

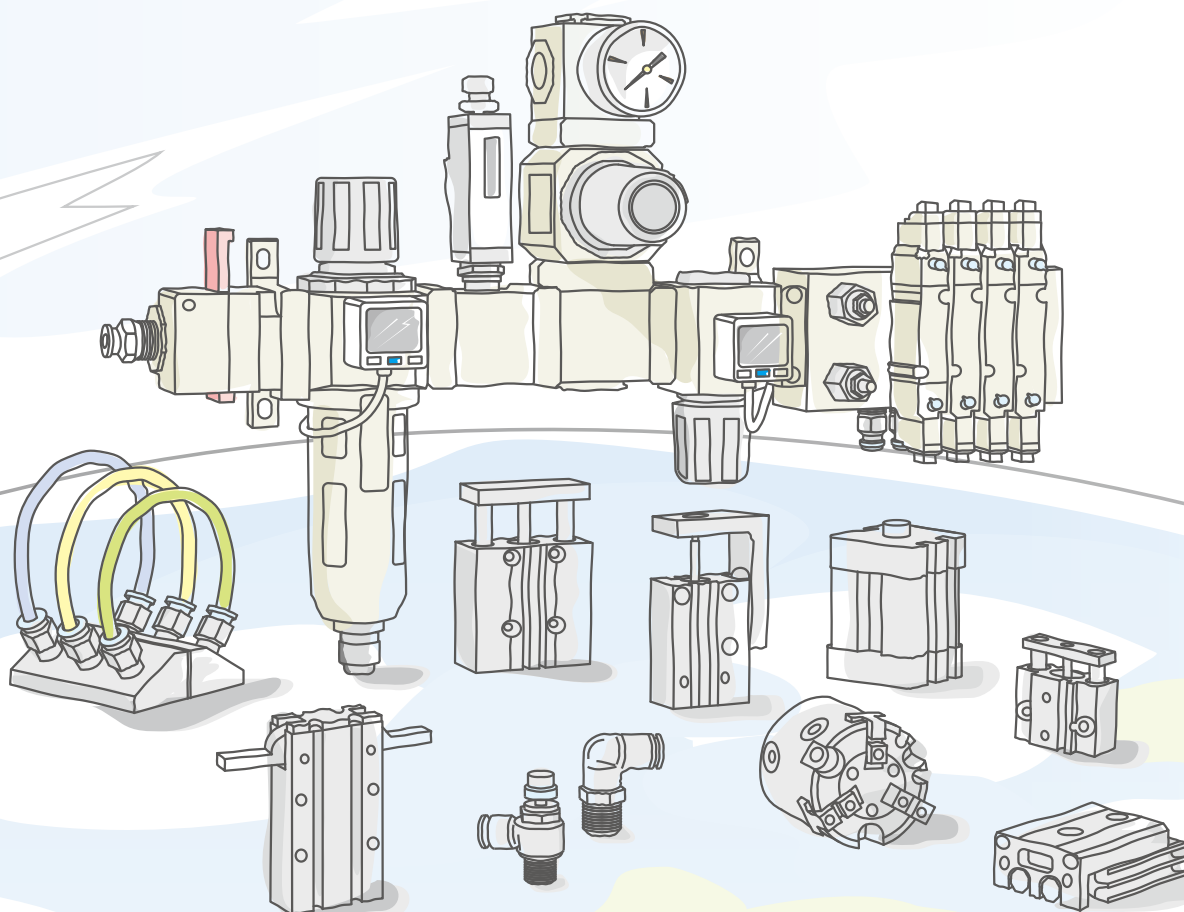


PRODUCTS GUIDE

Progressive Quality Advancement & Exceeding Customers' Demands

Your True Partner

Continual product research & design
100% quality test
Complete product range
Comprehensive customer service
On-time delivery
Competitive pricing



COMPANY PROFILE

About MINDMAN

Mindman had been raising investment efficiency in productive facilities and professionals to expand its production capacity. Efficient automated production line and technical management lowers the cost of production, therefore makes Mindman products competitive worldwide.

Their well organized management keeps advancing their quality of products, and put into effect in the quality control. In 1999, their advanced product was certified by ISO-9001 that made their products international qualification. Currently, Mindman's products are exported to more than 65 countries worldwide, with major destination covering America, Japan, Europe, Southeast Asia, Middle East and so on.

Business Line :

Manufacture and sale for varieties of pneumatic equipments.

Year Established : 1979

Capital : USD 12,558,000

Employees : 500 people

President : CHING-CHENG HUANG

Plant size : 59,000m²

Development of MINDMAN

- | | |
|---|---|
| <p>1979 Mindman Industrial Co. LTD. Was founded. Exclusive agent for NISCON, PISCO, HUMPHREY in Taiwan.</p> <p>1987 Cooperation with NISCON Japan in the manufacture of Actuators, Directional control Valves, Air line equipment and other pneumatic components.</p> <p>1989 Mindman's first production plant (10,000 m²), initiated design, production, and sales of various pneumatic components.</p> <p>1994 Mindman's products approached international market, and participated global exhibitions in Europe, US, Japan, and many different countries.</p> <p>1996 Honorably received ISO-9002 certification.</p> <p>1999 ISO-9001 approval gain for all products.</p> <p>2000 The second production plant (6,600 m²) was established to manufacture air cylinders and boost its capacity for fulfilling increasing sales.</p> <p>2005 The third production plant (8,250 m²) established to increase the production efficiency by concentrating the major process from aluminum die casting, machining, to surface coating by one single area.</p> | <p>2006 Launch quality control system (SPC, MSA, COM, TPM).</p> <p>2007 Established fourth manufacturing plant (10,890m²).</p> <p>2008 Introduction of full R&D facility (360m²). Apply Solid Edge 3D Software in R&D department.</p> <p>2009 Establishment of automated warehousing with additional assembly facility (6,600m²). Launch production scheduling system (APS).</p> <p>2010 Introduce production process automation (Die-casting, Machining, and Assembly).</p> <p>2013 Joint Venture with ATAM Italy in Taiwan, new facility for coil automated production (1300m²).</p> <p>2014 New hard-anodization process initiated (700m²).</p> <p>2015 Expanded machining capacity (3000m²), new impregnation, anti-corrosion surface treatment process started.</p> <p>2016 Launch Oracle CRM system, marketing channel covers 72 counties.</p> |
|---|---|



Mindman supplies wide variety of pneumatic equipment supporting all industrial activity.

Food industry

- Food machinery
- Packaging machinery
- Water purifier

Transportation

- Air conveyor

Textile industry

- Pneumatic spinning
- Automatic loom

Instrument

- Liquid instrument

Medical equipment

- Dentistry equipment
- Life support system

Marine development

- Air supply system
- Pump

Industry machinery

- Automatic assembly machinery
- CNC machinery
- Woodworking machinery
- Package machinery

Home appliances

- Air curtain
- Air conditioner

New area

- Fuel cell

Semiconductor industry

- Substrate conveyor
- Mounter

Agriculture

- Air cleaner
- Fruit sorting machine

Shipbuilding industry

- Explosion-proof equipment
- Hovercraft

Automobile industry

- Car wash machinery
- Air suspension
- Air brake

Leisure industry

- Air rifle
- Air mattress

Chemical industry

- Liquid state gas
- Gas tank
- Process control

Pneumatic equipment

- Air grinder
- Air driver

Mining industry

- Air drill
- Air supply system
- Jet cooler



MINDMAN INDUSTRIAL CO., LTD.
<http://www.mindman.com.tw>



TA PHONE TRADING CO., LTD.
<http://www.taphone.com.tw>



WAY FU INDUSTRIAL CO., LTD.
<http://www.wayfu.com.tw>



PISCO TAIWAN
<http://www.pisco.co.jp>



UNITECH HYDRO-PNEUMATIC CO., LTD.
<http://www.unimec.com.tw>



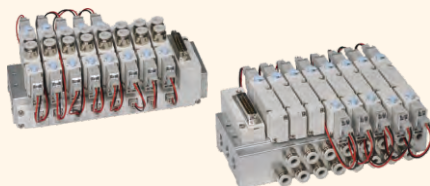
Related Enterprise



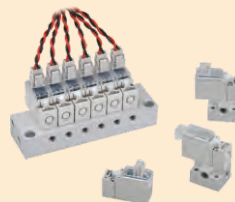
- In addition to Rc thread, G / NPT also available.
- Port size: #100: M3, #156: 1/8",
#180: 1/8", #220: 1/4", 1/8"
#260: 1/4", #300: 3/8",
#460: G1/2", #500: 1/2",
#510: 1/2", #600: 3/4", 1".

Multi connector system

MVB-100
MVB-156
MVB-180
MVB-220
MVB-300
MVB-460



Direct operated type MVDY-100



NAMUR
MVSN-220
MVSN-300



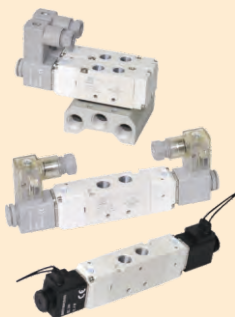
MVSP-150
MVSP-156
MVSP-180
MVSP-188
MVSP-220



Direct operated type MVDC-220



MVSD-180
MVSD1-180



MVSC-220 **MVSC-300**
MVSC-260 **MVSC-460**



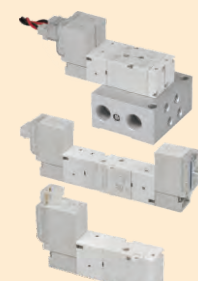
MVSE-260 **MVSE-500**
MVSE-300 **MVSE-510**
MVSE-600



ISO-1 **MVSI-260**
MVSI-450
MVSI-510



MVSF-100

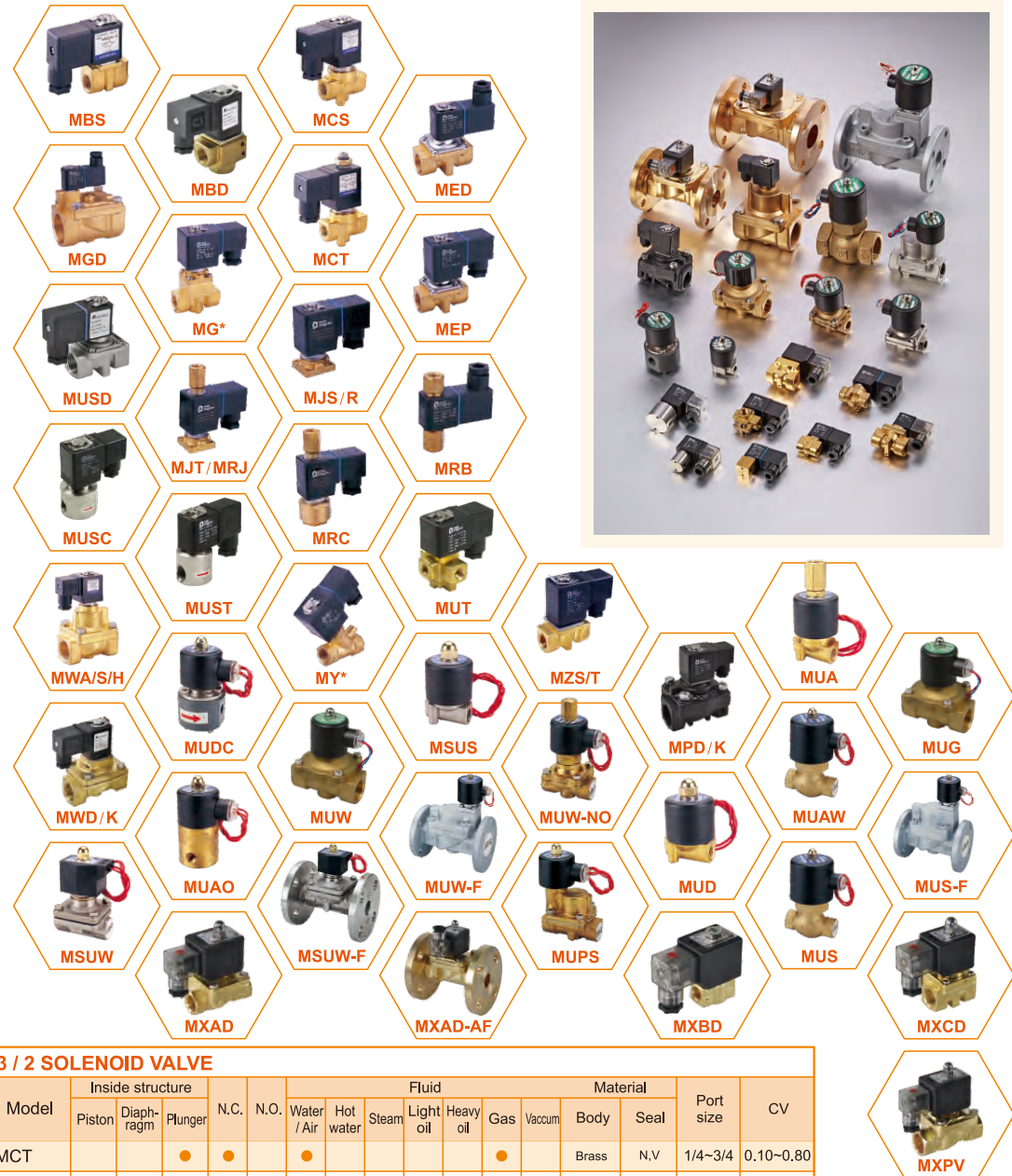


MVS* / MVD* Series

Type	3 / 2	5 / 2	5 / 3 (C/P/R)	Pilot operate	Direct operate	Grommet lead	DIN connector	Medium
MVSC	220 ● (NC/NO)	●	●	●		●	●	Air
	260	●	●	●		●	●	
	300 ● (NC/NO)	●	●	●		●	●	
	460 ● (NC/NO)	●	●	●		●	●	
MVSD	180 ● (NC/NO)	●	●	●		●	●	
MVSD1	180	●	●	●		●	●	
MVSE	260	●	●	●		●	●	
	300	●	●	●		●	●	
	500	●		●		●	●	
	510	●		●			●	
	600	●		●			●	
MVSF	100 ● (NC/NO)	●	●	●		●		
MVSG	180	●	●	●		●		
MVSI	260	●	●	●		●	●	
	450	●		●		●	●	
	510	●		●			●	
MVSN	220	●		●		●	●	
	300	●	●	●		●	●	
	150	●		●		●		
MVSP	156	●	●	●		●		
	180 ● (NC/NO)	●	●	●		●		
	188	●	●	●		●		
	220 ● (NC/NO)	●	●	●		●		
MVSY	100	●	●	●		●		
	156	●	●	●		●		
	188	●	●	●		●		
MVSZ	100	●		●		●		
MVDC	220 ● (NC)				●	●	●	
MVDY	100 ● (NC)				●	●		

2 / 2 SOLENOID VALVE

Model	Inside structure			N.C.	N.O.	Fluid							Material		Port size	CV
	Piston	Diaphragm	Plunger			Water / Air	Hot water	Steam	Light oil	Heavy oil	Gas	Vacuum	Body	Seal		
MBS			●	●		●			●		●		Brass	N,J,V,T	1/8, 1/4	0.03~0.18
MBD			●	●		●			●		●		Steel	N,V	1/4~1/2	0.14~0.95
MCS			●	●		●			●		●		Brass	N,J,V,T,R	1/4~3/4	0.12~1.30
MED		●		●		●							Forged brass	N	1/4~1/2	1.3~2.2
MEP			●	●		●							Forged brass	N	3/8, 1/2	1.8~2.2
MGA	●			●		●	●						Forged brass	N,J,V	3/8, 1/2	1.9~2.6
MGS	●			●		●	●	●					Forged brass	T	3/8, 1/2	1.9~2.6
MGD		●		●		●					●		Forged brass	N,J,V	3/8~2	2.0~31
MJS			●	●		●			●		●		Brass	N,J,V	-	0.10~0.42
MJR			●	●		●			●		●		Brass	N,J,V	-	0.10~0.42
MPD		●		●									PA(Nylon)	N,J,V	1/2~1	4~11
MPK		●		●									PA(Nylon)	N,J,V	1/2~1	4~11
MRB			●		●	●			●		●		Brass	N,J,V	1/8, 1/4	0.05~0.09
MRC			●	●		●			●		●		Brass	N,J,V	1/8~3/8	0.10~0.31
MUSC			●	●		●			●		●	●	S.S.#303	N,J,V,Z,T,R	1/8~3/8	0.03~1.30
MUSD		●		●		●			●		●		S.S.#SCS14	N,J,V	1/2	2.0
MWA	●			●		●			●		●		Brass	N	3/8~2	3.0~31
MWH	●			●						●			Brass	V	3/8~2	3.0~31
MWS	●			●		●	●						Brass	T	3/8~2	3.0~31
MWD		●		●							●		Forged brass	N,J,V	3/8~2	3.0~31
MWK		●		●		●					●		Forged brass	N,J,V	3/8~2	3.0~31
MYA	●			●		●	●						Forged brass	N,J,V	3/8, 1/2	1.9~2.6
MYS	●			●		●	●	●					Forged brass	T	3/8, 1/2	1.9~2.6
MZS			●	●		●			●		●		Forged brass	N,J,V,Z	3/8~3/4	0.12~0.83
MUD			●	●					●				Forged brass	N,V,S,P	1/8~3/8	0.23~0.58
MUS-8/10	●			●				●					Forged brass	P	1/4, 3/8	0.23~0.58
MUSC		●		●		Hydrochloric acid, sulfuric acid							PVC/PTFE	N	1/4~1	0.28~4
MSUS	●			●	●	●			●		●	●	S.S.#316	N,V,S,P	1/8~2	0.23~48
MUAO	●			●		●				●			Brass	N	1/4~1/2	2.5
MUW		●		●		●			●				Forged brass	N,V,S	3/8~2	2.4~48
MUW-NO		●		●	●	●					●	●	Forged brass	N,V,S	3/8~2	4.5~48
MUW-F		●		●	●	●							FC-20	N	1 1/4~4	22~180
MUG		●		●							●		Forged brass	N	3/8~2	2.4~48
MUV		●		●								●	Forged brass	N	3/8~2	2.4~48
MUAW	●			●		●							Forged brass	N	1/2~2	4~48
MUS	●			●		●		●		●			Forged brass	P	1/2~2	17~50
MUS-F	●			●		●		●		●			FC-20	P	1 1/4~4	22~175
MSUW		●		●	●	●			●			●	S.S.#316	N,V,S	1/2~2	4.5~48
MSUW-F		●		●		●			●				S.S.#316	N,V,S	1/2~2	4.5~48
MUPS	●			●		●		●		●			Forged brass	P	1/2~1	4~12
MXAD			●	●		●			●		●	●	Forged brass	N,J,V,S	3/8~1/2	0.26~0.97
MXAD-AF		●		●		●			●		●	●	Forged brass	N,J,V,S	3/8~2	4.5~48
MXBD		●		●		●			●		●	●	Forged brass	N,J,V,S	3/8~1/2	0.23~0.79
MXCD		●		●		●			●				Forged brass	N,V	3/8~1/2	2.4~2.7
MXPV		●		●		●							Forged brass	N,J,V,S	3/8~1/2	4.5~9.3



3 / 2 SOLENOID VALVE

Model	Inside structure			N.C.	N.O.	Fluid							Material		Port size	CV
	Piston	Diaphragm	Plunger			Water / Air	Hot water	Steam	Light oil	Heavy oil	Gas	Vacuum	Body	Seal		
MCT			●	●		●					●		Brass	N,V	1/4~3/4	0.10~0.80
MJT			●	●		●			●		●	●	Brass	N,J,V	-	0.10~0.42
MRJ			●	●		●			●		●	●	Brass	N,J,V	-	0.10~0.31
MUST			●	●		●			●		●	●	S.S.#303	N,V	1/8~3/8	0.02~0.80
MUT			●	●	●	●			●		●	●	Forged brass	V	1/8~3/8	0.02~0.31
MZT			●	●		●		●			●	●	Forged brass	N,J,V,Z	1/8~3/4	0.08~0.80
MUA			●	●		●					●	●	Forged brass	N	1/4, 3/8	0.1~0.12

NOTE: Seal-code **N**: NBR, **J**: EPDM, **V**: VITON, **P**: PTFE, **T**: TEFLON, **R**: RUBY, **Z**: FFKM, **S**: SILICON



Type	5 / 2		3 / 2		
	4A1	4A2	3A1		3A2
	Spring return	Double acting	Spring return	NC	NO
MVAA-	150	●	●	●	●
	180	●	●	●	●
	220	●	●	●	●
	260	●	●	●	●
	300	●	●	●	●
	460	●	●	●	●

EPA series

Variety of push type / Spool with spring return or detented



ACT series



PILOT VALVE

MVAA series



SHUTOFF VALVE

MVHT series

(2/2, 3/2)

Combined with air unit MA**300, MA*401 series as a module product.



MECHANICAL VALVE

MVMB

220—3/2, 5/2
250—2/2, 3/2
300—5/2

Variety of push type / Spool with spring return or detented



HAND VALVE

MVHA series

(2/2, 3/2, 5/2)

TAC mini type / Push button or toggle operation / Spring return or detented



HAND LEVER VALVE

MVHB series

(5/2, 5/3)

Detented type



MVMC

210—3/2

Variety of push type / Spool with spring return or detented



MECHANICAL VALVE

MVMA

260, 300—5/2
Roller lever / Spring return



HAND VALVE

MVHF-3P-NC MVHF-3P-NO



MVHF-3V MVHF-5V



MVHF-5P



MINIATURE PILOT ACTUATOR

MVHF-AP3 MVHF-AP6A



MOUNTING BRACKET

MVHF-LB



VALVE ACTUATORS MANUAL PUSH BUTTON

MVHF-PB2 / PB5



HAND VALVE

MVHD series

220—5/2

Push-pull type



ROTARY HAND LEVER VALVE

MVHC series

(4/3)

Detented type



HAND SLIDE VALVE

MVHS series

(2/2)

Pressure relieve / Detented type



FOOT PEDAL VALVE

MVFA series

(3/2, 4/2)

Spool with spring return & lock mechanism available.



AIR UNITS

MACP200 (40 μ m)
MACP200L (40 μ m)
MACP300 (5 μ m)
MACP300L (5 μ m)
MACP302 (5 μ m)
MACP400 (40 μ m)
MACP401 (40 μ m)
MACP402 (40 μ m)
MACP403 (40 μ m)
MACP500 (40 μ m)



AIR UNITS

MACT300 (5 μ m)
MACT300L (5 μ m)
MACT302 (5 μ m)
MACT400 (40 μ m)
MACT401 (40 μ m)
MACT402 (40 μ m)
MACT403 (40 μ m)
MACT500 (40 μ m)



AIR UNITS

MACC300 (5 μ m)



F.R. UNIT

MAFR100 (40 μ m)
MAFR200 (40 μ m)
MAFR200L (40 μ m)
MAFR300 (5 μ m)
MAFR300L (5 μ m)
MAFR302 (5 μ m)
MAFR400 (40 μ m)
MAFR401 (40 μ m)
MAFR402 (40 μ m)
MAFR403 (40 μ m)
MAFR500 (40 μ m)



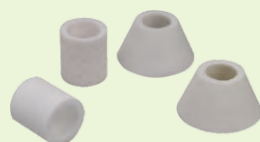
FILTER

MAF200 (40 μ m)
MAF200L (40 μ m)
MAF300 (5 μ m)
MAF300L (5 μ m)
MAF302 (5 μ m)
MAF400 (40 μ m)
MAF401 (40 μ m)
MAF402 (40 μ m)
MAF403 (40 μ m)
MAF500 (40 μ m)
MAF900 (50 μ m)
MAF901 (50 μ m)



FILTER ELEMENT

E001 (0.01 μ m)
E03 (0.3 μ m)
E5 (5 μ m)
E20 (20 μ m)
E40 (40 μ m)



REGULATOR

MAR100
MAR200
MAR300
MAR301
MAR302
MAR400
MAR401
MAR402
MAR403
MAR500
MAR900
MAR901



LUBRICATOR

MAL200
MAL200L
MAL300
MAL300L
MAL302
MAL400
MAL401
MAL402
MAL403
MAL500
MAL900



AUTO DRAINER

MAD400
MAD401
MAD401H
MAD500
MAD500M
MAD501
MAD501H



PRECISION REGULATOR

MAIR100 (1/8")
MAIR200 (1/4")



HAND-HELD REGULATOR

MAR300LK



DIGITAL CONDENSATION REMOVAL TIMER

MBS
MCS
MBD



FILTER FOR TURBINE TYPE

MWC-1000
MWC-4000



SOFT START-UP VALVE

MAVS400



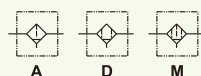
AUTO DRAIN VALVE

MADV400
FMRF300

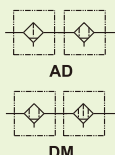


AIR / MIST / MICROMIST FILTER

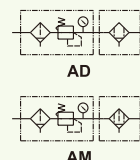
MAF300LD (0.3 μ m)
MAF300LM (0.01 μ m)
MAF302D (0.3 μ m)
MAF302M (0.01 μ m)
MAF401A (5 μ m)
MAF401D (0.3 μ m)
MAF401M (0.01 μ m)



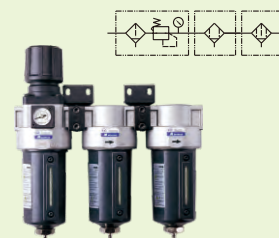
MAFF401AD (5+0.3 μ m)
MAFF401DM (0.3+0.01 μ m)



MAFRF401AD (5+0.3 μ m)
MAFRF401AM (5+0.01 μ m)



MATFR401 (5+0.3+0.01 μ m)



PNEUMATIC PRESSURE SWITCH

MP10
MP30
MP41
MP43
MP45
MP50
MP1
MPS



PRESSURE GAUGE

MP23
MPG-60
PG

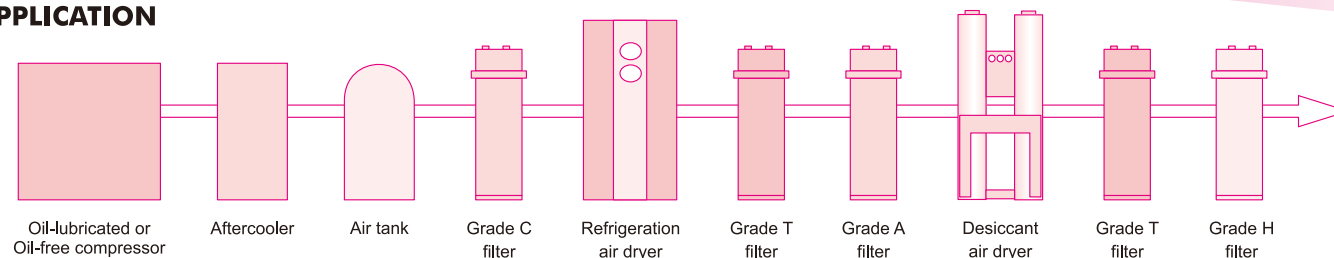


- In addition to Rc thread, G / NPT also available.
- Port size: (Rc)
 - #100-M5
 - #200-1/8", 1/4"
 - #300-1/4", 3/8"
 - #302-1/4", 3/8", 1/2"
 - #400-1/4", 3/8", 1/2"
 - #401-1/4", 3/8", 1/2"
 - #402-3/8", 1/2", 3/4"
 - #403-1/4", 3/8", 1/2"
 - #500-3/4", 1"
 - #900-1 1/2"
 - #901-2"





APPLICATION



REFRIGERATION COMPRESSED AIR DRYER

M2E series

08SG~10SG 125S~250S
10GP~100GP 300S~1500S

- Logic controller, complete auto functioning and standard wiring.
- Complete automatic, no adjustment is required.
- Axial fan motor low noise, high speed, large flow and static pressure. CE certified, IP54.
- Condenser and pre-cooler 2 in 1 design with same fan motor.
- With filter strainer prevent oil vapor on fins, easy maintenance.
- Pre-set type pressure switch (HPS & LPS) is used for better stability and fewer malfunctioning .
- Reset type high/low pressure trip switch (HPSM/LPSM) is prevent compressor from overloading.

HEATLESS DESICCANT

MHD series

10~1000

- Max capacity: 1.6~134 (Nm³/min)
- Connection: 3/4"Rc~8"FL (Inch)
- High dew point (Dew point pressure -70℃)
- Low dew point (Dew point pressure -40℃)

A: Working pressure	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Correction factor	0.63	0.75	0.88	1.00	1.13	1.25	1.38
B: Ambient temperature	≤35	40	45	50			
Correction factor	1.00	0.97	0.88	0.73			

Formula

◎Actual capacity = MHD capacity × (A × B)

◎Actual capacity = Demanded capacity ÷ (A × B)



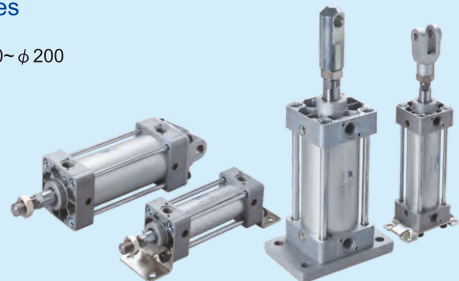
REFRIGERATION COMPRESSED AIR DRYER

Type	M2E-																								
	08SG	10SG	10GP	15GP	25GP	40GP	60GP	75GP	100GP	125S	150S	175S	200S	250S	300S	350S	400S	500S	600S	700S	800S	900S	1000S	1250S	1500S
Max. capacity (Nm ³ /min)	0.8	1.2	1.2	2.4	3.6	5.5	8.1	10.6	15	18	22	27	30	36	43	50	61	72	79	93	116	125	134	155	180
Connection (inch)	1/2"Rc	3/4"Rc	3/4"Rc	1"Rc	1-1/2"Rc	1-1/2"Rc	2"Rc	2"Rc	2"Rc	3"FL	3"FL	3"FL	3"FL	4"FL	4"FL	4"FL	4"FL	5"FL	5"FL	6"FL	6"FL	6"FL	8"FL	8"FL	8"FL
Ref. comp. (kw)	0.26	0.5	0.5	0.65	0.95	1.2	1.9	2.6	2.6	3.6	4.2	4.7	6.5	7.0	6.3	7.0	9.3	11.0	12.5	13.5	16.9	21.9	21.9	27.4	27.4
Operating current (A)	1.2	2.4	2.4	3	4.3	5	7.5	3.5	3.5	5	6.4	7.6	9.8	10.2	7.7	8.5	13.7	15.4	17.5	18.4	26.1	28.3	28.3	36.6	36.6
Full-load current (A)	1.5	2.75	2.75	3.35	4.9	5.7	8.7	4	4	5.7	7.3	8.6	11.0	12.2	10.6	11.9	17.1	19.8	22.7	23.2	32.2	37.2	37.2	47.4	47.4
Pictures																									

STANDARD CYLINDERS

MCQA series

(Japan type)
Bore size : $\phi 40 \sim \phi 200$
Double acting



MCQI2 series

(ISO-6431 / VDMA24562 Profile type)
Bore size : $\phi 32 \sim \phi 100$
Double acting



MCKQI2 series

(ISO-6431 / VDMA24562 Profile type)
No-rotation type
Bore size : $\phi 32, \phi 40$
Double acting



MCQV / MCQV2 series

(ISO-6431 / VDMA24562 Tie rod type)
Bore size : $\phi 32 \sim \phi 200$
Double acting



MCQN series

(NFPA type)
Bore size : $\phi 1 \frac{1}{2} \sim \phi 4$
Double acting

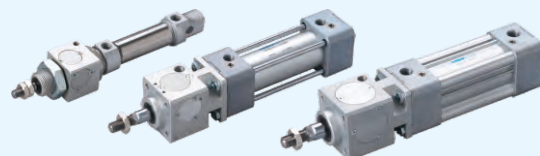


MCB series

Bore size : $\phi 20 \sim \phi 125$



MCBQV2 series Bore size : $\phi 32 \sim \phi 100$
MCBQV series Bore size : $\phi 125$
MCBQI2 series Bore size : $\phi 32 \sim \phi 100$
Double acting



MCQV2L series

End lock type
Bore size : $\phi 63, \phi 80$



CYLINDER KITS

- We can supply your company with full cylinder assembly kits which meet NFPA, ISO-VDMA and JIS internationally recognizable standards.
- Assembly kits include all necessary components to enable rapid assembly and despatch in order that you can meet your customers delivery schedules.
- Piston rod, tie rod and tubes are also available.

Series Component parts & Repair kits

MCQA Standard cylinders

MCQN Standard cylinders (inch)

MCQV2 ISO-VDMA Standard cylinders

MCQI2 ISO-VDMA Standard profile cylinders



AIR/OIL CONVERTER

MCQA-AH series

Bore size : $\phi 40 \sim \phi 150$

- Consider cylinder thrust force is about 70%(50% high speed) of theoretical force.
- Displacement is suggested about 50% of total volume.
- Max. oil ascending speed is about 200mm / sec
- Recommend ISO VG32 equivalent oil.
- Oil is feeded not exceeding 80% of total volume.
- Installed vertically and above actuator cylinder.



● NON-LUBRICATION

Designs of oil-filled alloy special housing and bushing provide the needed self-lubrication of piston rod.

● HIGH QUALITY-LONG SERVICE LIFE

Hard anodized aluminum cylinder tubes resist corrosion and abrasion.

● NON-STANDARD TYPE

Non-standard type is also available. For example, Stroke out of specification, dust cap, rod front end dimension variation etc.

● ISO-VDMA STANDARD SPECIFICATION

Conformance to ISO-6431 & VDMA-24562 specification.
Unified design, most parts of each type are interchangeable within the spec.

● CYLINDER MOUNTINGS

Available with a comprehensive selection of mountings for fixed or flexible installation.

- In addition to Rc thread, G, NPT, also available.

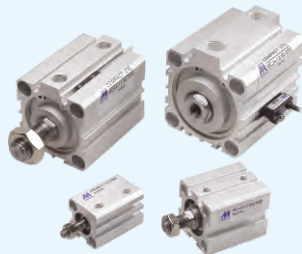
● COMPONENT KITS AVAILABILITY

Available with separate supply of component kits, tube, rod, and tie rod to be able to assemble locally and enhance the delivery prospect.



MCJA series

Bore size :
 $\phi 12 \sim \phi 50$ (Single acting)
 $\phi 12 \sim \phi 100$ (Double acting)



- Light weight & space saving.
- Easy installation.
- Easy dismantling for maintenance.
- High quality & long service life.
- Easy mounting of sensor switch.
- Single / Double rod, adjustable stroke, internal / External thread as your requirement.
- With or without magnet.

MCJA series

Bore size :
 $\phi 12 \sim \phi 50$ (Single acting)
 $\phi 12 \sim \phi 100$ (Double acting)



Multiple position

Bore size :
 $\phi 12 \sim \phi 50$ (Single acting)
 $\phi 12 \sim \phi 100$ (Double acting)



Back to back type

Bore size :
 $\phi 12 \sim \phi 50$ (Single acting)
 $\phi 12 \sim \phi 100$ (Double acting)



PLATE CYLINDERS

MCJU series

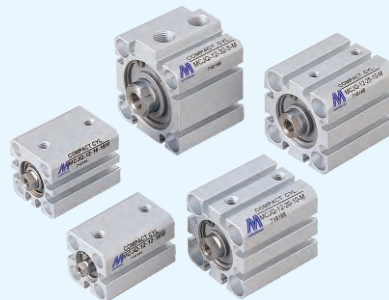
Non-rotating piston rod

Bore size : $\phi 25 \sim \phi 63$ (Double acting)



MCJQ series

Bore size : $\phi 12 \sim \phi 100$ (Double acting)



MCJQ2 series

Bore size : $\phi 12 \sim \phi 25$ (Double acting)



MCJI series (ISO-21287)

Bore size : $\phi 20 \sim \phi 100$ (Double acting)

Multiple position

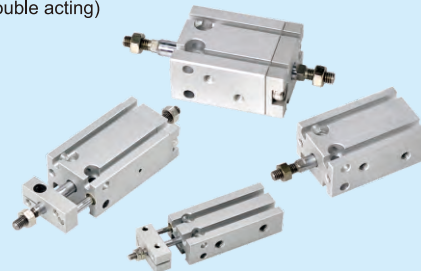
Bore size : $\phi 20 \sim \phi 80$ (Double acting)



MULTI-MOUNT CYLINDERS

MCFA series

Bore size : $\phi 6 \sim \phi 32$ (Double acting)



MCFB series

Bore size :
 $\phi 6 \sim \phi 10$ (Single / Double acting)
 $\phi 12 \sim \phi 20$ (Double acting)



CYLINDER KITS

MCJA Compact cylinders & Repair kits

MCJQ Compact cylinders & Repair kits

MCJI Compact cylinders & Repair kits

MCJT Compact cylinders & Repair kits

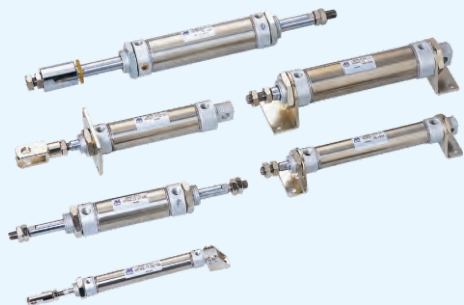


MCMA series

(Japan type)

Bore size : ϕ 16~ ϕ 32 (Single acting)

Bore size : ϕ 16~ ϕ 40 (Double acting)



MCMB series

Bore size : ϕ 20~ ϕ 40
(Single / Double acting)

MCKMB series

No-rotation type

Bore size : ϕ 20~ ϕ 40
(Double acting)



MCMI series

(ISO-6432 Spec.)

Bore size : ϕ 8~ ϕ 25 (Single / Double acting)

MCKMI series

No-rotation type

Bore size : ϕ 20, ϕ 25 (Double acting)



MCMBRA/B series

Bore size : ϕ 20~ ϕ 40
(Double acting)



PEN CYLINDERS

MCMJ series

Bore size : ϕ 6~ ϕ 16
(Single / Double acting)



MCMJ1 series

Bore size : ϕ 4
(Single acting)



MCMJP series

Bore size : ϕ 6~ ϕ 10
(Double acting)



MCMJPB/S series

Bore size : ϕ 6~ ϕ 15
(Single acting)



END LOCK CYLINDERS

MCMBL series

Bore size : ϕ 40
(Double acting)



ROUND CYLINDERS

MCCG series

Bore size : ϕ 20~ ϕ 63
(Double acting)

MCCN series

Bore size : ϕ 3/4"~ ϕ 2 1/2"
(Double acting)



CYLINDER KITS

Series Component parts & Repair kits

MCMA Miniature cylinders

MCMB Miniature cylinders

MCKMB Miniature cylinders

MCMI ISO-6432 / non-pivot type

Miniature cylinders

MCMJ Pen cylinders

MCCG Round cylinders

MCCN Round cylinders



● NON-LUBRICATION

Designs of oil-filled alloy, special housing and bushing provide the needed self-lubrication of piston rod.

● HIGH QUALITY-LONG SERVICE LIFE

Stainless cylinder tubes resist corrosion and abrasion.

● CYLINDER MOUNTINGS

Available with a comprehensive selection of mountings for fixed or flexible installation.

● ACTING TYPE (for MCMA)

In addition to MCMA-11 (standard type), also available with MCMA-13, -15 (single acting), MCMA-21-SDW (dual rod type), MCMA-27-SDJ (stroke adjustable type).

● ISO-6432 STANDARD SPECIFICATION (for MCMI)

Unified design, most parts of each type are interchangeable among each other.

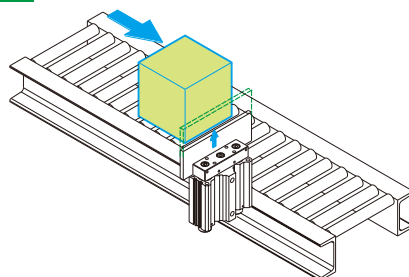
● In addition to Rc thread, G, NPT, also available.





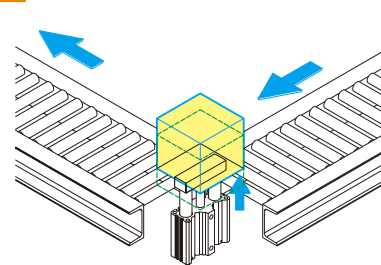
- Several uses:**
- S-Stopper cylinder: Takes very high lateral loadings as such can stop very wide and heavy objects.
 - L-Lift cylinder: Large bearing area enables heavy off-set loads to be applied.
 - P-Pusher cylinder: Long strokes available with extremely rigid guidance, precise movement of load is possible.

S Stopper cylinder



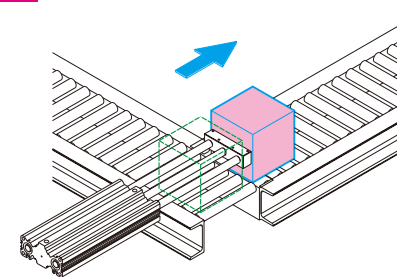
Tough type of stopping a large-load work carrier at a fixed point, and for the straggle of a number of work carriers, etc.

L Lift cylinder



Special design which stands the large one-sided load. Lifts the work carrier at a fixed point not changing the posture.

P Pusher cylinder



Long strokes available, the highly precise pushing work transfers and places a work carrier and changes the direction.

TWIN-GUIDE CYLINDER

MCGA - 03 / 13 / 53 series

Bore size : $\phi 20 \sim \phi 80$ (Double acting)

- Strong cylinder suitable for heavy load, for stopping work carriers of various sizes at a fixed position, and for stacking many work carriers, etc.
- The strong and thick guide rods sustain the unbalanced load.
- Designed for right-angled turn, positioning, and lifting on the conveyor line.



PUSH TYPE

MCGA - 23 / 63 series

Bore size : $\phi 20 \sim \phi 80$ (Double acting)

- Long stroke type of the anti-turn Accuracy, improved by integrating the guides and cylinder.
- Linear bush bearing type available for high accuracy in the high speed work.
- On the link bar at the top, Many thread holes for mounting attachments are provided for easy mounting.
- Lift type of long stroke is available by replacing the link bar with table plate.
- Port thread G. NPT. are also available.



MCGB series

Bore size : $\phi 12 \sim \phi 32$ (Double acting)

- The long experience provided the following feature in pursuit of accuracy, durability and handiness.
- Connection from 2 direction and 3-type fixing (pierced hole bolt, back tapped hole, bottom tapped hole), and the miniature sensor switch recessed in the cylinder body.
- A special packing absorbs the shock sound at the end of the stroke.



MCGI series

Bore size : $\phi 20 \sim \phi 100$ (Double acting)

- Higher loading capacity compared to unguided standard compact cylinders.
- Wide range of bore sizes and strokes.
- Ultra compact, light weight and space saving.
- Sensor slots on RCI sides for flush mounting of proximity sensors.
- Magnetic as standard.



MCGJ series

Bore size : $\phi 12 \sim \phi 100$ (Double acting)

- Make use of air to drive the push and pull of rod can achieve the effect of highly accurate operation.
- Bore sizes $\phi 12 \text{mm} \sim \phi 100 \text{mm}$ are available for various needs.
- 2 up to 6 reed switch with / without contact point type can be available as per actual need.
- Piston rod is made of wear-resistant stainless or carbon steel.



MCGS series

Bore size : $\phi 6 \sim \phi 63$ (Double acting)

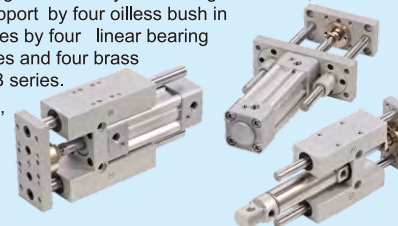
- Multi-ports as standard enabling both direction mounting.
- Non-rotating accuracy $\pm 0.1^\circ$ ($\phi 6, \phi 10$)
- Embedding type sensors.
- The sensor cable will be in the same direction as the piping tube if vertical type sensor switch (Angle cable) is used.
- Magnetic as standard.



MGT* series

Bore size : $\phi 20 \sim \phi 63$ (Double acting)

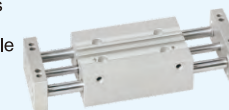
- MGTK(X): Light duty type, MGTB(U): Heavy duty type.
- The guiding units can be assembled to cylinders in conformity ISO 6431/6432 standard.
- Antirotation is guaranteed by two steel guide stems, which moment is support by four oilless bush in MGTK(X) series by four linear bearing in MGTU series and four brass bush in MGTB series.
- Easy to install, also reducing machine design work and cost.



MCGD series

Bore size : $\phi 12 \sim \phi 32$ (Double acting)

- The user may use as plate slide type or body slide type according to his requirement.
- The air cylinder and the guide are designed as compact makes the air cylinder working more smoothly and showing the characteristics of its high-strength and high-stiffness.
- The recessed groove for sensor switch keeps space saving and interference is avoided.
- The body and plate are reserved many holes and threads for mounting. It is suitable for various mounting requirement.



DUAL-ROD CYLINDER**MCDA series** Bore size : $\phi 6 \sim \phi 32$ (Double acting)

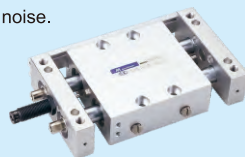
- A thin and compact dual rod cylinder unit with high precision guiding for picking and placing.

MCDJ series Bore size : $\phi 6, \phi 10$ (Double acting)

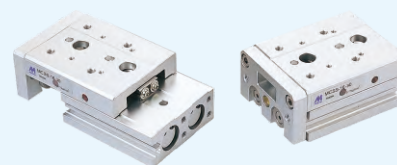
- Compact in width and length with precision guidance.
- High lateral loads can be applied on both slide and linear bearing unit.

**DUAL-ROD SLIDE CYLINDER****MCDB series**Bore size : $\phi 10 \sim \phi 32$ (Double acting)

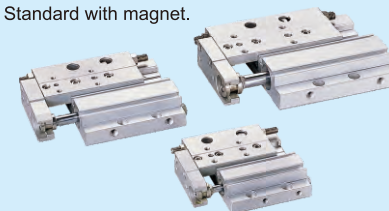
- A thin and compact dual rod cylinder unit with high precision guiding for picking and placing.
- High Anti-roll accuracy & double thrust.
- The user may use as plate slide type or body slide type according to his requirement.
- Provided with shock absorbers to absorb impact to noise.

**SLIDE CYLINDER****MCSS series**Bore size : $\phi 6 \sim \phi 25$ (Double acting)

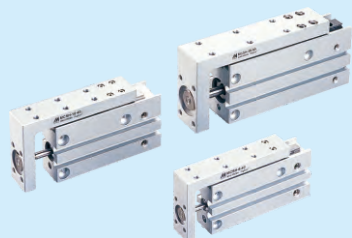
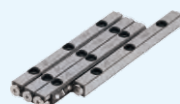
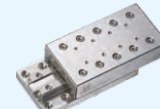
- Work table and air cylinder are integrated compactly. Air slide table is ideal for precise assembly.
- Grooves on the body for sensor switch to be inserted into.

**LOW PROFILE SLIDE CYLINDER****MCSF series**Bore size : $\phi 8 \sim \phi 20$ (Double acting)

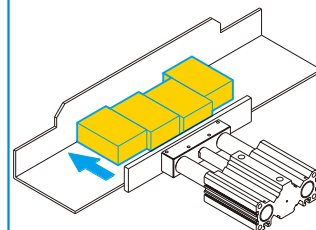
- Parallel design of guide and cylinder creates a slim and compact slide.
- Grooves on the body for sensor switch to be inserted into.
- Standard with magnet.

**COMPACT SLIDE****MCSH series**Bore size : $\phi 6 \sim \phi 20$ (Double acting)

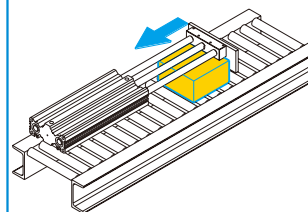
- The use of an endless track linear guide produces a table cylinder having excellent rigidity, linearity and non-rotating accuracy.

**CROSSED ROLLER SLIDE RAIL SET****MGRV series****MGRVP series****MGRVG series****MGRD series****MGRDP series****MGBV series****MGBD series****SLIDE TABLE****MGRA series****MGRB series****MGRC series****MGRM series****MGRH series****MGRS series****MULTI-PURPOSE****TRIPLE-GUIDE CYLINDER****MCG3 series**Bore size : $\phi 63, \phi 80$ (Double acting)

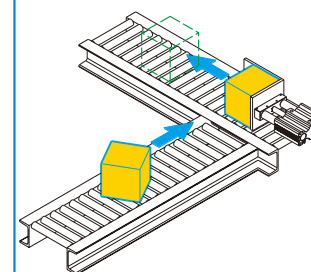
- Three guide rods equally spaced in the aluminum body provide more space saving and eliminate the directionality of the unbalanced load.
- Conveyor line's productivity increases.
- By connecting with the rotary actuator, can be used as a Automatic turn lifter.

**Arranges in line**

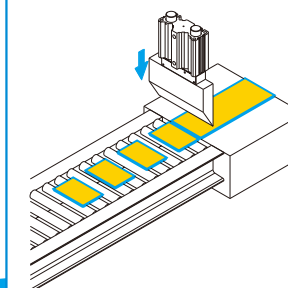
Can move loads into a parallel position from different start points.

**Draws in**

Can move high loads consistently on the inward stroke of the cylinder.

**Corrects misalignment**

Repositions uneven loads.

**Cuts sheets**

Can be use as the power source for cutting sheets on a shearing machine.



ROTARY ACTUATOR

MCRA series

Bore size : $\phi 63$ (Double acting)

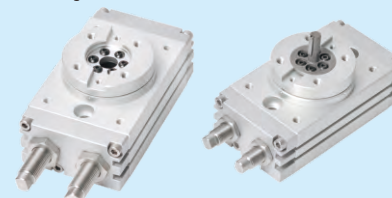
- Body size made more compact than ever.
- Functional design and clean appearance.
- Rail type mounting allows switch position to be adjusted very easily.



MCRB series

Bore size : $\phi 16 \sim \phi 32$ (Double acting)

- The swing motion with twin-piston and rack-pinion driving.
- Adjustable swing angle ($0^\circ \sim 190^\circ$), three body mounting mode.



MRTH / MRTF series

Bore size : $\phi 40, \phi 63, \phi 80$

- The body is manufactured in anodized aluminium alloy, and has been designed looking at the harmonious aesthetic development.
- Pinion and rack produced from carbon steel reduces backlash within the mechanism.
- Rotation adjustment screw.



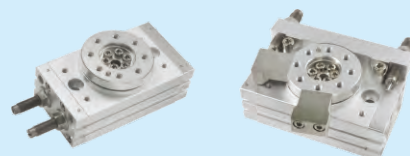
MCRQ series

Bore size : $\phi 12 \sim \phi 40$ (Double acting)

MCRQ-S series

Bore size : $\phi 16, \phi 20, \phi 25$ (Double acting)

- Operating range of table is $0^\circ \sim 190^\circ$ by angle adjusting screw.
- Compact design using double rack and single pinion.



MINI-ROTARY ACTUATOR

MCRJ series

Bore size : $\phi 6, \phi 8$ (Double acting)

- Rack and pinion type / with external stoppers.
- Mounting from 3 directions.
- Piping and wiring are same directions.



SWING CLAMP CYLINDERS

MCKC series

Bore size : $\phi 12 \sim \phi 40$

- Ultra compact, light weight and space saving cylinder.
- Ideal for use in machinery where space is limited and incorporating sensor groove which enables flush fitting of sensors.



MTAS / MTAD series

Bore size : $\phi 25 \sim \phi 63$

- These swing clamps are used when it is required to keep the fixture workpiece area free of straps and clamping components for unrestricted workpiece loading and unloading.
- This pneumatic clamping element is a pull type cylinder. There are five standard sizes, and for each size two versions of standard clamping arms, mounting of these clamping arms at any angle within 360° .



MAS* series

MATS* series

Bore size : $\phi 25 \sim \phi 63$

This cylinder belongs to a pull cylinder of which the total stroke is equal to the sum of a swing stroke and a clamping stroke, and is usually used within the clamping stroke.



CLAMP CYLINDERS

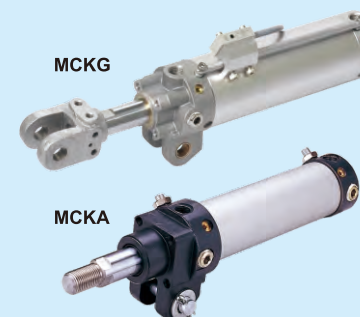
MCKA series

Bore size : $\phi 40$

MCKG series

Bore size : $\phi 50, \phi 63$

- Aluminium alloy tube provides both smooth lines and high corrosion resistance.
- Self lubricated nose bush gives long life.
- Versatile porting position available.
- End cushioning at both ends reduces impact loads.



MCKB series

Bore size : $\phi 32$

- Lever-type air cylinder for grasp use. Compact and light design suitable for limited space application (ex. CNC machining tool).
- Four sides of sensor switch installation available. control is simplified.



GRIPPERS

MCHA series

- Available with a comprehensive selection of bore size ($\phi 12 \sim \phi 32$) for the various needs.
- The highly accurate, air-driven open closed work.



COMPACT TYPE 3-FINGER GRIPPERS

MCHK series

Stroke : 20, 30, 50 mm



PARALLEL GRIPPERS

MCHH series

Bore size : $\phi 20 \sim \phi 40$



180° ANGULAR GRIPPERS

MCHW series

Bore size : $\phi 20 \sim \phi 50$



PARALLEL GRIPPERS

MCHB series

- Available with a comprehensive selection of bore size ($\phi 12 \sim \phi 32$) for the various needs.
- The highly accurate, air-driven open closed work.



LOWER HEIGHT of THREE JAW GRIPPERS

MCHG series

Body diameter : $\phi 50 \sim \phi 160$

MCHG2 series

Bore size : $\phi 16 \sim \phi 125$

MCHG2L series

Bore size : $\phi 16 \sim \phi 80$



LOWER HEIGHT PARALLEL GRIPPERS

MCHQ series

Body diameter : 64 ~ 160



180° ANGULAR GRIPPERS

CAM STYLE

MCHY series

Bore size : $\phi 10 \sim \phi 25$



PARALLEL GRIPPERS

MCHC series

Bore size : $\phi 10 \sim \phi 25$

- Gripper design with high rigidity rail integrated structure.
- Enhance mounting positioning preciseness:
 - Body thickness tolerance ± 0.05 mm
 - Mounting hole at body end to ensure mounting precision.
- Enhance precision, may apply to high precision machinery.
- Sensor switch designed to be embedded into the body.



THROUGH CENTER HOLD TYPE of THREE JAW GRIPPERS

MCHGH series

Body diameter : $\phi 64 \sim \phi 160$



SLIM PARALLEL GRIPPERS

MCHU series

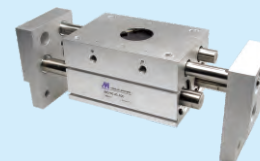
Bore size : $\phi 12 \sim \phi 20$



WIDE TYPE PARALLEL GRIPPERS

MCHX series

Bore size : $\phi 10 \sim \phi 32$



LOWER HEIGHT of FOUR JAW GRIPPERS

MCHGF series

Body diameter : $\phi 50 \sim \phi 125$



ROTARY GRIPPERS

MCRH series

Bore size : $\phi 16$

S2 (2-Finger)

S3 (3-Finger)

Y (180° Angular)



THREE JAW GRIPPERS

MCHJ series

Body specification : 50 ~ 300



PARALLEL GRIPPERS

MCHS series

Body specification : 50 ~ 300



20° ANGULAR GRIPPERS

MCHT series

Body specification : 66 ~ 200



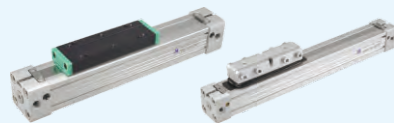


MCRPL series

Bore size : $\phi 16 \sim \phi 40$

MCRPLF series

Bore size : $\phi 16 \sim \phi 63$



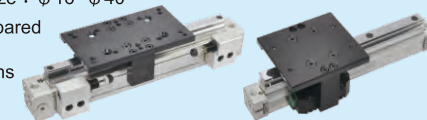
- Equal forces on both ends of the piston.
- 50% space-savings.
- Reed switches available.
- Multi ported end caps as standards.
- Many mounting options available.
- Simple construction enables rapid servicing of cylinder.
- Slow speed grease available as option to enable very slow and smooth piston movement.

WITH LINEAR GUIDE

MCRPLK series

Bore size : $\phi 16 \sim \phi 40$

- 50% space saving when compared to conventional cylinders.
- End caps with 3 air connections and adjustable cushioning.
- Load strength is higher than MCRPLF series (about 4 Multiple).
- Magnetic as standard.



MAGNETICALLY COUPLED

MCRPM series

(Without switch type, double acting)

Bore size : $\phi 20 \sim \phi 40$

- 50% space saving.
- Magnetic transit design. Magnetic force transits the movement with piston side magnet and slider magnet.
- Stainless tube, light weighted and durable.
- All series are without switch types.

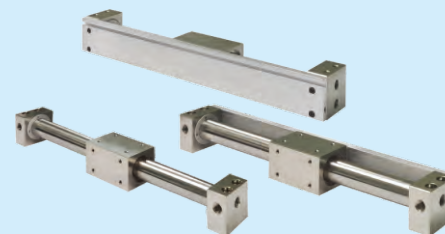


MCRPMD series

(With switch type, double acting)

Bore size : $\phi 20, \phi 25$

- 50% space saving.
- Magnetic transit design. Magnetic force transits the movement with piston side magnet and slider magnet.
- Stainless tube, light weighted and durable.

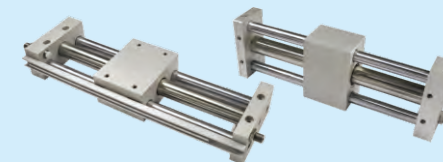


MCRPMS series

(With / Without switch type, double acting)

Bore size : $\phi 20, \phi 25$

- 50% space saving.
- Magnetic transit design. Magnetic force transits the movement with piston side magnet and slider magnet.
- Stainless tube, light weighted and durable.
- The overall design of the cylinder and guide rods, can direct bear loads.
- Centralized piping ease of mounting.



DISTRIBUTED CONTROL SYSTEM

MA-118* series

- Support start-up screen (108×64 pixels)
- Password protection, copy protection.
- 104 FBD integrated functions, 97 LD integrated functions, pre-tested functions.
- Linking of 1024 function block is possible.
- Flexibly expandable up to 10000 points.



INDUSTRIAL COMMUNICATION

MA-15** series

- Auto tuner baud rate, 300~115200bps.
- 3000 VDC isolation protection.
- ESD protection.
- No external power supply (USB type)
- Fully compliant with USB 1.1 / 2.0



REMOTE MODULES

MA-10** series

- RS-485 Interface.
- Supports Modbus RTU / ASCII.
- Isolation voltage: 5000 VDC.
- Dual watchdog timer.
- Surge, EFT and ESD protection.



RADIO REMOTE MODULES

MA-3016 series

- Frequency control: Crystal
- Low power indicator.
- Operation range: up to 100 meters.
- Supports Modbus RTU / ASCII.
- Free PC software Mindman Utility.



TEXT PANEL

MATP series

- Plug-and-Play.
- Support start-up screen.
- RS-485 Interface.
- Full support MA-1188/1189 series controller.
- Resolution : 192×64 pixels.
- Dual watchdog timer.
- Brightness : 60cd/m²



SLIDER ELECTRIC CYLINDER BELT DRIVEN

MEAT series

Tube I.D. : 25



SLIDER ELECTRIC CYLINDER BELT DRIVEN

METB series

Size : □ 42~ □ 80



ROD ELECTRIC CYLINDER - BALL SCREW DRIVE (WITH MOTOR)

MEQYC series

Specification : 50(D,L), 65(D,L)
Stroke : 50~500 (mm)

- Avoid using the electric actuator in such a way that rotational torque would be applied to the piston rod. This may cause deformation of the anti-rotating guide, abnormal responses of the auto switch, play in the internal guide or an increase in the sliding resistance.

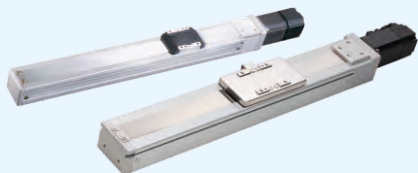


SLIDER ELECTRIC CYLINDER - BALL SCREW DRIVE (WITHOUT MOTOR)

METS series

Specification : 5M~22 Stroke : 100~1500 (mm)

- High rigidity mainframe and cover: One piece extruded aluminum structure for optimal rigidity and weight ratio.
- Torsion resist top lid: Special torsion-resistant top lid design to prevent deformation during long stroke. (Clean room type)
- Multiple motor installation positions for added flexibility in tool design.



SLIDER ELECTRIC CYLINDER - BALL SCREW DRIVE (WITH MOTOR)

METSC series

Specification : 5~13 Stroke : 50~1050 (mm)

- High rigidity mainframe and cover: One piece extruded aluminum structure for optimal rigidity and weight ratio.
- Torsion resist top lid: Special torsion-resistant top lid design to prevent deformation during long stroke. (Clean room type)
- Multiple motor installation positions for added flexibility in tool design.



MINIATURE ELECTRIC CYLINDER - BALL SCREW DRIVE (WITH MOTOR)

MES* series

Specification : 20
Stroke : 30 / 50 (mm)

MESH-20

MESF-20

MESS-20



ELECTRIC GRIPPER - BALL SCREW DRIVE (WITH MOTOR)

MEHC series

Specification : 20, 25
Open and close stroke : 10, 14 (mm)

MEHC-20

MEHC-25





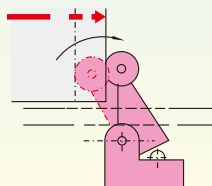
SHOCKLESS STOPPER CYLINDERS

MSBD series

(ϕ 32-20, ϕ 50-30, ϕ 60-30, ϕ 80-40)



The built-in shock absorber softly catches and stops the work carrier. The strength of absorber can be easily adjusted, which makes the cylinder work in the best condition, conforming to the speed of the conveyor line and the weight of the work carrier.



STOPPER CYLINDERS with ROLLER

MSBR series

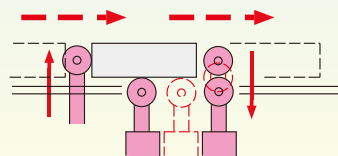
(ϕ 20 / ϕ 32-20, ϕ 40 / ϕ 50-30)

MSAR series

(ϕ 32 / ϕ 50 / ϕ 80-30)



The top rollers with the built-in spring return in touch with the bottom of the work carrier. Automatically returns up to the original position as the work carrier pass by, and immediately works as a stopper for the next work carrier. Therefore the timing carriers does not need to be taken.



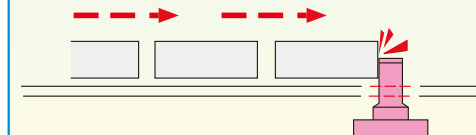
DIRECT STOPPER CYLINDERS

MSBS series

(ϕ 20-10, ϕ 32-20, ϕ 50-30)



Rod and cylinder are designed for toughness against the large side load. Also suitable for the relatively slow-moving conveyor line with the heavy work carriers.

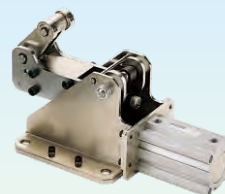


HORIZONTAL STOPPER CYLINDERS

MSLD series

(Shockless)

(ϕ 50-50)



MSLL series

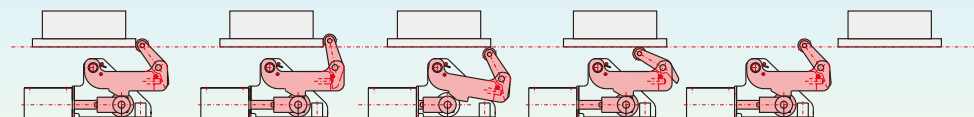
(Roller)

(ϕ 25 / ϕ 40-30)



● MSLD type application

WORKS CONVEYING DIRECTION



Horizontal stopper cylinder of lower height for conveying the heavy work carriers. Suitable as a stopper cylinder for accumulating line, ageing line, and mult-stage conveyor line. Softly stops the work carriers of heavy weight and high speed.

HORIZONTAL PUSH & PULL STOPPER CYLINDERS

MSLP series

Push type **MSLP-P**

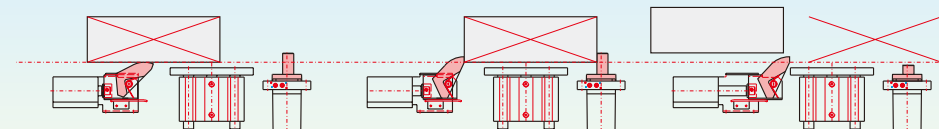
Pull type **MSLP-CP**

(ϕ 32-40)



● Push type application

WORKS CONVEYING DIRECTION



Conveying pass freely from left.

Use lever to prevent from reverse direction of work when stopped by cylinder to make sure of high accuracy location.

After processing, use cylinder to push off position.

PLASTIC SILENCER

MSR* series



PE SILENCER

MSLE series



BRASS SILENCER

MSL series



SILENCER THROTTLE VALVE

MSLC / MSLC2 series



CHECK VALVE

MJBV series



FLOW CONTROL VALVE

MSC series



QUICK EXHAUST VALVE

MVQE series



SHUTTLE VALVE

MVAS series



PU TUBE

UM / TPU series
UML series



FEMALE ROD ENDS

PHS series



SHOCK ABSORBERS

MDSC / MDFC series
MAC / MAD series



PILOT CHECK VALVES

MPC series



HYDRAULIC SPEED CONTROLLERS

MHR series



COUPLER

MS* / MP* series



JET COOLER

MJC series



NO CONTACT TRANSFERT

MHPSC series



FLOATING CONNECTOR

MFC / MFCS series



STAINLESS FITTING

MNS* series



AIR PRESS

MF* series



BOOSTER REGULATOR

MVBA-2100 series



MVBAT series
With air tank



BOOSTERS

MHB* series



POWER CYLINDERS

MHPD series



SENSOR SWITCH

- RCA, RCB, RCD, RCE, RCE1, RCI, RCM, RCS, RDF, RDEP, RDGV, RDKP, RH, RK, RT series
- LN01A, LN01G, LN01H LN01P, LN32H, LN40R series



MULTI-STAGE VACUUM GENERATOR

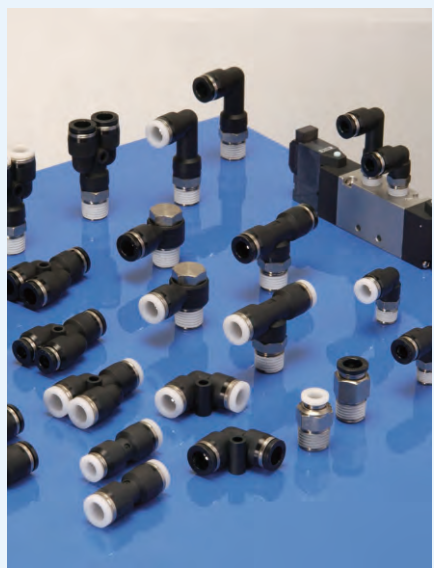
MZL112 / MZL212 series



VACUUM GENERATOR

MVVA series

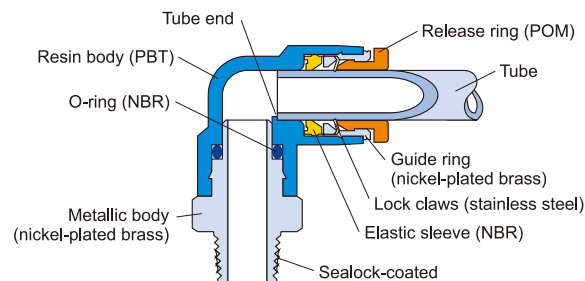




Maintaining basic functions, this low-cost quick-fitting joint achieves high-cost performance.

- The Tube Fitting comes in a wide variety of tube and thread sizes.
- Even after installation the direction of the tubing can be changed freely (Elbow, Long Elbow, Universal Elbow, etc.).

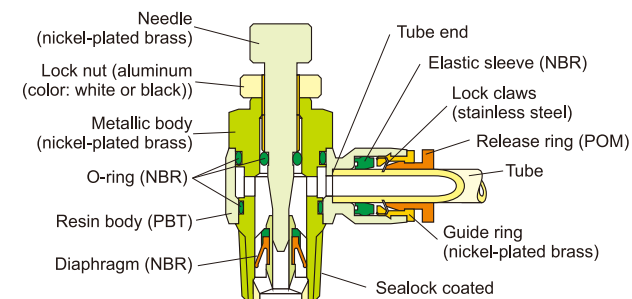
Construction



Maintaining basic functions, this low-cost speed controller achieves high-cost performance.

- The speed controller controls the operation speed of a driving device.
- The lead-out directions are free thanks to rotation of the resin body and joint.

Construction



SPEED CONTROLLER

JSC series



TUBE FITTING

PC series



PU series



PG series



PL series



PLL series



PV series



PE series



TUBE FITTING

PB series



PD series



PH series



PX series



PY series



PW series



MDHB series (Standard)
MDHD series (Double end rod)
MDHN series (Adjustable forward stroke)

Bore size : $\phi 40 \sim \phi 150$
 Operating pressure: 14 MPa



With magnet

MDMB series (Standard)
MDMD series (Double end rod)
MDMN series (Adjustable forward stroke)

Bore size : $\phi 40 \sim \phi 100$
 Operating pressure: 7 MPa
 PIS contact with us for its specifications.



MDOC series (Pivot)
MDOA series (Front nose mounting)
MDOD series (Double end rod)
MDON series (Adjustable forward stroke)

Bore size : $\phi 20, \phi 32$
 Operating pressure: 3.5 MPa



HYDRAULIC - Swing Clamp Cylinders
MTHS / MTHD series
 Bore size : $\phi 25 \sim \phi 63$



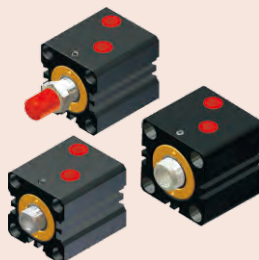
COMPACT HYDRAULIC CYLINDER

MHCB series (Front mounting)
MHCQ series (Side mounting)
 Bore size : $\phi 32 \sim \phi 80$



COMPACT HYDRAULIC WITH PISTON SENSING CYLINDER

MHCB-M series
 Bore size : $\phi 32 \sim \phi 80$



MANIFOLD TYPE HYDRAULIC CYLINDERS

MHCBR series Front mounting (Axial front manifold type)
MHCBF series Front mounting (Axial back manifold type)
MHCBS series Side mounting (Manifold type)
 Bore size : $\phi 20 \sim \phi 80$



HYDRAULIC ROTARY ACTUATORS
MRPH series

Bore size : $\phi 32, \phi 40$
 Operating pressure: 3.5 MPa



HYDRAULIC LEVER-TYPE CYLINDERS
MHCK series

Bore size : $\phi 25 \sim \phi 63$
 Operating pressure: 7 MPa



MHS
MHSD
MHTS
MHTSD



MFS
MDS
MFT
MDT



MTC-A/B**
MSP-A/B**



Global Distributions

The recent information technology had been brought us closer ever. In the future, there will be no boundary between each nations. One phone call, one email, or fax, you could feel the instant response from our oversea staffs service.

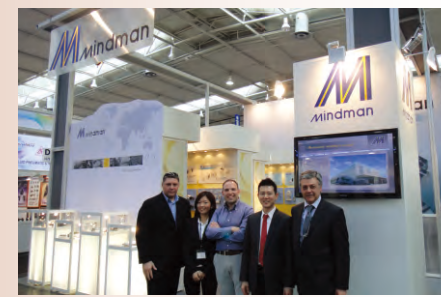


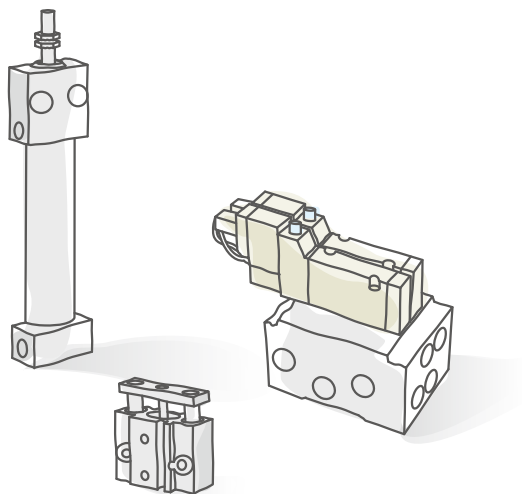
Asia			America		Europe				Oceania	Africa
China	Oman	Syria	Canada	Brazil	U.K.	Sweden	Switzerland	Macedonia	Australia	South Africa
Turkey	Korea	Pakistan	Colombia	Honduras	Germany	Italy	The Netherlands		New zeland	Egypt
Japan	Singapore	Iran	Peru	Venezuela	Greece	Denmark	Serbia			U.A.E
Malaysia	Hong kong	Israel	Ecuador	Dominican republic	Spain	France	Russian			Kenya
Indonesia	Philippines		El Salvador	Chile'	Czech republic	Slovenia	Croatia			Botswana
Thailand	Sri lanka		U.S.A	Argentina	Bulgaria	Sweden	Ireland			
India	Vietnam		Mexico	Bahrain	Poland	Ukraine	Finland			

Marketing Network

Mindman started with the development of overseas market in 1989, every year Mindman participates in all the large international exhibitions, such as Hannover Messe, Las Vegas fair, IFPEX Tokyo, PTC China... etc. Introducing our products to wide range of industries and enhance our knowledge on the latest innovative products through these world renowned exhibitions.

Mindman had already extended its sales areas into Europe, Japan, Germany, USA, Australia, South Asia, Middle East, and Mainland China. Most of all, we will continue to serve our customers with best quality, highly competitive price, on time delivery, and instant-sale services. If you have any special requirements, please do not hesitate to contact with us. Our staffs are always ready to further assist you.





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