		
LTH	S	40	100	T19



Days to Ship

Quotation

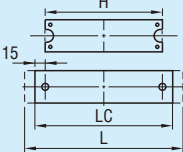
Notes for use

- When connecting the air tube to the cylinder, remove any metal dust, cutting oil, dirt, or other substances from inside the tubing in order to prevent them from entering the cylinder. When using seal tape on the threads, leave the first 1.5~2 threads from the tip exposed.
- Ensure that the supplied air remains clean by installing an air filter upstream from the air cylinder.
- Although the cushion is adjusted before shipment, we recommend readjusting it according to the actual load and operation speed. When adjusting the cushion, turn the cushion needle to the right to reduce the aperture and increase the cushioning effect.
- After mounting the lifter unit onto the die, conduct an appropriate function check and verify that the unit is installed correctly.



Alterations

Catalog No.			Stroke	T	(LC·ZC)
Type	Air cylinder	Cylinder inner diameter			
LTH	S	40	100	T19	LC

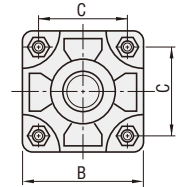
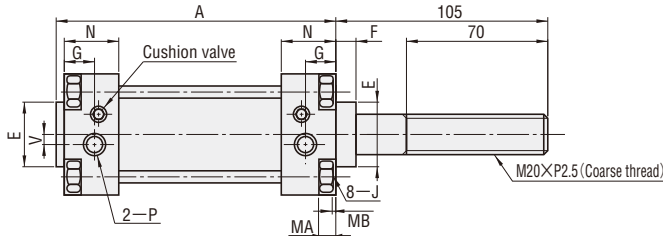
Alteration	Code	Spec.	1Code																	
①Lifter plate 	LC	Notches are machined at both ends of the lifter plate and the base plate L dimension is shortened. <table><tr><th colspan="2">Catalog No.</th><th rowspan="2">LC</th></tr><tr><th>Type</th><th>Cylinder inner diameter</th></tr><tr><td>LTH (Standard size)</td><td>40</td><td>285</td></tr><tr><td></td><td>63</td><td>305</td></tr><tr><td>CLTH (Compact size)</td><td>40</td><td>260</td></tr><tr><td></td><td>63</td><td>280</td></tr></table>	Catalog No.		LC	Type	Cylinder inner diameter	LTH (Standard size)	40	285		63	305	CLTH (Compact size)	40	260		63	280	Quotation
Catalog No.		LC																		
Type	Cylinder inner diameter																			
LTH (Standard size)	40	285																		
	63	305																		
CLTH (Compact size)	40	260																		
	63	280																		
②Base plate 	ZC	4 lifter mounting holes of ϕ 13.1 are machined in the base plate. ⊗ Cannot be combined with LC. <table><tr><th colspan="2">Cylinder inner diameter</th><th>ZC</th></tr><tr><td>40</td><td></td><td>55</td></tr><tr><td>63</td><td></td><td>60</td></tr></table>	Cylinder inner diameter		ZC	40		55	63		60									
Cylinder inner diameter		ZC																		
40		55																		
63		60																		

AIR CYLINDERS FOR LIFTER UNITS

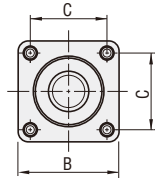
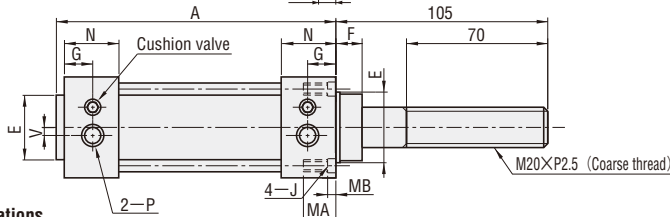
RoHS



LTHCT
(product of
TANHAY)



LTHCS
(product of
SMC)



Air cylinder specifications

Type	LTHCT	LTHCS
Cylinder tube inner diameter	φ 40	φ 63
Catalog No.	TCA2	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	5~60℃	-10~70℃
Piston speed	50~500mm/s	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. Type	Cylinder inner diameter	Stroke	Base unit price
60	44	32	10	15	8	1	M6	27	Rc1/4	5	139 189	LTHCT (product of TANHAY)	40	50 100	Quotation
85	64	40	10	17	10	1	M8	31	Rc3/8	9	154 204		63	50 100	
52	38	35	13	14	16	4	M6	27	Rc1/4	4	138 163 188	LTHCS (product of SMC)	40	50 75 100	
75	56.5	45	14	16.5	16	5	M8	31.5	Rc3/8	9	148 173 198		63	50 75 100	



Order

Catalog No.

Stroke

Type

Cylinder inner diameter

LTHCT

40

100



Days to Ship

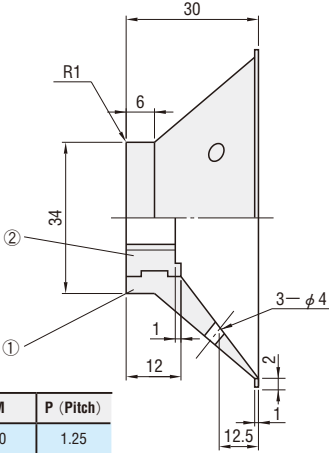
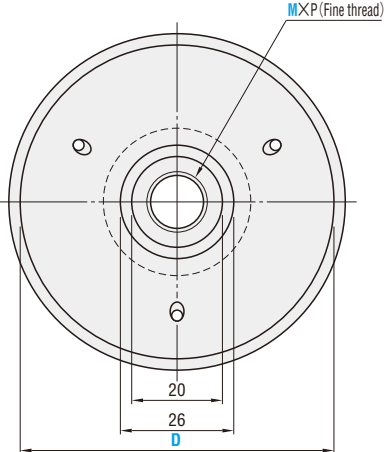
Quotation

LIFTING PADS



RoHS

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

M	P (Pitch)
10	1.25
12	1.5
14	1.5

M ① Nitrile rubber (NBR)
 ② Aluminum (A5052)

① H (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. — M

VCH 50 — 10



Days to Ship

Quotation



Price

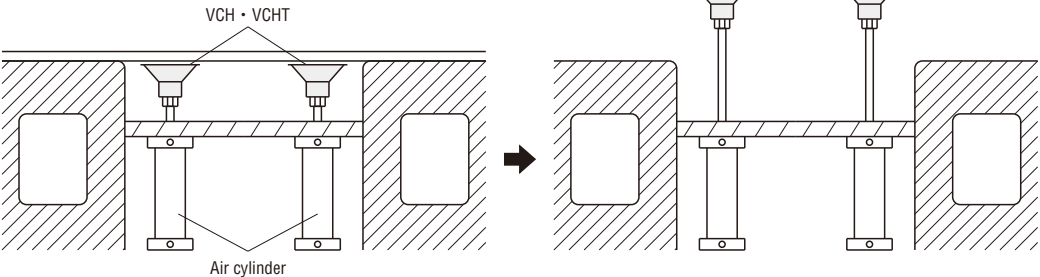
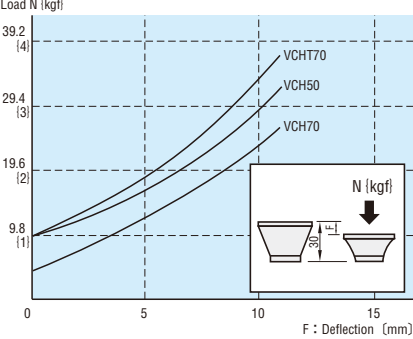
Quotation



Example

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

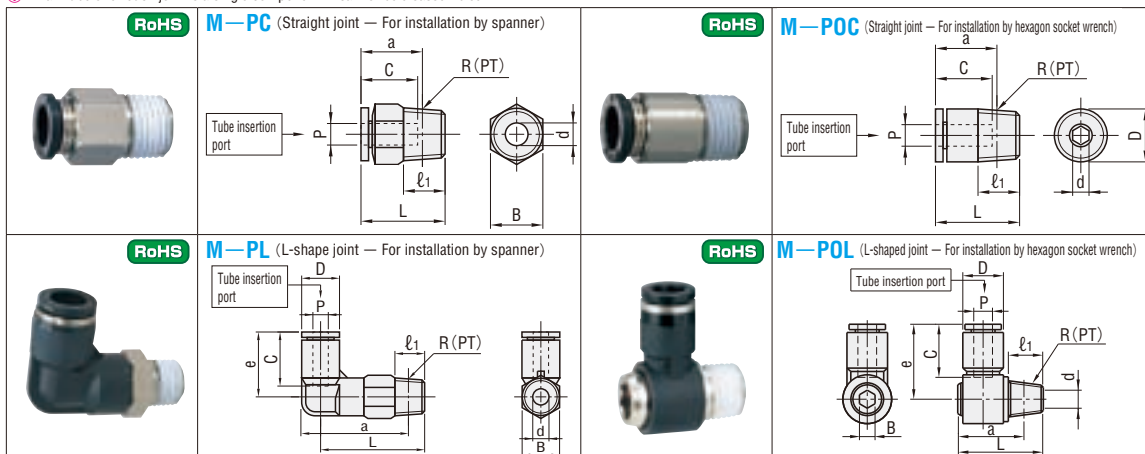
■ Deflection vs. load characteristics graph This graph shows the quasi-static characteristics. The actual characteristics vary depending on the temperature and speed.



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.



M-PC

Tube Outer dia. X inner dia.	Tube insertion hole Hole diameter P	Depth C	d	L	a	B	ℓ ₁	R (PT)	Catalog No. Type	No.	Base unit price 1~19 pieces
4×2.5	4	15	3	21.5	17.5	10	8	1/8	M-PC	4-01	Quotation
				23	15.5	14	11	1/4		4-02	
6×4	6	17	4.6	25	19	12	8	1/8		6-01	
				24	17.5	17	12	3/8		6-02	
8×5	8	18.5	6	28	24	14	8	1/8		8-01	
			7	27	21		11	1/4		8-02	
				24	17.5		12	3/8		8-03	
10×6.5	10	21	6	30.5	26.5	17	8	1/8		10-01	
			8.5	30	24		11	1/4		10-02	
				29.5	23		12	3/8		10-03	
12×8	12	23.5	8.5	36	30	21	11	1/4		12-02	
			11	32	25.5		12	3/8		12-03	

M-POC

Tube Outer dia. X inner dia.	Tube insertion hole Hole diameter P	Depth C	D	Hexagon wrench hole d	L	a	ℓ ₁	R (PT)	Catalog No. Type	No.	Base unit price 1~19 pieces
4×2.5	4	15	10	2.5	21	17	8	1/8	M-POC	4-01	Quotation
			12			18.5				6-01	
6×4	6	17		4	22.5	16.5	11	1/4		6-02	
			14	5	28	24	8	1/8		8-01	
8×5	8	18			26.5	20.5	11	1/4		8-02	
			17	6	24	17.5	12	3/8		8-03	
10×6.5	10	20.5	18		30	24	11	1/4		10-02	
					29.5	23				10-03	
12×8	12	23.5	21	8	32	25.5	12	3/8		12-03	

M-PL

Tube Outer dia. X inner dia.	Tube insertion hole Hole diameter P	Depth C	D	d	L	a	e	B	ℓ ₁	R (PT)	Catalog No. Type	No.	Base unit price 1~19 pieces
4×2.5	4	15	10	3	23.5	24.5	18	10	8	1/8	M-PL	4-01	Quotation
					26.5	25.5		14	11	1/4		4-02	
					25	27		12	8	1/8		6-01	
6×4	6	17	12.5	4.6	28	28	20	14	11	1/4		6-02	
					30	29.5		17	12	3/8		6-03	
8×5	8	18	14.5	6	28	31	23	14	8	1/8		8-01	
					31	32			11	1/4		8-02	
					38	38.5			12	3/8		8-03	
10×6.5	10	20.5	17.5	6	33	37.5	26.5	17	8	1/8		10-01	
				8	36	38.5			11	1/4		10-02	
					37	39			12	3/8		10-03	
12×8	12	23.5	21	8	38	42.5	29.5	21	11	1/4		12-02	
				10	39	43			12	3/8		12-03	

M-POL

Tube Outer dia. X inner dia.	Tube insertion hole Hole diameter P	Depth C	Hexagon wrench size B	D	d	L	a	e	ℓ ₁	R (PT)	Catalog No. Type	No.	Base unit price 1~19 pieces
6×4	6	17	5	13	4.6	24	20	24	8	1/8	M-POL	6-01	Quotation
						27	21		11	1/4		6-02	
						27	23		8	1/8		8-01	
8×5	8	18	8	14	6	30	24	27	11	1/4		8-02	
						31	24.5		12	3/8		8-03	
10×6.5	10	20	10	18	8	34	28	31	11	1/4		10-02	
						35	28.5		12	3/8		10-03	
12×8	12	23.5	12	21	10	39	32.5	37	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



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.



Tube outer dia.	Tube inner dia.	Min. bend radius	Operating pressure range	Catalog No.		Full length L (m)	Color	Base unit price 1~9 pieces		
				Type	No.			L5	L10	L20
4	2.5	10	0~700 kPa (0~7kgf/cm ²)	M-UB	0425	5	B (Black)			
6	4	15			0640					
8	5	20			0850					
10	6.5	27			1065					
12	8	35			1280	20	C (Clear)			

Full length L is in units of meters.

Order Catalog No. — L — Color
M-UB 0640 — 5 — B

Days to Ship **Quotation**

Price **Quotation**

Catalog No.	Base unit price	Volume discount unit price		
	1~9	10~19	20~29	30~50
M-TCN		Quotation		

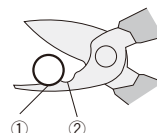
Features of the special tube cutter

- Using the special tube cutter allows cutting work to be done easily due to the effects of the tube guide R.
 - For large diameters (tube outer diameter of 10mm or more)
 - For 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.

Order Catalog No.
M-TCN

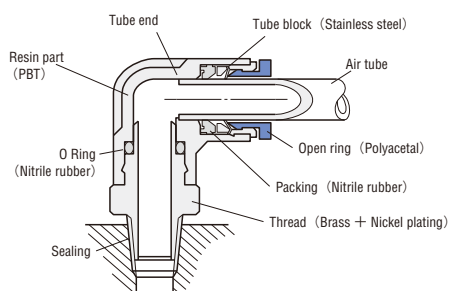
Days to Ship **Quotation**

Price **Quotation**



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

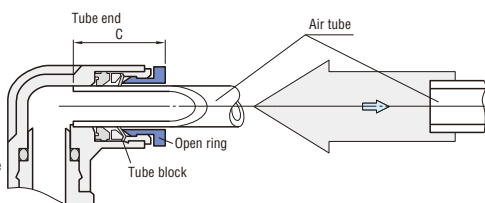
Connecting and disconnecting a tube

① 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.

② 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.)

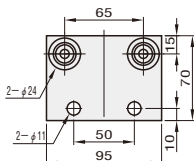
AIR TUBE BRACKETS / TUBING TERMINALS

RoHS

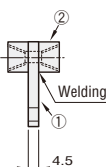
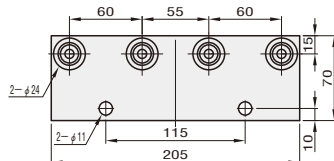
Air tube brackets



DAHK-A

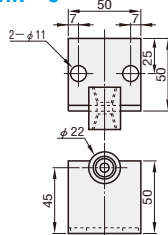


DAHK-B

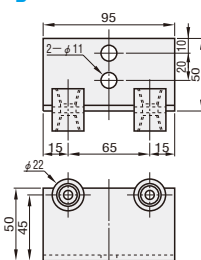


Catalog No.	M		S
	①	②	
DAHK—A	SPCC	SS400	Black oxide (Fe ₃ O ₄)
DAHK—B			
DAHK—C			
DAHK—D			
DAHK—E			

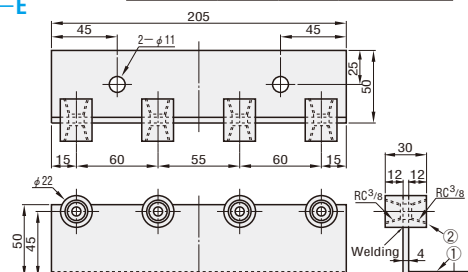
DAHK-C



DAHK-D



DAHK-E



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



Order

Catalog No.

DAHK-A



Days to Ship

Quotation



Price

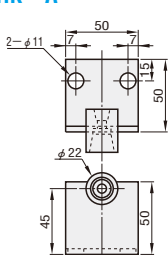
Quotation

RoHS

Tubing terminals



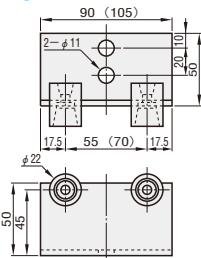
TAHK-A



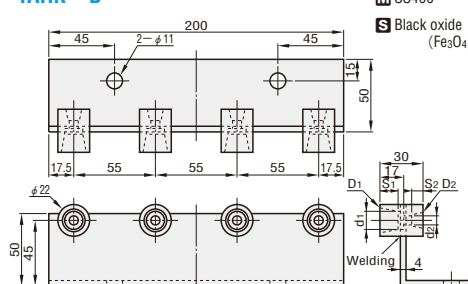
TAHK-B

TAHK-C

(()) Dimension



TAHK-D



M SS400

S Black oxide
(Fe₃O₄)

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		8		11	TAHK-B	2				
	3/8		12		12	TAHK-C	3				



Order

Catalog No.

TAHK-D-2



Days to Ship

Quotation



Price

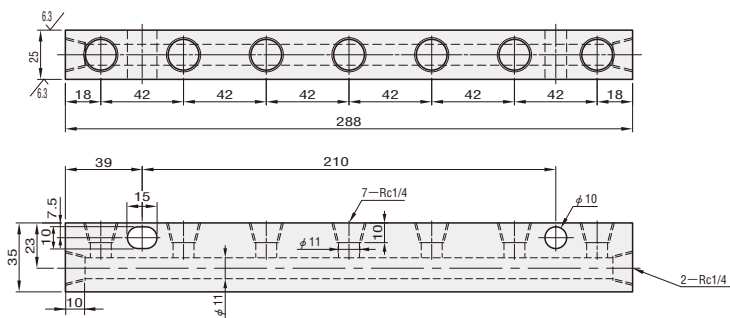
Quotation

AIR MANIFOLDS

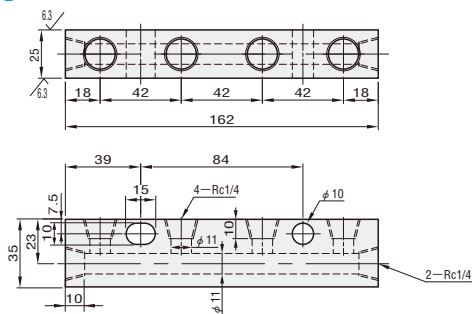
RoHS

DMFDA

28/(63/)



DMFDB



M A5052

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



Order

Catalog No.
DMFDA



Days to Ship

Quotation



Price

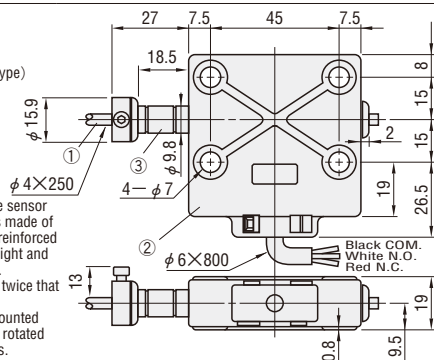
Quotation

MISGRIPPING SENSOR UNITS

—LIGHTWEIGHT TYPE—



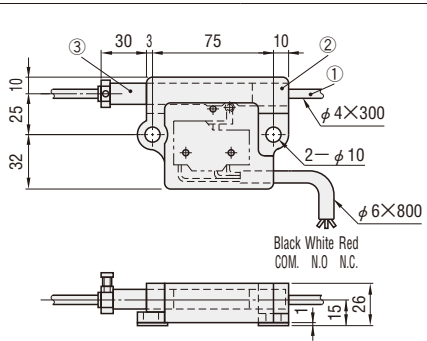
**MGUG
MGUGN**
(Switchless type)



① Because the sensor unit body is made of composite reinforced nylon, it is light and highly rigid.
(Rigidity is twice that of MGUE.)
It can be mounted reversed or rotated 180 degrees.

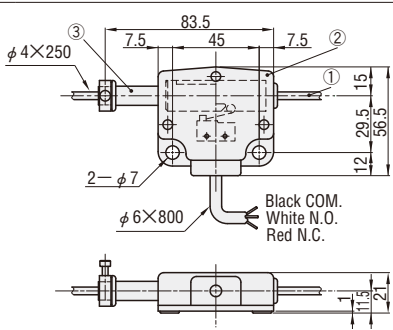


**MGUC
MGUCN**
(Switchless type)



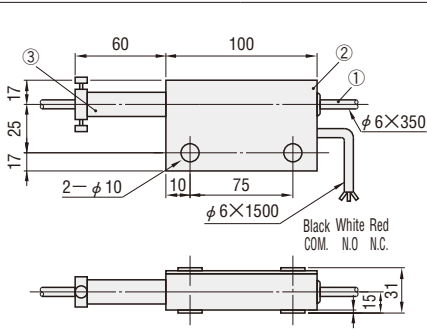


**MGUE
MGUEN**
(Switchless type)





**MGUL
MGULN**
(Switchless type)



① Check bar **M** SWP—A
SS400 (MGUL·MGULN)

② Protective cover **M** Material Nylon, reinforced nylon (MGUG·MGUGN)

③ Rod bar **M** Polyacetal

● Microswitch (product of OMRON)
MGUC Z—15GW2255—B
MGUE·MGUL·MGUG D2SW—3L2H

Utility model No. 55—32665
32666
13558
13559

Order **Catalog No.**
**MGUG
MGUCN**

Days to Ship **Quotation**

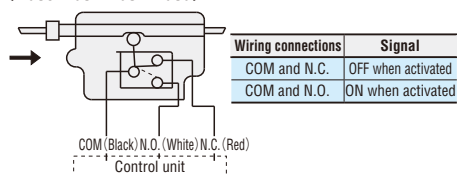
P Price **Quotation**

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 MGUGN	Quotation	MGUC MGUCN	Quotation	MGUE MGUEN	Quotation	MGUL MGULN	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

<MGUC·MGUE·MGUL·MGUG>



●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.

MISGRIPPING SENSOR UNITS

—HIGH-RIGIDITY TYPE—

RoHS

With check bar

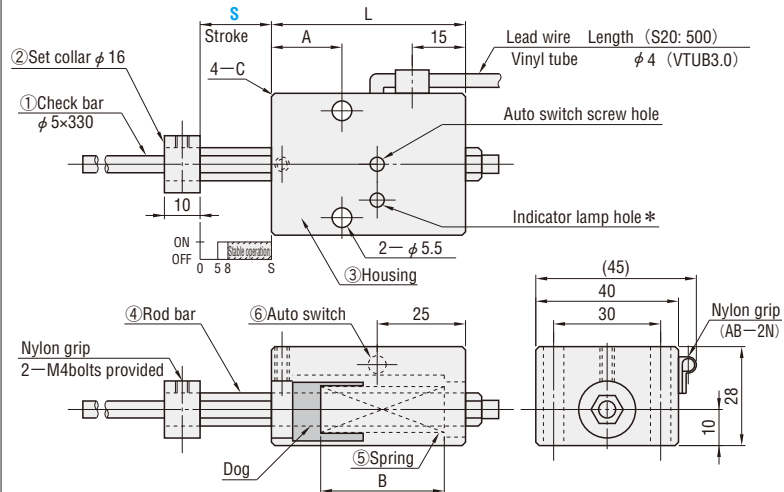
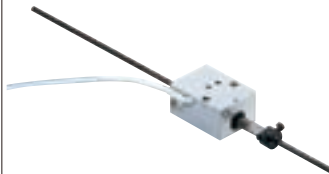
MGUA

MGUAN (Switchless type)

Without check bar

MGU

MGUN (Switchless type)



Switch cannot be attached to Switchless type afterwards.

①② **M** SS400

③ **M** Aluminum alloy

④ **M** SS400

⑤ **M** Equivalent to SWOC—V

S Black oxide (Fe₃O₄)

S Electroless nickel plating

⑥ Automatic switch

D-A90 (without indicator lamp) (product of SMC)

Applicable load IC circuit, relay, PLC

Load voltage **AC** 24V or less **AC** 48V or less **AC** 100V or less

Max. load current 50mA 40mA 20mA

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

Quotation



Order

Catalog No.

MGUA 20



Days to Ship

Quotation



Price

Quotation

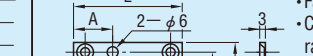


Alterations

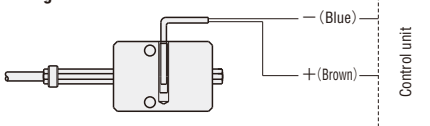


Catalog No. — (A93·DP)

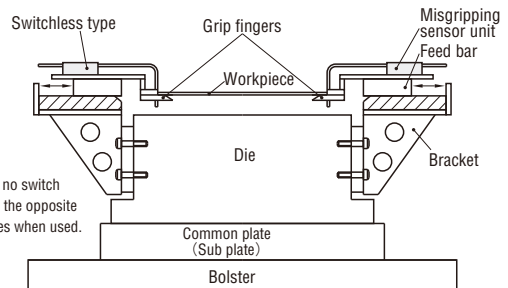
MGUA 20 — **A93**

Alteration	Automatic switch change	Addition of protective cover on lower part of unit body																					
Code	A93	DP																					
Spec.	Changed to type with operation check indicator lamp.	 • Fastened by M4 screws. • Check bar position is raised by 3mm. <table><tr><th>Stroke S</th><th>P</th></tr><tr><td>20</td><td>43</td></tr></table>	Stroke S	P	20	43																	
	Stroke S		P																				
	20		43																				
			<table><tr><td colspan="2">Automatic switch product number</td><td colspan="2">D-A93 (product of SMC)</td></tr><tr><td colspan="2">Applicable load</td><td colspan="2">Relay, PLC</td></tr><tr><td colspan="2">Load voltage</td><td>24V DC</td><td>100V AC</td></tr><tr><td colspan="2">Load current range and Max. load current</td><td>5~40mA</td><td>5~20mA</td></tr><tr><td colspan="2">Indicator lamp</td><td colspan="2">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.	
	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.																					
1Code	Quotation	Quotation																					

Wiring



Example



MGUA has a N.O. contact only (ON when activated).

In the following cases, the contact life may be shortened. The use of contact protection box CD-P11 or CD-P12 is strongly recommended.

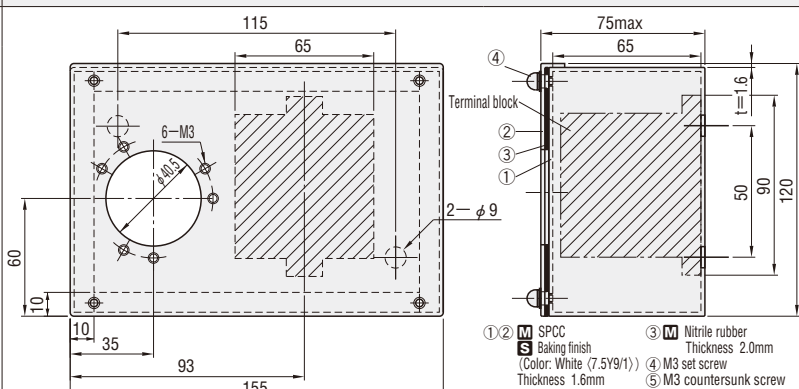
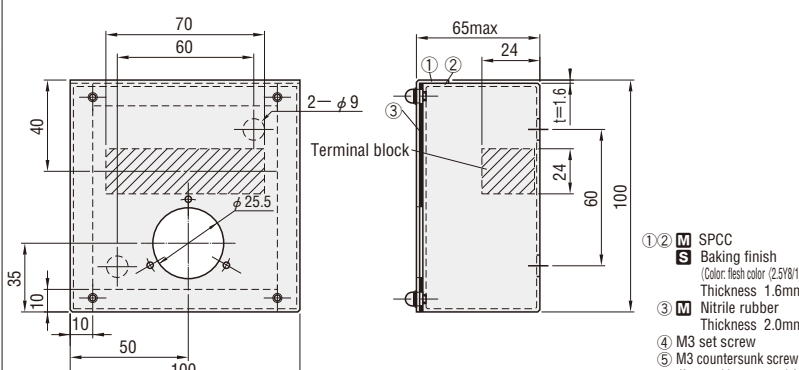
① The load used is an induction load.

② The wire length is 5m or longer.

③ The load voltage is 100V AC or higher.

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

JUNCTION BOXES WITH TERMINAL BLOCKS

Type	Shape
JBX160 RoHS 	 ①② M SPCC Baking finish (Color: White (7.5Y9/1)) Thickness 1.6mm ③ M Nitrile rubber Thickness 2.0mm ④ M3 set screw ⑤ M3 countersunk screw (for attaching receptacle)
JBX100 RoHS 	 ①② M SPCC Baking finish (Color: flesh color (2.5Y8/1)) Thickness 1.6mm ③ M Nitrile rubber Thickness 2.0mm ④ M3 set screw ⑤ M3 countersunk screw (for attaching receptacle)

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



Order

Catalog No.

JBX 100



Price

Quotation



Days to Ship

Quotation

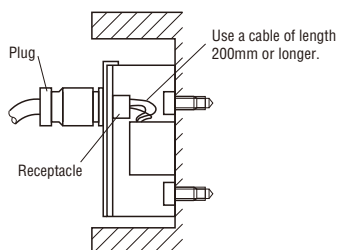


Example

■ Example of JBX attachment

■ Direction of receptacle key (JBX160)

■ Selection of receptacle



〈Vertical〉



〈Horizontal〉

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.

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

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.

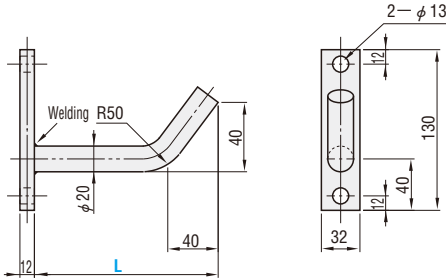
HOOKS FOR TRANSPORT DEVICES / CURL CORD HOOKS

Hooks for transport devices

RoHS

DVJ





SS400

Catalog No.		Base unit price
Type	L	1~19 pieces
DVJ	100	Quotation
	150	



Order

Catalog No.

DVJ 100



Days to Ship

Quotation

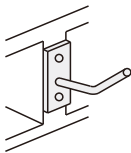


Price

Quotation



Example

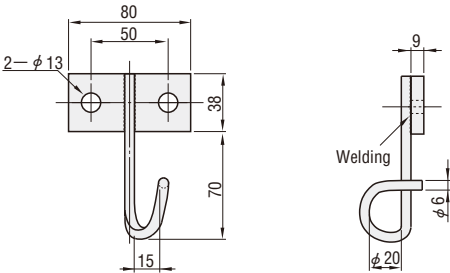


Curl cord hooks

RoHS

DKLH





SS400

Catalog No.		Base unit price
Type	No.	1~19 pieces
DKLH	80	Quotation



Order

Catalog No.

DKLH 80



Days to Ship

Quotation

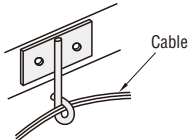


Price

Quotation



Example

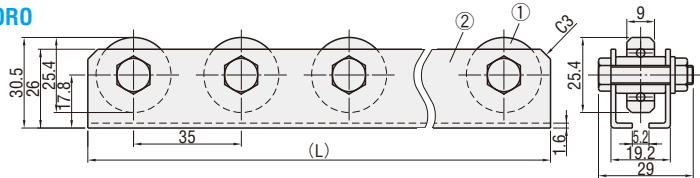


ROLLER CARRIERS / BALL CARRIERS

Roller carriers

RoHS

CORO



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

- ① M SS400 H 55HRC~ (Carburizing)
- ② M SPCC

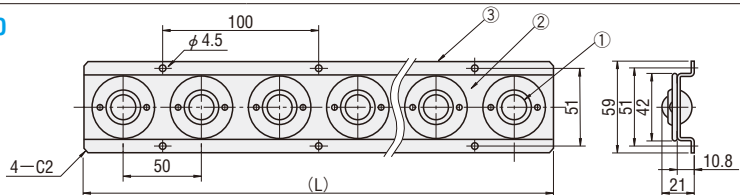
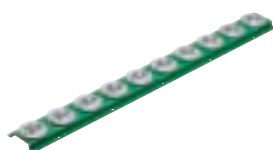
L	Catalog No.	A Number of rollers	Base unit price 1~9 pieces
(105)	CORO	3	Quotation
(140)		4	
(175)		5	
(210)		6	
(245)		7	
(280)		8	
(315)		9	
(350)		10	
(385)		11	
(420)		12	
(455)		13	
(490)		14	
(525)		15	

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



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

- ① M SUJ2
- ②③ M SPCC

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



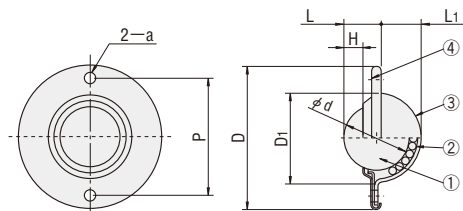
Price

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

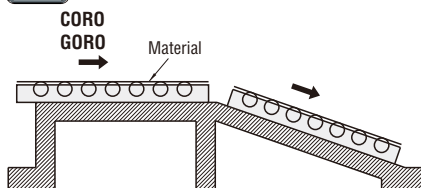


Price

Quotation

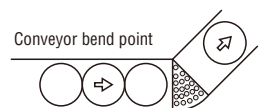


Example

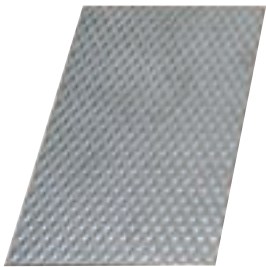


GORON

Conveyor bend point



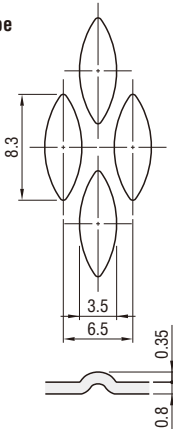
EMBOSSED SHOOTER PLATES

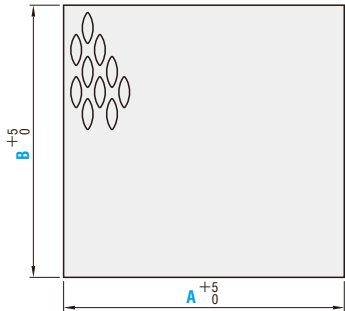


RoHS

EBSP

■ Surface shape





M SUS304

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

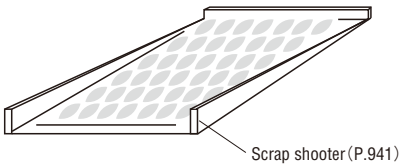
 Order

Catalog No. — A — B
EBSP — 500 — 1000

 Days to Ship

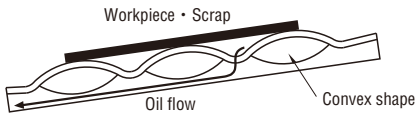
Quotation

 Example



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

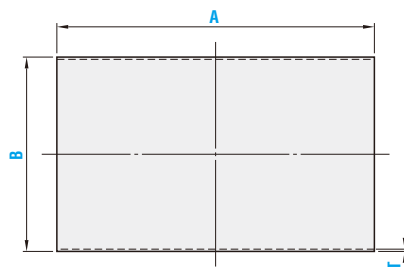
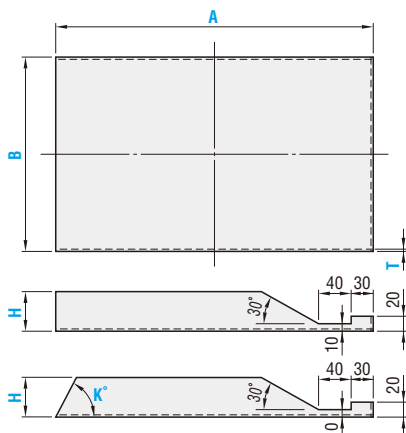
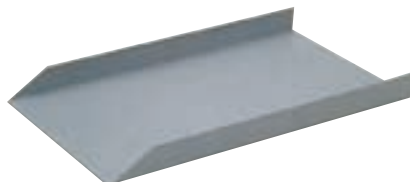
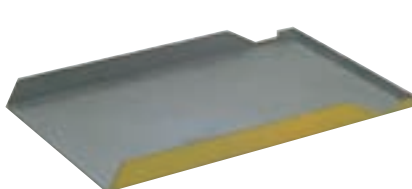
■ Features



- (1) 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).
- (2) Prevents adhesion caused by lubricating oil.

SCRAP SHOOTERS

RoHS



① SRSTA

⑤ SRSTJ

② SRSTB

⑥ SRSTK

③ SRSTC

④ SRSTD

M SPCC

Catalog No.		A	B 10mm increments	H 5mm increments	K° angle	COLOR	Base unit price 1~9 pieces								
Type	T (Thickness)						① SRSTA	② SRSTB	③ SRSTC	④ SRSTD	⑤ SRSTJ	⑥ SRSTK			
			100 ~ 300				T1.6	T2.3	T3.2	T1.6	T2.3	T3.2	T1.6	T2.3	T3.2
		300	310 ~ 600												
			610 ~ 800												
			100 ~ 300												
		400	310 ~ 600												
			610 ~ 800												
			100 ~ 300												
		500	310 ~ 600												
			610 ~ 800												
			100 ~ 300												
		600	310 ~ 600												
			610 ~ 800												
			100 ~ 300												
		700	310 ~ 600	20~100	30	R (Red)									
			610 ~ 800												
			100 ~ 300												
		800	310 ~ 600		60	Y (Yellow)									
			610 ~ 1000												
			100 ~ 300												
		900	310 ~ 600			N (No coating)									
			610 ~ 1000												
			100 ~ 300												
		1000	310 ~ 600												
			610 ~ 1000												
			100 ~ 300												
		1100	310 ~ 600												
			610 ~ 1000												

Quotation



Order

Catalog No. — A — B — H — K — COLOR
SRSTB 1.6 — 300 — 200 — H30 — K60 — Y



Days to Ship

Quotation



Price

Quotation

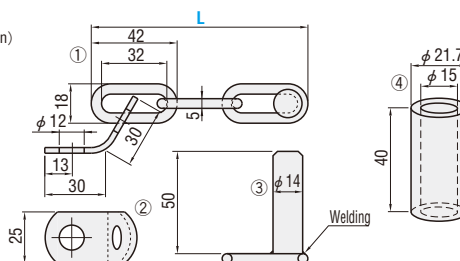
SCRAP SHOOTER COMPONENTS / GENERAL PURPOSE CHAINS / CHAINS JOINTS

Chains for scrap shooters

RoHS

SRT
SRTN

(No welding to ③ pin)



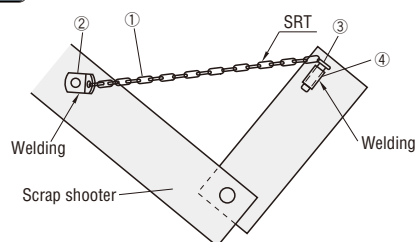
M

- ① SS400
- ② Bright chromate
- ③ SPCC
- ④ SS400

Catalog No.	L	Base unit price 1~9 pieces	
		SRT	SRTN
SRT SRTN	200		
	300		
	400	Quotation	
	500		



Example



Order

Catalog No. — L
SRT — 300



Days to Ship

Quotation



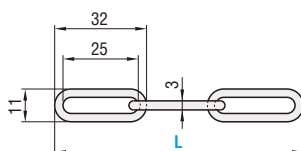
Price

Quotation

Chains, general purpose

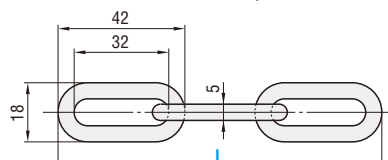
RoHS

CN3 (Chain diameter = $\phi 3$)



Withstand load : 100kg

CN5 (Chain diameter = $\phi 5$)



Withstand load : 200kg

M SS400

S Bright chromate

Catalog No.	L		Base unit price 1~9 pieces
Type	No.	100mm increments	
CN	3	100~1000	
		1100~2000	
	5	100~1000	Quotation
		1100~2000	



Days to Ship

Quotation



Price

Quotation



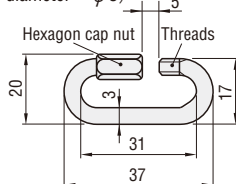
Order

Catalog No. — L
CN 3 — 300

Chain joints

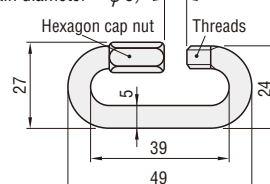
RoHS

JT3 (Chain diameter = $\phi 3$)



Withstand load : 50kg

JT5 (Chain diameter = $\phi 5$)



Withstand load : 100kg

M SS400

S Bright chromate

Catalog No.	Base unit price 1~9 pieces	
Type	No.	
JT	3	
	5	Quotation



Order

Catalog No.
JT 3



Days to Ship

Quotation



Price

Quotation