CHELIC PNEUMATIC

CHELIC FA SYSTEM

Ver. 1-6

CAT-1302

TAIWAN CHELIC CORP LTD.

SHANGHAI CHELIC PNEUMATIC CORP.

SHENZHEN CHELIC PNEUMATIC CORP.

CHELIC PNEUMATIC EQUIPMENTS

Manufacturer / *TAIWAN CHELIC CORP. LTD.*

http: //www.chelic.com

WE SUPPLY SPECIALIZED PNEUMATIC EQUIPMENTS.

The specification are subject to change without advance notice.

INTRODUCTION

TAIWAN CHELIC CORP LTD. was established in 1986 and located in NEW TAIPEI CITY,TAIWAN,R.O.C.Our main products are pneumatic automation components including air unit,large–size filter,air control valves,variety-cylinder,grippers,vacuum ejectors,fittings,assembly pick and place robots and hydraulic components..etc.These pneumatic products are widely used in various manufacturing sectors,maintenance equipment,automation equipment,medical instrument and education equipment etc.

In order to achieve the standard requirement of the advanced country such as United States, Europe, Japan etc.,with our continuous effort in improving our designs and manufacturing process,TAIWAN CHELIC CORPORATION LTD. has successfully attained ISO – 9002 certificated in March of 1995,achieve quality consistency and further up – graded the qualitylevel so as to satisfy customer's need.

- 1986.11 Taiwan Chelic Corp Ltd was established located in Taipei Hsinchuang.
- 1990.10 Chelic cooperate with KOGANEI Japan, import advanced production and management skill of Air unit.
- 1995.03 In this year, as a result of we trained , excellent quality control executions, it honorably receive the ISO-9002 certification.
- 1998.04 We have obtained ISO-9001 certificated in 1998 and official put to our quality management system.
- 2000.11 Shanghai Chelic pneumatic corp. was established in 2000 and located in Shanghai city.
- 2001.04 We also has successfully attained CE - TÜV safety certificate, achieved quality management as for EURO safe certificate system.
- 2008.10 In 2008 , We Invested in GENTEK Shanghai Corp Ltd.
- 2009.09 By cooperating with Taiyo Corp,Japan,Taiwan Chelic has successfully developed the ODM project of supplying Rotary Gripper.
- 2010.05 Our head office moved to new building in TAISHAN Dist, New Taipei City ,we conduct automatic warehouse system and computer management.
- 2010.11 By cooperating with Taiyo Corp,Japan,Taiwan Chelic has successfully developed the ODM project of supplying AIR UNIT Combination
- 2011.11 Implanting ERP System (Enterprise Resource Planning) to perform better enterprise internal management.
- 2012.05 The construction of second plant project in TAISHAN Dist , New Taipei City has started
- 2013.01 The new plant in Songjiang District, Shanghai, China, began to operate, where we have implant the ERP system as well in order to integrate the data sharing with head office in Taipei
- 2013.12 The construction of second plant in New Town, Songjiang District, Shanghai has began which is estimated 11560 square meters of land surface , with total of 14,528 square meters combine with three buildings .
- 2014.02 The new office in Shenzhen has established,are able to provide the service to support the clients in southern area of China.
- 2014.07 Approving by Securities and Futures Bureau of Financial Supervisory Commission to offer the stock.
- 2014.09 Chelic has been launched on Taiwan's GreTai Securities Market (GTSM) on Sep. 2014 (stock code : 4555) and publicly list in 2015.

TAIWAN CHELIC has been studying and improving our product quality and supplying various products to the industries as well as reducing manufacturing cost and enhancing working efficiency .

CHELIC Products

AIR UNIT

Air Unit

Air Unit

AIR UNIT

Precision Regulator

Exhaust valve / Auto Drain Trap

FR.L Combination

AIR UNIT

Mist separator

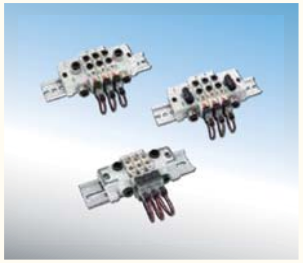
Mini Regulator

Large – Sized Filter

VALVE

Solenoid Valve

Manifold Type Solenoid Valve



Solenoid Valve

CHELIC Products

VALVE

2 Ports Solenoid Valve

Pilot Valve

Mechanical Valve

VALVE

Hand-Operated Valve

Quick Exhaust Valve

Foot Valve / Speed Controller

CYLINDER

Cartridge Cylinder

Free mount compact cylinder

Compact Cylinder

CYLINDER

Guide Cylinder

Compact Cylinder

Stopper Cylinder

CHELIC Products

CYLINDER

Miniature Cylinder

- SBA series ---- P.44
- SDA series ---- P.44
- SDX series ---- P.44
- DBS2 series ---- P.45
- DBF2 series ---- P.45
- DBT series ---- P.45
- FDA series ---- P.45

Standard Cylinder

- DN series ---- P.46
- DMB series ---- P.46
- DU series ---- P.47

Rod Locking Cylinder / End Lock Cylinder

- DNK series ---- P.47
- DNE series ---- P.47

CYLINDER

Air - Oil Converter / Booster

- DC series ---- P.49
- DH series ---- P.49
- PCB series ---- P.49
- PCU series ---- P.49

Rodless Cylinder

- PRU series ---- P.50
- PRF series ---- P.50
- PRUT series ---- P.50

Magnetic Rodless Cylinder

- MRD series ---- P.51
- MRB series ---- P.51
- MRU series ---- P.51
- MRH series ---- P.51
- MRX series ---- P.52
- MRY series ---- P.52

CYLINDER

Clamp Cylinder

- DCK2 series ---- P.48
- DCK2S series ---- P.48

Power Clamp Cylinder

- DQ series ---- P.48

Pin Clamp Cylinder

- DCQ series ---- P.48
- DCQS series ---- P.48

CYLINDER

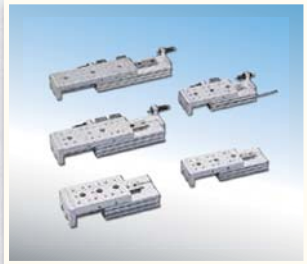
Slide Table Cylinder

- MSR(L) series ---- P.52
- MSR(L)2 series ---- P.52
- FMR(L) series ---- P.53

Compact Slide Cylinder

- MQX series ---- P.53

Slide Table Cylinder



- MDX series ---- P.53
- MDXL series ---- P.53

CHELIC Products

CYLINDER

Slide Table Cylinder

Dual Rod Cylinder

Dual Rod Cylinder

CYLINDER

Guide Cylinder

Guide Cylinder

Guide Cylinder

CYLINDER

Rotary Cylinder

Rotary cylinder

Hydraulic cylinder

CYLINDER

Swing Clamp Cylinder

Double rod swing clamp cylinder

Swing Clamp Cylinder

CHELIC Products

CYLINDER

PNEUMATIC LINK CLAMP CYLINDER

- HFK series ---------- P.61

Hydraulic Cylinder

- HUK series ---------- P.61
- HCF series ---------- P.62
- HCS series ---------- P.62
- HCQ series ---------- P.62

Threaded-body cylinder

- HN series ---------- P.62
- HS series ---------- P.62

GRIPPER

Gripper

- HDL series ---------- P.65
- HDT series ---------- P.65

Gripper

- HDQ series ---------- P.65
- HDN series ---------- P.66
- HDR series ---------- P.66

Rotary Gripper

- RMZ series ---------- P.66
- RBZ series ---------- P.66

GRIPPER

Mini Gripper

- HDD series ---------- P.63

Gripper

- HDS series ---------- P.63
- HDM series ---------- P.63
- HDP series ---------- P.63
- HDF series ---------- P.63
- HDZ series ---------- P.64
- HDZL series ---------- P.64

Gripper

- HDW series ---------- P.64
- HDG series ---------- P.64

VACUUM EQUIPMENT

Vacuum Ejector

- EV series ---------- P.67
- EVM series ---------- P.67

Vacuum Ejector

- VAB series ---------- P.67
- VAS series ---------- P.67
- VABS series ---------- P.67

Vacuum Ejector

- VMB series ---------- P.68
- VMD series ---------- P.68
- VML series ---------- P.68
- VMK series ---------- P.68
- VMT series ---------- P.68
- VMBU series ---------- P.69
- VMDU series ---------- P.69

CHELIC Products

VACUUM EQUIPMENT

Vacuum Ejector

Vacuum Filter

Vacuum Regulator

FITTING

Fitting

Mini Fitting

ACCESSORIES

Accessories

VACUUM PAD

Vacuum Pad

Vacuum Pad

FITTING

Fitting

ACCESSORIES

Sensor switch / Pressure switch

ASSEMBLY PICK AND PLACE ROBOT

Assembly pick and place robot

180° Rotary Gripper

RELATED CALCULATION INFORMATION

Compressed air consumption,various flow rate conversion table

Air flow and consumption

$$Q_A = (A_1 + A_2) \times L \times \frac{P+1.033}{1.033} \times 10^{-3}$$

$$Q_B = 2 \times A_3 \times L_H \times \frac{P}{1.033} \times 10^{-3}$$

$$Qn = (Q_A + Q_B) \times n$$

- Qn : Air consumption of cylinder movement / time (L / min)
- Q_A : Air consumption of cylinder Backward and time (L / min)
- Q_B : Air consumption of piping (Between solenoid valve and cylinder) (L/min)
- A_1 : Piston area (cm^2) (Pushing)
- A_2 : Piston area (cm^2) (Pulling)
- A_3 : Inside diameter of piping (cm^2)
- L : Stroke of cylinder (cm)
- L_H : Piping length (cm)
- P : Operation pressure (kgf/cm^2)
- n : Operation frequency

Compressed air consumption table

Unit : L / min

Bore size (mm)		10	12	16	20	25	32	40	50	63	80	100	125	160	200	250
Rod size (mm)		4	6	6	8	10	12	16	20	20	25	25	36	40	40	50
Piston area (cm^2)	A_1	0.8	1.1	2.0	3.1	4.9	8.0	12.3	19.6	31.2	50.2	78.5	122.7	201	314.1	490.8
	A_2	0.6	0.9	1.7	2.6	4.1	6.9	10.6	16.5	28.0	45.3	73.6	112.5	188.4	301.5	471.2
Operating air Pressure (kgf/cm^2)	1	0.03	0.04	0.1	0.1	0.2	0.3	0.5	0.7	1.2	1.9	3.0	4.7	7.8	12.3	19.2
	2	0.04	0.06	0.1	0.2	0.3	0.4	0.7	1.1	1.8	2.9	4.6	7	11.7	18.5	28.9
	3	0.06	0.08	0.2	0.2	0.4	0.6	0.9	1.4	2.4	3.8	6.1	9.4	15.6	24.6	38.5
	4	0.07	0.1	0.2	0.3	0.5	0.7	1.2	1.8	3.0	4.8	7.6	11.7	19.5	30.8	48.1
	5	0.09	0.12	0.2	0.3	0.6	0.9	1.4	2.2	3.6	5.7	9.1	14.1	23.4	37	57.7
	6	0.1	0.14	0.3	0.4	0.6	1.0	1.6	2.5	4.1	6.7	10.6	16.4	27.3	43.1	67.4
	7	0.12	0.2	0.3	0.5	0.7	1.2	1.8	2.9	4.7	7.6	12.2	18.8	31.2	49.3	77
	8	0.13	0.2	0.3	0.5	0.8	1.3	2.1	3.3	5.3	8.6	13.7	21.1	35	55.4	86.6
	9	0.14	0.2	0.4	0.6	0.9	1.5	2.3	3.6	5.9	9.6	15.2	23.5	39	61.6	96.2

● The table is the total air consumption for a complete cycle of 100mm stroke.

Various flow rate conversion table

Unit	m^3/s	l /s	cm^3/s	m^3/h	m^3/min	ℓ/h	ℓ/min	ft/min (scfm)	gallon min UK	gallon min USA
m^3/s	1	10^3	10^6	3.6×10^6	60	3.6×10^6	60×10^3	2.12×10^3	13.2×10^3	15.85×10^3
ℓ/s	10^{-3}	1	10^3	3.6	60×10^{-3}	3.6×10^6	60	2.12	13.2	15.85
cm^3/s	10^{-6}	10^{-3}	1	3.6×10^{-3}	60×10^{-6}	3.6	60×10^{-3}	2.12×10^{-3}	13.2×10^{-3}	15.85×10^{-3}
m^3/h	0.28×10^{-3}	0.28^{-3}	0.28×10^3	1	16.67×10^3	10^3	16.67	0.59	3.67	4.4
m^3/min	16.67×10^{-3}	16.67	16.67×10^3	60	1	60×10^3	10^3	35.31	219.97	264.17
ℓ/h	0.28×10^{-6}	0.28×10^{-3}	0.28	10^{-3}	16.67×10^{-6}	1	16.67×10^{-3}	0.59×10^{-3}	3.67×10^{-3}	4.4×10^{-3}
ℓ/min	16.67×10^{-6}	16.67×10^{-3}	16.67	60×10^{-3}	10^{-3}	60	1	35.31×10^{-3}	219.97×10^{-3}	264×10^{-3}
ft/min (scfm)	0.47×10^{-3}	0.47	0.47×10^3	1.699	28.32×10^{-3}	1.699×10^3	28.32	1	6.23	7.48
gallon min UK	75.79×10^{-6}	75.79×10^{-3}	75.77	0.273	4.55×10^{-3}	0.273×10^3	4.55	0.16	1	1.2
gallon min USA	63.09×10^{-6}	63.09×10^{-3}	63.09	0.227	3.79×10^{-3}	0.227×10^3	3.79	0.13	0.83	1

The calculation method of cylinder force

$$F = P \times A - f$$

- F : Cylinder force (kgf)
- P : Operating pressure (kgf/cm^2)
- A : Piston area (cm^2)
- f : Frictional force (kgf)

Compressed air consumption table

Unit :Kgf

Bore size (mm)			10	12	16	20	25	32	40	50	63	80	100	125	160	200	250
Rod size (mm)			4	6	6	8	10	12	16	20	20	25	25	36	40	40	50
Piston area (cm^2)		A_1	0.8	1.1	2.0	3.1	4.9	8.0	12.5	19.6	31.2	50.2	78.5	122.7	201	314.1	490.8
		A_2	0.6	0.9	1.7	2.6	4.1	6.9	10.6	16.5	28.0	45.3	73.6	112.5	188.4	301.5	471.2
Operating air Pressure (kgf/cm^2)	1	A_1	0.8	1.1	2.0	3.1	4.9	8.0	12.6	19.6	31.2	50.2	78.5	122.7	201	314.1	490.8
		A_2	0.6	0.9	1.7	2.6	4.1	6.9	10.6	16.5	28.0	45.3	73.6	112.5	188.4	301.5	471.2
	2	A_1	1.6	2.3	4.0	6.3	9.8	16.1	25.1	39.3	62.3	100.5	157.0	245.4	402.1	628.3	981.6
		A_2	1.2	1.7	3.5	5.3	8.2	13.8	21.1	33.0	56.0	90.7	147.2	225	376.9	603.1	942.4
	3	A_1	2.4	3.4	6.0	9.4	14.7	24.1	37.7	58.9	93.5	150.7	235.5	368.1	603.1	942.4	1472.4
		A_2	1.8	2.5	5.2	7.9	12.4	20.7	31.7	49.5	84.0	136.0	220.8	337.5	565.4	904.7	1413.6
	4	A_1	3.2	4.5	8.0	12.6	19.6	32.2	50.2	78.5	124.6	201.0	314.0	490.8	804.2	1256.6	1963.2
		A_2	2.4	3.4	6.9	10.6	16.5	27.6	42.2	65.9	112.1	181.3	294.4	450	753.9	1206.2	1884.8
	5	A_1	4.0	5.7	10.1	15.7	24.5	40.2	62.8	98.1	155.8	251.2	392.5	613.5	1005.3	1570.8	2454
		A_2	3	4.2	8.7	13.2	20.6	34.5	52.8	82.4	140.1	226.7	368.0	562.5	942.4	1507.8	2356
	6	A_1	4.7	6.8	12.1	18.9	29.4	48.2	75.4	117.8	186.9	301.4	471.0	736.2	1206.3	1884.9	2944.8
		A_2	3.6	5.1	10.4	15.8	24.7	41.5	63.3	98.9	168.1	272.0	441.6	675	1130.9	1809.4	2827.2
	7	A_1	5.5	7.9	14.1	22.0	34.3	56.3	87.9	137.4	218.1	351.7	549.5	858.9	1407.4	2199.1	3435.6
		A_2	4.2	5.9	12.1	18.5	28.9	48.4	73.9	115.4	196.1	317.3	515.2	787.5	1319.4	2110.9	3298.4
	8	A_1	6.3	9.0	16.1	25.1	39.3	64.3	100.5	157.0	249.3	401.9	628.0	981.6	1608.4	2513.2	3926.4
		A_2	4.8	6.8	13.8	21.1	33.0	55.3	84.4	131.9	224.1	362.7	588.8	900	1507.9	2412.5	3769.6
	9	A_1	7.1	10.2	18.1	28.3	44.2	72.3	113.0	176.6	280.4	452.2	706.5	1104.3	1809.5	2827.4	4417.2
		A_2	5.4	7.6	15.5	23.8	37.1	62.2	95.0	148.4	252.1	408.0	662.4	1012.5	1696.4	2714.1	4240.8

● Note : The above data for reference only ◦ When come to actual practice , frictional force and the mechanical effeciency have to be taken into consideration.

Pressure conversion table

Unit	Pa	KPa	MPa	bar	mbar	kgf/cm^2	cmH_2O	mmH_2O	mmHg	p.s.i.
Pa	1	10^{-3}	10^{-6}	10^{-5}	10^{-2}	10.2×10^{-6}	10.2×10^{-3}	101.97×10^{-3}	7.5×10^{-3}	0.15×10^{-3}
KPa	10^3	1	10^{-3}	10^{-2}	10	10.2×10^{-3}	10.2	101.97	7.5	0.15
MPa	10^6	10^3	1	10	10^4	10.2	10.2×10^3	101.97×10^3	7.5×10^3	0.15×10^3
bar	10^5	10^2	10^{-1}	1	10^3	1.02	1.02×10^3	10.2×10^3	750.06	14.5
mbar	10^2	10^{-1}	10^{-4}	10	1	1.02×10^{-3}	1.02	10.2	0.75	14.5×10^{-3}
kgf/cm^2	98066.5	98.07	98.07×10^{-3}	0.98	980.67	1	1000	10000	735.56	14.22
cmH_2O	98.0665	98.07×10^{-3}	98.07×10^{-6}	0.98×10^{-3}	0.98	10^{-3}	1	10	0.74	14.22×10^{-3}
mmH_2O	9.80665	9.807×10^{-3}	9.807×10^{-6}	98.07×10^{-6}	98.07×10^{-3}	10^{-4}	0.1	1	73.56×10^{-3}	1.42×10^{-3}
mmHg	133.32	133.32×10^{-3}	133.32×10^{-6}	1.33×10^{-3}	1.33	1.36×10^{-3}	1.36	13.6	1	19.34×10^{-3}
p.s.i.	6894.76	6.89	6.89×10^{-3}	68.95×10^{-3}	68.95	70.31×10^{-3}	70.31	703.07	51.71	1

Conversion table of major force unit conversion of international standard unit and metric system unit

Name	Internation unit → Metric system unit	Metric system unit → Internation unit
Air pressure	1 MPa = 10.2 kgf/cm^2	1 kgf/cm^2 = 0.098 MPa
Load	1 N = 0.102 kgf	1 kgf = 9.8 N
Torque	1 N · m = 0.102 kgf · m	1 kgf · m = 9.8 N · m
Vacuum pressure	-1 kPa = 7.5 mmHg	-1 mmHg = 0.133 kPa
Inertia force	1 kg · m^2 = 10.2 kgf · cm · S	1 kgf · cm · S = 0.098 kg · m^2

Safety notice/common caution (1)

Please read this safety notice carefully, pay attention to safety item while using this product, in order to prevent injury to human body and damage of property; thus, there are divided into three classes of "Danger","Warning", and "Caution" according to the extend of prevention.

Danger	Obviously situated at "Danger" state, may cause casualty if not avoided; take special safety protection and management to prevent the occurrence of "Danger"
Warning	Condition of operation is situated at "Danger" state, may cause casualty if not avoided; take special safety protection and management to prevent the occurrence of "Danger"
Caution	Condition of operation is situated at "Danger" state, may cause minor or moderate injury and damage of property if not avoided; take safety protection and management

- For safety protection and prevention of accident, please understand the condition of application and know the design, installation, procedure of usage and essential safety condition before using this product.
- Please use within the specification and requirement of this product; application beyond the specification may cause hazard. In case of special condition of application, take the confirmation of safety into account and then use it; in case of doubt in reading this information and related data, contact us before using.
- It is hazardous in error assemble and operation of compressed air and its accessories; so, while selecting the product, the related personnel of design, assemble, operating and service should possess sufficient knowledge and experience, and follow normal operating procedure, in order to maintain safe operation and good effect.
- The safety notice is made according to ISO 4414; pneumatic fluid power and JSI B 8370 general requirement of air system.

※ The safety notice , if change anything , excuse we don't notify.

Safety notice/common caution (2)

Related Calculation / Common Cantion

This product suitable for application in general industrial equipment; adhere to the following caution while designing, assembling, using and maintenance.

Danger

1. Please never use in following application
   - Use in operation, delivering and management of the appliance for the purpose of human life and body.
   - Use in operation which rise obvious “Danger” and safety concern to human life and body.
   - Special for safety purpose, situation with impact of safety to human life and body.
2. Confirmation of safety shall avoid the following conditions which cause safety impact to human and damage of equipment.
   - Operation of machine , device should note to the drop of driven object or race at the rotation radius and operation range cause injury of human and damage of equipment.
   - Operation of machine, device should note the air supply source and poor power supply and interruption and cause injury of human and damage of equipment.
   - When restarting the machine, device may cause object flying out and cause injury of human and damage of equipment.

Warning

1. Please never use in following situation
   - In outdoor dusty condition.
   - Avoid chemical, corrosive and inflammable gas; avoid sea water, high temperature place in surrounding.
   - Exceed the condition in the specification of the product.
   - In the place tend to receive rigorous shock impact, which affect the quality and stability of the product.
2. Please don't make any modification or disassemble to the structure, function of the produc.
3. Shut offthe power switch and air source properly before service and maintenance , avoid consequent hazard and damage of product.
4. Avoid consequent hazard and damage of product while assembling and operation.

Caution

1. Pay attention to the cleanliness of the pipeline while laying the pipe, avoid dust, dirt and leak proof tape been sucked into the pipeline, affect the operation performance of the product.
2. There are itemized cautions for various product, please contact our sale personnel if any doubt arouse.

F.R.L. COMBINATION — NC

Model		Equipment Model			Port Size	Flow Rate	Pressure Range	Remarks
		Filter	Regulator	Lubricator	Rc (PT)	L/min (ANR)	Kgf/cm² (Kpa)	
NC-100	-M5	NF-100	NR-100	NL-100	M5	900	0.5 ~ 8.5 (50 ~ 850)	-H : Manual drainer (Standard type)
	-01				1/8"	900		
NC-200	-01	NF-200	NR-200	NL-200	1/8"	1000		-H : Manual drainer (Standard type)
	-02				1/4"	1000		-H-F1:Manual drainer With fitting (Option)
NC-300	-02	NF-300	NR-300	NL-300	1/4"	1300		-S : Semi-Auto drainer Differential perssure drain (Option)
	-03				3/8"	1300		
NC-400	-02	NF-400	NR-400	NL-400	1/4"	2200		-S-F2:Semi-Auto drainer Differential perssure drain With fitting (Option)
	-03				3/8"	2200		
	-04				1/2"	2200		-A : Auto drainer
NC-450	-04	NF-450	NR-450	NL-450	1/2"	2800		
	-06				3/4"	2800		
NC-500	-06	NF-500	NR-500	NL-500	3/4"	5300		
	-10				1"	5300		

FR.L. COMBINATION — NFC

Model		Equipment Model		Port Size	Flow Rate	Pressure Range	Remarks
		Filter Regulator	Lubricator	Rc (PT)	L/min (ANR)	Kgf/cm² (Kpa)	
NFC-100	-M5	NFR-100	NL-100	M5	800	0.5 ~ 8.5 (50 ~ 850)	-H : Manual drainer (Standard type)
	-01			1/8"	800		
NFC-200	-01	NFR-200	NL-200	1/8"	1000		-H : Manual drainer (Standard type)
	-02			1/4"	1000		-H-F1:Manual drainer With fitting (Option)
NFC-300	-02	NFR-300	NL-300	1/4"	1300		-S : Semi-Auto drainer Differential perssure drain (Option)
	-03			3/8"	1300		
NFC-400	-02	NFR-400	NL-400	1/4"	2200		-S-F2:Semi-Auto drainer Differential perssure drain With fitting (Option)
	-03			3/8"	2200		
	-04			1/2"	2200		-A : Auto drainer
NFC-450	-04	NFR-450	NL-450	1/2"	3000		
	-06			3/4"	3000		
NFC-500	-06	NFR-500	NL-500	3/4"	5300		
	-10			1"	5300		

FILTER REGULATOR — NFR

Model		Port Size	Flow Rate	Filter Grade	Gauge	Pressure Range	Remarks
		Rc (PT)	L/min (ANR)		Rc (PT)	Kgf/cm² (Kpa)	
NFR-100	-M5	M5	800	5μm	Girdle Gauge PG-05	0.5 ~ 8.5 (50 ~ 850)	-H : Manual drainer (Standard type)
	-01	1/8"	900				
NFR-200	-01	1/8"	900		Square pressure gauge PG-22N		-H : Manual drainer (Standard type)
	-02	1/4"	900				-H-F1:Manual drainer With fitting (Option)
NFR-300	-02	1/4"	1200				-S : Semi-Auto drainer Differential perssure drain (Option)
	-03	3/8"	1300				
NFR-400	-02	1/4"	1600				-S-F2:Semi-Auto drainer Differential perssure drain With fitting (Option)
	-03	3/8"	1800				
	-04	1/2"	1800				-A : Auto drainer
NFR-450	-04	1/2"	2800				
	-06	3/4"	3000				
NFR-500	-06	3/4"	4800				
	-10	1"	5000				

MIST FILTER REGULATOR — MFR

Model		Port Size	Flow Rate	Filter Grade	Pressure Range	Remarks
		Rc (PT)	L/min (ANR)		Kgf/cm² (Kpa)	
MFR-200	-01	1/8"	900	Filtration efficiency 0.3μm	0.5 ~ 8.5 (50 ~ 850)	-H : Manual drainer (Standard type)
	-02	1/4"	900			
MFR-300	-02	1/4"	1200			-H-F1:Manual drainer With fitting (Option)
	-03	3/8"	1300			
MFR-400	-02	1/4"	1600			-S : Semi-Auto drainer Differential perssure drain (Option)
	-03	3/8"	1800			
	-04	1/2"	1800			-S-F2:Semi-Auto drainer Differential perssure drain With fitting (Option)
MFR-450	-04	1/2"	2800			
	-06	3/4"	3000			-A : Auto drainer
MFR-500	-06	3/4"	4800			
	-10	1"	5000			

MICRO MIST FILTER REGULATOR — MFRD

Model		Port Size	Flow Rate	Filter Grade	Pressure Range	Remarks
		Rc (PT)	L/min (ANR)		Kgf/cm² (Kpa)	
MFRD-200	-01	1/8"	900	Filtration efficiency 0.01μm	0.5 ~ 8.5 (50 ~ 850)	-H : Manual drainer (Standard type)
	-02	1/4"	900			
MFRD-300	-02	1/4"	1200			-H-F1:Manual drainer With fitting (Option)
	-03	3/8"	1300			
MFRD-400	-02	1/4"	1600			-S : Semi-Auto drainer Differential perssure drain (Option)
	-03	3/8"	1800			
	-04	1/2"	1800			-S-F2:Semi-Auto drainer Differential perssure drain With fitting (Option)
MFRD-450	-04	1/2"	2800			
	-06	3/4"	3000			-A : Auto drainer
MFRD-500	-06	3/4"	4800			
	-10	1"	5000			

AIR FILTER — NF

Model		Port Size	Flow Rate	Filter Grade	Pressure Range	Remarks
		Rc (PT)	L/min (ANR)		Kgf/cm² (Kpa)	
NF-100	-M5	M5	850	5μm	0.5 ~ 8.5 (50 ~ 850)	-H : Manual drainer (Standard type)
	-01	1/8"	900			
NF-200	-01	1/8"	900			-H : Manual drainer (Standard type)
	-02	1/4"	900			-H-F1:Manual drainer With fitting (Option)
NF-300	-02	1/4"	1200			-S : Semi-Auto drainer Differential perssure drain (Option)
	-03	3/8"	1300			
NF-400	-02	1/4"	2200			-S-F2:Semi-Auto drainer Differential perssure drain With fitting (Option)
	-03	3/8"	2300			
	-04	1/2"	2300			-A : Auto drainer
NF-450	-04	1/2"	3000			
	-06	3/4"	3000			
NF-500	-06	3/4"	5300			
	-10	1"	5300			

MIST SEPARATOR — MF

Model		Port Size	Flow Rate	Filter Grade	Pressure Range	Remarks
		Rc (PT)	L/min (ANR)		Kgf/cm² (Kpa)	
MF-200	-01	1/8"	900	Filtration efficiency 0.3 μm	0.5 ~ 8.5 (50 ~ 850)	-H : Manual drainer (Standard type)
	-02	1/4"	900			
MF-300	-02	1/4"	1200			-H-F1:Manual drainer With fitting (Option)
	-03	3/8"	1300			
MF-400	-02	1/4"	2200			-S : Semi-Auto drainer Differential perssure drain (Option)
	-03	3/8"	2300			
	-04	1/2"	2300			-S-F2:Semi-Auto drainer Differential perssure drain With fitting (Option)
MF-450	-04	1/2"	3000			
	-06	3/4"	3000			-A : Auto drainer
MF-500	-06	3/4"	5300			
	-10	1"	5300			

MICRO MIST SEPARATOR — MFD

Model		Port Size	Flow Rate	Filter Grade	Pressure Range	Remarks
		Rc (PT)	L/min (ANR)		Kgf/cm² (Kpa)	
MFD-200	-01	1/8"	900	Filtration efficiency 0.01μm	0.5 ~ 8.5 (50 ~ 850)	-H : Manual drainer (Standard type)
	-02	1/4"	900			
MFD-300	-02	1/4"	1200			-H-F1:Manual drainer With fitting (Option)
	-03	3/8"	1300			
MFD-400	-02	1/4"	2200			-S : Semi-Auto drainer Differential perssure drain (Option)
	-03	3/8"	2300			
	-04	1/2"	2300			-S-F2:Semi-Auto drainer Differential perssure drain With fitting (Option)
MFD-450	-04	1/2"	3000			
	-06	3/4"	3000			-A : Auto drainer
MFD-500	-06	3/4"	5300			
	-10	1"	5300			

REGULATOR — NR

Model		Port Size Rc (PT)	Flow Rate L/min (ANR)	Gauge Rc (PT)	Pressure Range Kgf/cm² (Kpa)	Remarks
NR-100	-M5	M5	800	Circle Gauge PG-05	0.5 ~ 8.5 (50 ~ 850)	–
	-01	1/8"	900			
NR-200	-01	1/8"	1000	Square pressure gauge PG-22N	Standard: 0.5 ~ 8.5 (50 ~ 850) Low Pressure: 0.1 ~ 1 (10 ~ 100) 0.5 ~ 2 (50 ~ 200) 0.5 ~ 4 (50 ~ 400)	-L1:Low Pressure 1 Kgf/cm² -L2:Low Pressure 2 Kgf/cm² -L4:Low Pressure 4 Kgf/cm²
	-02	1/4"	1000			
NR-300	-02	1/4"	1300			
	-03	3/8"	1300			
NR-400	-02	1/4"	2300			
	-03	3/8"	2300			
	-04	1/2"	2300			
NR-450	-04	1/2"	3000			
	-06	3/4"	3000			
NR-500	-06	3/4"	5300		0.5 ~ 8.5 (50 ~ 850)	–
	-10	1"	5300			

LUBRICATOR — NL

Model		Port Size Rc (PT)	Flow Rate L/min (ANR)	Oil Capacity L/min (ANR)	Oil Volume CC	Remarks
NL-100	-M5	M5	850	0 ~ 25	20	Without bowl guard
	-01	1/8"	850			
NL-200	-01	1/8"	1000	0 ~ 30	25	Standard:Without bowl guard -BG: With bowl guard(Option)
	-02	1/4"	1000			
NL-300	-02	1/4"	1100	0 ~ 40	90	Standard : With bowl guard
	-03	3/8"	1100			
NL-400	-02	1/4"	2200	0 ~ 40	90	
	-03	3/8"	2200			
	-04	1/2"	2300			
NL-450	-04	1/2"	2800	0 ~ 45	160	
	-06	3/4"	2800			
NL-500	-06	3/4"	5200	0 ~ 45	160	
	-10	1"	5200			

LARGE-SIZED FILTER — DM

Model		Port Size Rc (PT)	Flow Rate L/min (ANR)	Pressure Range Kgf/cm² (Kpa)	Remarks
DM□ - 200	-02	1/4"	2000	0.5 ~ 10 (50 ~ 1000)	W : Water drop removal ratio 99% F : Main line filter 3μm M : Class 1 filter 0.3μm D : Class 2 filter 0.01μm
	-03	3/8"	2000		
DM□ - 300	-03	3/8"	3300		
	-04	1/2"	3600		
	-06	3/4"	3600		
DM□ - 500	-04	1/2"	6000		
	-06	3/4"	6000		
	-10	1"	6000		
DM□ - 800	-10	1"	12000		
	-12	1 1/2"	12000		

AUTO DRAIN TRAP — NDV

Model		Port Size Rc (PT)	Remarks
NDV-300	-02	1/4"	-H : Manual drainer (Standard type) -H-F1 : Manual drainer With fitting (Option) -A : Auto drainer
	-03	3/8"	
	-04	1/2"	
NDV-500	-06	3/4"	
	-10	1 "	

NPR-100 series MINI REGULATOR — NPR

Model		Port Size Rc (PT)	Flow Rate L/min (ANR)	Pressure Range Kgf/cm² (Kpa)
NPR-100	04	Ø4	140	1 ~ 7
	06	Ø6	160	

NPR-200 / NPR-300 series MINI REGULATOR — NPR

Model		Port Size Rc (PT)	Flow Rate L/min (ANR)	Gauge Rc (PT)	Pressure Range Kgf/cm² (Kpa)
NPR-200	M5	M5	250	PG-01	2 ~ 7
NPR-300	01	01	280	PG-05	

ER series PRECISION REGULATOR — ER

Model	Port Size Rc (PT)	Max. Pressure Mpa (Kgf/cm²)	Min. Pressure Mpa (Kgf/cm²)	Pressure Range Mpa (Kgf/cm²)	Gauge
ER-200	1/8"	Max. 1.0 Mpa (10.2)	Set Pressure+0.05Mpa (0.5)	0.01 ~ 0.8 Mpa (0.1 ~ 8.2)	PG - 10A
ER-200-L4	1/8"	Max. 0.6 Mpa (6.2)	Set Pressure+0.05Mpa (0.5)	0.01 ~ 0.4 Mpa (0.1 ~ 4.2)	PG - 10A
ER-200-L2	1/8"	Max. 0.2 Mpa (2.2)	Set Pressure+0.05Mpa (0.5)	0.01 ~ 0.2 Mpa (0.1 ~ 2.2)	PG - 10A
ER-300	1/4"	Max. 1.0 Mpa (10.2)	Set Pressure+0.05Mpa (0.5)	0.01 ~ 0.8 Mpa (0.1 ~ 8.2)	PG - 10A
ER-300-L4	1/4"	Max. 0.6 Mpa (6.2)	Set Pressure+0.05Mpa (0.5)	0.01 ~ 0.4 Mpa (0.1 ~ 4.2)	PG - 10A
ER-300-L2	1/4"	Max. 0.2 Mpa (2.2)	Set Pressure+0.05Mpa (0.5)	0.01 ~ 0.2 Mpa (0.1 ~ 2.2)	PG - 10A

ERP series PRECISION REGULATOR — ERP

Model	Port Size Rc (PT)	Max. Pressure Mpa (Kgf/cm²)	Min. Pressure Mpa (Kgf/cm²)	Pressure Range Mpa (Kgf/cm²)	Gauge
ERP-200	1/8" , 1/4"	Max. 0.7 Mpa	Set Pressure+0.05Mpa (0.5)	0.01 ~ 0.6 Mpa (0.1 ~ 6.12)	PG - 10A
ERP-200-L4	1/8" , 1/4"	Max. 0.7 Mpa	Set Pressure+0.05Mpa (0.5)	0.01 ~ 0.4 Mpa (0.1 ~ 4.08)	PG - 05A
ERP-200-L2	1/8" , 1/4"	Max. 0.7 Mpa	Set Pressure+0.05Mpa (0.5)	0.01 ~ 0.2 Mpa (0.1 ~ 2.04)	PG - 05A

EXHAUST VALVE — AFB

Model	Port Size Rc (PT)	Flow Rate L/min (ANR)	Pressure Range Kgf/cm² (Kpa)	Remarks
AFB-150	1/8"	650	0.5 ~ 8.5 (50 ~ 850)	-H : Manual exhaust cock (Standard type)
AFB-200	1/4"	750		

F.R.L. COMBINATION — AC / BC / CC

Model	Equipment Model			Port Size	Max. Flow	Pressure Range	Remarks
	Filter	Regulator	Lubricator	Rc (PT)	L/min (ANR)	Kgf/cm² (Kpa)	
AC-150	AF-150	AR-150	AL-150	1/8"	650	0.5 ~ 8.5 (50 ~ 850)	-H Manual drainer -A Auto drainer -BG With bowl guard
AC-200	AF-200	AR-200	AL-200	1/4"	750		
BC-200	BF-200	BR-200	BL-200	1/4"	1000		-H Manual drainer -A Auto drainer -S Semi-Auto drainer
BC-300	BF-300	BR-300	BL-300	3/8"	1350		
CC-400	CF-400	CR-400	CL-400	1/2"	3000		
CC-600	CF-600	CR-600	CL-600	3/4"	3100		

FR.L. COMBINATION — AFC / BFC / CFC

Model	Equipment Model		Port Size	Max. Flow	Pressure Range	Remarks
	Filter Regulator	Lubricator	Rc (PT)	L/min (ANR)	Kgf/cm² (Kpa)	
AFC-150	AFR-150	AL-150	1/8"	650	0.5 ~ 8.5 (50 ~ 850)	-H Manual drainer -A Auto drainer -BG With bowl guard
AFC-200	AFR-200	AL-200	1/4"	750		
BFC-200	BFR-200	BL-200	1/4"	1000		-H Manual drainer -A Auto drainer -S Semi-Auto drainer
BFC-300	BFR-300	BL-300	3/8"	1350		
CFC-400	CFR-400	CL-400	1/2"	3000		
CFC-600	CFR-600	CL-600	3/4"	3100		

FR. FILTER REGULATOR — AFR / BFR / CFR

Model	Port Size	Max. Flow	Filter Grade	Gauge Connection	Pressure Range	Remarks
	Rc (PT)	L/min (ANR)		Rc (PT)	Kgf/cm² (Kpa)	
AFR-150	1/8"	650	5μm	1/8"	0.5 ~ 8.5 (50 ~ 850)	-H Manual drainer -A Auto drainer -BG With bowl guard
AFR-200	1/4"	750				
BFR-200	1/4"	1000		1/4"		-H Manual drainer -A Auto drainer -S Semi-Auto drainer
BFR-300	3/8"	1350				
CFR-400	1/2"	3000				
CFR-600	3/4"	3100				

AIR FILTER — AF / BF / CF

Model	Port Size	Max. Flow	Filter Grade	Pressure Range	Remarks
	Rc (PT)	L/min (ANR)		Kgf/cm² (Kpa)	
AF-150	1/8"	650	5μm	0.5 ~ 8.5 (50 ~ 850)	-H Manual drainer -A Auto drainer -BG With bowl guard
AF-200	1/4"	750			
BF-200	1/4"	1000			-H Manual drainer -A Auto drainer -S Semi-Auto drainer
BF-300	3/8"	1350			
CF-400	1/2"	3000			
CF-600	3/4"	3100			

REGULATOR — AR / BR / CR

Model	Port Size	Max. Flow	Gauge Connection	Pressure Range	Remarks
	Rc (PT)	L/min (ANR)	Rc (PT)	Kgf/cm² (Kpa)	
AR-150-D1	1/8"	600	1/8"	0.1 ~ 1 (10 ~ 100)	For HVLP Air Gun
AR-150	1/8"	650		Standard : 0.5 ~ 8.5 (50 ~ 850)	-L1:Low Pressure 1 Kgf/cm² -L2:Low Pressure 2 Kgf/cm² -L4:Low Pressure 4 Kgf/cm²
AR-200	1/4"	750			
BR-200	1/4"	1000	1/4"	Low Pressure: 0.1 ~ 1 (10 ~ 100)	-L4:Low Pressure 4 Kgf/cm²
BR-300	3/8"	1350		0.5 ~ 4 (50 ~ 400)	
CR-400	1/2"	3000		0.5 ~ 8.5 (50 ~ 850)	—
CR-600	3/4"	3100			

LUBRICATOR — AL / BL / CL

Model	Port Size	Max. Flow	Oil Capacity	Oil Volume	Remarks
	Rc (PT)	L/min (ANR)	L/min (ANR)	CC	
AL-150	1/8"	650	0 ~ 30	25	Standard : Without Bowl Guard -BG : With bowl guard (Option)
AL-200	1/4"	750			
BL-200	1/4"	1000	0 ~ 40	90	Standard : With Bowl Guard
BL-300	3/8"	1350			
CL-400	1/2"	3000	0 ~ 45	160	
CL-600	3/4"	3100			

PLASTIC series — PFC / PF / PFR / PL

Model	Description	Port Size	Max. Flow	Remarks
		Rc (PT)	L/min (ANR)	
PFC-200	FR.L. Unit	1/4"	800	Filter Grade : 5μm Pressure Range : 0.5~8.5 Kgf/cm² Drain Cock : Semi-Auto Drainer
PF-200	Filter			
PFR-200	Filter Regulator			
PL-200	Lubricator			Drip flow Volume : 0~80 drips/min Oil Store Capacity : 30 cc

PRESSURE GAUGE — PG

Model	Connection	Port Size	Pressure Range	Remarks
		Rc (PT)	Kgf/cm² (Kpa)	
PG-05	Center Back type	1/8" (M5x0.8)	0.5 ~ 10 (50 ~ 1000)	Standard Type
PG-10	Center Back type	1/8"		Standard Type
PG-10-S	Bottom type	1/8"		—
PG-10-L	Center Back type (Low Pressure Gauge)	1/8" (M5x0.8)	0.5 ~ 4 (50 ~ 400) 0.1 ~ 1 (10 ~ 100)	1 , 2 , 4 (Kgf/cm²)
PG-20	Center Back type	1/4" (M5x0.8)	0.5 ~ 10 (50 ~ 1000)	Standard Type
PG-20-S	Bottom type			—
PG-20-F	Flange type			Fixture Type

SM series SOLENOID VALVE

SM

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SM-5101	1/8"	Single	5 Ports 2 Positions	9 (0.5)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V AC 110V AC 220V
SM7101	1/8"			16.2 (0.9)		
SM-7102	1/4"			16.2 (0.9)		
SM-9102	1/4"			30.6 (1.7)		
SM-9103	3/8"			30.6 (1.7)		
SM-5201	1/8"	Double	5 Ports 2 Positions	9 (0.5)	1.5 ~ 7 (150 ~ 700)	
SM-7201	1/8"			16.2 (0.9)		
SM-7202	1/4"			16.2 (0.9)		
SM-9202	1/4"			30.6 (1.7)		
SM-9203	3/8"			30.6 (1.7)		
SM-5(3)01	1/8"	Double	5 Ports 3 Positions	9 (0.5)	2 ~ 7 (200 ~ 700)	
SM-7(3)01	1/8"			16.2 (0.9)		
SM-7(3)02	1/4"			16.2 (0.9)		
SM-9(3)02	1/4"			30.6 (1.7)		
SM-9(3)03	3/8"			30.6 (1.7)		

Note : 5 Ports 3 Positions (3) Normally close (4) Normally free (5) Normally open.

SM series SOLENOID VALVE (Connector Type)

SM

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SM-5100-C4	Ø4	Single	5 Ports 2 Positions	9 (0.67)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V AC 110V AC 220V
SM-5100-C6	Ø6			9 (0.67)		
SM-5100-C8	Ø8			9 (0.67)		
SM-7100-C6	Ø6			16.2 (0.9)		
SM-7100-C8	Ø8			16.2 (0.9)		
SM-7100-C10	Ø10			16.2 (0.9)		
SM-9100-C8	Ø8			30.6 (1.7)		
SM-9100-C10	Ø10			30.6 (1.7)		
SM-9100-C12	Ø12			30.6 (1.7)		
SM-5200-C4	Ø4	Double	5 Ports 2 Positions	9 (0.67)	1.5 ~ 7 (150 ~ 700)	
SM-5200-C6	Ø6			9 (0.67)		
SM-5200-C8	Ø8			9 (0.67)		
SM-7200-C6	Ø6			16.2 (0.9)		
SM-7200-C8	Ø8			16.2 (0.9)		
SM-7200-C10	Ø10			16.2 (0.9)		
SM-9200-C8	Ø8			30.6 (1.7)		
SM-9200-C10	Ø10			30.6 (1.7)		
SM-9200-C12	Ø12			30.6 (1.7)		
SM-5(3)00-C4	Ø4	Double	5 Ports 3 Positions	9 (0.67)	2 ~ 7 (200 ~ 700)	
SM-5(3)00-C6	Ø6			9 (0.67)		
SM-5(3)00-C8	Ø8			9 (0.67)		
SM-7(3)00-C6	Ø6			16.2 (0.9)		
SM-7(3)00-C8	Ø8			16.2 (0.9)		
SM-7(3)00-C10	Ø10			16.2 (0.9)		
SM-9(3)00-C8	Ø8			30.6 (1.7)		
SM-9(3)00-C10	Ø10			30.6 (1.7)		
SM-9(3)00-C12	Ø12			30.6 (1.7)		

Note : 5 Ports 3 Positions (3) Normally close (4) Normally free (5) Normally open.

SMB series SOLENOID VALVE (Base Mounting Type)

SMB

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SMB-5101	1/8"	Single	5 Ports 2 Positions	10.8 (0.6)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V AC 110V AC 220V
SMB-7102	1/4"			18.2 (1.0)		
SMB-9103	3/8"			36 (2.0)		
SMB-5201	1/8"	Double	5 Ports 2 Positions	10.8 (0.6)	1.5 ~ 7 (150 ~ 700)	
SMB-7202	1/4"			18.2 (1.0)		
SMB-9203	3/8"			36 (2.0)		
SMB-5(3)01	1/8"	Double	5 Ports 3 Positions	10.8 (0.6)	2 ~ 7 (200 ~ 700)	
SMB-7(3)02	1/4"			18.2 (1.0)		
SMB-9(3)03	3/8"			36 (2.0)		

Note : 5 Ports 3 Positions (3) Normally close (4) Normally free (5) Normally open.

SMB series SOLENOID VALVE (Base Mounting type with connector)

SMB

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SMB-5100-C4	Ø4	Single	5 Ports 2 Positions	9 (0.67)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V AC 110V AC 220V
SMB-5100-C6	Ø6			9 (0.67)		
SMB-5100-C8	Ø8			9 (0.67)		
SMB-7100-C6	Ø6			16.2 (0.9)		
SMB-7100-C8	Ø8			16.2 (0.9)		
SMB-7100-C10	Ø10			16.2 (0.9)		
SMB-5200-C4	Ø4	Double	5 Ports 2 Positions	9 (0.67)	1.5 ~ 7 (150 ~ 700)	
SMB-5200-C6	Ø6			9 (0.67)		
SMB-5200-C8	Ø8			9 (0.67)		
SMB-7200-C6	Ø6			16.2 (0.9)		
SMB-7200-C8	Ø8			16.2 (0.9)		
SMB-7200-C10	Ø10			16.2 (0.9)		
SMB-5(3)00-C4	Ø4	Double	5 Ports 3 Positions	9 (0.67)	2 ~ 7 (200 ~ 700)	
SMB-5(3)00-C6	Ø6			9 (0.67)		
SMB-5(3)00-C8	Ø8			9 (0.67)		
SMB-7(3)00-C6	Ø6			16.2 (0.9)		
SMB-7(3)00-C8	Ø8			16.2 (0.9)		
SMB-7(3)00-C10	Ø10			16.2 (0.9)		

SMU series 3 PORTS 2 POSITIONS SOLENOID VALVE

SMU

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SMU-510M5	M5	Single	3 Ports 2 Positions	2.16 (0.12)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V AC 110V AC 220V
SMU-7101	1/8"			12.6 (0.7)		

SMUB series 3 PORTS 2 POSITIONS SOLENOID VALVE (Base Mounting Type)

SMUB

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SMUB-510M5	M5	Single	3 Ports 2 Positions	3.06 (0.17)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V AC 110V AC 220V
SMUB-5101	1/8"			3.06 (0.17)		
SMUB-7101	1/8"			11.7 (0.65)		
SMUB-7102	1/4"			11.7 (0.65)		

SR series SOLENOID VALVE

SR

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SR-310M5	M5	Single	5 Ports 2 Positions	3.6 (0.2)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V
SR-5101	1/8"			9 (0.5)		
SR-7101	1/8"			16.2 (0.9)		
SR-7102	1/4"			16.2 (0.9)		
SR-9102	1/4"			30.6 (1.7)		
SR-9103	3/8"			30.6 (1.7)		
SR-320M5	M5	Double	5 Ports 2 Positions	3.6 (0.2)	1.5 ~ 7 (150 ~ 700)	
SR-5201	1/8"			9 (0.5)		
SR-7201	1/8"			16.2 (0.9)		
SR-7202	1/4"			16.2 (0.9)		
SR-9202	1/4"			30.6 (1.7)		
SR-9203	3/8"			30.6 (1.7)		
SR-3(3)M5	M5	Double	5 Ports 3 Positions	3.6 (0.2)	2 ~ 7 (200 ~ 700)	
SR-5(3)01	1/8"			9 (0.5)		
SR-7(3)01	1/8"			16.2 (0.9)		
SR-7(3)02	1/4"			16.2 (0.9)		
SR-9(3)02	1/4"			30.6 (1.7)		
SR-9(3)03	3/8"			30.6 (1.7)		

Note : 5 Ports 3 Positions (3) Normally close (4) Normally free (5) Normally open.

SR series SOLENOID VALVE (Connector Type)

SR

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SR-3100-C4	Ø4	Single	5 Ports 2 Positions	3.6 (0.2)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V
SR-5100-C4	Ø4			9 (0.67)		
SR-5100-C6	Ø6			9 (0.67)		
SR-5100-C8	Ø8			9 (0.67)		
SR-7100-C6	Ø6			16.2 (0.9)		
SR-7100-C8	Ø8			16.2 (0.9)		
SR-7100-C10	Ø10			16.2 (0.9)		
SR-9100-C8	Ø8			30.6 (1.7)		
SR-9100-C10	Ø10			30.6 (1.7)		
SR-9100-C12	Ø12			30.6 (1.7)		
SR-5200-C4	Ø4	Double	5 Ports 2 Positions	9 (0.67)	1.5 ~ 7 (150 ~ 700)	
SR-5200-C6	Ø6			9 (0.67)		
SR-5200-C8	Ø8			9 (0.67)		
SR-7200-C6	Ø6			16.2 (0.9)		
SR-7200-C8	Ø8			16.2 (0.9)		
SR-7200-C10	Ø10			16.2 (0.9)		
SR-9200-C8	Ø8			30.6 (1.7)		
SR-9200-C10	Ø10			30.6 (1.7)		
SR-9200-C12	Ø12			30.6 (1.7)		
SR-5(3)00-C4	Ø4	Double	5 Ports 3 Positions	9 (0.67)	2 ~ 7 (200 ~ 700)	
SR-5(3)00-C6	Ø6			9 (0.67)		
SR-5(3)00-C8	Ø8			9 (0.67)		
SR-7(3)00-C6	Ø6			16.2 (0.9)		
SR-7(3)00-C8	Ø8			16.2 (0.9)		
SR-7(3)00-C10	Ø10			16.2 (0.9)		
SR-9(3)00-C8	Ø8			30.6 (1.7)		
SR-9(3)00-C10	Ø10			30.6 (1.7)		
SR-9(3)00-C12	Ø12			30.6 (1.7)		

Note : 5 Ports 3 Positions (3) Normally close (4) Normally free (5) Normally open.

SRB series SOLENOID VALVE (Base Mounting Type)

SRB

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SRB-310M5	M5	Single	5 Ports 2 Positions	3.6 (0.2)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V
SRB-5101	1/8"			10.8 (0.6)		
SRB-7102	1/4"			18.2 (1.0)		
SRB-9103	3/8"			36 (2.0)		
SRB-320M5	M5	Double	5 Ports 2 Positions	3.6 (0.2)	1.5 ~ 7 (150 ~ 700)	
SRB-5201	1/8"			10.8 (0.6)		
SRB-7202	1/4"			18.2 (1.0)		
SRB-9203	3/8"			36 (2.0)		
SRB-3(3)M5	M5	Double	5 Ports 3 Positions	3.6 (0.2)	2 ~ 7 (200 ~ 700)	
SRB-5(3)01	1/8"			10.8 (0.6)		
SRB-7(3)02	1/4"			18.2 (1.0)		
SRB-9(3)03	3/8"			36 (2.0)		

Note : 5 Ports 3 Positions ، (3) : Normally close ، (4) : Normally free ، (5) : Normally open.

SRB series SOLENOID VALVE (Base Mounting type with connector)

SRB

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SRB-5100-C4	Ø4	Single	5 Ports 2 Positions	9 (0.67)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V
SRB-5100-C6	Ø6			9 (0.67)		
SRB-5100-C8	Ø8			9 (0.67)		
SRB-7100-C6	Ø6			16.2 (0.9)		
SRB-7100-C8	Ø8			16.2 (0.9)		
SRB-7100-C10	Ø10			16.2 (0.9)		
SRB-5200-C4	Ø4	Double	5 Ports 2 Positions	9 (0.67)	1.5 ~ 7 (150 ~ 700)	
SRB-5200-C6	Ø6			9 (0.67)		
SRB-5200-C8	Ø8			9 (0.67)		
SRB-7200-C6	Ø6			16.2 (0.9)		
SRB-7200-C8	Ø8			16.2 (0.9)		
SRB-7200-C10	Ø10			16.2 (0.9)		
SRB-5(3)00-C4	Ø4	Double	5 Ports 3 Positions	9 (0.67)	2 ~ 7 (200 ~ 700)	
SRB-5(3)00-C6	Ø6			9 (0.67)		
SRB-5(3)00-C8	Ø8			9 (0.67)		
SRB-7(3)00-C6	Ø6			16.2 (0.9)		
SRB-7(3)00-C8	Ø8			16.2 (0.9)		
SRB-7(3)00-C10	Ø10			16.2 (0.9)		

Note : 5 Ports 3 Positions ، (3) : Normally close ، (4) : Normally free ، (5) : Normally open.

SRU series 3 PORTS 2 POSITIONS SOLENOID VALVE

SRU

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SRU-510M5	M5	Single	3 Ports 2 Positions	2.16 (0.12)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V
SRU-7101	1/8"			12.6 (0.7)		

SRUB series 3 PORTS 2 POSITIONS SOLENOID VALVE (Base Mounting Type)

SRUB

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SRUB-5101	M5,1/8"	Single	3 Ports 2 Positions	3.06 (0.17)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V
SRUB-7102	1/8",1/4"			11.7 (0.65)		

SF500 series MANIFOLD TYPE SOLENOID VALVE

SF500

Model	Port Size Rc (PT)	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SF-310M5	M5	Ø8	Single	5 Ports 2 Positions	3.6 (0.2)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V
SF-320M5			Double	5 Ports 2 Positions			
SF-3(3)0M5			Double	5 Ports 3 Positions			
SF-5101	1/8"	Ø8 , Ø10	Single	5 Ports 2 Positions	9 (0.5)	1.5 ~ 7 (150 ~ 700)	
SF-5201			Double	5 Ports 2 Positions			
SF-5(3)01			Double	5 Ports 3 Positions			

Note : 5 Ports 3 Positions (3) Normally close (4) Normally free (5) Normally open.

SF500 series MANIFOLD TYPE SOLENOID VALVE (Connector Type)

SF500

Model	Port Size Rc (PT)	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SF-3100-C4	Ø4	Ø8	Single	5 Ports 2 Positions	3.6 (0.2)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V
SF-3200-C4			Double	5 Ports 2 Positions			
SF-3(3)00-C4			Double	5 Ports 3 Positions			
SF-5100-C4	Ø4	Ø8 , Ø10	Single	5 Ports 2 Positions	9 (0.5)		
SF-5100-C6	Ø6						
SF-5100-C8	Ø8						
SF-5200-C4	Ø4		Double	5 Ports 2 Positions			
SF-5200-C6	Ø6						
SF-5200-C8	Ø8						
SF-5(3)00-C4	Ø4		Double	5 Ports 3 Positions			
SF-5(3)00-C6	Ø6						
SF-5(3)00-C8	Ø8						

Note : 5 Ports 3 Positions (3) Normally close (4) Normally free (5) Normally open.

ST series SOLENOID VALVE

ST

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
ST-5101	1/8"	Single	5 Ports 2 Positions	12 (0.67)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V AC 110V AC 220V
ST-5201	1/8"	Double		12 (0.67)		
ST-5231	1/8"		5 Ports 3 Positions	12 (0.67)		
ST-6101	1/8"	Single	5 Ports 2 Positions	14 (0.78)		
ST-6102	1/4"			14 (0.78)		
ST-6201	1/8"	Double		14 (0.78)		
ST-6202	1/4"			14 (0.78)		
ST-6232	1/4"		5 Ports 3 Positions	14 (0.78)		

SRK series SOLENOID VALVE

SRK

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SRK-510M5	M5	Single	5 Ports 2 Positions	9 (0.5)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V
SRK-7101	1/8"			16.2(0.9)		
SRK-520M5	M5	Double	5 Ports 2 Positions	9 (0.5)	1.5 ~ 7 (150 ~ 700)	
SRK-7201	1/8"			16.2(0.9)		
SRK-5(3)0M5	M5	Double	5 Ports 3 Positions	9 (0.5)	1.5 ~ 7 (150 ~ 700)	
SRK-7(3)01	1/8"			16.2(0.9)		

Note : 5 Ports 3 Positions (3) Normally close (4) Normally free (5) Normally open.

SRK series SOLENOID VALVE (Connector Type)

SRK

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SRK-5100-C4	M5	Single	5 Ports 2 Positions	9 (0.5)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V
SRK-5100-C6	M5			9 (0.5)		
SRK-7100-C6	1/8"			16.2(0.9)		
SRK-7100-C8	1/8"			16.2(0.9)		
SRK-5200-C4	M5	Double	5 Ports 2 Positions	9 (0.5)	1.5 ~ 7 (150 ~ 700)	
SRK-5200-C6	M5			9 (0.5)		
SRK-7200-C6	1/8"			16.2(0.9)		
SRK-7200-C8	1/8"			16.2(0.9)		
SRK-5(3)00-C4	M5	Double	5 Ports 3 Positions	9 (0.5)	1.5 ~ 7 (150 ~ 700)	
SRK-5(3)00-C6	M5			9 (0.5)		
SRK-7(3)00-C6	1/8"			16.2(0.9)		
SRK-7(3)00-C8	1/8"			16.2(0.9)		

Note : 5 Ports 3 Positions (3) Normally close (4) Normally free (5) Normally open.

SK series SOLENOID VALVE

SK

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SK-5101	1/8"	Single (Piston returned)	5 Ports 2 Positions	12 (0.67)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V AC 110V AC 220V
SK-6101	1/8"	Single (Spring returned)		14 (0.78)		
SK-6102	1/4"			14 (0.78)		
SK-8102	1/4"			25 (1.4)		
SK-8103	3/8"			25 (1.4)		
SK-5201	1/8"	Double	5 Ports 2 Positions	12 (0.67)	1.5 ~ 7 (150 ~ 700)	
SK-6201	1/8"			14 (0.78)		
SK-6202	1/4"			14 (0.78)		
SK-8202	1/4"			25 (1.4)		
SK-8203	3/8"			25 (1.4)		
SK-5231	1/8"	Double	5 Ports 3 Positions	12 (0.67)	2 ~ 7 (200 ~ 700)	
SK-6231	1/8"	N.O. Normally Open N.C. Normally Close N.F. Normally Free		14 (0.78)		
SK-6232	1/4"			14 (0.78)		
SK-8232	1/4"			25 (1.4)		
SK-8233	3/8"			25 (1.4)		

Note : Standard type for 5 Ports 3 Positions is N.C (Normally Close) : N.O Normally Open is customized.

SNK series SOLENOID VALVE — SNK

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SNK-6102	1/4"	Single	5 Ports 2 Positions	12(0.67)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V AC 110V AC 220V
SNK-8103	3/8"			14(0.78)		
SNK-6202	1/4"	Double	5 Ports 2 Positions	12(0.67)	1.5 ~ 7 (150 ~ 700)	
SNK-8203	3/8"			14(0.78)		

SKU series 3 PORTS 2 POSITIONS SOLENOID VALVE — SKU

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SKU-5101	1/8"	Single	3 Ports 2 Positions	12 (0.67)	1 ~ 7 (100 ~ 700)	DC 12V DC 24V AC 110V AC 220V
SKU-6101	1/8"			14 (0.78)		
SKU-6102	1/4"			14 (0.78)		
SKU-8102	1/4"			25 (1.4)		
SKU-8103	3/8"			25 (1.4)		

SV series SOLENOID VALVE — SV

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SV-5101	1/8"	Single (Piston returned)	5 Ports 2 Positions	12 (0.67)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V AC 110V AC 220V
SV-6101	1/8"	Single (Spring returned)		14 (0.78)		
SV-6102	1/4"			14 (0.78)		
SV-8102	1/4"			25 (1.4)		
SV-8103	3/8"			25 (1.4)		
SV-9104	1/2"			50 (2.78)		
SV-5201	1/8"	Double	5 Ports 2 Positions	12 (0.67)	1.5 ~ 7 (150 ~ 700)	
SV-6201	1/8"			14 (0.78)		
SV-6202	1/4"			14 (0.78)		
SV-8202	1/4"			25 (1.4)		
SV-8203	3/8"			25 (1.4)		
SV-9204	1/2"			50 (2.78)		
SV-5231	1/8"	Double N.O. Normally Open N.C. Normally Close N.F. Normally Free	5 Ports 3 Positions	12 (0.67)	2 ~ 7 (200 ~ 700)	
SV-6231	1/8"			14 (0.78)		
SV-6232	1/4"			14 (0.78)		
SV-8232	1/4"			25 (1.4)		
SV-8233	3/8"			25 (1.4)		
SV-9234	1/2"			50 (2.78)		

Note : Standard type for 5 Ports 3 Positions is N.C (Normal Close) : N.O Normal Open is Custom.

SN series SOLENOID VALVE — SN

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)	Voltage
SN-8102	1/4"	Single (Spring returned)	5 Ports 2 Positions	18 (1.0)	1 ~ 7 (100 ~ 700)	DC 12V DC 24V AC 110V AC 220V
SN-8202		Double				

SV310 series SOLENOID VALVE — SV310

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Voltage
SV-310	1/8"	Single	3 Ports 2 Positions	1.5 (0.08)	DC 24V AC 110V AC 220V

SKB series 2 PORTS SOLENOID VALVE (Direct operated) — SKB

Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm² (Cv)	Voltage
SKB-310M5	M5	Single	3 Ports 2 Positions	0.15	DC 24V
SKB-3101	1/8"				

SBS series 2 PORTS SOLENOID VALVE — SBS

Model	Port Size Rc (PT)	Operation	Orifice mm (Cv)	Suitable Fluid Type						Voltage
				Air	Water	Hot Water	Oil	Gas	Vacuum	
SBS - 01	1/8"	Direct Operated (General) Stainless steel noumenon	4.9 (0.27)	0 ~ 7		—				DC 24V AC 110V AC 220V
SBS - C6	Ø6									

Note : 1. Standard type : air , water. 2. Custom made for oil , gas , vacuum type.

SU series 2 PORTS SOLENOID VALVE — SU

Model	Max.Pressure	Inner port size	Weight (kg)	IN Port	OUT Port	Flow rate (Cv)	Voltage
SU - 12	1.0 Mpa	Ø1.6	0.05	Ø4	Ø4	0.07	DC12/24V
SU - 22	1.0 Mpa	Ø3.2	0.08	Ø6	Ø6	0.3	DC12/24V

SFW series 2 PORTS SOLENOID VALVE — SFW

Model	Max.Pressure	Inner port size	Weight (kg)	IN Port	OUT Port	Flow rate (Cv)	Voltage
SFW - 30	1.0 Mpa	Ø3.0	0.1	Ø4	Ø4	0.3	DC12/24V
				Ø6	Ø6		
SFW - 40	1.0 Mpa	Ø6.0	0.23	Ø8	Ø8	1.1	DC12/24V
				Ø10	Ø10		

2 PORTS SOLENOID VALVE — SUD, SUW, SUS, SAS, SDC

Model	Port Size Rc (PT)	Operation	Orifice mm (Cv)	Suitable Fluid Type						Voltage
				Air	Water	Hot Water	Oil	Gas	Vacuum	
SUD - 6	1/8"	Direct Operated (General)	2.5 (0.23)	0 ~ 7						DC 24V AC 110V AC 220V
SUD - 8	1/4"									
SUD - 10	3/8"		4 (0.60)	0 ~ 10						
SUD - 6H	1/8"		1.2 (0.18)	0 ~ 20						
SUD - 8H	1/4"									
SUD - 10H	3/8"		2.0 (0.45)							
SUW - 10	3/8"	Diaphram Type (High Flow)	10 (2.4)	0~7	0 ~ 5	—	0~5	0 ~ 7		DC 24V AC 110V AC 220V
SUW - 15	1/2"		15 (4.5)							
SUW - 20	3/4"		20 (8.6)							
SUW - 25	1"		25 (12)							
SUW - 35	1¼"		35 (24)							
SUW - 40	1½"		40 (28)							
SUW - 50	2"		50 (48)							
SUS - 10	1/2"	Direct Operated High Temperature steam	17 (4.0)	0.5 ~ 1.5			—			DC 24V AC 110V AC 220V
SUS - 20	3/4"		17 (6.0)							
SUS - 25	1"		22 (12)							
SUS - 35	1¼"		30 (18)							
SUS - 40	1½"		32 (22)							
SUS - 50	2"		50 (48)							
SAS - 6A	1/8"	Direct Operated (General) Stainless steel noumenon	2.5 (0.23)	0 ~ 0.7			—			DC 24V AC 110V AC 220V
SAS - 8A	1/4"									
SAS - 10A	3/8"		4 (0.58)	0 ~ 10						
SAS - 15A	1/2"	Diaphram Type (High Flow) Stainless steel noumenon	15 (4.5)	0~7	0 ~ 5		—			
SAS - 20A	3/4"		20 (8.6)							
SAS - 25A	1"		25 (12)							
SAS - 35A	1¼"		35 (24)							
SAS - 40A	1½"		40 (28)							
SAS - 50A	2"		50 (48)							
SDC - 8	1/4"	Diaphram Type (Able to bear the strong acid) PVC	6.5 (0.28)	0 ~ 1		—				DC 24V AC 110V AC 220V
SDC - 10	3/8"									
SDC - 15	1/2"									
SDC - 8-TF	1/4"	Diaphram Type (Able to bear the strong acid) PTFE	6.5 (0.28)			—				
SDC - 10-TF	3/8"									
SDC - 15-TF	1/2"									
SDC - 20-TF	3/4"		13 (4)							

Note : 1. Standard type : air , water. 2. Custom made for oil , gas , vacuum type.

MV100 series HAND OPERATED VALVE — MV100

Model	Port Size Rc (PT)	Type of actuation	Orifice mm² (Cv)	Connection Type	Remarks
MV-10-02-V	1/8"	2 Ports 2 Positions	14 (0.78)	Side connection	Press button type
MV-10-03-V		3 Ports 2 Positions			Press button type
MV-10-02-P	1/8"	2 Ports 2 Positions	14 (0.78)	Side connection	Toggle lever type
MV-10-03-P		3 Ports 2 Positions			Toggle lever type

MV110 series HAND OPERATED VALVE — MV110

Model	Port Size Rc (PT)	Type of actuation	Orifice mm² (Cv)	Connection Type	Remarks
MV-11-03-01	1/8"	5 Ports 2 Positions	1.9	Side connection	Press button type
MV-11-03-02					Push button type
MV-11-03-03					Two way push button

MV130 series MECHANICAL VALVE — MV130

Model	Port Size Rc (PT)	Type of actuation	Orifice mm² (Cv)	Connection Type	Remarks
MV-13-03-01	1/8"	3 Ports 2 Positions	4.5	Side connection	Press button type
MV-13-03-02					Push button type
MV-13-05-01		5 Ports 2 Positions	5.5		Press button type
MV-13-05-02					Push button type
MV-13-05-03					Two way push button

MV150 series MECHANICAL VALVE — MV150

Model	Port Size Rc (PT)	Type of actuation	Orifice mm² (Cv)	Connection Type	Remarks
MV-15-□-01	1/8"	3 Ports 2 Positions	7 (0.39)	S:Side Connection B:Bottom Connection F:With flange Base	Basic Type
MV-15-□-02					Roller Lever
MV-15-□-03					One Way Roller Lever
MV-15-□-04					Toggle Lever
MV-15-□-05					Tumb Lever
MV-15-□-06					Push Button (Flush)
MV-15-□-07					Push Button (Extended)
MV-15-□-08					Push Button (Mushroom)
MV-15-□-09					Stop Cock Button
MV-15-□-10					Twist Selector(2 Positions)
MV-15-□-11					Key Selector (2 Positions)

MV200 series MECHANICAL VALVE — MV200

Model	Port Size Rc (PT)	Type of actuation	Orifice mm² (Cv)	Connection Type	Remarks
MV-20-□-01	1/4"	3 Ports 2 Positions	33 (1.83)	Side connection	Basic Type
MV-20-□-02					Roller Lever
MV-20-□-03					One Way Roller Lever
MV-20-□-06					Push Button (Flush)
MV-20-□-07					Push Button (Extended)
MV-20-□-08					Push Button (Mushroom)
MV-20-□-09					Stop Cock Button
MV-20-□-10					Twist Selector (2 Positions)
MV-20-□-11					Key Selector (2 Positions)

MV230 series MECHANICAL VALVE — MV230

Model	Port Size Rc (PT)	Type of actuation	Orifice mm² (Cv)	Connection Type	Remarks
MV-23-06	1/8"	5 Ports 2 Positions	12 (0.67)	Side connection	Push Button (Flush)
MV-23-07					Push Button (Extended)
MV-23-08					Push Button (Mushroom)
MV-23-09					Stop Cook Button
MV-23-10					Twist Selector (2 Positions)
MV-23-11					Key Selector (2 Positions)

MV250 series MECHANICAL VALVE — MV250

Model	Port Size Rc (PT)	Type of actuation	Orifice mm² (Cv)	Connection Type	Remarks
MV-25-06	1/8" 1/4"	5 Ports 2 Positions	14 (0.78)	Side connection	Push Button (Flush)
MV-25-07					Push Button (Extended)
MV-25-08					Push Button (Mushroom)
MV-25-09					Stop Cook Button
MV-25-10					Twist Selector (2 Positions)
MV-25-11					Key Selector (2 Positions)

PM series PILOT VALVE

PM

Model	Port Size Rc (PT)	Air Pilot type	Type of actuation	Operation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)
PM-310M5	M5	Single Air pilot	5 Ports 2 Positions	Air	3.6 (0.2)	1.5 ~ 7 (150 ~ 700)
PM-5101	1/8"				9 (0.5)	
PM-7101	1/8"				16.2 (0.9)	
PM-7102	1/4"				16.2 (0.9)	
PM-9102	1/4"				30.6 (1.7)	
PM-9103	3/8"				30.6 (1.7)	
PM-320M5	M5	Double Air pilot	5 Ports 2 Positions	Air	3.6 (0.2)	1.5 ~ 7 (150 ~ 700)
PM-5201	1/8"				9 (0.5)	
PM-7201	1/8"				16.2 (0.9)	
PM-7202	1/4"				16.2 (0.9)	
PM-9202	1/4"				30.6 (1.7)	
PM-9203	3/8"				30.6 (1.7)	
PM-3(3)0M5	M5	Double Air pilot	5 Ports 3 Positions	Air	3.6 (0.2)	2 ~ 7 (200 ~ 700)
PM-5(3)01	1/8"				9 (0.5)	
PM-7(3)01	1/8"				16.2 (0.9)	
PM-7(3)02	1/4"				16.2 (0.9)	
PM-9(3)02	1/4"				30.6 (1.7)	
PM-9(3)03	3/8"				30.6 (1.7)	

Note : 5 Ports 3 Positions (3) Normally close (4) Normally free (5) Normally open.

PM series PILOT VALVE (Connector Type)

PM

Model	Port Size Rc (PT)	Air Pilot type	Type of actuation	Operation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)
PM-3100-C4	Ø4	Single Air pilot	5 Ports 2 Positions	Air	3.6 (0.2)	1.5 ~ 7 (150 ~ 700)
PM-5100-C4	Ø4				9 (0.5)	
PM-5100-C6	Ø6				9 (0.5)	
PM-5100-C8	Ø8				9 (0.5)	
PM-7100-C6	Ø6				16.2 (0.9)	
PM-7100-C8	Ø8				16.2 (0.9)	
PM-7100-C10	Ø10				16.2 (0.9)	
PM-9100-C8	Ø8				30.6 (1.7)	
PM-9100-C10	Ø10				30.6 (1.7)	
PM-9100-C12	Ø12				30.6 (1.7)	
PM-5200-C4	Ø4	Double Air pilot	5 Ports 2 Positions	Air	9 (0.5)	1.5 ~ 7 (150 ~ 700)
PM-5200-C6	Ø6				9 (0.5)	
PM-5200-C8	Ø8				9 (0.5)	
PM-7200-C6	Ø6				16.2 (0.9)	
PM-7200-C8	Ø8				16.2 (0.9)	
PM-7200-C10	Ø10				16.2 (0.9)	
PM-9200-C8	Ø8				30.6 (1.7)	
PM-9200-C10	Ø10				30.6 (1.7)	
PM-9200-C12	Ø12				30.6 (1.7)	
PM-5(3)00-C4	Ø4	Double Air pilot	5 Ports 3 Positions	Air	9 (0.5)	2 ~ 7 (200 ~ 700)
PM-5(3)00-C6	Ø6				9 (0.5)	
PM-5(3)00-C8	Ø8				9 (0.5)	
PM-7(3)00-C6	Ø6				16.2 (0.9)	
PM-7(3)00-C8	Ø8				16.2 (0.9)	
PM-7(3)00-C10	Ø10				16.2 (0.9)	
PM-9(3)00-C8	Ø8				30.6 (1.7)	
PM-9(3)00-C10	Ø10				30.6 (1.7)	
PM-9(3)00-C12	Ø12				30.6 (1.7)	

Note : 5 Ports 3 Positions (3) Normally close (4) Normally free (5) Normally open.

PMU series PILOT VALVE

PMU

Model	Port Size Rc (PT)	Air Pilot type	Type of actuation	Operation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)
PMU-510M5	M5	Single Air pilot	3 Ports 2 Positions	Air	2.16 (0.12)	1.5 ~ 7 (150 ~ 700)
PMU-7101	1/8"				12.6 (0.7)	

PMB series PILOT VALVE (Base Mounting Type)

PMB

Model	Port Size Rc (PT)	Air Pilot type	Type of actuation	Operation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)
PMB-310M5	M5	Single Air pilot	5 Ports 2 Positions	Air	3.6 (0.2)	1.5 ~ 7 (150 ~ 700)
PMB-5101	1/8"				10.8 (0.6)	
PMB-7102	1/4"				18.2 (1.0)	
PMB-9103	3/8"				36 (2.0)	
PMB-320M5	M5	Double Air pilot	5 Ports 2 Positions	Air	3.6 (0.2)	1.5 ~ 7 (150 ~ 700)
PMB-5201	1/8"				10.8 (0.6)	
PMB-7202	1/4"				18.2 (1.0)	
PMB-9203	3/8"				36 (2.0)	
PMB-3(3)M5	M5	Double Air pilot	5 Ports 3 Positions	Air	3.6 (0.2)	2 ~ 7 (200 ~ 700)
PMB-5(3)01	1/8"				10.8 (0.6)	
PMB-7(3)02	1/4"				18.2 (1.0)	
PMB-9(3)03	3/8"				36 (2.0)	

Note : 5 Ports 3 Positions (3) Normally close (4) Normally free (5) Normally open.

PMUB series PILOT VALVE (Base Mounting Type)

PMUB

Model	Port Size Rc (PT)	Air Pilot type	Type of actuation	Operation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)
PMUB-510M5	M5	Single Air pilot	3 Ports 2 Positions	Air	3.06 (0.17)	1.5 ~ 7 (150 ~ 700)
PMUB-5101	1/8"				3.06 (0.17)	
PMUB-7101	1/8"				11.7 (0.65)	
PMUB-7102	1/4"				11.7 (0.65)	

PN series PILOT VALVE

PN

Model	Port Size Rc (PT)	Type of actuation	Operation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)
PN-8102	1/4"	5 Ports 2 Positions	Air (Spring returned)	18 (1.0)	1.5 ~ 7 (150 ~ 700)
PN-8202			Air		

PV series PILOT VALVE

PV

Model	Port Size Rc (PT)	Type of actuation	Operation	Orifice mm² (Cv)	Pressure Range Kgf/cm² (Kpa)
PV-5101	1/8"	5 Ports 2 Positions	Air	12 (0.67)	1.5 ~ 7 (150 ~ 700)
PV-6101	1/8"			14 (0.78)	
PV-6102	1/4"			14 (0.78)	
PV-8102	1/4"			25 (1.4)	
PV-8103	3/8"			25 (1.4)	
PV-9104	1/2"			50 (2.78)	
PV-5201	1/8"	5 Ports 2 Positions	Air	12 (0.67)	1.5 ~ 7 (150 ~ 700)
PV-6201	1/8"			14 (0.78)	
PV-6202	1/4"			14 (0.78)	
PV-8202	1/4"			25 (1.4)	
PV-8203	3/8"			25 (1.4)	
PV-9204	1/2"			50 (2.78)	
PV-5101-TA	1/8"	3 Ports 2 Positions	Air	12 (0.67)	2 ~ 7 (200 ~ 700)
PV-5101-TB	1/4"			12 (0.67)	
PV-6101-TA	1/8"			14 (0.78)	
PV-6102-TB	1/4"			14 (0.78)	
PV-6231	1/8"	5 Ports 3 Positions		14 (0.78)	
PV-6232	1/4"			14 (0.78)	

HVL series HAND-OPERATED VALVE — HVL

Model	Port Size Rc (PT)	Type of actuation	Operation	Orifice mm² (Cv)	Pressure Range Kgf / cm² (Kpa)
HVL - 601	1/8"	5 Ports 2 Positions	Manual,Front and End swinging	14 (0.78)	0 ~ 7 (0 ~ 700)
HVL - 602	1/4"			14 (0.78)	
HVL - 802	1/4"			18 (1.0)	
HVL - 803	3/8"			18 (1.0)	
HVL - 631	1/8"	5 Ports 3 Positions		14 (0.78)	
HVL - 632	1/4"			18 (1.0)	
HVL - 832	1/4"			18 (1.0)	
HVL - 833	3/8"			50 (2.78)	

HVM series HAND-OPERATED VALVE — HVM

Model	Port Size Rc (PT)	Type of actuation	Operation	Orifice mm² (Cv)	Pressure Range Kgf / cm² (Kpa)
HVM - 402	1/4"	4 Ports 3 Positions	Manual,Left and Right swinging	17 (0.94)	0 ~ 7 (0 ~ 700)
HVM - 403	3/8"				
HVM - 404	1/2"				

HVT series HAND-OPERATED VALVE — HVT

Model	Port Size Rc (PT)	Type of actuation	Operation	Orifice mm² (Cv)	Pressure Range Kgf / cm² (Kpa)
HVT - 200 - 6A	1/8"	4 Ports 3 Positions	Manual,Left and Right swinging	17 (0.94)	0 ~ 7 (0 ~ 700)
HVT - 200 - 8A	1/4"				

FVA series FOOT VALVE — FVA

Model	Port Size Rc (PT)	Type of actuation	Max.Pressure Kgf / cm²	Orifice mm² (Cv)	Pressure Range Kgf / cm² (Kpa)
FVA - 320	1/4"	3 Ports 2 Positions	10	8	0 ~ 7 (0 ~ 700)
FVA - 420		4 Ports 2 Positions			

FVS series FOOT VALVE — FVS

Model	Port Size Rc (PT)	Type of actuation	Max.Pressure Kgf / cm²	Orifice mm² (Cv)	Pressure Range Kgf / cm² (Kpa)
FVS - 320	1/4"	3 Ports 2 Positions	10	12	0 ~ 7 (0 ~ 700)
FVS - 520		5 Ports 2 Positions			

QE series QUICK EXHAUST VALVE — QE

Model	Port Size Rc (PT)	Flow Rate L/min P → A	Flow Rate L/min A → R	Orifice mm² (Cv)	Pressure Range Kgf / cm² (Kpa)
QE - 802	1/4"	1000	1500	14 (0.78)	1 ~ 7 (100 ~ 700)
QE - 803	3/8"	1000	1500	18 (1.0)	

QEH series QUICK EXHAUST VALVE (Exhaust to air) — QEH

Model	Port Size Rc (PT)	Flow Rate L/min P → A	Flow Rate L/min A → R	Orifice mm² (Cv)	Pressure Range Kgf / cm² (Kpa)
QEH - 4	Ø4	85	100	1.5	1 ~ 7
QEH - 6	Ø6	190	200	3.5	

QEU series QUICK EXHAUST VALVE (Tube exhaust) — QEU

Model	Port Size Rc (PT)	Flow Rate L/min P → A	Flow Rate L/min A → R	Orifice mm² (Cv)	Pressure Range Kgf / cm² (Kpa)
QEU - 4	Ø4	85	100	1.5	1 ~ 7
QEU - 6	Ø6	190	200	3.5	

QEUC series QUICK EXHAUST VALVE (Exhaust to air) — QEUC

Model	Port Size Rc (PT)	Flow Rate L/min P → A	Flow Rate L/min A → R	Orifice mm² (Cv)	Pressure Range Kgf / cm² (Kpa)
QEUC - 4	Ø4	85	90	1.5	1 ~ 7
QEUC - 6	Ø6	190	200	3.5	

SC series SPEED CONTROLLER — SC

Model	Port Size Rc (PT)	Flow Rate L/min Control side	Flow Rate L/min Free side	Pressure Range Kgf/cm² (Kpa)	Applicable Cylinder
ASC-150-01	1/8"	250	340	1 ~ 9 (100 ~ 900)	Ø12,Ø16,Ø20, Ø25,Ø32
ASC-150-02	1/4"	250	340		
BSC-300-02	1/4"	800	800		Ø32,Ø40,Ø50,Ø63
BSC-300-03	3/8"	800	800		
CSC-400-03	3/8"	1650	1650		Ø50,Ø63,Ø80, Ø100,Ø125
CSC-400-04	1/2"	1650	1650		

NA series CARTRIDGE CYLINDER — NA

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm/s	Pressure Range Kgf/cm² (Kpa)	Standard Stroke mm
NA-12	12	5.6	Single Acting	Panel sert	50 ~ 500	1 ~ 7 (100 ~ 700)	5,10,15
NA-16	16	10					
NAD-12	12	5.6	Double Acting				
NAD-16	16	10					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

NA2 series CARTRIDGE CYLINDER — NA2

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm/s	Pressure Range Kgf/cm² (Kpa)	Standard Stroke mm
NA2B-6	6	1.4	Single Acting	Panel sert	50 ~ 500	1.5 ~ 7 (150 ~ 700)	5,10,15
NA2B-10	10	3.9					
NA2B-12	12	5.6					
NA2B-16	16	10					
NA2S-6	6	1.4	Single Acting	Embedded type			
NA2S-10	10	3.93					
NA2S-12	12	5.6					
NA2S-16	16	10					
NA2T-6	6	1.4	Single Acting	Panel sert			
NA2T-10	10	3.93					
NA2T-12	12	5.6					
NA2T-16	16	10					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

NB series CARTRIDGE CYLINDER — NB

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm/s	Pressure Range Kgf/cm² (Kpa)	Standard Stroke mm
NB-6	6	1.4	Double Acting	Panel sert	50 ~ 500	1 ~ 8.5 (100 ~ 850)	5 ~ 25
NB-10	10	3.9					5 ~ 40
NB-16	16	10					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

NU series FREE MOUNT CYLINDER — NU

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm/s	Pressure Range Kgf/cm² (Kpa)	Standard Stroke mm
NU-6	6	1.4	Double Acting	Side Front	50 ~ 500	1.5 ~ 7 (150 ~ 700)	4 ~ 15
NU-8	8	2.5					4 ~ 20
NU-10	16	3.9					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

ND series FREE MOUNT CYLINDER — ND

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
ND-16	16	10	Single Acting Double Acting	Horizontal Vertical Side Flange	50 ~ 700	1.5 ~ 8.5 (150 ~ 850)	10 ~ 30
ND-20	20	15					10 ~ 60
ND-25	25	24					
ND-32	32	40					
ND-40	40	62					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

NQ series FREE MOUNT CYLINDER — NQ

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
NQ-06	6	1.4	Single Acting Double Acting	Horizontal Vertical Side	50 ~ 700	1.5 ~ 8.5 (150 ~ 850)	10~30
NQ-10	10	4					
NQ-16	16	10					10~60
NQ-20	20	15					
NQ-25	25	24					
NQ-32	32	40					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

NQT series FREE MOUNT CYLINDER (Non - Rotating) — NQT

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
NQT-10	10	4	Single Acting Double Acting	Horizontal Vertical Side	50 ~ 700	1.5 ~ 8.5 (150 ~ 850)	10 ~ 30
NQT-16	16	10					
NQT-20	20	15					10 ~ 60
NQT-25	25	24					
NQT-32	32	40					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

NQDK series FREE MOUNT CYLINDER (Vacuum Pad) — NQDK

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
NQDK-20	20	13	Single Acting Double Acting	Horizontal Vertical Side	50 ~ 700	1.5 ~ 8.5 (150 ~ 850)	10 ~ 60
NQDK-25	25	20					
NQDK-32	32	34					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

MSI series MINI COMPACT CYLINDER — MSI

Model	Port Size Rc (PT)	Operation	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Max.Service Pressure Kgf / cm² (Kpa)
MSI - 06	M3 x 0.5	Single Acting	50 ~ 500	2 ~ 7 (200 ~ 700)	9.5 (950)
MSI - 10	M5 x 0.8				

JD series COMPACT CYLINDER — JD

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
JD- 6	6	1.4	Double Acting	50 ~ 500	2 ~ 7 (200 ~ 700)	5 ~ 30
JD-10	10	3.9				5 ~ 50
JD-12	12	5.6				
JD-16	16	10			1.5 ~ 7 (150 ~ 700)	5 ~ 100
JD-20	20	15				
JD-25	25	24				
JD-32	32	40			1 ~ 7 (100 ~ 700)	5 ~ 150
JD-40	40	62				
JD-50	50	98				
JD-63	63	155		50 ~ 350		
JD-80	80	251		50 ~ 250		
JD-100	100	392				
JD-125	125	613				5 ~ 100
JSI(O)-12	12	5.6	Single Acting JSI: (Normally In) JSO: (Normally Out)	50 ~ 500	2 ~ 7 (200 ~ 700)	5 ~ 30
JSI(O)-16	16	10				
JSI(O)-20	20	15			1.5 ~ 7 (150 ~ 700)	
JSI(O)-25	25	24				
JSI(O)-32	32	40				
JSI(O)-40	40	62			1 ~ 7 (100 ~ 700)	
JSI(O)-50	50	98				

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

JDD / JDAD / JDAR series COMPACT CYLINDER (Adjustable) — JDD

Model	Bore Size Ø mm	Operation	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Adjustable Stroke mm	Standard Stroke mm
JDD	20,25,32,40 50,63,80,125	Double Acting	50 ~ 500	1.5 ~ 7 (150 ~ 700)	—	5 ~ 50
JDAD	20,25,32,40 50,63,80,100				25,40	30,50,75,100
JDAR	20,25,32,40 50,63				10	Ø20 ~ Ø32 (5 ~ 100) Ø40 ~ Ø63 (5 ~ 150)

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

JDF series FREE MOUNT COMPACT CYLINDER — JDF

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
JDF-20	20	15	Double Acting	50 ~ 500	1.5 ~ 7 (150 ~ 700)	10,20,30,40,50 60,75,85,100
JDF-25	25	24				
JDF-32	32	40				
JDF-40	40	62			1 ~ 7 (100 ~ 700)	
JDF-50	50	98				
JDF-63	63	155		50 ~ 350		
JDF-80	80	251		50 ~ 250		
JDF-100	100	392				

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

JDM series TANDEM COMPACT CYLINDER — JDM

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
JDM-20	20	30	Double Acting	50 ~ 500	1.5 ~ 7 (150 ~ 700)	10,20,30,40,50 60,75,85,100
JDM-25	25	48				
JDM-32	32	80				
JDM-40	40	124			1 ~ 7 (100 ~ 700)	
JDM-50	50	196				
JDM-63	63	310		50 ~ 350		
JDM-80	80	502		50 ~ 250		
JDM-100	100	784				

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

JDW series COMPACT CYLINDER WITH DUSTY RING — JDW

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
JDW-20	20	15	Double Acting Single Acting	Double Acting : 50 ~ 500 Single Acting : 100 ~ 500	1.5 ~ 7 (150 ~ 700)	5 ~ 100
JDW-25	25	24				
JDW-32	32	40				
JDW-40	40	62			1 ~ 7 (100 ~ 700)	5 ~ 150
JDW-50	50	98				
JDW-63	63	155		Double Acting : 50 ~ 350		
JDW-80	80	251		Double Acting : 50 ~ 250		
JDW-100	100	392				

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

JG series COMPACT CYLINDER (Dust Proof) — JG

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke (with magnet) mm
JG-20	20	15	Double Acting	50 ~ 500	1.5 ~ 7 (150 ~ 700)	10,20,30,40,50 60,75,90
JG-25	25	24				
JG-32	32	40			1 ~ 7 (100 ~ 700)	10,20,30,40,50 65,75,90,115,140
JG-40	40	62				
JG-50	50	98				
JG-63	63	155		50 ~ 350		
JG-80	80	251		50 ~ 250		
JG-100	100	392				

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

JGD series COMPACT CYLINDER (Dust Proof - Adjustable) — JGD

Model	Bore Size Ø mm	Operation	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Adjustable Stroke mm	Standard Stroke (with magnet) mm
JGD JGAD	20	Double Acting	50 ~ 500	1.5 ~ 7 (150 ~ 700)	JGD — JGAD 25,40	JGD 10,20,30,40,50 JGAD 20,30,50,75,90
	25					
	32					
	40					
	50					
	63		50 ~ 350	1 ~ 7 (100 ~ 700)		
	80		50 ~ 250			
	100					
JGAR	20		50 ~ 500	1.5 ~ 7 (150 ~ 700)	JGAR 10	JGAR 10,20,30,40,50, 65,75,90
	25					
	32					
	40					
	50					
	63		50 ~ 350	1 ~ 7 (100 ~ 700)		

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

JTD series TWIN-GUIDE CYLINDER JTD

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Guide Type	Operation	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
JTD-20	20	15	Bush Guide	Double Acting	50 ~ 500	1.5 ~ 7 (150 ~ 700)	5 ~ 50
JTD-25	25	24					
JTD-32	32	40					5 ~ 75
JTD-40	40	62				1 ~ 7 (100 ~ 700)	
JTD-50	50	98					5 ~ 100
JTD-63	63	155			50 ~ 350		

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

JTF series TWIN - GUIDE CYLINDER (Flange type) JTF

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Guide Type	Operation	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
JTF-20	20	15	Bush Guide	Double Acting	50 ~ 500	1.5 ~ 7 (150 ~ 700)	5 ~ 50
JTF-25	25	24					
JTF-32	32	40					5 ~ 75
JTF-40	40	62				1 ~ 7 (100 ~ 700)	
JTF-50	50	98					5 ~ 100
JTF-63	63	155			50 ~ 350		

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

JCB series TWIN-GUIDE CYLINDER (Side Mounting type) JCB

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Guide Type	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
JCB-12	12	5.6	Bush Guide	±0.09	50 ~ 500	1.5 ~ 7 (150 ~ 700)	5 ~ 100
JCB-16	16	10					
JCB-20	20	15					
JCB-25	25	24					
JCB-32	32	40					
JCB-40	40	62				1 ~ 7 (100 ~ 700)	5 ~ 150
JCB-50	50	98					
JCB-63	63	155			50 ~ 350		

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

JCF series TWIN-GUIDE CYLINDER (Flange type) JCF

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Guide Type	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
JCF-20	20	15	Bush Guide	±0.09	50 ~ 500	1.5 ~ 7 (150 ~ 700)	5 ~ 100
JCF-25	25	24					
JCF-32	32	40					
JCF-40	40	62				1 ~ 7 (100 ~ 700)	5 ~ 150
JCF-50	50	98					
JCF-63	63	155			50 ~ 350		

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

JE series COMPACT CYLINDER JE

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Bearing Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
JE-12	12	5.6	Bush Guide	50 ~ 500	2 ~ 7 (200 ~ 700)	25,50,75,100
JE-16	16	10				
JE-20	20	15			1.5 ~ 7 (150 ~ 700)	
JE-25	25	24				
JE-32	32	40				25,50,75,100 125,150
JE-40	40	62			1 ~ 7 (100 ~ 700)	
JE-50	50	98				
JE-63	63	155		50 ~ 350		
JE-80	80	251		50 ~ 250		
JE-100	100	392				

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

JEK series COMPACT CYLINDER JEK

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Bearing Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
JEK-12	12	5.6	Bush Guide	50 ~ 500	2 ~ 7 (200 ~ 700)	25,50,75,100
JEK-16	16	10				
JEK-20	20	15			1.5 ~ 7 (150 ~ 700)	
JEK-25	25	24				
JEK-32	32	40				25,50,75,100 125,150
JEK-40	40	62			1 ~ 7 (100 ~ 700)	
JEK-50	50	98				
JKE-63	63	155		50 ~ 350		
JEK-80	80	251		50 ~ 250		
JEK-100	100	392				

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

STB series STOPPER CYLINDER — STB

Model	Rod Size Ø mm	Bore Size Ø mm	Operation	Theoretical Thrust Kgf	Load force Kgf	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
STB-32	20	32	Double Acting Single Acting	40	25	1 ~ 9 (100 ~ 900)	10,15,20 mm
STB-40	25	40		62	30		20,25,30 mm
STB-50	25	50		98	50		20,25,30 mm

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

STC series STOPPER CYLINDER — STC

Model	Rod Size Ø mm	Bore Size Ø mm	Operation	Theoretical Thrust Kgf	Load force Kgf	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
STC-32	20	32	Double Acting Single Acting	40	25	1 ~ 9 (100 ~ 900)	10,15,20 mm
STC-40	25	40		62	30		20,25,30 mm
STC-50	25	50		98	50		20,25,30 mm

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

STD series STOPPER CYLINDER — STD

Model	Rod Size Ø mm	Bore Size Ø mm	Operation	Theoretical Thrust Kgf	Load force Kgf	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
STD-32	20	32	Double Acting Single Acting	40	25	1 ~ 9 (100 ~ 900)	10,15,20 mm
STD-40	25	40		62	30		20,25,30 mm
STD-50	25	50		98	50		20,25,30 mm

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

STDL series STOPPER CYLINDER — STDL

Model	Rod Size Ø mm	Bore Size Ø mm	Operation	Theoretical Thrust Kgf	Load force Kgf	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
STDL-32	20	32	Double Acting Single Acting	40	25	1 ~ 9 (100 ~ 900)	10,15,20 mm
STDL-40	25	40		62	30		20,25,30 mm
STDL-50	25	50		98	50		20,25,30 mm

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

STF series STOPPER CYLINDER — STF

Model	Rod Size Ø mm	Bore Size Ø mm	Operation	Theoretical Thrust Kgf	Load force Kgf	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
STF-32	20	32	Double Acting Single Acting	40	80	1 ~ 9 (100 ~ 900)	20 mm
STF-50	30	50		98	550		30 mm

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

SBA series PEN CYLINDER — SBA

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
SBA-10	10	3.0	Double Acting	Standard Type FA Type LB Type CA Type	50 ~ 700	7 (700)	15,30,45,60, 75,100,125, 150,175,200
SBA-16	16	10					
SBR-06	6	1.4					
SBR-10	10	3.0					
SBR-16	16	10					
SBB-10	10	3.0					
SBB-16	16	10					
SBD-10	10	3.0					
SBD-16	16	10					
SBAI-10	10	4.0	Single Acting Normally In				15,30,45,60
SBAI-16	16	10					
SBRI-06	6	1.4					
SBRI-10	10	3.0					
SBRI-16	16	10					
SBBI-10	10	3.0					
SBBI-16	16	10					
SBRO-06	6	1.0	Single Acting Normally Out				15,30,45,60
SBRO-10	10	3.0					
SBRO-16	16	10					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

SDA series MINIATURE CYLINDER (Stainless Steel Tube) — SDA

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
SDA-12	12	5.7	Standard : Double Acting SDAI : Single Acting (Normally In)	Standard Type FA Type FB Type LB Type CB Type	50 ~ 700	1 ~ 7 (100 ~ 700)	25 ~ 150
SDA-16	16	10					25 ~ 300
SDA-20	20	15					25 ~ 300 (500)
SDA-25	25	24					
SDA-32	32	40					
SDA-40	40	62					
SDAD-20	20	13	Double Acting (Double Rod)	Standard Type FA Type FB Type LB Type			25 ~ 200
SDAD-25	25	20					
SDAD-32	32	34					
SDAD-40	40	52					
SDAL-20	20	13	Double Acting (Adjustable stroke)	Standard Type FA Type FB Type LB Type CB Type			Adjustable Stroke: 25,50
SDAL-25	25	20					
SDAL-32	32	34					
SDAL-40	40	52					
SDAF(M)-20	20	13 (26)	SDAF : Multi-position cylinder SDAM : Tandem cylinder				Max.Stroke: 200mm
SDAF(M)-25	25	20 (40)					
SDAF(M)-32	32	34 (68)					
SDAF(M)-40	40	52 (104)					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

SDX series MINIATURE CYLINDER (Stainless Steel Tube) — SDX

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
SDX-20	20	15	Standard : Double Acting	Standard Type FA Type FB Type LB Type CB Type	50 ~ 700	1 ~ 7 (100 ~ 700)	25 ~ 300
SDX-25	25	24					
SDX-32	32	40					25 ~ 300 (500)
SDX-40	40	62					
SDXD-20	20	13	Double Acting (Double Rod)				25 ~ 200
SDXD-25	25	20					
SDXD-32	32	34					
SDXD-40	40	52					
SDXL-20	20	13	Double Acting (Adjustable stroke)				Adjustable Stroke: 25,50
SDXL-25	25	20					
SDXL-32	32	34					
SDXL-40	40	52					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

DBS2 series BLOCK CYLINDER — DBS2

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
DBS2-20	20	15	Double Acting	Side Mount	50 ~ 700	1 ~ 7 (100 ~ 700)	25 ~ 300 (500)
DBS2-25	25	24					
DBS2-32	32	40					
DBS2-40	40	62					

Note : 1. Theoretical Thrust :When air supply to be 5 Kgf/cm².
2. Bore size change from Ø30 to Ø32.
3. The material of barrel change from aluminum to stainless steel.

DBF2 series BLOCK CYLINDER — DBF2

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
DBF2-20	20	15	Double Acting	Vertical Mount	50 ~ 700	1 ~ 7 (100 ~ 700)	25 ~ 300 (500)
DBF2-25	25	24					
DBF2-32	32	40					
DBF2-40	40	62					

Note : 1. Theoretical Thrust :When air supply to be 5 Kgf/cm².
2. Bore size change from Ø30 to Ø32.
3. The material of barrel change from aluminum to stainless steel.

FDA series MINIATURE CYLINDER (Aluminum Tube) — FDA

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
FDA-20	20	15	Standard : Double Acting	Standard Type FA Type FB Type LB Type CB Type	50 ~ 700	1 ~ 9 (100 ~ 900)	25 ~ 300
FDA-30	30	40					
FDA-40	40	62					
FDAD-20	20	13	Double Acting (Double Rod)				25 ~ 300 (500)
FDAD-30	30	40					
FDAD-40	40	52					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

DBT series BLOCK TWINROD CYLINDER — DBT

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Mounting type	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
DBT-25	25	24	Vertical Parallel Side	±0.1	50 ~ 700	1 ~ 9 (100 ~ 900)	25 ~ 300 (500)
DBT-30	30	34		±0.09			
DBT-40	40	62		±0.08			

Note : 1. Non-Rotating Accuracy · θ angle when stroke =100mm.
2. Theoretical Thrust : When air supply to be 5 Kgf/cm²

DN series STANDARD CYLINDER — DN

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
DN-32	32	40	Double Acting	Standard Type FA Type FB Type LB Type CA Type CB Type TC Type	50 ~ 700	1.5 ~ 9 (150 ~ 900)	50 ~ 300
DN-40	40	62					50 ~ 400
DN-50	50	98					50 ~ 500
DN-63	63	155					50 ~ 1000
DN-80	80	251					
DN-100	100	392					
DN-125	125	613					
DN-160	160	1004					
DN-200	200	1570					
DND-32	32	34	Double Acting (Double Rod)		50 ~ 500		50 ~ 300
DND-40	40	52					50 ~ 400
DND-50	50	82					50 ~ 500
DND-63	63	140					50 ~ 1000
DND-80	80	226					
DND-100	100	352					
DND-125	125	573					
DND-160	160	942					
DND-200	200	1507					
DNL-32	32	34	Double Acting (Adjustable stroke)				50 ~ 300
DNL-40	40	52					50 ~ 400
DNL-50	50	82					50 ~ 500
DNL-63	63	140					50 ~ 1000
DNL-80	80	226					
DNL-100	100	352					
DNL-125	125	573					
DNL-160	160	942					
DNL-200	200	1507					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

DMB series STANDARD CYLINDER — DMB

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
DMB-32	Ø32	40	Double Acting	Standard Type FA Type FB Type LB Type CA Type CB Type TC Type	50 ~ 700	1.5 ~ 9 (150 ~ 900)	50 ~ 500
DMB-40	Ø40	62					50 ~ 600
DMB-50	Ø50	98					50 ~ 700
DMB-63	Ø63	155					
DMB-80	Ø80	251					
DMB-100	Ø100	392					
DMBD-32	Ø32	34	Double Acting (Double Rod)		50 ~ 500		50 ~ 500
DMBD-40	Ø40	52					50 ~ 600
DMBD-50	Ø50	82					50 ~ 700
DMBD-63	Ø63	140					
DMBD-80	Ø80	226					
DMBD-100	Ø100	352					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

DU series STANDARD CYLINDER — DU

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
DU-40	40	62	Double Acting	Standard Type FA Type FB Type LB Type CA Type CB Type TC Type	50 ~ 700	1.5 ~ 9 (150 ~ 900)	50 ~ 300
DU-50	50	98					50 ~ 400
DU-63	63	155					50 ~ 500
DU-80	80	251					
DU-100	100	392					50 ~ 1000
DU-125	125	613					
DU-160	160	1004					
DU-200	200	1570					
DUD-40	40	52	Double Acting (Double Rod)		50 ~ 500		50 ~ 300
DUD-50	50	82					50 ~ 400
DUD-63	63	140					50 ~ 500
DUD-80	80	226					
DUD-100	100	352					50 ~ 1000
DUD-125	125	573					
DUD-160	160	942					
DUD-200	200	1507					
DUL-40	40	52	Double Acting (Adjustable stroke)				50 ~ 300
DUL-50	50	82					50 ~ 400
DUL-63	63	140					50 ~ 500
DUL-80	80	226					
DUL-100	100	352					50 ~ 1000
DUL-125	125	573					
DUL-160	160	942					
DUL-200	200	1507					

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

DNK series ROD LOCKING CYLINDER — DNK

Model	Bore Size Ø mm	Braking Direction	Mounting Type	Pressure Range Kgf / cm² (Kpa)	Range of Service Temperature °C	Standard Stroke mm
DNK-32	Ø32	Two - way	Standard Type FA Type FB Type LB Type CA Type CB Type TC Type	4 ~ 6.5 (400 ~ 650)	-10 ~ 60	25,50,75,100,125, 150,175,200,250, 300,350,400,450, 500
DNK-40	Ø40					
DNK-50	Ø50					
DNK-63	Ø63					
DNK-80	Ø80					
DNK-100	Ø100					

DNE series END LOCK CYLINDER — DNE

Model	Bore Size Ø mm	Braking Direction	Mounting Type	Pressure Range Kgf / cm² (Kpa)	Range of Service Temperature °C	Standard Stroke mm
DNE-32	Ø32	Front cover type End cover type	Standard Type FA Type FB Type LB Type CA Type CB Type TC Type	3 ~ 10.3 (300 ~ 1030)	-10 ~ 60	25,50,75,100,125, 150,175,200,250, 300,350,400,450, 500
DNE-40	Ø40					
DNE-50	Ø50					
DNE-63	Ø63					
DNE-80	Ø80					
DNE-100	Ø100					

DCK2 series CLAMP CYLINDER
DCK2S series CLAMP CYLINDER (strong magnet type) — DCK2/DCK2S

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
DCK2 / DCK2S-25	25	24	Double Acting	50 ~ 500	1.5 ~ 10.2 (150 ~ 1020)	50,75,100, 125,150
DCK2 / DCK2S-32	32	40				
DCK2 / DCK2S-40	40	62				
DCK2 / DCK2S-50	50	98				
DCK2 / DCK2S-63	63	155				
DCK2 / DCK2S-80	80	251				

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

DQ series POWER CLAMP CYLINDER — DQ

Model	Bore Size Ø mm	Torque N · m	Operation	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Angle
DQ40	40	110	Double Acting	50 ~ 500	1.5 ~ 6 (150 ~ 600)	30° ~135°
DQ50	50	150				
DQ63	63	380				

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

DCQ series PIN CLAMP CYLINDER
DCQS series PIN CLAMP CYLINDER (strong magnet type) — DCQ/DCQS

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
DCQ-50 DCQS-50	50	82	Double Acting	Parallel Side	100 ~ 500	1 ~ 7 (100 ~ 700)	10

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

DC series AIR-OIL CONVERTER DC

Model	Bore Size Ø mm	Power fluid	Mounting Type	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
DC-40	40	ISO VG32	Flange Type Foot Type	1 ~ 8.5 (100 ~ 850)	50 ~ 500
DC-63	63				
DC-80	80				
DC-100	100				

DH series BOOSTER DH

Model	Type	Compressive Pressure Rate	Max. Liquid Pressure Kgf/cm² (Kpa)	Output Capacity cc	Range of Service Temperature °C	Pressure Range Kgf / cm² (Kpa)	Power Fluid
DHA-78	Direct - Compressive Type	7.8 time	53 (5300)	50	+5 ~ 60	2 ~ 7 (200 ~ 700)	ISO VG32
DHA-110		11 time	76 (7600)	120			
DHA-250		25 time	172 (17200)	150			
DHB-78	Pro - Compressive Type	7.8 time	53 (5300)	50			
DHB-110		11 time	76 (7600)	120			
DHB-250		25 time	172 (17200)	150			

PCB series BOOSTING CYLINDER PCB

Model	Type	Power Fluid	Pressure Range Kgf / cm² (Kpa)	Range of Service Temperature °C	Total Stroke (mm)	High Output Stroke (mm)
PCB -1T	Pro - Compressive Type	ISO VG68	2 ~ 7 (200 ~ 700)	-5 ~ 60	50,100,150, 200	5,10,15,20
PCB -3T						
PCB -5T						
PCB -8T						
PCB -10T						

PCU series BOOSTING CYLINDER PCU

Model	Type	Power Fluid	Pressure Range Kgf / cm² (Kpa)	Range of Service Temperature °C	Total Stroke (mm)	High Output Stroke (mm)
PCU -1T	Pro - Compressive Type	ISO VG68	2 ~ 7 (200 ~ 700)	-5 ~ 60	50,100,150, 200	5,10,15,20
PCU -3T						
PCU -5T						
PCU -10T						
PCU -20T						

PRU series RODLESS CYLINDER PRU

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
PRU-16	16	10	50 ~ 500	1.5 ~ 7 (150 ~ 700)	50 ~ 1000
PRU-20	20	15			
PRU-25	25	24			50 ~ 1500
PRU-32	32	40			
PRU-40	40	62			

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

PRF series RODLESS CYLINDER (Moderate Type) PRF

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
PRF-16	16	10	50 ~ 500	1.5 ~ 7 (150 ~ 700)	50 ~ 1000
PRF-20	20	15			
PRF-25	25	24			50 ~ 1500
PRF-32	32	40			
PRF-40	40	62			

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

PRUT series RODLESS CYLINDER (Linear Guides) PRUT

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
PRUT-16	16	10	50 ~ 500	1.5 ~ 7 (150 ~ 700)	50 ~ 1000
PRUT-20	20	15			
PRUT-25	25	24			50 ~ 1500
PRUT-32	32	40			
PRUT-40	40	62			

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

MRD series MAGNETIC RODLESS CYLINDER — MRD

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Max. Load Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
MRD-10	10	4	0.4	50 ~ 500	1.5 ~ 4.5 (150 ~ 450)	100 ~ 300 (700)
MRD-15	15	8	0.8		1.5 ~ 6 (150 ~ 600)	100 ~ 500 (700)
MRD-20	20	15	1.1			100 ~ 800 (900)
MRD-25	25	24	1.2			
MRD-32	32	40	1.5			
MRD-40	40	62	1.9			100 ~ 700 (800)

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm²
2. We supply Max. Load details according the stroke based on 300mm ، data will be changed according different stroke.

MRB series MAGNETIC RODLESS CYLINDER (Slide Mounting) — MRB

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Max. Load Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
MRB-10	10	4	0.4	50 ~ 500	1.5 ~ 4.5 (150 ~ 450)	50 ~ 300 (300)
MRB-15	15	8	0.8		1.5 ~ 6 (150 ~ 600)	50 ~ 500 (500)
MRB-20	20	15	1.1			50 ~ 500 (800)
MRB-25	25	24	1.2			50 ~ 600 (800)
MRB-32	32	40	1.5			
MRB-40	40	62	1.9			

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm²
2. We supply Max. Load details according the stroke based on 300mm ، data will be changed according different stroke.

MRU series MAGNETIC RODLESS CYLINDER (Bushing Type) — MRU

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Max. Load Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
MRU-10	10	4	2.8	50 ~ 500	1.5 ~ 4.5 (150 ~ 450)	50 ~ 300 (700)
MRU-15	15	8	6.5		1.5 ~ 6 (150 ~ 600)	100 ~ 500 (700)
MRU-20	20	15	11			100 ~ 800 (1000)
MRU-25	25	24	19			
MRU-32	32	40	31			100 ~ 800 (1200)
MRU-40	40	62	48			

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm²
2. We supply Max. Load details according the stroke based on 300mm ، data will be changed according different stroke.

MRH series MAGNETIC RODLESS CYLINDER (Linear Bearing Type) — MRH

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Max. Load Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
MRH-15	15	8	6.5	50 ~ 500	1.5 ~ 6 (150 ~ 600)	100 ~ 500 (700)
MRH-20	20	15	11			100 ~ 800 (1000)
MRH-25	25	24	19			100 ~ 800 (1200)
MRH-32	32	40	30			

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm²
2. We supply Max. Load details according the stroke based on 300mm ، data will be changed according different stroke.

MRX series MAGNETIC RODLESS CYLINDER (Linear Guides) — MRX

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Max. Load Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
MRX-10	10	4	1.8	50 ~ 500	1.5 ~ 4.5 (150 ~ 450)	50 ~ 300 (700)
MRX-15	15	8	5		1.5 ~ 6 (150 ~ 600)	50 ~ 500 (700)
MRX-20	20	15	8			50 ~ 500 (800)
MRX-25	25	24	11			50 ~ 600 (800)

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm²
2. We supply Max. Load details according the stroke based on 300mm ، data will be changed according different stroke.

MRY series MAGNETIC RODLESS CYLINDER (Double Linear Guides) — MRY

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Max. Load Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
MRY-10	10	4	4.2	50 ~ 500	1 ~ 5 (100 ~ 500)	50 ~ 300
MRY-15	15	8	7		1.5 ~ 6 (150 ~ 600)	50 ~ 500
MRY-20	20	15	12			50 ~ 500
MRY-25	25	24	19			50 ~ 600

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm²
2. We supply Max. Load details according the stroke based on 300mm ، data will be changed according different stroke.

MSR(L) series SLIDE TABLE CYLINDER — MSR(L)

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Max. Load Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
MSR(L)-10	10	4	0.5	50 ~ 200	1.5 ~ 9 (150 ~ 900)	10,20,30
MSR(L)-16	16	10	1.5			

Note : 1. It uses a precise slide rail guide ، low abrasion ، fast and accurate driving.
2. It is available to select right and left type.
3. Theoretical Thrust : When air supply to be 5 Kgf/cm²

MSR(L)2 series SLIDE TABLE CYLINDER — MSR(L)2

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
MSR(L)2-6	6	1.4	Double Acting	50 ~ 200	2 ~ 7 (200 ~ 700)	10,20,30
MSR(L)2-8	8	2.5			1.5 ~ 7 (150 ~ 700)	
MSR(L)2-10	10	4				
MSR(L)2-12	12	5.6				
MSR(L)2-16	16	10				

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

FMR(L) series SLIDE TABLE CYLINDER — FMR(L)

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Max. Load Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
FMR(L)-10	10	4	0.5	100 ~ 500	1.5 ~ 9 (150 ~ 900)	30,50
FMR(L)-16	16	10	1.5			30,50,75,100
FMR(L)-20	20	15	2.0			
FMR(L)-25	25	24	2.5		1 ~ 9 (100 ~ 900)	
FMR(L)-32	32	40	3.5			

Note : 1. It uses a precise slide rail guide , low abrasion , fast and accurate driving.
2. It is available to select right and left type and adjustable screws device.It is easy to assembly.
3. It is able to install with shock absorber.
4. Theoretical Thrust : When air supply to be 5 Kgf/cm²

MDX(L) series SLIDE TABLE CYLINDER — MDX(L)

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
MDX-6	6	2.8	100 ~ 500	1.5 ~ 7 (150 ~ 700)	10 ~ 50
MDX-8	8	5			10 ~ 75
MDX-12	12	11			10 ~ 100
MDX-16	16	20			10 ~ 125
MDX-20	20	31			10 ~ 150
MDX-25	25	49			

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

MBX series PRECISION CYLINDER — MBX

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
MBX-8	8	2.5	100 ~ 500	1.5 ~ 7 (150 ~ 700)	10 , 20
MBX-10	10	4.0			10 , 20
MBX-12	12	5.5			15 , 25
MBX-16	16	10			20 , 30
MBX-20	20	15			25 , 35

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

MGX series DUAL ROD PRECISION CYLINDER — MGX

Model	Bore Size Ø mm	Theoretical Thrust Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
MGX-8	8	5	100 ~ 500	1.5 ~ 7 (150 ~ 700)	25 ~ 150
MGX-12	12	11			50 ~ 150
MGX-16	16	20			75 ~ 200
MGX-20	20	31			100 ~ 250
MGX-25	25	49			100 ~ 300

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

MQX series COMPACT SLIDE CYLINDER — MQX

Model	Bore Size Ø mm	Theoretical Thrust kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
MQX-6	6	1.4	100 ~ 500	1.5 ~ 7 (150 ~ 700)	5,10,15,20,25,30,40,50,60
MQX-10	10	4.0			
MQX-16	16	10			
MQX-20	20	15			

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

TD series DUAL ROD CYLINDER — TD

Model	Bore Size Ø mm	Rod Size Ø mm	Theoretical Thrust kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
TD- 6	6	4	2.8	50 ~ 700	1 ~ 8.5 (100 ~ 850)	10 ~ 50
TD-10	10	6	7.8			10 ~ 100
TD-16	16	8	20	100 ~ 500		10 ~ 250
TD-20	20	10	31			
TD-25	25	12	49			
TD-32	32	16	80			
TD-40	40	16	124			

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

TDX series DUAL ROD CYLINDER — TDX

Model	Bore Size Ø mm	Rod Size Ø mm	Theoretical Thrust kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
TDX-10	10	6	7.8	100 ~ 500	1 ~ 8.5 (100 ~ 850)	10 ~ 100
TDX-16	16	8	20			10 ~ 150
TDX-20	20	10	31			
TDX-25	25	12	49			

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

TDXU series DUAL ROD CYLINDER — TDXU

Model	Bore Size Ø mm	Rod Size Ø mm	Theoretical Thrust kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
TDXU-16	16	8	20	100 ~ 500	1 ~ 8.5 (100 ~ 850)	10 ~ 150
TDXU-20	20	10	31			
TDXU-25	25	12	49			

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

STU(M) series DUAL ROD CYLINDER — STU(M)

Model	Bore Size Ø mm	Rod Size Ø mm	Theoretical Thrust Kgf	Max. Load KGS	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
STU-10	10	6	5.0	0.5	100 ~ 500	1.5 ~ 9 (150 ~ 900)	25 ~ 100
STU-16	16	8	15	1.5			25 ~ 250
STU-20	20	10	23	2.0			
STU-25	25	12	37	2.5		1 ~ 9 (100 ~ 900)	
STU-32	32	16	60	3.5			
STM-16	16	8	15	3	50 ~ 170	1.5 ~ 9 (150 ~ 900)	25 ~ 250
STM-20	20	10	23	4			
STM-25	25	12	37	5		1 ~ 9 (100 ~ 900)	
STM-32	32	16	60	6			

Note : 1. STU series : Two sides moving (Body mounted).
2. STM series : Body moving (Two sides mounted).
3. Theoretical Thrust : When air supply to be 5 Kgf/cm²

STX series DUAL ROD CYLINDER — STX

Model	Bore Size Ø mm	Rod Size Ø mm	Theoretical Thrust Kgf	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
STX-10	10	10	5.0	50 ~ 500	1 ~ 7 (100 ~ 700)	10,20,30,40,50,75,100
STX-16	16	16	15			10,20,30,40,50,75,100 125,150
STX-20	20	20	23			
STX-25	25	25	37			

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

TB(U) series TWIN-GUIDE CYLINDER

TB(U)

Model	Guide Type	Bore Size Ø mm	Theoretical Thrust Kgf	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
TB-10	B: Bush Guide (Mild steel rod)	10	3.9	±0.08	50 ~ 500	1.5 ~ 7 (150 ~ 700)	25 ~ 100
TB-16		16	10				25 ~ 200
TB-20		20	15	±0.07			
TB-25		25	24				
TB-32		32	40	±0.06			30 ~ 250
TB-40		40	62				
TB-50		50	98	±0.05	50 ~ 350		30 ~ 150
TB-63		63	155				
TU-10	U: Linear Bearing Guide (Bearing steel rod)	10	3.9	±0.1	150 ~ 600		25 ~ 100
TU-16		16	10				25 ~ 200
TU-20		20	15	±0.09			
TU-25		25	24				
TU-32		32	40	±0.08			30 ~ 250
TU-40		40	62				
TU-50		50	98	±0.06	100 ~ 400		30 ~ 150
TU-63		63	155				

Note : 1. TB is suitable for slow moving , heavy load.
2. TU is suitable for fast moving , lower load.
3. Theoretical Thrust : When air supply to be 5 Kg/cm².

TB(U)2 series TWIN-GUIDE CYLINDER

TB(U)2

Model	Guide Type	Bore Size Ø mm	Theoretical Thrust Kgf	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
TB2- 6	B: Bush Guide (Mild steel rod)	6	1.4	±0.2	50 ~ 500	1.5 ~ 7 (150 ~ 700)	5 ~ 15
TB2-10		10	3.9				5 ~ 20
TB2-12		12	5.7	±0.18			10 ~ 100
TB2-16		16	10.1				25 ~ 200
TB2-20		20	15	±0.17			
TB2-25		25	24				
TB2-32		32	40	±0.16			30 ~ 250
TB2-40		40	62				
TB2-50		50	98	±0.15	50 ~ 350		30 ~ 150
TB2-63		63	155				
TB2-80		80	251.2	±0.1			
TB2-100		100	392.5				
TU2- 6	U: Linear Bearing Guide (Bearing steel rod)	6	1.4	±0.2	150 ~ 600		5 ~ 15
TU2-10		10	3.9				5 ~ 20
TU2-12		12	5.7	±0.18			10 ~ 100
TU2-16		16	10.1				25 ~ 200
TU2-20		20	15	±0.17			
TU2-25		25	24				
TU2-32		32	40	±0.16			30 ~ 250
TU2-40		40	62				
TU2-50		50	98	±0.15	100 ~ 400		30 ~ 150
TU2-63		63	155				
TU2-80		80	251.2	±0.1			
TU2-100		100	392.5				

Note : 1. TB2 is suitable for slow moving , heavy load.
2. TU2 is suitable for fast moving , lower load.
3. Theoretical Thrust : When air supply to be 5 Kg/cm².

TSB(U) series TWIN-GUIDE SLIDE

TSB(U)

Model	Guide Type	Bore Size Ø mm	Theoretical Thrust Kgf	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
TSB-10	B: Bush Guide (Mild steel rod)	10	3.9	±0.08	50 ~ 500	1.5 ~ 7 (150 ~ 700)	25 ~ 100
TSB-16		16	10				25 ~ 200
TSB-20		20	15	±0.07			
TSB-25		25	24				
TSB-32		32	40	±0.06			30 ~ 250
TSB-40		40	62				
TSB-50		50	98	±0.05	50 ~ 350		30 ~ 150
TSB-63		63	155				
TSU-10	U: Linear Bearing Guide (Bearing steel rod)	10	3.9	±0.09	150 ~ 600	1 ~ 7 (100 ~ 700)	25 ~ 100
TSU-16		16	10				25 ~ 200
TSU-20		20	15	±0.08			
TSU-25		25	24				
TSU-32		32	40	±0.07			30 ~ 250
TSU-40		40	62				
TSU-50		50	98	±0.05	100 ~ 400		30 ~ 150
TSU-63		63	155				

Note : 1. Two slides moving (Body mounted) ◦
2. TSB is suitable for slow moving , heavy load.
3. TSU is suitable for fast moving , lower load.
4. Theoretical Thrust : When air supply to be 5 Kg/cm².

TXB(U) series TWIN - GUIDE CYLINDER

TXB(U)

Model	Guide Type	Bore Size Ø mm	Theoretical Thrust Kgf	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
TXB-16	B: Bush Guide (Mild steel rod)	16	7.5	±0.08	50 ~ 500	1.5 ~ 7 (150 ~ 700)	50 ~ 150
TXB-20		20	11	±0.07			
TXB-25		25	18				50 ~ 250
TXB-32		32	30	±0.06			
TXB-40		40	52				
TXB-50		50	82	±0.05	50 ~ 350		50 ~ 150
TXB-63		63	140				
TXU-16	U: Linear Bearing Guide (Bearing steel rod)	16	7.5	±0.09	150 ~ 600	1 ~ 7 (100 ~ 700)	50 ~ 150
TXU-20		20	11	±0.08			
TXU-25		25	18				50 ~ 250
TXU-32		32	30	±0.07			
TXU-40		40	52				
TXU-50		50	82	±0.06	150 ~ 450		50 ~ 150
TXU-63		63	140				

Note : 1. Two slides moving (Body mounted) ◦
2. TXB is suitable for slow moving , heavy load.
3. TXU is suitable for fast moving , lower load.
4. Theoretical Thrust : When air supply to be 5 Kgf/cm².

TMB(U) series TWIN - GUIDE CYLINDER — TMB(U)

Model	Guide Type	Bore Size Ø mm	Theoretical Thrust Kgf	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
TMB(U)-20	B : Bush Guide (Mild steel rod) U : Linear Bearing Guide (Bearing steel rod)	20	15	B : ±0.05° U : ±0.08°	B : 50~500 U : 150~600	1.5 ~ 7 (150 ~ 700)	25 ~ 300 (500)
TMB(U)-25		25	24				
TMB(U)-30		30	40				
TMB(U)-40		40	62				

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm².
2. (B) Bush guide is suitable for slow moving , heavy load.
3. (U) Linear bearing guide is suitable for fast moving , lower load.

GCB(U) series TWIN - GUIDE CYLINDER — GCB(U)

Model	Guide Type	Bore Size Ø mm	Theoretical Thrust Kgf	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
GCB(U)-20	B : Bush Guide (Mild steel rod) U : Linear Bearing Guide (Bearing steel rod)	20	15	B : ±0.03° U : ±0.05°	B : 50~500 U : 150~600	1.5 ~ 7 (150 ~ 700)	25 ~ 300 (500)
GCB(U)-25		25	24				
GCB(U)-30		30	40				
GCB(U)-40		40	62				

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm².
2. (B) Bush guide is suitable for slow moving , heavy load.
3. (U) Linear bearing guide is suitable for fast moving , lower load.

GHB(U) series TWIN - GUIDE CYLINDER — GHB(U)

Model	Guide Type	Bore Size Ø mm	Theoretical Thrust Kgf	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
GHB(U)-20	B : Bush Guide (Mild steel rod) U : Linear Bearing Guide (Bearing steel rod)	20	15	B : ±0.03° U : ±0.06°	B : 50~500 U : 150~600	1.5 ~ 7 (100 ~ 700)	25 ~ 300
GHB(U)-25		25	24				
GHB(U)-32		32	40				50 ~ 500
GHB(U)-40		40	62				
GHB(U)-50		50	98		B : 50~350 U : 150~450		
GHB(U)-63		63	155				

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm².
2. (B) Bush guide is suitable for slow moving , heavy load.
3. (U) Linear bearing guide is suitable for fast moving , lower load.

TCR series TRIPLE-GUIDE CYLINDER — TCR

Model	Bore Size Ø mm	Guide Type	Theoretical Thrust Kgf	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
TCR-40	40	B : Bush Guide (Mild Steel Rod) U : Linear Bearing Guide (Bearing Steel Rod)	62	B:±0.05° U:±0.08°	50 ~ 300	1 ~ 8 (100 ~ 800)	30 , 50 75 , 100
TCR-63	63		155				
TCR-80	80		251				

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

TCF series TRIPLE-GUIDE CYLINDER — TCF

Model	Bore Size Ø mm	Guide Type	Theoretical Thrust Kgf	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
TCF-40	40	B : Bush Guide (Mild Steel Rod) U : Linear Bearing Guide (Bearing Steel Rod)	62	B:±0.05° U:±0.08°	50 ~ 300	1 ~ 8 (100 ~ 800)	30 , 50 75 , 100
TCF-63	63		155				
TCF-80	80		251				

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

RTM series ROTARY CYLINDER — RTM

Model	Rod Size Ø mm	Rotation Angle	Rotary Mounting Method	Pressure Range Kgf/cm² (Kpa)	Torque N • m
RTM-10	4	90°,180° (270°)	Rod with section	1.5 ~ 7 (150 ~ 700)	0.1
RTM-15	5				0.4
RTM-20	6				0.8
RTM-30	8				1.8
RTM-40	10		Rod with keyway		3.8
RTM-50	12				5
RTM-63	15				10
RTM-80	17				18
RTM-100	25				35

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm².
2. 1 N • m = 0.102 kgf • m

RMF series ROTARY CYLINDER — RMF

Model	Rod Size Ø mm	Rotation Angle	Rotary Mounting Method	Pressure Range Kgf/cm² (Kpa)	Torque N • m
RMF-10	4	90°,180°	Flange type with index (Precision type)	2 ~7 (200 ~ 700)	0.14
RMF-15	5			1.5 ~ 7 (150 ~ 700)	0.38
RMF-20	6				0.78
RMF-30	8				1.8
RMF-40	10				3.8
RMF-50	12				5

RTB,RTBM series ROTARY CYLINDER — RTB / RTBM

Model	Rod Size Ø mm	Rotation Angle	Rotary Mounting Method	Pressure Range Kgf/cm² (Kpa)	Torque N • m
RTB-03	10	180°	Flange type with index	1.5 ~ 7 (150 ~ 700)	0.3
RTB-07	12				0.6
RTB-10	15				1.5
RTB-20	18				2.2
RTB-30	20				3.2
RTB-50	25				5.5
RTB-70	28				7.5
RTB-100	32				9.8
RTB-200	40				19
RTB-300	50				31
RTB-500	63				49
RTBM-10	15	90°,180°			1.5
RTBM-20	18				2.2
RTBM-30	20				3.2
RTBM-50	25				5.5
RTBM-70	28				7.5
RTBM-100	32				9.8

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm².
2. 1 N • m = 0.102 kgf • m

RTZB series 3 POSITIONS - ROTARY CYLINDER

RTZB

Model	Rod Size Ø mm	Rotation Angle	Rotary Mounting Method	Pressure Range Kgf/cm² (Kpa)	Torque N • m
RTZB-10	15	180°	Flange type with index (Precision type)	1.5 ~ 7 (150 ~ 700)	1.5
RTZB-20	18				2.2
RTZB-30	20				3.2
RTZB-50	25				5.5

RTP series ROTARY CYLINDER

RTP

Model	Rod Size Ø mm	Rotation Angle	Rotary Mounting Method	Pressure Range Kgf/cm² (Kpa)	Torque N • m
RTP-5	16	90°,180°	Standard : Rod with keyway RTP-5 : Rod with section Rod type Standard : Single rod Rod-2D : Double rod	1.5 ~ 7 (150 ~ 700)	0.4
RTP-10	20				0.9
RTP-20	25				1.9
RTP-30	30				2.9

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm².
2. 1 N • m = 0.102 kgf • m

RTH series ROTARY CYLINDER

RTH

Model	Rod Size Ø mm	Rotation Angle	Rotary Mounting Method	Pressure Range Kgf/cm² (Kpa)	Torque N • m
RTH-40	40	90°,180°	Standard : Rod with keyway (Outer ditch) F : Female(Inner ditch)	1.5 ~ 7 (150 ~ 700)	10
RTH-63	63				40
RTH-80	80				60

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm².
2. 1 N • m = 0.102 kgf • m

RTU series HYDRAULIC CYLINDER

RTU

Model	Rod Size Ø mm	Rotation Angle	Rotary Mounting Method	Pressure Range Kgf/cm² (Kpa)	Torque N • m
RTU-32	24	90°,180°	Double acting	35 (3500)	12
RTU-40	28				20

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm².
2. 1 N • m = 0.102 kgf • m

SCR(L) series SWING CLAMP CYLINDER

SCR(L)

Model	Bore Size Ø mm	Operation	Rotation Angle	Rotating Direction	Rotating Stroke mm	Stroke mm	Theoretical Thrust Kgf (N)	Pressure Range Kgf / cm² (Kpa)
SCR(L)-12	12	Double Acting	90°	R : Right L : Left	7.5	10,20	4 (40)	1 ~ 9 (100 ~ 900)
SCR(L)-16	16						7.5 (75)	
SCR(L)-20	20				10		10 (100)	
SCR(L)-25	25						18 (180)	
SCR(L)-32	32				15		30 (300)	
SCR(L)-40	40						53 (520)	
SCR(L)-50	50				19	25,50	83 (820)	
SCR(L)-63	63						142 (1400)	

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

HER series DOUBLE ROD SWING CLAMP CYLINDER

HER

Model	Bore Size Ø mm	Operation	Rotation Angle	Rotating Direction	Rotating Stroke mm	Stroke mm	Theoretical Thrust Kgf (N)	Pressure Range Kgf / cm² (Kpa)
HER - 20	20	Double Acting	90°	R : Right L : Left	10	10,20	20 (200)	2 ~ 9 (200 ~ 900)
HER - 25	25						36 (360)	
HER - 32	32				15		60 (600)	
HER - 40	40						106 (1040)	

Note : 1. Theoretical Thrust : When air supply to be 5 Kgf/cm².
2. Theoretical force acts in accordance with same object.
The theoretical force would be half than originally while acting in accordance with different objec.

HGR(L) series SWING CLAMP CYLINDER

HGR(L)

Model	Bore Size Ø mm	Operation	Rotation Angle	Rotating Direction	Stroke mm	Theoretical Thrust Kgf (N)	Pressure Range Kgf / cm² (Kpa)
HGR(L) - 20	20	Double Acting	90°	R : Right L : Left	5	12(120)	1.5 ~ 8 (150 ~ 800)
HGR(L) - 25	25					18(180)	
HGR(L) - 32	32					30(300)	
HGR(L) - 40	40					53(520)	

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

HSR(L) series PNEUMATIC SWING CLAMP CYLINDER

HSR(L)

Model	Bore Size Ø mm	Operation	Rotation Angle	Rotating Direction	Rotating Stroke mm	Stroke mm	Theoretical Thrust Kgf (N)	Pressure Range Kgf / cm² (Kpa)
HSR(L)-25	25	Double Acting	90°	R : Right L : Left	9	13	18 (180)	10 (1000)
HSR(L)-32	32				11	15	30 (300)	
HSR(L)-40	40						53 (520)	
HSR(L)-50	50				13	17	83 (820)	
HSR(L)-63	63						142 (1400)	

Note : Theoretical Thrust : When air supply to be 5 Kgf/cm²

HBR(L) series PNEUMATIC SWING CLAMP CYLINDER (WITH MAGNET) HBR(L)

Model	Bore Size Ø mm	Operation	Rotation Angle	Rotating Direction	Rotating Stroke mm	Stroke mm	Theoretical Thrust Kgf (N)	Pressure Range Kgf / cm² (Kpa)
HBR(L)-20	20	Double Acting	90°	R : Right L : Left	9	13	12 (120)	10 (1000)
HBR(L)-25	25						20 (200)	
HBR(L)-32	32				11	15	36 (360)	
HBR(L)-40	40						63 (630)	
HBR(L)-50	50				13	17	98 (980)	
HBR(L)-63	63						168 (1680)	
HBR(L)-80	80				15	20	266 (2660)	

Note : Theoretical Thrust : When air supply to be 6 Kgf/cm²

HFR(L) series PNEUMATIC SWING CLAMP CYLINDER (WITH MAGNET) HFR(L)

Model	Bore Size Ø mm	Operation	Rotation Angle	Rotating Direction	Rotating Stroke mm	Stroke mm	Theoretical Thrust Kgf (N)	Pressure Range Kgf / cm² (Kpa)
HFR(L)-20	20	Double Acting	90°	R : Right L : Left	9	13	12 (120)	10 (1000)
HFR(L)-25	25						20 (200)	
HFR(L)-32	32				11	15	36 (360)	
HFR(L)-40	40						63 (630)	
HFR(L)-50	50				13	17	98 (980)	
HFR(L)-63	63						168 (1680)	

Note : Theoretical Thrust : When air supply to be 6 Kgf/cm²

HFK series PNEUMATIC LINK CLAMP CYLINDER HFK

Model	Bore Size Ø mm	Total Stroke mm	Under Pressure Stroke Ø mm	Operation	Theoretical Clamp Force (N)	Pressure Range Kgf / cm² (Kpa)
HFK-32	32	23	3	Double Acting	470	2 ~ 7 (200 ~ 700)
HFK-40	40	24.5			570	
HFK-50	50	28.5			855	
HFK-63	63	34			1578	

Note : Theoretical Thrust : When air supply to be 6 Kgf/cm²

HUR(L) series HYDRAULIC SWING CLAMP CYLINDER (WITH MAGNET) HUR(L)

Model	Bore Size Ø mm	Operation	Rotation Angle	Rotating Direction	Rotating Stroke mm	Stroke mm	Theoretical Thrust Kgf (N)	Pressure Range Kgf / cm² (Kpa)
HUR(L)-25	25	Double Acting	90°	R : Right L : Left	11	11	84 (930)	10 (1000)
HUR(L)-32	32				13	13	175 (1720)	
HUR(L)-40	40						308 (3020)	
HUR(L)-50	50				15	15	480 (4710)	
HUR(L)-63	63						769 (7540)	

Note : Theoretical Thrust : When air supply to be 35 Kgf/cm²

HUK series HYDRAULIC COMPACT CYLINDER HUK

Model	Bore Size Ø mm	Standard Stroke mm	Theoretical Thrust (N) When3 MPa	Operation	Manifold Type	Pressure Range Kgf / cm² (Kpa)
HUK-25	25	25	1296	Double Acting	None : Standard F : Manifold Type	5 ~ 50 (500 ~ 5000)
HUK-32	32	25	2123			
HUK-40	40	30	3063			
HUK-50	50	35	4531			
HUK-63	63	40	6471			

HCF series COMPACT HYDRAULIC CYLINDER (Horizontal Mounting) HCF

Model	Bore Size Ø mm	Theoretical Thrust (KN)When10 MPa	Operation	Mounting Type	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
HCF-20	20	5.0	Double Acting	Front Mount	2 ~ 140 (200 ~ 14000)	10 ~ 40
HCF-25	25	6.0				10 ~ 50
HCF-32	32	7.5				5 ~ 60
HCF-40	40	9.5				5 ~ 80

HCS series COMPACT HYDRAULIC CYLINDER (Vertical Mounting) HCS

Model	Bore Size Ø mm	Theoretical Thrust (KN)When10 MPa	Operation	Mounting Type	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
HCS-32	32	7.5	Double Acting	Top Mount	2 ~ 140 (200 ~ 14000)	10,20,30,40,50
HCS-40	40	9.5				
HCS-50	50	14.8				
HCS-63	63	21.5				

HCQ series COMPACT CYLINDER (PISTON SENSING) HCQ

Model	Bore Size Ø mm	Theoretical Thrust (KN)When10 MPa	Operation	Mounting Type	Pressure Range Kgf / cm² (Kpa)	Standard Stroke mm
HCQ-32	32	7.5	Double Acting	Top Mount	70 (7000)	10,20,30,40,50
HCQ-40	40	9.5				
HCQ-50	50	14.8				
HCQ-63	63	21.5				
HCQ-80	80	37.7				

HN series THREADED-BODY CYLINDER HN

Model	Rod Size Ø mm	Rod Stroke	Theoretical Clip Force 100 Kg/cm²	Theoretical Clip Force 500 Kg/cm²	Model Type	Pressure Range Kgf / cm² (Kpa)
HN □-12	12	10	110	570	HNZ : Female-flush mount HNS : Oval head-flush mount HNW : Female-flush Hexagon HNH : Oval head-Hexagon	10 ~ 500 (100 ~ 5000)
HN □-16	16	12	200	1010		
HN □-20	20	15	310	1570		
HN □-25	25	16	490	2460		

HS series HYDRAULIC SUPPORT CYLINDER HS

Model	Rod Size Ø mm	Rod Stroke mm	Adm. support Force 500 Kg/cm²	Operation	Pressure Range Kgf / cm² (Kpa)
HSW-16A8	16	8	6.5KN	Single Acting Flush mount-Normal In	50 ~ 5000
HSW-16B8			9.5KN		
HSW-16A15		15	6.5KN		
HSW-16B15			9.5KN		
HSP-16A8		8	6.5KN	Single Acting Flush mount-Normal Out	
HSP-16B8			9.5KN		

HDS series MINI GRIPPER — HDD

Model	Bore Size Ø mm	Operation	Angle / Bore size	Gripping Force Kgf	Holder type	Pressure Range Kgf/cm² (Kpa)
HDD-08	8	Single acting normally open(P)	-4.5° ~ 10°	0.8	Shank type Panel Mount type Floating Panel Mount type (Parallel) Floating Panel Mount type (Right Angle) Floating Block type (Parallel) Floating Block type (Right Angle) Flange type (Parallel) Flange type (Right Angle	2 ~ 7 (200 ~ 700)
		Single acting normally close(C)	ø2 ~ ø10 mm 3 ~ 9 mm			
HDD-11	11	Single acting normally open(P)	-5.5° ~ 8°	2.0		
		Single acting normally close(C)	ø6 ~ ø14 mm 6 ~ 14 mm			

HDS series ANGULAR GRIPPER — HDS

Model		Bore Size Ø mm	Angle	Holding Force Kgf (N)		Pressure Range Kgf/cm² (Kpa)
Double Acting	Single Acting			Open	Close	
HDS-10	HRS-10	10	-10° ~ +30°	0.3 (3.6)	0.2 (2.2)	1.5 ~ 7.0 (150 ~ 700)
HDS-16	HRS-16	16		1.5 (15.2)	1.1 (11.1)	
HDS-20	HRS-20	20		3.2 (31.9)	2.4 (23.6)	
HDS-25	HRS-25	25		6.0 (59.6)	4.8 (47.2)	
HDS-32	HRS-32	32		11.4 (112.4)	8.6 (84.6)	

Note : The holding point is gripper with 20 mm arm, when air supply to be 5 Kgf / cm².

HDM series 180° ANGULAR GRIPPER — HDM

Model	Bore Size Ø mm	Operation	Angle	Holding Force Kgf (N)		Pressure Range Kgf/cm² (Kpa)
				Open	Close	
HDM-12	12	Double Acting	-1°-+180°	0.75 (7.3)	0.3 (2.9)	1.5 ~ 7.0 (150 ~ 700)
HDM-16	16			1.6 (16.1)	1.2 (11.7)	
HDM-20	20			3.4 (33.8)	2.5 (24.9)	
HDM-25	25			6.4 (63.2)	5.1 (49.9)	
HDM-32	32			12.1 (119)	9.1 (89.6)	

Note : The holding point is gripper with 20 mm arm, when air supply to be 5 Kgf / cm².

HDP series PARALLEL GRIPPER — HDP

Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm² (Kpa)
				Open	Close	
HDP-10	10	Double Acting	4	0.5 (4.9)	0.8 (7.8)	1.5 ~ 7.0 (150 ~ 700)
HDP-16	16		8	1.8 (17.6)	2.4 (23.5)	
HDP-20	20		12	3.5 (34.3)	4.7 (46)	
HDP-25	25		14	6.0 (58.8)	7.5 (73.5)	
HDP-32	32		16	8.5 (83.3)	10.0 (98)	

Note : The holding point is gripper with 30 mm arm, when air supply to be 5 Kgf / cm².

HDF series PARALLEL GRIPPER — HDF

Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm² (Kpa)
				Open	Close	
HDF-12	12	Double Acting	12,24,48	4.9 (48)	4.9 (48)	1.5 ~ 7.0 (150 ~ 700)
HDF-16	16		16,32,64	9.2 (90)	9.2 (90)	
HDF-20	20		20,40,80	14 (140)	14 (140)	

Note : The holding point is gripper with 10 mm arm, when air supply to be 5 Kgf / cm².

HDZ / HRZ series PARALLEL GRIPPER — HDZ / HRZ

Model		Bore Size Ø mm	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm² (Kpa)
Double Acting	Single Acting			Open	Close	
HDZ-10	HRZ-10R	10	4	1.84 (18)	1.1 (10.5)	Double Acting : 2~7.0 (200~700) Single Actin : 3.5~7.0 (350~700)
HDZ-16	HRZ-16R	16	6	4.7 (46)	3.3 (32)	Double Acting : 1 ~ 7.0 (100 ~ 700) Single Actin : 2.5 ~ 7.0 (250 ~ 700)
HDZ-20	HRZ-20R	20	10	6.3 (62)	4.2 (41)	
HDZ-25	HRZ-25R	25	14	10.2 (100)	6.4 (62.5)	
HDZ-32	HRZ-32R	32	22	18.4 (180)	15.9 (155)	
HDZ-40	HRZ-40R	40	30	32.7 (320)	26 (255)	

Note : The holding point is gripper with 30 mm arm, when air supply to be 5 Kgf / cm².

HDZL / HRZL series PARALLEL GRIPPER (Long Stroke Type) — HDZL / HRZL

Model		Bore Size Ø mm	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm² (Kpa)
Double Acting	Single Acting			Open	Close	
HDZL-10	HRZL-10R	10	8	1.84 (18)	1.1 (10.5)	Double Acting : 2.0~7.0 (200~700) Single Acting : 3.5~7.0 (350~700)
HDZL-16	HRZL-16R	16	12	4.7 (46)	3.3 (32)	Double Acting : 1~7.0 (100~700) Single Acting : 2.5~7.0 (250~700)
HDZL-20	HRZL-20R	20	18	6.3 (62)	4.2 (41)	
HDZL-25	HRZL-25R	25	22	10.2 (100)	6.4 (62.5)	

Note : The holding point is gripper with 30 mm arm, when air supply to be 5 Kgf / cm².

HDW series PARALLEL GRIPPER (Low Profile) — HDW

Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm² (Kpa)
				Open	Close	
HDW-20	20	Double Acting	8	9.6 (94)	8.6 (84)	1.5 ~ 7.0 (150 ~ 700)
HDW-25	25		11	15.1 (148)	13.7 (134)	
HDW-32	32		16	25 (245)	22.5 (221)	
HDW-40	40		20	46 (451)	41 (402)	
HDW-50	50		26	75.3 (738)	67.5 (662)	
HDW-63	63		32	127 (1245)	114 (1117)	
HDW-80	80		40	163.2 (1600)	153 (1500)	
HDW-100	100		60	234.6 (2300)	229.8 (2252)	

Note : The holding point is gripper with 30 mm arm, when air supply to be 5 Kgf / cm².

HDG series PARALLEL GRIPPER (Low Profile) — HDG

Model	Bore Size Ø mm	Operation	Operation Stroke mm	Gripping Force (N)		Pressure Range Kgf/cm² (Kpa)
				External gripping	Internal gripping	
HDG-50	50	Double Acting	4	170	185	3 ~ 8 (300 ~ 800)
HDG-66	66		6	300	325	
HDG-80	80		8	550	590	
HDG-100	100		10	740	795	
HDG-125	125		12	1290	1370	
HDG-160	160		16	1860	1960	
HDG-200	200		20	3175	3330	
HDG-300	300		30	6675	6830	

HDL series GRIPPER (Wide Type) HDL

Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N) Open	Holding Force Kgf (N) Close	Pressure Range Kgf/cm² (Kpa)
HDL-16	16	Double Acting	12	2	2	2.0 ~ 7.0 (200 ~ 700)
HDL-20	20		14	3	3	
HDL-25	25		15	7.5	7.5	
HDL-32	32		16	10	10	

Note : The holding point is gripper with 30 mm arm, when air supply to be 5 Kgf / cm².

HDT series GRIPPER (Wide Type) HDT

Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N) Open	Holding Force Kgf (N) Close	Pressure Range Kgf/cm² (Kpa)
HDT-1020	10	Double Acting	20	1.5 (15)	1.4 (14)	1.5 ~ 7.0 (150 ~ 700)
HDT-1040			40			
HDT-1060			60			
HDT-1630	16		30	4.7 (46)	4.5 (44)	
HDT-1660			60			
HDT-1680			80			
HDT-2040	20		40	7.8 (76)	7.4 (73)	
HDT-2080			80			
HDT-20100			100			
HDT-2550	25		50	13.8 (135)	13 (128)	
HDT-25100			100			
HDT-25120			120			
HDT-3270	32		70	23.2 (228)	30 (224)	
HDT-32120			120			
HDT-32160			160			
HDT-40100	40		100	40 (396)	37 (365)	
HDT-40160			160			
HDT-40200			200			

Note : The holding point is gripper with 30 mm arm, when air supply to be 5 Kgf / cm².

HDQ2 / HDQ3 / HDQ4 series GRIPPER (Two finger / Three finger / Four finger) HDQ

Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N) Open	Holding Force Kgf (N) Close	Pressure Range Kgf/cm² (Kpa)
HDQ2-25	25	Double Acting	6	4.7 (46.4)	4.0 (39)	1.5 ~ 7.0 (150 ~ 700)
HDQ2-32	32		8	11 (107)	9.4 (92.5)	
HDQ2-40	40		8	20 (197)	17 (173)	
HDQ2-50	50		12	43 (421)	38 (378)	
HDQ2-63	63		16	69 (677)	62 (608)	
HDQ2-80	80		20	90 (890)	82 (803)	
HDQ2-100	100		24	146 (1438)	137 (1348)	
HDQ3-25	25		6	3.2 (30.9)	2.7 (26)	
HDQ3-32	32		8	7.3 (71.7)	6.3 (61.6)	
HDQ3-40	40		8	13 (131)	11 (115)	
HDQ3-50	50		12	28 (280)	25 (252)	
HDQ3-63	63		16	46 (451)	41 (405)	
HDQ3-80	80		20	60 (593)	54 (535)	
HDQ3-100	100		24	97 (959)	91 (899)	
HDQ4-25	25		6	2.4 (23.2)	2 (19.5)	
HDQ4-32	32		8	5.5 (53.8)	4.7 (46.2)	
HDQ4-40	40		8	10 (98.8)	8.8 (86.7)	
HDQ4-50	50		12	21 (210)	19 (189)	
HDQ4-63	63		16	34 (338)	31 (304)	
HDQ4-80	80		20	45 (445)	41 (401)	
HDQ4-100	100		24	73 (719)	68 (674)	

Note : The holding point is gripper with 30 mm arm, when air supply to be 5 Kgf / cm².

HDN series GRIPPER (Three finger) HDN

Model	Bore Size Ø mm	Operation	Operation Stroke mm	Gripping Force (N) External gripping	Gripping Force (N) Internal gripping	Pressure Range Kgf/cm² (Kpa)
HDN-50	50	Double Acting	4	450	500	2 ~ 8 (200 ~ 800)
HDN-66	66		6	750	800	
HDN-80	80		8	1200	1300	
HDN-100	100		10	2000	2100	
HDN-125	125		12	3500	3600	
HDN-160	160		16	6500	6600	
HDN-200	200		20	8200	8450	
HDN-300	300		30	15300	15500	

HDR series GRIPPER (Three finger) HDR

Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N) Open	Holding Force Kgf (N) Close	Pressure Range Kgf/cm² (Kpa)
HDR-25	25	Double Acting	6	4.3 (42)	3.8 (37.5)	1.5 ~ 7.0 (150 ~ 700)
HDR-32	32		8	8.5 (83)	7.7 (75)	
HDR-40	40		8	13.3 (130)	11.7 (115)	
HDR-50	50		12	21.7 (213)	18.9 (185)	
HDR-63	63		16	36.7 (360)	33.7 (330)	

Note : The holding point is gripper with 30 mm arm, when air supply to be 5 Kgf / cm².

RMZ series ROTARY GRIPPER RMZ

Model	Bore Size Ø mm	Operation	Angle mm	Holding Force Kgf (N) Open	Holding Force Kgf (N) Close	Pressure Range Kgf/cm² (Kpa)
RMZ-10	10	Double Acting	4	1.84 (18)	1.1 (10.5)	1.5 ~ 7.0 (150 ~ 700)
RMZ-16	16		6	4.7 (46)	3.3 (32)	
RMZ-20	20		10	6.3 (62)	4.2 (41)	
RMZ-25	25		14	10.2 (100)	6.4 (62.5)	

Note : The holding point is gripper with 30 mm arm, when air supply to be 5 Kgf / cm².

RBZ series ROTARY GRIPPER RBZ

Model	Bore Size Ø mm	Operation	Angle mm	Holding Force Kgf (N) Open	Holding Force Kgf (N) Close	Pressure Range Kgf/cm² (Kpa)
RBZ-10	10	Double Acting	4	1.84 (18)	1.1 (10.5)	1.5 ~ 7.0 (150 ~ 700)
RBZ-16	16		6	4.7 (46)	3.3 (32)	
RBZ-20	20		10	6.3 (62)	4.2 (41)	

Note : The holding point is gripper with 30 mm arm, when air supply to be 5 Kgf / cm².

EV series VACUUM EJECTOR — EV

Model	Nozzle Diameter mm	Vacuum Current L/min (ANR)	Port Size Rc (PT)	Max.Vacuum Degree (- mmHg)	Remark
EV-05	Ø0.5	10	1/8"	680	-S With switch -K Adjustable
EV-10	Ø1.0	40			
EV-15	Ø1.5	90	1/4"		
EV-20	Ø2.0	110	3/8"		
EV-25	Ø2.5	240	1/2"		
EV-30	Ø3.0	340	3/4"		

EVM series VACUUM EJECTOR — EVM

Model	Nozzle Diameter mm	Vacuum Current L/min (ANR)	Port Size Rc (PT)	Max.Vacuum Degree (- mmHg)	Remark
EVM-1005	Ø0.5	12	1/8"	690	-S With switch -K Adjustable
EVM-1007	Ø0.7	22			
EVM-1010	Ø1.0	58	1/4"		
EVM-1012	Ø1.2	75	3/8"		
EVM-1515	Ø1.5	115	1/2"		
EVM-2020	Ø2.0	245	3/4"		

VAB series VACUUM EJECTOR — VAB

Model	Tube dia (V)	Tube dia (P)	Nozzle Diameter mm	Pressure Range Kgf/cm² (Kpa)	Max. Vacuum Degree (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VAB-07-04	4	4	0.7	1.5 ~ 7 (150 ~ 700)	700	8	14
VAB-07-06	6	6				14	24
VAB-12-04	4	4	1.2			28	46
VAB-12-06	6	6				38	50
VAB-15-08	8	8	1.5			80	90
VAB-15-10	10	10				86	98

VAS series PRESSURE SWITCH — VAS

Model	Tube dia (V)	Max. Vacuum Degree (- mmHg)	Remarks
VAS-10-04	4	0 ~ -700	Mechanical type (Hand adjust mounting)
VAS-10-06	6		
VAS-15-08	8		
VAS-15-10	10		

VABS series VACUUM EJECTOR (With Switch) — VABS

Model	Tube dia (V)	Tube dia (P)	Nozzle Diameter mm	Pressure Range Kgf/cm² (Kpa)	Max. Vacuum Degree (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VABS-07-04	4	4	0.7	1.5 ~ 7 (150 ~ 700)	700	8	14
VABS-07-06	6	6				14	24
VABS-12-04	4	4	1.2			28	46
VABS-12-06	6	6				38	50
VABS-15-08	8	8	1.5			80	90
VABS-15-10	10	10				86	98

VMB series VACUUM EJECTOR — VMB

Model	Tube dia (V)	Thread Rc (PT)	Nozzle Diameter mm	Max.Vacuum Degree (- mmHg)	Vacuum Current L/min (ANR)
VMB-05-601	6	1/8"	0.5	680	11.5
VMB-07-601			0.7		23
VMB-07-801	8				
VMB-10-601	6		1.0		45
VMB-10-801	8				
VMB-15-802		1/4"	1.5		90
VMB-15-102	10				

VMD series VACUUM EJECTOR — VMD

Model	Tube dia (V)	Thread Rc (PT)	Nozzle Diameter mm	Max.Vacuum Degree (- mmHg)	Vacuum Current L/min (ANR)
VMD-05-601	6	1/8"	0.5	680	11.5
VMD-07-601			0.7		23
VMD-07-801	8				
VMD-10-601	6		1.0		45
VMD-10-801	8				
VMD-15-802		1/4"	1.5		90
VMD-15-102	10				

VML series VACUUM EJECTOR — VML

Model	Tube dia (V)	Tube dia (P)	Nozzle Diameter mm	Max. Vacuum Degree (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VML-05-04	4	4	0.5	680	8	14
VML-05-06	6	6				
VML-10-06			1.0		37	45
VML-10-08	8	8				
VML-15-08			1.5		90	100
VML-15-10	10	10				
VML-20-10			2.0		150	180
VML-20-12	12	12				

VMK series VACUUM EJECTOR — VMK

Model	Tube dia (V)	Tube dia (P)	Nozzle Diameter mm	Max. Vacuum Degree (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VMK-05-4M5	4	M5X0.8p	0.5	680	8	14
VMK-05-601	6	1/8"				
VMK-10-601			1.0		37	45
VMK-10-801	8					
VMK-15-802		1/4"	1.5		90	100
VMK-15-103	10	3/8"				
VMK-20-103			2.0		150	180
VMK-20-124	12	1/2"				

VMT series VACUUM EJECTOR — VMT

Model	Tube dia (V)	Tube dia (P)	Nozzle Diameter mm	Max. Vacuum Degree (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VMT-05-04	4	4	0.5	680	8	14
VMT-05-06	6	6				
VMT-10-06			1.0		37	45
VMT-10-08	8	8				
VMT-15-08			1.5		90	100
VMT-15-10	10	10				
VMT-20-10			2.0		150	180
VMT-20-12	12	12				

VMBU series VACUUM EJECTOR — VMBU

Model	Tube dia (V)	Thread Rc (PT)	Nozzle Diameter mm	Max. Vacuum Degree (- mmHg)	Vacuum Current L/min (ANR)
VMBU-05-601	6	1/8"	0.5	680	11.5
VMBU-07-601			0.7		23
VMBU-07-801	8				
VMBU-10-601	6		1.0		45
VMBU-10-801	8				
VMBU-15-802		1/4"	1.5		67.5
VMBU-15-102	10				

VMDU series VACUUM EJECTOR — VMDU

Model	Tube dia (V)	Thread Rc (PT)	Nozzle Diameter mm	Max. Vacuum Degree (- mmHg)	Vacuum Current L/min (ANR)
VMDU-05-601	6	1/8"	0.5	680	11.5
VMDU-07-601			0.7		23
VMDU-07-801	8				
VMDU-10-601	6		1.0		45
VMDU-10-801	8				
VMDU-15-802		1/4"	1.5		67.5
VMDU-15-102	10				

VKB series VACUUM EJECTOR — VKB

Model	Tube dia (V)	Tube dia (P)	Nozzle Diameter mm	Pressure Range Kgf/cm² (Kpa)	Max. Vacuum Degree (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VKB-05-06	Ø6	Ø6	0.5	2.5 ~ 7 (250 ~ 700)	712	6	15
VKB-07-06			0.7			12	25
VKB-10-06			1			27	60
VKB-12-06			1.2			30	75

VKS series VACUUM EJECTOR — VKS

Model	Tube dia (V)	Tube dia (P)	Nozzle Diameter mm	Pressure Range Kgf/cm² (Kpa)	Max. Vacuum Degree (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VKS-05-06	Ø6	Ø6	0.5	2.5 ~ 7 (250 ~ 700)	712	6	15
VKS-07-06			0.7			12	25
VKS-10-06			1			27	60
VKS-12-06			1.2			30	75

VKT series VACUUM EJECTOR — VKT

Model	Tube dia (V)	Tube dia (P)	Nozzle Diameter mm	Pressure Range Kgf/cm² (Kpa)	Max. Vacuum Degree (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VKT-05-06	Ø6	Ø6	0.5	2.5 ~ 7 (250 ~ 700)	631	6	15
VKT-07-06			0.7		703	11	26
VKT-10-06			1		703	26	53
VKT-12-06			1.2		668	28	76

VKST series VACUUM EJECTOR — VKST

Model	Tube dia (V)	Tube dia (P)	Nozzle Diameter mm	Pressure Range Kgf/cm² (Kpa)	Max. Vacuum Degree (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VKST-05-06	Ø6	Ø6	0.5	2.5 ~ 7 (250 ~ 700)	631	6	15
VKST-07-06			0.7		703	11	26
VKST-10-06			1		703	26	53
VKST-12-06			1.2		668	28	76

VFD series VACUUM FILTER — VFD

Model	Tube dia (V)(P)	Tube dia (EX)	Reference Flow L/min (ANR)	Pressure Range Kgf/cm² (Kpa)	Filter Grade μ
VFD-01-04	4	4	10	-1 (-100)	10 μ
VFD-02-04			10		
VFD-02-06	6	6	20		
VFD-03-06			30		
VFD-03-08	8	8	50		
VFD-03-10	10	10	60		
VFD-04-10			75		
VFD-04-12	12	12	100		

VFM series VACUUM FILTER — VFM

Model		Port Size Rc (PT)	Filter Grade μm	Reference Flow L/min (ANR)	Pressure Range Kgf/cm² (Kpa)	Remarks
VFM-200	- 01	1/8"	40 μm	100	0.0 ~ -101.3	1. Without bowl guaud 2. Mounting bracket(option)
	- 02	1/4"				
VFM-300	- 02	1/4"		200		1. With bowl guaud 2. Mounting bracket(option)
	- 03	3/8"				
VFM-400	- 03	3/8"		300		
	- 04	1/2"				
VFM-450	- 04	1/2"		400		
	- 06	3/4"				
VFM-500	- 04	3/4"				
	- 06	1"				

VFU series VACUUM FILTER — VFU

Model	Tube dia (V)(P)	Tube dia (EX)	Reference Flow L/min (ANR)	Pressure Range Kgf/cm² (Kpa)	Filter Grade μ
VFU-01-04	Ø4	Ø4	10	-1 (-100 ~ 0)	30μ
VFU-01-06	Ø6	Ø6	20		
VFU-02-06			30		
VFU-02-08	Ø8	Ø8	50		
VFU-03-08			75		
VFU-03-10	Ø10	Ø10	75		

ERV series VACUUM REGULATOR — ERV

Model	Port Size Rc (PT)	Pressure Range Kpa (mmHg)	Air Consumption L / min	Service Temperature	Gauge
ERV-200	1/8" , 1/4"	-98.6 ~ -1 Kpa (-740 ~ -7.5)	0.6 L/min (ANR) or less	5 ~ 60°C	VG - 10A

PAF series VACUUM PAD — PAF

Model	Connection Type	Pad Diameter	Material
PAF	Long wise connection	Ø2 ~ Ø100	NBR Rubber Silicon Rubber PU Rubber
		Ø2 ~ Ø60	SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PAK series VACUUM PAD — PAK

Model	Connection Type	Pad Diameter	Material
PAK	Long wise connection	Ø10 ~ Ø80	NBR Rubber Silicon Rubber PU Rubber
		Ø10 ~ Ø60	SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PAT series VACUUM PAD — PAT

Model	Connection Type	Pad Diameter	Material
PAT	Side connection	Ø2 ~ Ø200	NBR Rubber Silicon Rubber PU Rubber
		Ø2 ~ Ø60	SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PAFS series VACUUM PAD — PAFS

Model	Connection Type	Pad Diameter	Material
PAFS	Long wise connection (With spring)	Ø2 ~ Ø50	NBR Rubber Silicon Rubber PU Rubber SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PATS series VACUUM PAD — PATS

Model	Connection Type	Pad Diameter	Material
PATS	Side connection (With spring)	Ø2 ~ Ø200	NBR Rubber Silicon Rubber PU Rubber
		Ø2 ~ Ø60	SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PBF series VACUUM PAD — PBF

Model	Connection Type	Pad Diameter	Material
PBF	Long wise connection	Ø10 ~ Ø80	NBR Rubber Silicon Rubber PU Rubber
		Ø10 ~ Ø50	SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PBK series VACUUM PAD — PBK

Model	Connection Type	Pad Diameter	Material
PBK	Long wise connection	Ø10 ~ Ø80	NBR Rubber Silicon Rubber PU Rubber
		Ø10 ~ Ø50	SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PBT series VACUUM PAD — PBT

Model	Connection Type	Pad Diameter	Material
PBT	Side connection	Ø10 ~ Ø80	NBR Rubber Silicon Rubber PU Rubber
		Ø10 ~ Ø50	SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PBFS series VACUUM PAD — PBFS

Model	Connection Type	Pad Diameter	Material
PBFS	Long wise connection (With spring)	Ø10 ~ Ø50	NBR Rubber Silicon Rubber PU Rubber SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PBTS series VACUUM PAD — PBTS

Model	Connection Type	Pad Diameter	Material
PBTS	Side connection (With spring)	Ø10 ~ Ø80	NBR Rubber Silicon Rubber PU Rubber
		Ø10 ~ Ø50	SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PCF series VACUUM PAD

PCF

Model	Connection Type	Pad Diameter	Material
PCF	Long wise connection	Ø5 ~ Ø60	NBR Rubber Silicon Rubber PU Rubber
		Ø5 ~ Ø50	SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PCK series VACUUM PAD

PCK

Model	Connection Type	Pad Diameter	Material
PCK	Long wise connection	Ø10 ~ Ø60	NBR Rubber Silicon Rubber PU Rubber
		Ø10 ~ Ø50	SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PCT series VACUUM PAD

PCT

Model	Connection Type	Pad Diameter	Material
PCT	Side connection	Ø5 ~ Ø60	NBR Rubber Silicon Rubber PU Rubber
		Ø5 ~ Ø50	SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PCFS series VACUUM PAD

PCFS

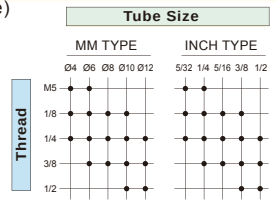
Model	Connection Type	Pad Diameter	Material
PCFS	Long wise connection (With spring)	Ø5 ~ Ø40	NBR Rubber Silicon Rubber PU Rubber SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

PCTS series VACUUM PAD

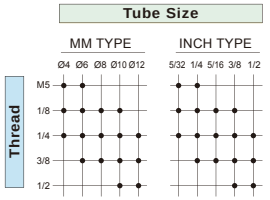
PCTS

Model	Connection Type	Pad Diameter	Material
PCTS	Side connection (With spring)	Ø5 ~ Ø60	NBR Rubber Silicon Rubber PU Rubber
		Ø5 ~ Ø50	SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber

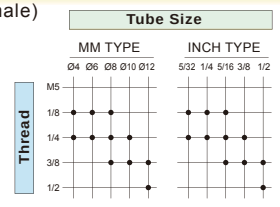
SQC Straight (Male)



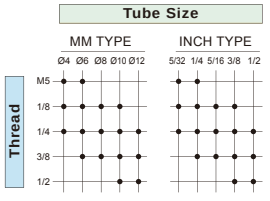
SQD Branch Tee



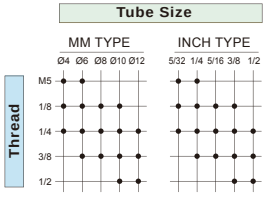
SQG Straight (Female)



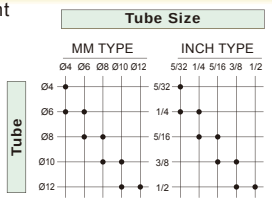
SQU Branch Y



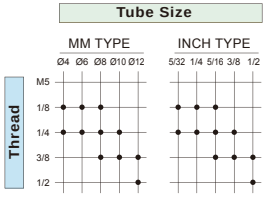
SQL Elbow 90°



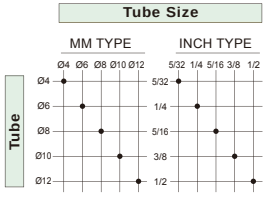
SQH Union Straight



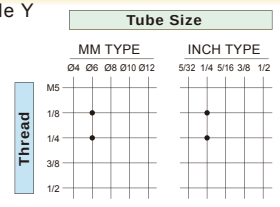
SQSL Long Elbow



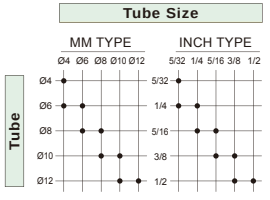
SQV Union L



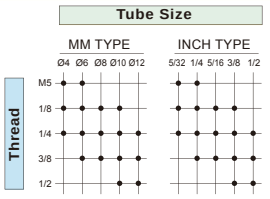
SQM Branch Double Y



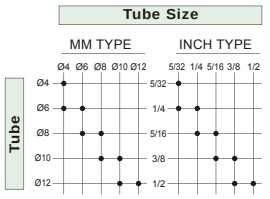
SQE Union Tee



SQT Branch Tee



SQY Union Y



SQX Cross

Tube Size

Tube	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
Ø4						5/32				
Ø6						1/4				
Ø8						5/16				
Ø10						3/8				
Ø12						1/2				

SQZB
Double branch universal male elbow

Tube Size

Thread	MM TYPE					INCH TYPE		
	Ø4	Ø6	Ø8	Ø10	Ø12	1/4	5/16	3/8
1/8								
1/4								
3/8								
1/2								

SQF Union

Tube Size

Tube	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
Ø4						5/32				
Ø6						1/4				
Ø8						5/16				
Ø10						3/8				
Ø12						1/2				

SQZC
Triple branch universal male elbow

Tube Size

Thread	MM TYPE					INCH TYPE		
	Ø4	Ø6	Ø8	Ø10	Ø12	1/4	5/16	3/8
1/8								
1/4								
3/8								
1/2								

SQFD Union

Tube Size

Tube	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
Ø4						5/32				
Ø6						1/4				
Ø8						5/16				
Ø10						3/8				
Ø12						1/2				

SQP
Female Universal Elbow

Tube Size

Thread	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
M5										
1/8										
1/4										
3/8										
1/2										

SQW Branch Union Double Y

Tube Size

Tube	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
Ø4						5/32				
Ø6						1/4				
Ø8						5/16				
Ø10						3/8				
Ø12						1/2				

SQPB
Double branch universal male elbow

Tube Size

Thread	MM TYPE					INCH TYPE		
	Ø4	Ø6	Ø8	Ø10	Ø12	1/4	5/16	3/8
1/8								
1/4								
3/8								
1/2								

SQMH Bulkhead Union

Tube Size

Tube	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
Ø4						5/32				
Ø6						1/4				
Ø8						5/16				
Ø10						3/8				
Ø12						1/2				

SQPC
Triple branch universal male elbow

Tube Size

Thread	MM TYPE					INCH TYPE		
	Ø4	Ø6	Ø8	Ø10	Ø12	1/4	5/16	3/8
1/8								
1/4								
3/8								
1/2								

SQZ Universal Elbow

Tube Size

Thread	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
M5										
1/8										
1/4										
3/8										
1/2										

SQKZ Branch A

Tube Size

Thread	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
M5										
1/8										
1/4										
3/8										
1/2										

SQBZ
Double branch universal male elbow

Tube Size

Thread	MM TYPE					INCH TYPE		
	Ø4	Ø6	Ø8	Ø10	Ø12	1/4	5/16	3/8
1/8								
1/4								
3/8								
1/2								

SQKU Union A

Tube Size

Tube	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
Ø4						5/32				
Ø6						1/4				
Ø8						5/16				
Ø10						3/8				
Ø12						1/2				

SQCZ
Triple branch universal male elbow

Tube Size

Thread	MM TYPE					INCH TYPE		
	Ø4	Ø6	Ø8	Ø10	Ø12	1/4	5/16	3/8
1/8								
1/4								
3/8								
1/2								

SQB Branch

Tube Size

Tube	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
Ø4						5/32				
Ø6						1/4				
Ø8						5/16				
Ø10						3/8				
Ø12						1/2				

SQKP Female Branch A

Tube Size

Thread	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
M5										
1/8										
1/4										
3/8										
1/2										

SQCH Straight Block

Tube Size

Tube	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
Ø4						5/32				
Ø6						1/4				
Ø8						5/16				
Ø10						3/8				
Ø12						1/2				

SQBP
Double branch universal male elbow

Tube Size

Thread	MM TYPE					INCH TYPE		
	Ø4	Ø6	Ø8	Ø10	Ø12	1/4	5/16	3/8
1/8								
1/4								
3/8								
1/2								

SQLH L Partition Fitting

Tube Size

Tube	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
Ø4						5/32				
Ø6						1/4				
Ø8						5/16				
Ø10						3/8				
Ø12						1/2				

SQCP
Triple branch universal male elbow

Tube Size

Thread	MM TYPE					INCH TYPE		
	Ø4	Ø6	Ø8	Ø10	Ø12	1/4	5/16	3/8
1/8								
1/4								
3/8								
1/2								

SPG Plug

Tube Size

Tube	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
Ø4						5/32				
Ø6						1/4				
Ø8						5/16				
Ø10						3/8				
Ø12						1/2				

SQKX Branch Elbow

Tube Size

Thread	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
M5										
1/8										
1/4										
3/8										
1/2										

SPP Nipple

Tube Size

Tube	MM TYPE					INCH TYPE				
	Ø4	Ø6	Ø8	Ø10	Ø12	5/32	1/4	5/16	3/8	1/2
Ø4						5/32				
Ø6						1/4				
Ø8						5/16				
Ø10						3/8				
Ø12						1/2				

SPF Different Diam Nipple

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
Ø4	●					●				
Ø6		●					●			
Ø8			●					●		
Ø10				●					●	
Ø12					●					●

SQRM Bulkhead Union

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
Ø4	●					●				
Ø6		●					●			
Ø8			●					●		
Ø10				●					●	
Ø12					●					●

SQHJ Nipple Fitting

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
Ø4	●					●				
Ø6		●					●			
Ø8			●					●		
Ø10				●					●	
Ø12					●					●

SQCG Pressure Gauge Fitting

Tube Size

Thread	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
M5	●									
1/8		●	●	●	●					
1/4						●	●			
3/8								●		
1/2									●	●

SQLJ Nipple Elbow Fitting

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
Ø4	●					●				
Ø6		●					●			
Ø8			●					●		
Ø10				●					●	
Ø12					●					●

SQMG Bulkhead Pressure Gauge Fitting

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
Ø4	●					●				
Ø6		●					●			
Ø8			●					●		
Ø10				●					●	
Ø12					●					●

SQRC Straight Check Fitting

Tube Size

Thread	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
M5	●									
1/8		●	●	●	●					
1/4						●	●			
3/8								●		
1/2									●	●

SQLG Bulkhead Pressure Guage Fitting

Tube Size

Thread	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
M5	●									
1/8		●	●	●	●					
1/4						●	●			
3/8								●		
1/2									●	●

SQRH Union Straight Check Fitting

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
Ø4	●					●				
Ø6		●					●			
Ø8			●					●		
Ø10				●					●	
Ø12					●					●

SQEG Pressure Gauge Fitting

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
Ø4	●					●				
Ø6		●					●			
Ø8			●					●		
Ø10				●					●	
Ø12					●					●

SQRL Elbow

Tube Size

Thread	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
M5	●									
1/8		●	●	●	●					
1/4						●	●			
3/8								●		
1/2									●	●

RQL Elbow

Tube Size

Thread	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
M5	●									
1/8		●	●	●	●					
1/4						●	●			
3/8								●		
1/2									●	●
10/32						●				

QSC Speed Controller

Tube Size

Thread	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
M5	●									
1/8		●	●	●	●					
1/4						●	●			
3/8								●		
1/2									●	●

QMC Speed Control

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8
M5	●								
1/8		●	●	●	●				
1/4						●	●		
3/8								●	
1/2									●

QSU Rotary Fitting

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8
M5	●								
1/8		●	●	●	●				
1/4						●	●		
3/8								●	
1/2									●

QHV Hand Valve

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
Ø4	●					●				
Ø6		●					●			
Ø8			●					●		
Ø10				●					●	
Ø12					●					●

QSB Speed control-Large flow type

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
1/8	●	●	●	●	●					
1/4						●	●			
3/8								●		
1/2									●	●

QVA Union Straight

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
Ø4	●					●				
Ø6		●					●			
Ø8			●					●		
Ø10				●					●	
Ø12					●					●

QSS Speed control-Micro low-Flow type

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	INCH TYPE 5/32	1/4	5/16	3/8
M5	●							
1/8		●	●	●				
1/4					●	●		
3/8							●	
1/2								●
10/32					●			
1/8						●		
1/4							●	

QVAH Bulkhead Union Straight

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
Ø4	●					●				
Ø6		●					●			
Ø8			●					●		
Ø10				●					●	
Ø12					●					●

QSM Mini Type Speed Controller

Tube Size

Thread	MM TYPE Ø4	Ø6	INCH TYPE 5/32	1/4
M3	●			
M5		●	●	●

QVAB Straight

Tube Size

Thread	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
M5	●									
1/8		●	●	●	●					
1/4						●	●			
3/8								●		
1/2									●	●

QSN Speed Control

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
Ø4	●					●				
Ø6		●					●			
Ø8			●					●		
Ø10				●					●	
Ø12					●					●

QST Panel Type Speed Control

Tube Size

Tube	MM TYPE Ø4	Ø6	Ø8	Ø10	Ø12	INCH TYPE 5/32	1/4	5/16	3/8	1/2
Ø4	●					●				
Ø6		●					●			
Ø8			●					●		
Ø10				●					●	
Ø12					●					●

MSQC Mini Type Straight (Male)

Tube Size

Thread	MM TYPE Ø4	MM TYPE Ø6	INCH TYPE 5/32
M3	●		
M5	●	●	
1/8	●	●	●

MSQH Union

Tube Size

Tube	MM TYPE Ø4	MM TYPE Ø6	INCH TYPE 5/32
Ø3			1/8
Ø4	●		5/32
Ø6	●	●	1/4

MSQL Mini Type Elbow 90°

Tube Size

Thread	MM TYPE Ø4	MM TYPE Ø6	INCH TYPE 5/32
M3	●		
M5	●	●	
1/8	●	●	●

MSQR Threaded Type Union

Tube Size

Tube	MM TYPE Ø4	MM TYPE Ø6	INCH TYPE 5/32
Ø3			1/8
Ø4	●		5/32
Ø6	●	●	1/4

MSQE Mini Type Union Tee

Tube Size

Tube	MM TYPE Ø4	MM TYPE Ø6	INCH TYPE 5/32
Ø3	●		1/8
Ø4	●		5/32
Ø6	●	●	1/4

MSQB Rounded Straight (Male)

Tube Size

Thread	MM TYPE Ø4	MM TYPE Ø6	INCH TYPE 5/32
M3	●		
M5	●	●	
1/8	●	●	●

MSQT Mini Type Union Tee

Tube Size

Thread	MM TYPE Ø4	MM TYPE Ø6	INCH TYPE 5/32
M3	●		
M5	●	●	
1/8	●	●	●

MSQJ 45° Fitting

Tube Size

Thread	MM TYPE Ø4	MM TYPE Ø6	INCH TYPE 5/32
M3	●		
M5	●	●	
1/8	●	●	●

MPC Straight

Tube Size

Thread	MM TYPE Ø4	MM TYPE Ø6	MM TYPE Ø8	MM TYPE Ø10	MM TYPE Ø12
M5	●				
1/8	●	●			
1/4	●	●	●		
3/8	●	●	●	●	
1/2	●	●	●	●	●

MPV Elbow

Tube Size

Tube	MM TYPE Ø4	MM TYPE Ø6	MM TYPE Ø8	MM TYPE Ø10	MM TYPE Ø12
Ø4	●				
Ø6	●	●			
Ø8	●	●	●		
Ø10	●	●	●	●	
Ø12	●	●	●	●	●

MPCF Straight

Tube Size

Thread	MM TYPE Ø4	MM TYPE Ø6	MM TYPE Ø8	MM TYPE Ø10	MM TYPE Ø12
M5	●				
1/8	●	●			
1/4	●	●	●		
3/8	●	●	●	●	
1/2	●	●	●	●	●

MPE Branch Tee

Tube Size

Tube	MM TYPE Ø4	MM TYPE Ø6	MM TYPE Ø8	MM TYPE Ø10	MM TYPE Ø12
Ø4	●				
Ø6	●	●			
Ø8	●	●	●		
Ø10	●	●	●	●	
Ø12	●	●	●	●	●

MPL Elbow

Tube Size

Thread	MM TYPE Ø4	MM TYPE Ø6	MM TYPE Ø8	MM TYPE Ø10	MM TYPE Ø12
M5	●				
M6	●				
1/8	●	●			
1/4	●	●	●		
3/8	●	●	●	●	
1/2	●	●	●	●	●

MPZ Cross

Tube Size

Tube	MM TYPE Ø4	MM TYPE Ø6	MM TYPE Ø8	MM TYPE Ø10	MM TYPE Ø12
Ø4	●				
Ø6	●	●			
Ø8	●	●	●		
Ø10	●	●	●	●	
Ø12	●	●	●	●	●

MPB Branch Tee

Tube Size

Thread	MM TYPE Ø4	MM TYPE Ø6	MM TYPE Ø8	MM TYPE Ø10	MM TYPE Ø12
M5	●				
1/8	●	●			
1/4	●	●	●		
3/8	●	●	●	●	
1/2	●	●	●	●	●

MPM Union

Tube Size

Tube	MM TYPE Ø4	MM TYPE Ø6	MM TYPE Ø8	MM TYPE Ø10	MM TYPE Ø12
Ø4	●				
Ø6	●	●			
Ø8	●	●	●		
Ø10	●	●	●	●	
Ø12	●	●	●	●	●

MPD Branch Tee

Tube Size

Thread	MM TYPE Ø4	MM TYPE Ø6	MM TYPE Ø8	MM TYPE Ø10	MM TYPE Ø12
M5	●				
1/8	●	●			
1/4	●	●	●		
3/8	●	●	●	●	
1/2	●	●	●	●	●

MPH Hex

Tube Size

Thread	MM TYPE Ø4	MM TYPE Ø6	MM TYPE Ø8	MM TYPE Ø10
1/8	●	●	●	●
1/4	●	●	●	●
3/8	●	●	●	
1/2	●	●	●	

MPU Straight

Tube Size

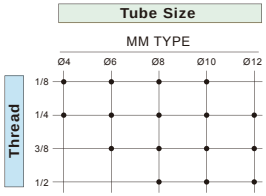
Tube	MM TYPE Ø4	MM TYPE Ø6	MM TYPE Ø8	MM TYPE Ø10	MM TYPE Ø12
Ø4	●				
Ø6	●	●			
Ø8	●	●	●		
Ø10	●	●	●	●	
Ø12	●	●	●	●	●

MSC Tube Fitting

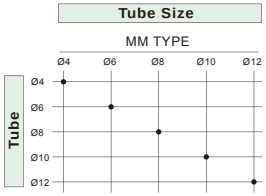
Tube Size

Thread	MM TYPE Ø4	MM TYPE Ø6	MM TYPE Ø8	MM TYPE Ø10
1/8	●	●	●	●
1/4	●	●	●	●
3/8	●	●	●	
1/2	●	●	●	

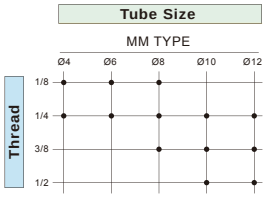
MPMF Straight



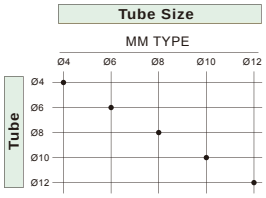
PPU Straight



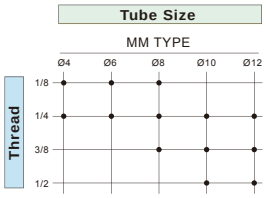
PPL Elbow



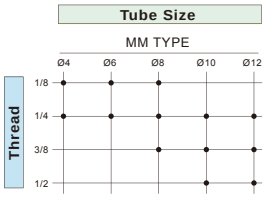
PPE Branch Tee



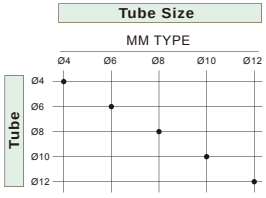
PPB Branch Tee



PPD Branch Tee



PPV Elbow



CJ series CYLINDER FLOAT JOINT — CJ

Model	For Cylinder Bore Size mm	Max. Thrust Kgf	Max. Tensile Strength Kgf	Allowable Eccentricity mm	Shaking Angle
CJ-M4X0.7	10	10	400	0.65	± 5°
CJ-M5X0.8	12,16	15	550	1.1	
CJ-M6X1	16,20	18	600	1	
CJ-M8X1	20,25	30	2100	0.75	
CJ-M8X1.25					
CJ-M10X1.25	25,32	75	3200	1	
CJ-M10X1.5					
CJ-M12X1.25	32,40	120	5000	1.15	
CJ-M12X1.5					
CJ-M14X1.5	40,50				
CJ-M16X1.5		200	6400	1.65	
CJ-M18X1.5	50,63	300			
CJ-M20X1.5	63,80	490	12500	2.15	
CJ-M22X1.5					
CJ-M24X1.5	80,100	750		2.65	
CJ-M26X1.5		770			

Note : Mounting slides are optional.

MAV series MANUALLY OPERATED VALVE — MAV

Model	Port Size Rc (PT)	Thread Type Rc (PT)	Valve Type	Suitable (For F.R.L)
MAV-01	1/8"	Standard : Two Side Female -B : Input (Female) Output (Male)	To exhaust down stream , when pressure in the off position.	For A , P series F.R.L.
MAV-02	1/4"			
MBV-02	1/4"			For B , P series F.R.L.
MBV-03	3/8"			
MCV-04	1/2"			For C. series F.R.L.
MCV-06	3/4"			

SLP series PLASTIC SILENCER — SLP

Model	Port Size Rc (PT)	Material	Noise Reduction Effect dB	Pressure Range Kgf/cm² (Kpa)
SLP-01	1/8	Body : Plastic Filter element : Polyethylene Resin	18	0 ~ 9 (0 ~ 900)
SLP-02	1/4			
SLP-02L				
SLP-03	3/8		27	
SLP-04	1/2		34	
SLP-06	3/4		34	
SLP-10	1		34	

SL series BRASS SILENCER — SL

Model	Port Size Rc (PT)	Material	Noise Reduction Effect dB	Pressure Range Kgf/cm² (Kpa)
SL-M5	M5	Brass	–	0 ~ 9 (0 ~ 900)
SL-01	1/8		1	
SL-02	1/4		6	
SL-03	3/8		13	
SL-04	1/2		8	
SL-06	3/4		15	

SAC series SHOCK ABSORBER (WITHOUT CAP) SAC

Model	Stroke Ø mm	Max. Energy Absorption N • m	Max. Impact Force Kg	Allowable Impact Speed (V) m/s	Bore Size mm
SAC - 0806N	6	2	2	1.0	Ø10 ~ Ø16
SAC - 1008N	8	4	4	1.5	
SAC - 1210N	10	5	10		Ø10 ~ Ø20
SAC - 1408N	8	15	50		Ø12 ~ Ø25

SAC series SHOCK ABSORBER SAC

Model	Stroke Ø mm	Max. Energy Absorption N • m	Max. Impact Force Kg	Allowable Impact Speed (V) m/s	Bore Size mm
SAC - 0806	6	2	2	1.0	Ø10 ~ Ø16
SAC - 1008	8	4	4	1.5	
SAC - 1210	10	5	10		Ø10 ~ Ø20
SAC - 1408	8	15	50		Ø12 ~ Ø25
SAC - 1416	16	20	70		
SAC - 2020	20	40	200	2.0	Ø16 ~ Ø32
SAC - 2050	50	60	400		Ø20 ~ Ø40
SAC - 2525	25	80	800	2.5	Ø25 ~ Ø63
SAC - 2540	40	120	1200		Ø25 ~ Ø80
SAC - 3660	60	250	1500		Ø32 ~ Ø100

SAT series SHOCK ABSORBER SAT

Model	Stroke Ø mm	Max. Energy Absorption N • m	Max. Impact Force Kg	Allowable Impact Speed (V) m/s	Bore Size mm
SAT - 0806 (N)	6	0.3	6	3.0	Ø10 ~ Ø16
SAT - 1007 (N)	7	0.6	12	3.5	
SAT - 1210 (N)	10	1.2	22		Ø10 ~ Ø20
SAT - 1412 (N)	12	2.0	40		Ø12 ~ Ø25
SAT - 2015 (N)	15	6.0	120	3.0	Ø16 ~ Ø32
SAT - 2525 (N)	25	8.2	180	4.5	Ø20 ~ Ø40
SAT - 2725 (N)	25	15.0	270		Ø25 ~ Ø63

SAD series SHOCK ABSORBER SAD

Model	Stroke Ø mm	Max. Energy Absorption N • m	Max. Impact Force Kg	Allowable Impact Speed (V) m/s	Bore Size mm
SAD - 1410	10	2.04	80	3.0	Ø16 ~ Ø32
SAD - 2016	16	2.55	200	3.5	Ø20 ~ Ø40
SAD - 2525	25	8.7	400		Ø25 ~ Ø63
SAD - 2540	40	10.2	700		Ø25 ~ Ø80
SAD - 3650	50	30.6	1400	3.0	Ø32 ~ Ø100
SAD - 4250	50	51.0	4000	4.5	

SHR series HYDRAULIC REGULATOR SHR

Item / Model	Max. Stroke	Operating Temp.	Max. Load	Adjustable Speed Range	Allowable Power
SHR15	15 mm	0 ~ 60 ℃	15 ~ 350 kgf	0.5 ~ 30mm/Sec (When load 100kgs)	0.23 Kgf.m
SHR30	30 mm				
SHR60	60 mm				
SHR80	80 mm				
SHR100	100 mm				

TK series AIR RESERVOIR TK

Model	Port Size Rc (PT)	Bore Size Ø mm	Bore Stroke mm	Volume L	Pressure Range Kgf/cm² (Kpa)
TK - 03L	1/4"	114	250	2.5	0 ~ 7 (0 ~ 700)
TK - 05L	3/8"	165	270	5	
TK - 10L		200	375	10	
TK - 15L			490	15	
TK - 20L		244	490	20	
TK - 25L			575	25	
TK - 30L			660	30	
TK - 35L			760	35	
TK - 40L	1/2"	300	590	40	
TK - 45L			660	45	
TK - 50L			760	50	
TK - 55L			840	55	
TK - 60L			870	60	

CS series SENSOR SWITCH CS

Model	Voltage V	Current mA	Contact	Range of Service Temp. ℃
CS-95	DC.AC. 10 ~ 240	200	Normally Open	-10 ~ 70
CS-95	DC.AC. 10 ~ 150	200	Normally Close	
CS-95N (P)	DC. 5 ~ 30	200	Normally Open	
CS-100 (S)	DC.AC. 5 ~ 240	100		
CS-100N (P)	DC. 5 ~ 30	200		
CS-120	DC.AC. 5 ~ 240	100		
CS-120N (P)	DC. 5 ~ 30	200		
CS-130	DC.AC. 5 ~ 240	100		
CS-130N (P)	DC. 5 ~ 28	50		
CS-30E (F,S)	DC.AC. 5 ~ 240	100		
CS-30EN (EP)	DC. 5 ~ 30	200		
CS-5G	DC. 10 ~ 28	4 ~ 20		
CS-5GN (P)	DC. 4.5 ~ 28	50		
CS-8G (B)	DC. 10 ~ 28	4 ~ 20		
CS-8GN (P)	DC. 4.5 ~ 28	50		
CS-9D (B)	DC.AC. 5 ~ 120	100		
CS-9H	DC.AC. 5 ~ 240	100		
CS-9DN (P)	DC. 5 ~ 30	200		
CS-6T (H)	DC.AC. 5 ~ 240	100		
CS-7B	DC. 10 ~ 28	4 ~ 20		
CS-7BN (P)	DC. 5 ~ 28	50		
CS-15T (B)	DC.AC. 5 ~ 120	100		
CS-15TN (P)	DC. 5 ~ 30	200		
CS - 32 B	DC.AC. 5 ~ 240	200		
CS - 50 B	DC.AC. 5 ~ 240	200		
CS - 80 B	DC.AC. 5 ~ 240	200		
CS-180	DC. 10 ~ 28	5 ~ 50		-10 ~ 60

Note : Custom-made is normally close for N.C. normally close type.

PU series PU TUBING

PU

Model	OD × ID (mm)	Standard Length (m)	Min. Bending Radis (mm)	Range of service temp. °C	Pressure Range Kgf/cm² (Kpa)
PU0320	3 x 2	200	8	0 ~ 50	0 ~ 10 (0 ~ 1000)
PU0425	4 x 2.5		10		
PU0640	6 x 4		16		
PU0850	8 x 5	100	22		
PU1065	10 x 6.5		28		
PU1280	12 x 8		37		

※ Standard Color : Black、Blue、Transparent、(Also available in other color).

PN series NYLON TUBING

PN

Model	OD × ID (mm)	Standard Length (m)	Min. Bending Radis (mm)	Range of service temp. °C	Pressure Range Kgf/cm²
PN0425	4 x 2.5	200	17	0 ~ 50	< 20
PN0640	6 x 4	100	37		
PN0860	8 x 5		48		
PN1075	10 x 7.5	100	66		
PN1290	12 x 9		76		

※ Standard Color : Transparent.

PS series PRESSURE SWITCH

PS

Model	Voltage	Pressure Range	Output	Response Time	Port Size
PS N – 05	12 to 24 VDC (±10%)	-0.1 ~ 1.0 Mpa	–	–	Ø6,M5,1/8" (G,PT,NPT)
PS V – 05		-100 ~ 100 Kpa			
PS N – 10		-0.1 ~ 1.0 Mpa	NPN PNP	5 ms or less	M5 , 1/8" (G,PT,NPT)
PS L – 10		0 ~ 100 Kpa			
PS V – 10		-101 ~ 0 Kpa			
PS N – 30		-0.1 ~ 1.0 Mpa		≤ 2.5 ms Function : 24 ms,192 ms, 768 ms (Option)	
PS C – 30		-100 ~ 100 Kpa			
PS V – 30		0 ~ -101 Kpa			
PS N – 40		-0.1 ~ 1.0 Mpa		≤ 2.5 ms Function : 24 ms,192 ms, 768 ms (Option)	1/8" (G,PT,NPT)
PS C – 40		-100 ~ 100 Kpa			
PS V – 40		0 ~ -101 Kpa			
PS N – 41		-0.1 ~ 1.0 Mpa		0.05s,0.25s,0.5s, 1s,2s,3 s (Option)	For. N200 ~ N500
PS N – 42				≤ 2.5 ms Function :25ms ,100ms 250ms,500ms,1000ms 1500ms (Option)	M5 , 1/8" (G,PT,NPT)
PS C – 42		-100 ~ 100 Kpa			
PS V – 42		0 ~ -101 Kpa			
PS N – 43		-0.1 ~ 1.0 Mpa	–	–	1/8" (G,PT,NPT)
PS C – 43		-100 ~ 100 Kpa			
PS N – 46		-0.1 ~ 1.0 Mpa	NPN PNP	≤ 2.5 ms Function :25ms ,100ms 250ms,500ms,1000ms 1500ms (Option)	M5 , 1/8" (G,PT,NPT)
PS C – 46		-101 ~ 101 Kpa			

APL2 series PICK AND PLACE ROBOT

APL2

Item	Model		APL2 - 10	APL2 - 15	APL2 - 20
Operation			Double Acting		
Fluid			Air		
Pressure Range		Kgf/cm² (Kpa)	1.5 ~ 6 (150 ~ 600)		
Max. service pressure		Kgf/cm² (Kpa)	7 (700)		
X Axis Horizontal moving	Model	(mm)	MRX 10	MRX 15	MRX 20
	Cylinder thrust	(kgf)	4.7	10	18
Y Axis Vertical moving	Model	(mm)	MDX 12	MDX 16	MDX 20
	Cylinder thrust	(kgf)	13.2	24	37.2
Z Axis Rotary cylinder	Model	(mm)	RTB 07	RTBM 10	RTBM 20
	Torque	(N·m)	0.6	1.5	2.2
H Axis Gripper	Model	(mm)	HDZ 10	HDZ 16	HDZ 20
			HDP 10	HDP 16	HDP 20
			HDS 10	HDS 16	HDS 20

APR2 series PICK AND PLACE ROBOT

APR2

Item	Model		APR2 - 50	APR2 - 70	APR2 - 100
Operation			Double Acting		
Fluid			Air		
Pressure Range		Kgf/cm² (Kpa)	1.5 ~ 6 (150 ~ 600)		
Max. service pressure		Kgf/cm² (Kpa)	7 (700)		
R Axis Rotary cylinder	Model	(mm)	RTBM 50	RTBM 70	RTBM 100
	Torque	(N·m)	5.5	7.5	9.8
X Axis Horizontal moving	Model	(mm)	MDX 12	MDX 16	MDX 20
	Cylinder thrust	(kgf)	13.2	24	37.2
Y Axis Vertical moving	Model	(mm)	MDX 12	MDX 16	MDX 20
	Cylinder thrust	(kgf)	13.2	24	37.2
Z Axis Rotary cylinder	Model	(mm)	RTB 07	RTBM 10	RTBM 20
	Torque	(N·m)	0.6	1.5	2.2
H Axis Gripper	Model	(mm)	HDZ 10	HDZ 16	HDZ 20
			HDP 10	HDP 16	HDP 20
			HDS 10	HDS 16	HDS 20

APS2 series PICK AND PLACE ROBOT

APS2

Item	Model		APS2 - 10	APS2 - 15	APS2 - 20
Operation			Double Acting		
Fluid			Air		
Pressure Range		Kgf/cm² (Kpa)	1.5 ~ 6 (150 ~ 600)		
Max. service pressure		Kgf/cm² (Kpa)	7 (700)		
R Axis Rotary cylinder	Model	(mm)	MRY 10	MRY 15	MRY 20
	Torque	(N·m)	4.7	10	18
X Axis Horizontal moving	Model	(mm)	MDX 12	MDX 16	MDX 20
	Cylinder thrust	(kgf)	13.2	24	37.2
Y Axis Vertical moving	Model	(mm)	MDX 12	MDX 16	MDX 20
	Cylinder thrust	(kgf)	13.2	24	37.2
Z Axis Rotary cylinder	Model	(mm)	RTB 07	RTBM 10	RTBM 20
	Torque	(N·m)	0.6	1.5	2.2
H Axis Gripper	Model	(mm)	HDZ 10	HDZ 16	HDZ 20
			HDP 10	HDP 16	HDP 20
			HDS 10	HDS 16	HDS 20

RML series 180° ROTARY GRIPPER

RML

Item	Model		RML - 20			RML - 50		RML - 100	
Gripper			HDQ3 25	HDQ3 32	HDQ3 40	HDQ3 50	HDQ3 63	HDQ3 80	HDQ3 100
Operation	Rotary cylinder		Double Acting						
	Gripper		Double Acting						
Force	OPEN	(N)	30	70	131	282	446	578	946
	CLOSE	(N)	35	82	149	314	496	641	1009
Fluid			Air						
Pressure Range		kgf/cm2(kpa)	1.5 ~ 7 (150 ~ 700)						
Max. service pressure		kgf/cm2(kpa)	6.5 (650)						
Operating ambient temperature range		°C	0 ~ 60						
Lubrication			Lubrication free						
Port size	Rotary cylinder		M5			PT 1/8"			
	Gripper		M5					PT 1/8"	
Cushion			Shock absorber						

MEMO

MEMO

CHELIC PNEUMATIC EQUIPMENTS

MANUFACTURER / TAIWAN CHELIC CORP., LTD.

TAIPEI

Head office : NO. 21 GUIFENG ST. TAISHAN DIST
NEW TAIPEI CITY 24355 TAIWAN.

Tel : + 886 - 2 - 2904 - 1235 • + 886 - 2 - 2903 - 8155

Fax : + 886 - 2 - 2906 - 8203 • + 886 - 2 - 2904 - 1706

http : // www.chelic.com

e-mail : chelic@chelic.com

Service center / Tel : + 886 - 2 - 2209 - 3830

SHANGHAI

China Company :

SHANGHAI CHELIC PNEUMATIC CORP.
NO.467 CAONONG ROAD XINGQIAO TOWNSHIP
SONGJIANG DISTRICT SHANGHAI CITY CHINA

Tel : + 86 - 21 - 6025 - 1288

Fax : + 86 - 21 - 6025 - 1265 • + 86 - 21 - 6025 - 1266

http : // www.chelic.com

e-mail : sha@chelic.com