

CHELIC® PNEUMATIC

Ver. 1-8

CAT-1802

PRODUCT CATALOGS



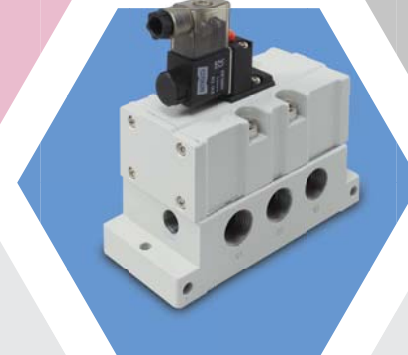
TAIWAN CHELIC CORP LTD.



SHANGHAI CHELIC PNEUMATIC CORP.



SHENZHEN CHELIC PNEUMATIC CORP.



Manufacturer

TAIWAN CHELIC CORP. LTD.
<http://www.chelic.com>



The specification are subject to change without advance notice.

WE SUPPLY SPECIALIZED PNEUMATIC EQUIPMENTS.

COMPANY OVERVIEW



CHELIC was founded in 1986 and with headquarter in New Taipei of Taiwan. The company has been specializes in the production of pneumatic components the range includes FRL units, valves, actuators, sub-accessories, modularized units and electro control units that applying in machinery sectors such as production facilities, factory automation, inspection equipment, education equipment and other equipment.

CHELIC is known as a brand name widely and cooperated with global distributors in different countries to provide service and assigned by well-known automation companies as OEM suppliers either in domestic or overseas.

CHELIC has been inventing in R&D field and quality improvement for years to offer various designs so that brand name CHELIC level up in the automation sectors. The center of goal is assisting customers to enhance their production efficiency and lower down manufacturing cost thus turning to royalty suppliers and backup. We, Chelic, look forward to having your supporting and sharing in any aspect.

COMPANY DEVELOPMENT

- 1986 Taiwan Chelic Corp. Ltd. founded and located in New Taipei City
- 1990 In cooperation with KOGANEI Japan for air unit to import advanced equipment and production technology
- 1991 Air cylinders and valves launched
- 1995 Obtained ISO 9002 to implementing Quality System thoroughly
- 1998 Obtained ISO 9001 invigorating Research and Development
- 2001 TUV accredited that Electrical Safety qualification conformed to CE MARK
- 2001 Shanghai Chelic Pneumatic Corp. established in Shanghai City
- 2002 Enterprise Resource Planning system (ERP) implemented
- 2003 Rotary vane cylinder launched
- 2004 Slide table cylinder introduced
- 2005 Air grippers released
- 2008 Rodless cylinder rolled out
- 2009 Qualified and classified as ODM supplier by TAIYO Japan company
- 2010 The automated warehouse system and computerized management activated of new building located in Taishan of New Taipei City
- 2011 Intergrating all systems and information through out the Group
- 2013 The new plant in Songjiang, Shanghai started started to operate
- 2014 The Shenzhen branch activated providing service to domestic customers from southern China
- 2015 The phase 2 construction of Taishan facility completed and operated
- 2015 Being publicly listed company with stock code 4555
- 2015 Four designs included Precision regulator and Horizontal rotary cylinder awarded by 2016 TAIWAN EXCELLENCE
- 2016 Electric actuators launched
- 2016 Six designs included Rotary gripper and Modularized vacume ejector awarded by 2017 TAIWAN EXCELLENCE
- 2017 Electro-Pneumatic Regulator announced
- 2017 8 type designs included direct operated solenoid valve \ energy saving vacuum equipment \ energy saving precision pressure regulator won the 2018 TAIWAN EXCELLENT AWARD





HDQ Series
Parallel
Gripper



ER Series
Precision
Regulator



ERP Series
Precision
Regulator



SF Series
Solenoid
Valve



PRU Series
Rodless
Cylinder



SKV 507 Series
Directional
Control Valve



ERX Series
Precision
Regulator



RBZ Series
Rotary
Gripper



RMT Series
180° Rotary
Gripper



EVM Series
Vacuum
Ejector



RMF Series
Rotary
Cylinder



RMZ Series
Rotary
Gripper



MRY Series
Magnetic
Rodless
Cylinder



VK Series
Vacuum
Ejector



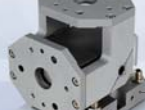
VQ 20 Series
Vacuum
Ejector



SKB 300 Series
Directional
Control Valve



RTL Series
90° Swivel
Module



MDQ Series
Slide Table
Cylinder





AIR UNIT

F.R.L. Combination



- **NC** ----- F.R.L Combination ----- P.17
- **NFC** ----- FR.L Combination ----- P.17
- **NFR** ----- Filter Regulator ----- P.17
- **NF** ----- Air filter ----- P.18
- **NR** ----- Regulator ----- P.19
- **NL** ----- Lubricator ----- P.19

F.R.L. Combination



- **AC/BC/CC** ----- F.R.L Combination ----- P.22
- **AFC/BFC/CFC** ----- FR.L Combination ----- P.22
- **AFR/BFR/CFR** ----- Filter Regulator ----- P.22
- **AF/BF/CF** ----- Air filter ----- P.22
- **AR/BR/CR** ----- Regulator ----- P.23
- **AL/BL/CL** ----- Lubricator ----- P.23



AIR UNIT

Mist Separator



- **MF series** ----- P.18
- **MFD series** ----- P.18
- **MFR series** ----- P.17
- **MFRD series** ----- P.18

Mini Regulator



- **NPR-100 series** ----- P.20
- **NPR-200 series** ----- P.20
- **NPR-300 series** ----- P.20

Large – Sized Filter



- **DM-200 series** ----- P.19
- **DM-300 series** ----- P.19
- **DM-500 series** ----- P.19
- **DM-800 series** ----- P.19



AIR UNIT

Precision Regulator



- **ERX series** ----- P.20
- **ERP series** ----- P.20
- **CVTR series** ----- P.21
- **FC series** ----- P.21

Exhaust valve / Auto Drain Trap



- **AFB series** ----- P.21
- **NDV series** ----- P.19

F.R.L. Combination (All Plastic)



- **PFC series** ----- P.23
- **PFR series** ----- P.23
- **PF series** ----- P.23
- **PL series** ----- P.23



VALVE

Solenoid Valves



- **SM series** ----- P.25
- **SMB series** ----- P.26
- **SMU / SMUB series** ----- P.26
- **SR series** ----- P.27
- **SRB series** ----- P.28
- **SRU / SRUB series** ----- P.28

DIN Rail Cassette Type Valves



- **SF-300 series** ----- P.29
- **SF-500 series** ----- P.29

Solenoid Valves



- **SRK series** ----- P.30
- **SK series** ----- P.30
- **ST2 series** ----- P.29
- **SNK series** ----- P.31
- **SKU series** ----- P.31
- **SV series** ----- P.31
- **SV310 series** ----- P.31
- **SN series** ----- P.32
- **SKV507 series** ----- P.32
- **SKV507U series** ----- P.32
- **SKB series** ----- P.32
- **SKB300U series** ----- P.32
- **SZB series** ----- P.33
- **SZBC series** ----- P.33
- **ISO 4 series** ----- P.33

VALVE

2 Ports Solenoid Valve



- SBS series P.33
- SU series P.34
- SUB series P.33
- SUD series P.34
- SUD2 series P.34
- SUW series P.34
- SUW2 series P.34
- SUS series P.34
- SAS series P.34
- SDC series P.34
- SFW series P.35

Air Operated Valve



- PM series P.35
- PMB series P.36
- PMU series P.36
- PMUB series P.36
- PV series P.36
- PN series P.37

Mechanical Valve



- MV-100 series P.37
- MV-110 series P.37
- MV-130 series P.37
- MV-150 series P.37
- MV-200 series P.38
- MV-230 series P.38
- MV-250 series P.38

VALVE

Hand-Operated Valve



- HVL series P.38
- HVM series P.38
- HVT series P.39

Quick Exhaust Valve



- QE series P.39
- QEB series P.39
- QEBC series P.39
- QED series P.40
- QEH series P.40
- QEU series P.40
- QEUC series P.40

Foot Valve / Speed Controller



- FVA series P.39
- FVS series P.39
- SC series P.40

CYLINDER

Cartridge Cylinder



- NA series P.41
- NA2 series P.41
- NB series P.41

Free mount compact cylinder



- NU series P.41
- ND series P.41
- NQ series P.42
- NQT series P.42
- NQDK series P.42

Compact Cylinder



- MSI series P.42
- JQ series P.42
- JD series P.43
- JG series P.44

CYLINDER

Guide Cylinder



- JTD series P.45
- JTF series P.45
- JCB series P.45
- JCF series P.45

Compact Cylinder



- JE series P.46
- JEK series P.46
- JM series P.46

Stopper Cylinder



- STB series P.47
- STC series P.47
- STD series P.47
- STDL series P.47
- STF series P.47

CYLINDER

Miniature Cylinder



- SBA series P.48
- SDA series P.48
- SDX series P.48
- DBS2 series P.49
- DBF2 series P.49
- DBT series P.49
- FDA series P.49

Standard Cylinder



- DN series P.50
- DMB series P.50
- DU series P.51

Rod Locking Cylinder / End Lock Cylinder



- DNK series P.51
- DNE series P.51

CYLINDER

Clamp Cylinder



- DCK2 series P.52
- DCK2S series P.52

Power Clamp Cylinder



- DQ series P.52

Pin Clamp Cylinder



- DCQ series P.52
- DCQS series P.52

CYLINDER

Air - Oil Converter / Booster



- DC series P.53
- DH series P.53
- PCB series P.53
- PCU series P.53

Rodless Cylinder



- PRE series P.54
- PRU series P.54
- PRF series P.54
- PRUT series P.54

Magnetic Rodless Cylinder



- MRD series P.54
- MRB series P.55
- MRU series P.55
- MRH series P.55
- MRX series P.55
- MRY series P.55

CYLINDER

Slide Table Cylinder



- MSR(L) series P.56
- MSR(L)2 series P.56
- FMR(L) series P.56

Compact Slide Cylinder



- MQX series P.57

Slide Table Cylinder



- MDQ series P.56
- MDX series P.56
- MDXL series P.56

CYLINDER

Slide Table Cylinder



- MBX series P.57
- MGX series P.57
- MQX series P.57
- MTX series P.57

Dual Rod Cylinder



- TD series P.58
- TDX series P.58
- TDXU series P.58

Dual Rod Cylinder



- STU series P.58
- STM series P.58
- STX series P.58

CYLINDER

Guide Cylinder



- TB(U)2 series P.59
- TSB(U) series P.59
- TXB(U) series P.60

Guide Cylinder



- TMB(U) series P.60
- GCB(U) series P.60
- GHB(U) series P.60

Guide Cylinder



- TCR series P.61
- TCF series P.61

CYLINDER

Rotary Cylinder



- RTM series P.61
- RMF series P.61
- RTB series P.62
- RTBM series P.62
- RTZB series P.61
- RTP series P.62

Rotary cylinder



- RTH series P.62

Hydraulic cylinder



- RTU series P.62

CYLINDER

Swing Clamp Cylinder



- SCR(L) series P.63
- HGR(L) series P.63

Double rod swing clamp cylinder



- HER series P.63

Swing Clamp Cylinder



- HSR(L) series P.63
- HBR(L) series P.64
- HFR(L) series P.64
- HUR(L) series P.64

CYLINDER

PNEUMATIC LINK CLAMP CYLINDER



- HFK series P.64

Hydraulic Cylinder



- HUK series P.64
- HCF series P.65
- HCS series P.65
- HCQ series P.65

Threaded-body cylinder



- HN series P.65
- HS series P.65

GRIPPER

Wide Type Gripper



- HDL series P.69
- HDT series P.70

Gripper



- HDQ series P.70
- HMQ series P.71

Swive Module



- RTL series P.71
- RMT series P.71

GRIPPER

Mini Gripper



- HDD series P.67

Gripper



- HDS series P.67
- HDM series P.67
- HDP series P.67
- HDF series P.68
- HDZ series P.68
- HDZL series P.68
- HDZM series P.68

Power Gripper



- HDW series P.69
- HDG series P.69
- HMW series P.69

GRIPPER

Rotary Gripper



- RMZ series P.72
- RBZ series P.72

VACUUM EQUIPMENT

Vacuum Ejector



- EV series P.73
- EVM series P.73

Vacuum Ejector



- VAB series P.73
- VAS series P.73
- VABS series P.73

VACUUM EQUIPMENT

Vacuum Ejector



- VMB series P.74
- VMD series P.74
- VML series P.74
- VMK series P.74
- VMT series P.74
- VMBU series P.75
- VMDU series P.75

Vacuum Module Ejector System



- VK20B series P.76
- VK20S series P.76
- VK20T series P.76
- VK20ST series P.76
- VK30T series P.76
- VK30ST series P.77
- VQ20B series P.77
- VQ20S series P.77
- VK20T series P.77
- VK20ST series P.77
- MVS series P.77

Vacuum Filter



- VFD series P.75
- VFM series P.75
- VFU series P.75

VACUUM EQUIPMENT

VACUUM PAD

Vacuum Regulator



- ERV series P.76

Vacuum Pad



- PAF P.78
- PAK P.78
- PAT P.78
- PAFS P.78
- PATS P.78
- PBF P.79
- PBK P.79
- PBT P.79
- PBFS P.79
- PBTS P.79

Bellows Type Vacuum Pad



- PCF series P.80
- PCK series P.80
- PCT series P.80
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- PCTS series P.80
- PS series P.80
- PAL series P.81
- PAR series P.81

FITTING

Fitting



- Fitting series P.83 ~ P.86
- Metal Fitting series P.89 ~ P.90
- Rapid Pneumatic Fittings series P.91 ~ P.92

Fitting



- Fitting series P.87

Mini Fitting



- Mini Fitting series P.88

ACCESSORIES

Accessories



- CJ P.93
- MAV / MBV / MCV P.93
- SLP P.93
- SL / SLB / SLR / SLBR P.93
- SAC / SAT / SAD P.94
- SHR P.94
- PU / PUL / PN P.96

Sensor switch / Pressure switch



- CS series P.95
- PSS series P.95
- PS series P.96

ASSEMBLY PICK AND PLACE ROBOT

Assembly pick and place robot



- APR2 series P.97
- APS2 series P.97
- APL2 series P.98

RELATED CALCULATION INFORMATION

Compressed air consumption, various flow rate conversion table

Air flow and consumption

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

$$QB = 2 \times A_3 \times LH \times \frac{P}{1.033} \times 10^{-3}$$

$$Qn = (QA + QB) \times n$$

Qn : Air consumption of cylinder movement / time (L / min)

QA : Air consumption of cylinder Backward and time (L / min)

QB : Air consumption of piping (Between solenoid valve and cylinder) (L/min)

A₁ : Piston area (cm²) (Pushing)

A₂ : Piston area (cm²) (Pulling)

A₃ : Inside diameter of piping (cm²)

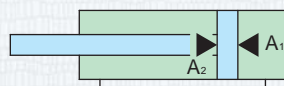
L : Stroke of cylinder (cm)

LH : Piping length (cm)

P : Operation pressure (kgf/cm²)

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 (cm²)															
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/cm²)															
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

RELATED CALCULATION INFORMATION

Theoretical force and various pressure conversion table

CHELIC PNEUMATIC

The calculation method of cylinder force

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

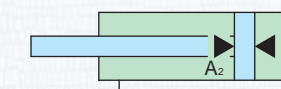
F : Cylinder force (kgf)

A : Piston area (cm²)

P : Operating pressure (kgf/cm²)

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 (cm²)															
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
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Operating air Pressure (kgf/cm²)															
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
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
3	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
4	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
5	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
6	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
7	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
8	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
9	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
10	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
11	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
12	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
13	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
14	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
15	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
16	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
17	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
18	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 efficiency have to be taken into consideration.

Pressure conversion table


Unit	Pa	KPa	MPa	bar	mbar	kgf/cm ²	cmH ₂ O	mmH ₂ O	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 ₂ O	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 ₂ O	9.80665	9.807×10 ⁻³	9.807×10 ⁻⁶	9.807×10 ⁻⁶	9.807×10 ⁻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"
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 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"
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 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
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- 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)

CHELIC PNEUMATIC

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 Rc (PT)	Flow Rate L/min (ANR)	Pressure Range Kgf/cm ² (Kpa)	Remarks
	Filter	Regulator	Lubricator				
NC-100	-M5	NF-100	NR-100	NL-100	M5	900	-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	
NC-300	-02	NF-300	NR-300	NL-300	1/4"	1300	-H-F1:Manual drainer With fitting (Option)
	-03				3/8"	1300	
NC-400	-02	NF-400	NR-400	NL-400	1/4"	2200	-S : Semi-Auto drainer Differential perssure drain (Option)
	-03				3/8"	2200	
NC-450	-04	NF-450	NR-450	NL-450	1/2"	2800	-S-F2:Semi-Auto drainer Differential perssure drain With fitting (Option)
	-06				3/4"	2800	
NC-500	-06	NF-500	NR-500	NL-500	3/4"	5300	-A : Auto drainer
	-10				1"	5300	

F.R.L. COMBINATION

NFC



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

FILTER REGULATOR

NFR



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

MIST SEPARATOR REGULATOR

MFR



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

MICRO MIST SEPARATOR REGULATOR

MFRD



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

AIR FILTER

NF



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

MIST SEPARATOR

MF



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

MICRO MIST SEPARATOR

MFD



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

REGULATOR

NR



Model	Port Size Rc (PT)	Flow Rate L/min (ANR)	Gauge Rc (PT)	Pressure Range Kg/cm ² (Kpa)	Remarks
NR-100	-M5	M5	800	0.5 ~ 8.5 (50 ~ 850)	-
	-01	1/8"	900		
NR-200	-01	1/8"	1000	Standard: 0.5 ~ 8.5 (50 ~ 850) Low Pressure: 0.1 ~ 1 (10 ~ 100)	-L1:Low Pressure 1 Kg/cm ² -L2:Low Pressure 2 Kg/cm ² -L4:Low Pressure 4 Kg/cm ²
	-02	1/4"	1000		
NR-300	-02	1/4"	1300	0.5 ~ 2 (50 ~ 200) 0.5 ~ 4 (50 ~ 400)	-
	-03	3/8"	1300		
NR-400	-02	1/4"	2300	0.5 ~ 8.5 (50 ~ 850)	-
	-03	3/8"	2300		
NR-450	-04	1/2"	2300	-	-
	-06	3/4"	3000		
NR-500	-06	3/4"	5300	-	-
	-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
	-01	1/8"	850		
NL-200	-01	1/8"	1000	0 ~ 30	25
	-02	1/4"	1000		
NL-300	-02	1/4"	1100	0 ~ 40	90
	-03	3/8"	1100		
NL-400	-02	1/4"	2200	0 ~ 40	90
	-03	3/8"	2200		
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 Kg/cm ² (Kpa)	Remarks
DM □ - 200	-02	1/4"	2000	0.5 ~ 10 (50 ~ 1000)
	-03	3/8"	2000	
DM □ - 300	-03	3/8"	3300	-
	-04	1/2"	3600	
DM □ - 500	-06	3/4"	3600	-
	-04	1/2"	6000	
DM □ - 800	-06	3/4"	6000	-
	-10	1"	6000	
	-10	1"	12000	-
	-12	1 1/2"	12000	

AUTO DRAIN VALVE

NDV



Model	Port Size Rc (PT)	Remarks
NDV-300	-02	-H : Manual drainer (Standard type)
	-03	
	-04	
NDV-500	-04	-H-F1 : Manual drainer With fitting (Option) -A : Auto drainer
	-06	

NPR-100 series MINI REGULATOR

NPR



Model	Port Size Rc (PT)	Flow Rate L/min (ANR)	Pressure Range Kg/cm ² (Kpa)
NPR-100	04	Ø4	140
	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 Kg/cm ² (Kpa)
NPR-200	M5	M5	250	2 ~ 7
NPR-300	01	01	280	

ERX series PRECISION REGULATOR (Energy Saving - No Overflow)

ER



Model	Port Size Rc (PT)	Max. Pressure Mpa (Kg/cm ²)	Min. Pressure Mpa (Kg/cm ²)	Pressure Range Mpa (Kg/cm ²)	Gauge
ERX-200	1/8"	Max. 1.0 Mpa (10.2)	Set Pressure + 0.05 Mpa (0.5)	0.01 ~ 0.8 Mpa (0.1 ~ 8.2)	PG - 10A
ERX-200-L4	1/8"	Max. 1.0 Mpa (10.2)	Set Pressure + 0.05 Mpa (0.5)	0.01 ~ 0.4 Mpa (0.1 ~ 4.1)	PG - 10A
ERX-200-L2	1/8"	Max. 1.0 Mpa (10.2)	Set Pressure + 0.05 Mpa (0.5)	0.01 ~ 0.2 Mpa (0.1 ~ 2.0)	PG - 10A
ERX-300	1/4"	Max. 1.0 Mpa (10.2)	Set Pressure + 0.05 Mpa (0.5)	0.01 ~ 0.8 Mpa (0.1 ~ 8.2)	PG - 10A
ERX-300-L4	1/4"	Max. 1.0 Mpa (10.2)	Set Pressure + 0.05 Mpa (0.5)	0.01 ~ 0.4 Mpa (0.1 ~ 4.1)	PG - 10A
ERX-300-L2	1/4"	Max. 1.0 Mpa (10.2)	Set Pressure + 0.05 Mpa (0.5)	0.01 ~ 0.2 Mpa (0.1 ~ 2.0)	PG - 10A
ERX-400	1/4", 3/8", 1/2"	Max. 1.0 Mpa (10.2)	Set Pressure + 0.1 Mpa (1.0)	0.01 ~ 0.8 Mpa (0.1 ~ 8.2)	PG - 10A
ERX-400-L4	1/4", 3/8", 1/2"	Max. 1.0 Mpa (10.2)	Set Pressure + 0.1 Mpa (1.0)	0.01 ~ 0.4 Mpa (0.1 ~ 4.1)	PG - 10A
ERX-400-L2	1/4", 3/8", 1/2"	Max. 1.0 Mpa (10.2)	Set Pressure + 0.1 Mpa (1.0)	0.01 ~ 0.2 Mpa (0.1 ~ 2.0)	PG - 10A

DIRECT OPERATED PRECISION REGULATOR

ERP



Model	Port Size Rc (PT)	Max. Pressure Mpa (Kg/cm ²)	Min. Pressure Mpa (Kg/cm ²)	Pressure Range Mpa (Kg/cm ²)	Gauge
ERP-200	1/8" · 1/4"	Max. 0.7 Mpa	Set Pressure + 0.05 Mpa (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 + 0.05 Mpa (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 + 0.05 Mpa (0.5)	0.01 ~ 0.2 Mpa (0.1 ~ 2.04)	PG - 05A
ERP-300	1/4" · 3/8"	Max. 0.7 Mpa	Set Pressure + 0.05 Mpa (0.5)	0.01 ~ 0.6 Mpa	PG - 10A
ERP-300-L4	1/4" · 3/8"	Max. 0.7 Mpa	Set Pressure + 0.05 Mpa (0.5)	0.01 ~ 0.4 Mpa	PG - 10A
ERP-300-L2	1/4" · 3/8"	Max. 0.7 Mpa	Set Pressure + 0.05 Mpa (0.5)	0.01 ~ 0.2 Mpa	PG - 10A

CVTR series ELECTOR - PNEUMATIC REGULATOR

CVTR



Model	Pressure Range Mpa	Port Size Rc (PT)	Thread Type	Voltage	Input Singal	Monitor Output
CVTR101	0.005~0.1MPa	1/8"	Rc NPT PF	DC24V	Current Type : DC4~20mA Voltage Type : DC0~5V DC0~10V	NPN Output PNP Output Analogue DC0.5~4.5V Analogue DC4~20mA
CVTR201	0.005~0.5MPa	1/4"				
CVTR301	0.005~0.9MPa	1/4"				
CVTR105	0.005~0.1MPa	1/4"				
CVTR205	0.005~0.5MPa	3/8"				
CVTR305	0.005~0.9MPa	3/8"				
CVTR109	0.005~0.1MPa	1/4"				
CVTR209	0.005~0.5MPa	3/8"				
CVTR309	0.005~0.9MPa	1/2"				

FLOW SWITCH

FC



Model	Flow Range	Voltage	Port Size	Output	Minimum Display Unit	
FCS-005	0.5L/min	DC-24V	Φ4 · Φ6 · Φ8	2 NPN Type 2 PNP Type Max. current : 50mA	1mL/min	
FCS-020	2L/min				0.01mL/min	
FCS-100	10L/min				0.1L/min	
FCS-200	20L/min				1L/min	
FCM-500	50L/min		Φ6 · Φ8		Rc1/2	
FCM-101	100L/min					
FCM-201	200L/min		Φ8 · Φ10			
FCH-501	500L/min					
FCH-102	1000L/min					

EXHAUST VALVE

AFB



Model	Port Size Rc (PT)	Flow Rate L/min (ANR)	Pressure Range Kgf/cm ² (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 Rc (PT)	Max. Flow L/min (ANR)	Pressure Range Kgf/cm ² (Kpa)	Remarks
	Filter	Regulator	Lubricator				
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 -LG-W : Side press drainer
AC-200	AF-200	AR-200	AL-200	1/4"	750		
BC-200	BF-200	BR-200	BL-200	1/4"	1000		
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		

F.R.L. COMBINATION

AFC / BFC / CFC



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

FILTER REGULATOR

AFR / BFR / CFR



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

AIR FILTER

AF / BF / CF



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

REGULATOR

AR / BR / CR



Model	Port Size Rc (PT)	Max. Flow L/min (ANR)	Gauge Connection Rc (PT)	Pressure Range Kg/cm ² (Kpa)	Remarks
AR-150-D1	1/8"	600	1/8"	0.1 ~ 1 (10 ~ 100)	For HVLP Air Gun
AR-150	1/8"	650		Standard :	-L1:Low Pressure 1 Kg/cm ² -L2:Low Pressure 2 Kg/cm ² -L4:Low Pressure 4 Kg/cm ²
AR-200	1/4"	750		Low Pressure:	-L4:Low Pressure 4 Kg/cm ²
BR-200	1/4"	1000	1/4"	0.1 ~ 1 (10 ~ 100)	—
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 Rc (PT)	Max. Flow L/min (ANR)	Oil Capacity L/min (ANR)	Oil Volume CC	Remarks
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			

F.R.L. COMBINATION (All Plastic)

PFC / PF / PFR / PL



Model	Description	Port Size Rc (PT)	Max. Flow L/min (ANR)	Remarks
PFC-200	FR.L. Unit	1/4"	800	Filter Grade : 5µm Pressure Range : 0.5~8.5 Kg/cm ² Drain Cock : Semi-Auto Drainer Drip flow Volume : 0~80 drips/min Oil Store Capacity : 30 cc
PF-200	Filter			
PFR-200	Filter Regulator			
PL-200	Lubricator			

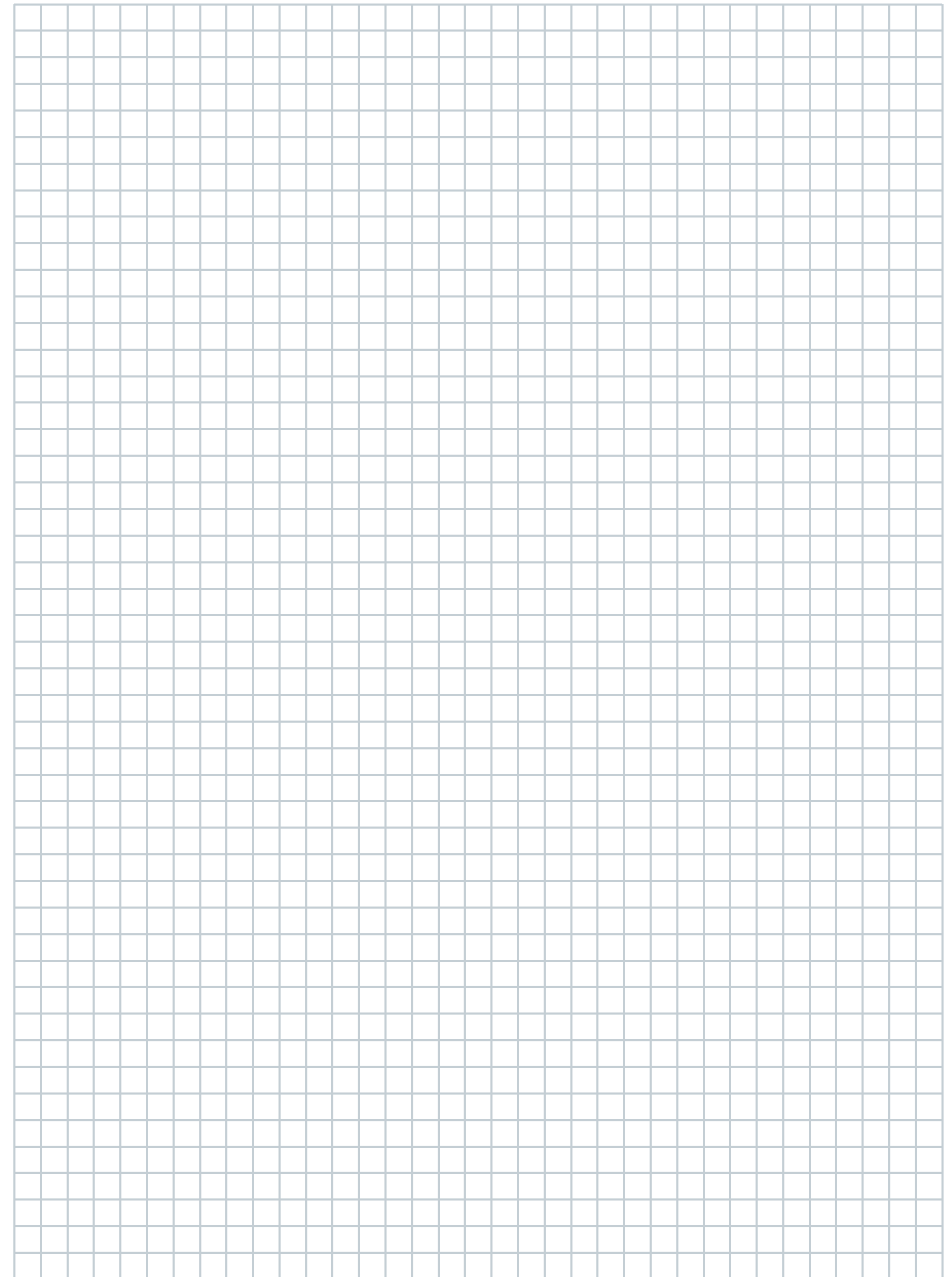
PRESSURE GAUGE

PG



Model	Connection	Port Size Rc (PT)	Pressure Range Kg/cm ² (Kpa)	Remarks
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 (Kg/cm ²)
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

MEMO



SM series SOLENOID VALVE

SM



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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
SM-7101	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 (One-Touch Fitting Type)

SM



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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		
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)	
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 mm ² (Cv)	Pressure Range Kg/cm ² (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 One-Touch Fitting)

SMB



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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 SOLENOID VALVE

SMU



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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 SOLENOID VALVE (Base Mounting Type)

SMUB



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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 mm ² (Cv)	Pressure Range Kgf/cm ² (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 (One-Touch Fitting Type)

SR



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kgf/cm ² (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		
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

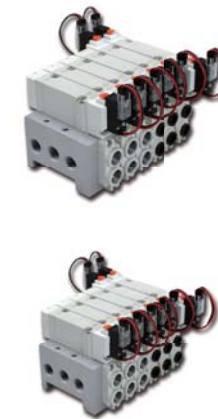


Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kgf/cm ² (Kpa)	Voltage
SRB-310M5	M5	Single	5 Ports 2 Positions	3.6 (0.2)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V
SRB-5101	1/8"			10.8 (0.6)		
SRB-7102	1/4"			18.2 (1.0)		
SRB-9103	3/8"			36 (2.0)		
SRB-320M5	M5	Double	5 Ports 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 One-Touch Fitting)

SRB



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kgf/cm ² (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 SOLENOID VALVE

SRU



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

SRUB series 3 PORTS SOLENOID VALVE (Base Mounting Type)

SRUB



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

SF500 series DIN RAIL CASSETTE TYPE SOLENOID VALVE **SF500**



Model	Port Size Rc (PT)	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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				5 Ports 2 Positions			
SF-3(3)0M5				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				5 Ports 2 Positions			
SF-5(3)01				5 Ports 3 Positions			

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

SF500 series DIN RAIL CASSETTE TYPE SOLENOID VALVE **SF500**

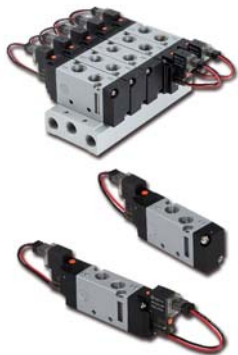
(One-Touch Fitting Type)



Model	Port Size Rc (PT)	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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				5 Ports 2 Positions			
SF-3(3)00-C4				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		Ø8 · Ø10	Double	5 Ports 2 Positions	9 (0.5)	
SF-5200-C6					Ø6		
SF-5200-C8					Ø8		
SF-5(3)00-C4	Ø4	Ø8 · Ø10	Double	5 Ports 3 Positions	9 (0.5)		
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.

ST2 series SOLENOID VALVE **ST2**



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (Kpa)	Voltage	
ST2-5101	1/8"	Single	5 Ports 2 Positions	12 (0.67)	1.5 ~ 7 (150 ~ 700)	DC 12V DC 24V AC 110V AC 220V	
ST2-5201	1/8"			12 (0.67)			
ST2-5231	1/8"			5 Ports 3 Positions			12 (0.67)
ST2-6101	1/8"	Single	5 Ports 2 Positions	14 (0.78)			1.5 ~ 7 (150 ~ 700)
ST2-6102	1/4"			14 (0.78)			
ST2-6201	1/8"			14 (0.78)			
ST2-6202	1/4"	Double	5 Ports 2 Positions	14 (0.78)	1.5 ~ 7 (150 ~ 700)		
ST2-6232	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 mm ² (Cv)	Pressure Range Kg/cm ² (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 (One-Touch Fitting Type) **SRK**



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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 mm ² (Cv)	Pressure Range Kg/cm ² (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"			14 (0.78)		
SK-6102	1/4"	Single (Spring returned)		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		
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	
SK-6231	1/8"	N.O. Normally Open		14 (0.78)		
SK-6232	1/4"	N.C. Normally Close		14 (0.78)		
SK-8232	1/4"	N.F. Normally Free		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 mm ² (Cv)	Pressure Range Kgf/cm ² (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)	AC 110V AC 220V
SNK-8203	3/8"			14(0.78)		

SKU series 3 PORTS SOLENOID VALVE

SKU



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kgf/cm ² (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 mm ² (Cv)	Pressure Range Kgf/cm ² (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)		DC 12V DC 24V AC 110V AC 220V
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	5 Ports 3 Positions	12 (0.67)	2 ~ 7 (200 ~ 700)	DC 12V DC 24V AC 110V AC 220V	
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"	N.C. Normally Close	5 Ports 3 Positions	25 (1.4)	2 ~ 7 (200 ~ 700)		DC 12V DC 24V AC 110V AC 220V
SV-8233	3/8"			25 (1.4)			
SV-9234	1/2"	N.F. Normally Free	50 (2.78)				

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

SV310 series 3 PORTS SOLENOID VALVE

SV310



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

SKV507 series 3 PORTS SOLENOID VALVE

SKV507



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Voltage
SKV507-01	1/8"	Single	3 Ports 2 Positions	4.3(0.24)	DC 24V
SKV507-01-V	1/8"				
SKV507-02	1/4"				
SKV507-02-V	1/4"				

Note : (-V) VAcuum Type

SKV507U series 3 PORTS SOLENOID VALVE

SKV507U



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Voltage
SKV507U	1/8"	Single	3 Ports 2 Positions	3.06(0.17)	DC 24V
SKV507U-V	1/8"				

Note : (-V) VAcuum Type

SKB series 3 PORTS SOLENOID VALVE (Direct operated)

SKB



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

SKB300U series 3 PORTS SOLENOID VALVE

SKB300U



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Voltage
SKB310U	1/8"	Single	3 Ports 2 Positions	4.14(0.23)	DC 24V
SKB310U-V	1/8"				

Note : (-V) VAcuum Type

SN series SOLENOID VALVE ("NAMUR" Type)

SN



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kgf/cm ² (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				

SZB series SOLENOID VALVE (Base Mounting type)

SZB



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kgf/cm ² (Kpa)	Voltage
SZB-2101	1/8"	Single	5 Ports 2 Positions	0.16	1.5 ~ 7 (150 ~ 700)	DC 12V
SZB-2201		Double	5 Ports 3 Positions			DC 24V
SZB-2(3)01						

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

SZBC series SOLENOID VALVE (Base Mounting type with speed Control)

SZBC



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kgf/cm ² (Kpa)	Voltage
SZBC-2101	1/8"	Single	5 Ports 2 Positions	0.16	1.5 ~ 7 (150 ~ 700)	DC 12V
SZBC-2201		Double	5 Ports 3 Positions			DC 24V
SZBC-2(3)01						

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

ISO 4 series SOLENOID VALVE

ISO



Model	Port Size Rc (PT)	Coil type	Type of actuation	Orifice mm ² (Cv)	Pressure Range Kgf/cm ² (Kpa)	Voltage
ISO-4104	1/2"	Single	5 Ports	3.4	0.2 ~ 0.7 (20 ~ 70)	DC 12V
ISO-4204		Double	2 Positions			DC 24V

SUB series 2 PORTS CYLINDER VALVE

SUB



Model	Port Size Rc (PT)	Operation	Operated Type	Type of actuation	Suitable Fluid Type		Voltage (Coil Type)
					Air	Water	
SUB-08	1/4"	-01 (N.C.) -02 (N.O.) -03 (Double Action)	-P (Air pilot type) -S (Coil type)	2 Ports 2 Positions	0~0.9 (0~9)	0~0.5 (0~5)	DC12V
SUB-10	3/8"						DC24V
SUB-15	1/2"						AC110
SUB-20	3/4"						AC220

SBS series 2 PORTS SOLENOID VALVE (Stainless steel body)

SBS



Model	Port Size Rc (PT)	Operation	Orifice mm ² (Cv)	Suitable Fluid Type						Voltage	
				Air	Water	Hot Water	Oil	Gas	Vacuum		
SBS - 01	1/8"	Direct Operated	4.9 (0.27)	0~7	—						DC 24V
SBS - C6	Ø6				AC 110V						

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

SU series 2 PORTS SOLENOID VALVE

SU



Model	Max.Pressure	port size	Weight (kg)	IN Port	OUT Port	Orifice (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

SUD,SUD2,SUW,SUW2,SUS,SAS,SDC series 2 PORTS SOLENOID VALVE



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"		4 (0.60)	0 ~ 10								
SUD - 10	3/8"		1.2 (0.18)	0 ~ 20								
SUD - 6H	1/8"		2.0 (0.45)	0 ~ 7								
SUD - 8H	1/4"		2.5 (0.23)	0 ~ 10								
SUD - 10H	3/8"		4 (0.60)									
SUD2 - 8	1/4"	Diaphragm Type (High Flow)	10 (2.4)	0~7	0~5	—	0~5	0~7	DC 24V AC 110V AC 220V			
SUD2 - 10	3/8"		15 (4.5)									
SUW - 10	3/8"		20 (8.6)									
SUW - 15	1/2"		25 (12)									
SUW - 20	3/4"		35 (24)									
SUW - 25	1"		40 (28)									
SUW - 35	1 1/2"		50 (48)									
SUW - 40	1 1/2"		10 (2.4)									
SUW - 50	2"		15 (4.5)									
SUW2 - 10	3/8"		20 (8.6)									
SUW2 - 15	1/2"		25 (12)									
SUW2 - 20	3/4"		35 (24)									
SUW2 - 25	1"	40 (28)										
SUW2 - 35	1 1/2"	50 (48)										
SUW2 - 40	1 1/2"	17 (4.0)	Direct Operated High Temperature steam	0.5 ~ 1.5						DC 24V AC 110V AC 220V		
SUW2 - 50	2"	17 (6.0)										
SUS - 10	1/2"	22 (12)										
SUS - 20	3/4"	30 (18)										
SUS - 25	1"	32 (22)										
SUS - 35	1 1/2"	50 (48)										
SAS - 6A	1/8"	Direct Operated (General) Stainless steel body	2.5 (0.23)	0 ~ 0.7						DC 24V AC 110V AC 220V		
SAS - 8A	1/4"		4 (0.58)	0 ~ 10								
SAS - 10A	3/8"		15 (4.5)	0 ~ 7	0 ~ 5	—						
SAS - 15A	1/2"		20 (8.6)									
SAS - 20A	3/4"		25 (12)									
SAS - 25A	1"		35 (24)									
SAS - 35A	1 1/2"	40 (28)										
SAS - 40A	1 1/2"	50 (48)										
SAS - 50A	2"	Diaphragm Type (High Flow) Stainless steel body	6.5 (0.28)	0 ~ 1	—							
SDC - 8	1/4"		6.5 (0.28)									
SDC - 10	3/8"		6.5 (0.28)									
SDC - 15	1/2"		13 (4)									
SDC - 8-TF	1/4"											
SDC - 10-TF	3/8"											
SDC - 15-TF	1/2"											
SDC - 20-TF	3/4"											

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

SFW series 2 PORTS SOLENOID VALVE

SFW



Model	Max.Pressure	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		

PM series AIR OPERATED VALVE

PM



Model	Port Size Rc (PT)	Air Pilot type	Type of actuation	Operation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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 AIR OPERATED VALVE (One-Touch Fitting Type)

PM



Model	Port Size Rc (PT)	Air Pilot type	Type of actuation	Operation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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	
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.

PMB series AIR OPERATED VALVE (Base Mounting type with One-Touch Fitting)

PMB



Model	Port Size Rc (PT)	Air Pilot type	Type of actuation	Operation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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.

PMU series AIR OPERATED VALVE

PMU



Model	Port Size Rc (PT)	Air Pilot type	Type of actuation	Operation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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)	

PMUB series AIR OPERATED VALVE (Base Mounting Type)

PMUB



Model	Port Size Rc (PT)	Air Pilot type	Type of actuation	Operation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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)	

PV series AIR OPERATED VALVE

PV



Model	Port Size Rc (PT)	Type of actuation	Operation	Orifice mm ² (Cv)	Pressure Range Kg/cm ² (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"			14 (0.78)	
PV-6232	1/4"			14 (0.78)	

PN series AIR OPERATED VALVE ("NAMUR" Type)

PN



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

MV100 series HAND OPERATED VALVE

MV100



Model	Port Size Rc (PT)	Type of actuation	Orifice mm ² (Cv)	Connection Type	Remarks
MV-10-02-V	1/8"	2 Ports 2 Positions	14 (0.78)	Lateral 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)	Lateral 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 mm ² (Cv)	Connection Type	Remarks
MV-11-03-01	1/8"	5 Ports 2 Positions	1.9	Lateral 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 mm ² (Cv)	Connection Type	Remarks
MV-13-03-01	1/8"	3 Ports 2 Positions	4.5	Lateral Connection	Press button type
MV-13-03-02					Push button type
MV-13-05-01					5 Ports 2 Positions
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 mm ² (Cv)	Connection Type	Remarks
MV-15-□-01	1/8"	3 Ports 2 Positions	7 (0.39)	S:Lateral 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 mm ² (Cv)	Connection Type	Remarks
MV-20-01	1/4"	3 Ports 2 Positions	33 (1.83)	Lateral 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 mm ² (Cv)	Connection Type	Remarks
MV-23-01	1/8"	5 Ports 2 Positions	12 (0.67)	Lateral Connection	Basic Type
MV-23-02					Roller Lever
MV-23-03					One Way Roller Lever
MV-23-06					Push Button (Flush)
MV-23-07					Push Button (Extended)
MV-23-08					Push Button (Mushroom)
MV-23-09					Stop Cock 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 mm ² (Cv)	Connection Type	Remarks
MV-25-01	1/8" 1/4"	5 Ports 2 Positions	14 (0.78)	Lateral Connection	Basic Type
MV-25-02					Roller Lever
MV-25-03					One Way Roller Lever
MV-25-06					Push Button (Flush)
MV-25-07					Push Button (Extended)
MV-25-08					Push Button (Mushroom)
MV-25-09					Stop Cock Button
MV-25-10					Twist Selector (2 Positions)
MV-25-11					Key Selector (2 Positions)

HVL series HAND-OPERATED VALVE

HVL



Model	Port Size Rc (PT)	Type of actuation	Operation	Orifice mm ² (Cv)	Pressure Range Kgf / cm ² (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"			14 (0.78)	
HVL - 632	1/4"	5 Ports 3 Positions		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 mm ² (Cv)	Pressure Range Kgf / cm ² (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 mm ² (Cv)	Pressure Range Kgf / cm ² (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-OPERATED VALVE

FVA



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

FVS series FOOT-OPERATED VALVE

FVS



Model	Port Size Rc (PT)	Type of actuation	Max. Pressure Kgf / cm ²	Orifice mm ² (Cv)	Pressure Range Kgf / cm ² (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		Orifice mm ² (Cv)	Pressure Range Kgf / cm ² (Kpa)
		P → A	A → R		
QE - 802	1/4"	1000	1500	14 (0.78)	1 ~ 7 (100 ~ 700)
QE - 803	3/8"	1000	1500	18 (1.0)	

QEB series QUICK EXHAUST VALVE

QEB



Model	Port Size Rc (PT)	Flow Rate L/min (7 kg)		Orifice mm ² (Cv)	Pressure Range Kgf / cm ² (Kpa)
		P → A	A → R		
QEB - 01	Ø4	350	770	8	8 (800)
	Ø6	490	770		
QEB - 02	Ø6	520	820	16	
	Ø8	620	820		
QEB - 03	Ø10	650	840	30	
	Ø12	680	840		

QEBC series QUICK EXHAUST VALVE

QEBC



Model	Port Size Rc (PT)	Flow Rate L/min (7 kg)		Orifice mm ² (Cv)	Pressure Range Kgf / cm ² (Kpa)
		P → A	A → R		
QEBC - 01	Ø4	350	450	08	8 (800)
	Ø6	490	580		
QEBC - 02	Ø6	630	720	10	
	Ø8	700	830		
QEBC - 03	Ø10	820	910	22	
	Ø12	890	1050		

QED series QUICK EXHAUST VALVE

QED



Model	Port Size Rc (PT)	Flow Rate L/min (7 kg)		Orifice mm ² (Cv)	Pressure Range Kgf / cm ² (Kpa)
		P → A	A → R		
QED - 01	Ø4	280	380	08	8 (800)
	Ø6	600	650		
QED - 02	Ø6	570	640	10	
	Ø8	710	910		
QED - 03	Ø10	1000	1500	22	
	Ø12	1400	1900		

QEH series QUICK EXHAUST VALVE (Exhaust to air)

QEH



Model	Port Size Rc (PT)	Flow Rate L/min		Orifice mm ² (Cv)	Pressure Range Kgf / cm ² (Kpa)
		P → A	A → R		
QEH - 4	Ø4	85	100	1.5	1 ~ 7
QEH - 6	Ø6	190	200	3.5	

QEU series QUICK EXHAUST VALVE (Exhaust To Air)

QEU



Model	Port Size Rc (PT)	Flow Rate L/min		Orifice mm ² (Cv)	Pressure Range Kgf / cm ² (Kpa)
		P → A	A → R		
QEU - 4	Ø4	85	100	1.5	1 ~ 7
QEU - 6	Ø6	190	200	3.5	

QEUC series QUICK EXHAUST VALVE (With Speed Control)

QEUC



Model	Port Size Rc (PT)	Flow Rate L/min		Orifice mm ² (Cv)	Pressure Range Kgf / cm ² (Kpa)
		P → A	A → R		
QEUC - 4	Ø4	85	90	1.5	1 ~ 7
QEUC - 6	Ø6	190	200	3.5	

SC series SPEED CONTROLLER (In-line Type)

SC



Model	Port Size Rc (PT)	Flow Rate L/min		Pressure Range Kgf/cm ² (Kpa)	Applicable Cylinder
		Control side	Free side		
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/cm ² (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	Panel sert	50 ~ 500	1 ~ 7 (100 ~ 700)	5,10,15
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/cm ² (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	50 ~ 500	1.5 ~ 7 (150 ~ 700)	5,10,15
NA2S-10	10	3.93					
NA2S-12	12	5.6					
NA2S-16	16	10					
NA2T-6	6	1.4	Single Acting	Panel sert	50 ~ 500	1.5 ~ 7 (150 ~ 700)	5,10,15
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/cm ² (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					5 ~ 40

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/cm ² (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					4 ~ 20

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 / cm ² (Kpa)	Standard Stroke mm
ND-16	16	10	Single Acting	Horizontal	50 ~ 700	1.5 ~ 8.5 (150 ~ 850)	10 ~ 30
ND-20	20	15		Vertical			
ND-25	25	24		Side			
ND-32	32	40	Double Acting	Flange	50 ~ 700	1.5 ~ 8.5 (150 ~ 850)	10 ~ 60
ND-40	40	62		Flange			

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 / cm ² (Kpa)	Standard Stroke mm
NQ-06	6	1.4	Single Acting	Horizontal	50 ~ 700	1.5 ~ 8.5 (150 ~ 850)	10~30
NQ-10	10	4		Vertical			
NQ-16	16	10	Double Acting	Side	50 ~ 700	1.5 ~ 8.5 (150 ~ 850)	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 / cm ² (Kpa)	Standard Stroke mm
NQT-10	10	4	Single Acting	Horizontal	50 ~ 700	1.5 ~ 8.5 (150 ~ 850)	10 ~ 30
NQT-16	16	10		Vertical			
NQT-20	20	15	Double Acting	Side	50 ~ 700	1.5 ~ 8.5 (150 ~ 850)	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 (For Vacuum)

NQDK



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
NQDK-20	20	13	Single Acting	Horizontal	50 ~ 700	1.5 ~ 8.5 (150 ~ 850)	10 ~ 60
NQDK-25	25	20		Vertical			
NQDK-32	32	34	Double Acting	Side	50 ~ 700	1.5 ~ 8.5 (150 ~ 850)	10 ~ 60
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 / cm ² (Kpa)	Max.Service Pressure Kgf / cm ² (Kpa)
MSI - 06	M3 x 0.5	Single Acting	50 ~ 500	2 ~ 7 (200 ~ 700)	9.5 (950)
MSI - 10	M5 x 0.8				

JQ series COMPACT CYLINDER

JQ



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Speed Range mm / s	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
JQ-20	20	15	Double Acting	50 ~ 500	1.5 ~ 7 (150 ~ 700)	10,20,30,40,50 60,75,85,100
JQ-25	25	24				
JQ-32	32	40				
JQ-40	40	62		50 ~ 350	1 ~ 7 (100 ~ 700)	
JQ-50	50	98				
JQ-63	63	155				
JQ-80	80	251	50 ~ 250			
JQ-100	100	392				

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

JD series COMPACT CYLINDER

JD



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

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

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

JDD



Model	Bore Size Ø mm	Operation	Speed Range mm / s	Pressure Range Kgf / cm ² (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 COMPACT CYLINDER (Dual Stroke)

JDF



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Speed Range mm / s	Pressure Range Kgf / cm ² (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			50 ~ 350		1 ~ 7 (100 ~ 700)
JDF-40	40	62					
JDF-50	50	98					50 ~ 250
JDF-63	63	155					
JDF-80	80	251					
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 / cm ² (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				
JDM-50	50	196				
JDM-63	63	310		50 ~ 350	1 ~ 7 (100 ~ 700)	
JDM-80	80	502				
JDM-100	100	784				
JDM-100	100	784				
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 / cm ² (Kpa)	Standard Stroke mm
JDW-20	20	15	Double 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				
JDW-50	50	98	Single Acting	Double Acting : 50 ~ 350 Double Acting : 50 ~ 250	1 ~ 7 (100 ~ 700)	5 ~ 150
JDW-63	63	155				
JDW-80	80	251				
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 / cm ² (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				
JG-40	40	62				
JG-50	50	98				
JG-63	63	155		50 ~ 350	1 ~ 7 (100 ~ 700)	10,20,30,40,50 65,75,90,115,140
JG-80	80	251				
JG-100	100	392				

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

JGD series COMPACT CYLINDER (Dust Proof & Stroke Adjustable)

JGD



Model	Bore Size Ø mm	Operation	Speed Range mm / s	Pressure Range Kgf / cm ² (Kpa)	Adjustable Stroke mm	Standard Stroke (with magnet) mm						
JGD JGAD	20	Double Acting	50 ~ 500	1.5 ~ 7 (150 ~ 700)	JGD —	JGD 10,20,30,40,50						
	25											
	32											
	40											
	50											
	63											
JGAR	50		50 ~ 350	50 ~ 500	1 ~ 7 (100 ~ 700)	JGAR 25,40	JGAR 10,20,30,40,50, 65,75,90					
	80											
	100											
	20							50 ~ 350	50 ~ 500	1.5 ~ 7 (150 ~ 700)	JGAR 10	JGAR 10,20,30,40,50, 65,75,90
	25											
	32											
40												
50												
63												

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

JTD series GUIDE ROD CYLINDER

JTD



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Guide Type	Operation	Speed Range mm / s	Pressure Range Kgf / cm ² (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					5 ~ 75
JTD-32	32	40					5 ~ 75
JTD-40	40	62			50 ~ 350	1 ~ 7 (100 ~ 700)	5 ~ 100
JTD-50	50	98					5 ~ 100
JTD-63	63	155					5 ~ 100

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

JTF series GUIDE ROD CYLINDER (Flange Type)

JTF



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Guide Type	Operation	Speed Range mm / s	Pressure Range Kgf / cm ² (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					5 ~ 75
JTF-32	32	40					5 ~ 75
JTF-40	40	62			50 ~ 350	1 ~ 7 (100 ~ 700)	5 ~ 100
JTF-50	50	98					5 ~ 100
JTF-63	63	155					5 ~ 100

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

JCB series GUIDE ROD 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 / cm ² (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					
JCB-50	50	98			50 ~ 350	1 ~ 7 (100 ~ 700)	5 ~ 150
JCB-63	63	155					

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 / cm ² (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			50 ~ 350	1 ~ 7 (100 ~ 700)	5 ~ 150
JCF-50	50	98					5 ~ 150
JCF-63	63	155					5 ~ 150

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 / cm ² (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					
JE-25	25	24			1.5 ~ 7 (150 ~ 700)		
JE-32	32	40					
JE-40	40	62					
JE-50	50	98		50 ~ 350	1 ~ 7 (100 ~ 700)	25,50,75,100 125,150	
JE-63	63	155					
JE-80	80	251					
JE-100	100	392					50 ~ 250

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

JEK series COMPACT CYLINDER (Side Mounting Type)

JEK



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Bearing Type	Speed Range mm / s	Pressure Range Kgf / cm ² (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					
JEK-25	25	24			1.5 ~ 7 (150 ~ 700)		
JEK-32	32	40					
JEK-40	40	62					
JEK-50	50	98		50 ~ 350	1 ~ 7 (100 ~ 700)	25,50,75,100 125,150	
JKE-63	63	155					
JEK-80	80	251					
JEK-100	100	392					50 ~ 250

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

JM series OVAL PISTON CYLINDER (Non-Rotating)

JM



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Bearing Type	Speed Range mm / s	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
JM-20	20	16	Double Acting	100 ~ 500	2 ~ 6 (200 ~ 600)	5 ~ 100
JM-25	25	24.5				
JM-32	32	40				
JM-40	40	65.5				

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

STB series STOPPER CYLINDER (Round Bar Type)

STB



Model	Rod Size Ø mm	Bore Size Ø mm	Operation	Theoretical Thrust Kgf	Load force Kgf	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
STB-32	20	32	Double Acting	40	25	1 ~ 9 (100 ~ 900)	10,15,20 mm
STB-40	25	40		Single Acting	62		30
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 (Roller Type)

STC



Model	Rod Size Ø mm	Bore Size Ø mm	Operation	Theoretical Thrust Kgf	Load force Kgf	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
STC-32	20	32	Double Acting	40	25	1 ~ 9 (100 ~ 900)	10,15,20 mm
STC-40	25	40		Single Acting	62		30
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 (Lever Type)

STD



Model	Rod Size Ø mm	Bore Size Ø mm	Operation	Theoretical Thrust Kgf	Load force Kgf	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
STD-32	20	32	Double Acting	40	25	1 ~ 9 (100 ~ 900)	10,15,20 mm
STD-40	25	40		Single Acting	62		30
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 (Lever & lock mechanism Type)

STDL



Model	Rod Size Ø mm	Bore Size Ø mm	Operation	Theoretical Thrust Kgf	Load force Kgf	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
STDL-32	20	32	Double Acting	40	25	1 ~ 9 (100 ~ 900)	10,15,20 mm
STDL-40	25	40		Single Acting	62		30
STDL-50	25	50	98		50		20,25,30 mm

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

STF series HEAVY DUTY STOPPER CYLINDER (Flange & lock mechanism Type)

STF



Model	Rod Size Ø mm	Bore Size Ø mm	Operation	Theoretical Thrust Kgf	Load force Kgf	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
STF-32	20	32	Double Acting	40	80	1 ~ 9 (100 ~ 900)	20 mm
STF-50	30	50	Single Acting	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 / cm ² (Kpa)	Standard Stroke mm
SBA-10	10	3.0	Double Acting	Standard Type FA Type LB Type CA Type	50 ~ 700	φ 6 : 1.2~7 (120~700) φ 10,16 : 0.6~7(60~700)	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					
SBAI-16	16	10					
SBRI-06	6	1.4					
SBRI-10	10	3.0					
SBRI-16	16	10	Single Acting Normally Out				
SBBI-10	10	3.0					
SBBI-16	16	10					
SBRO-06	6	1.0					
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 / cm ² (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			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	50 ~ 700	1 ~ 7 (100 ~ 700)	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 STANDARD CYLINDER (Stainless Steel Tube)

SDX



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm ² (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					25 ~ 300 (500)
SDX-32	32	40					
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 STANDARD CYLINDER (Side Mount Type)

DBS2



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm ² (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 STANDARD CYLINDER (Block Mount Type)

DBF2



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm ² (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 STANDARD CYLINDER (Aluminum Tube)

FDA



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm ² (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	Double Acting (Double Rod)				
FDAD-20	20	13					
FDAD-30	30	40		25 ~ 300 (500)			
FDAD-40	40	52					

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

DBT series TWIN ROD CYLINDER (Side Mount Type)

DBT



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Mounting type	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
DBT-25	25	24	Vertical	±0.1	50 ~ 700	1 ~ 9 (100 ~ 900)	25 ~ 300 (500)
DBT-30	30	34	Parallel	±0.09			
DBT-40	40	62	Side	±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 (ISO Type)

DN



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Operation	Mounting Type	Speed Range mm / s	Pressure Range Kgf / cm ² (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					Double Acting (Double Rod)
DN-200	200	1570	50 ~ 400				
DND-32	32	34	50 ~ 500				
DND-40	40	52	50 ~ 1000				
DND-50	50	82					
DND-63	63	140					
DND-80	80	226					
DND-100	100	352					
DND-125	125	573					
DND-160	160	942					
DND-200	200	1507		Double Acting (Adjustable stroke)	50 ~ 500	1.5 ~ 9 (150 ~ 900)	50 ~ 300
DNL-32	32	34	50 ~ 400				
DNL-40	40	52	50 ~ 500				
DNL-50	50	82	50 ~ 1000				
DNL-63	63	140					
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 / cm ² (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					50 ~ 500
DMB-80	Ø80	251					
DMB-100	Ø100	392					
DMBD-32	Ø32	34	Double Acting (Double Rod)	50 ~ 500	1.5 ~ 9 (150 ~ 900)	50 ~ 500	
DMBD-40	Ø40	52				50 ~ 600	
DMBD-50	Ø50	82				50 ~ 700	
DMBD-63	Ø63	140				50 ~ 700	
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 / cm ² (Kpa)	Standard Stroke mm
DU-40	40	62	Double Acting	Standard 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					50 ~ 1000
DU-100	100	392					
DU-125	125	613					
DU-160	160	1004					
DU-200	200	1570					Double Acting (Double Rod)
DUD-40	40	52	50 ~ 400				
DUD-50	50	82	50 ~ 500				
DUD-63	63	140	50 ~ 1000				
DUD-80	80	226					
DUD-100	100	352					
DUD-125	125	573					
DUD-160	160	942	Double Acting (Adjustable stroke)	50 ~ 500	1.5 ~ 9 (150 ~ 900)	50 ~ 300	
DUL-40	40	52				50 ~ 400	
DUL-50	50	82				50 ~ 500	
DUL-63	63	140				50 ~ 1000	
DUL-80	80	226					
DUL-100	100	352					
DUL-125	125	573					
DUL-160	160	942	50 ~ 1000				
DUL-200	200	1507					

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

DNK series FINE LOCK CYLINDER

DNK



Model	Bore Size Ø mm	Braking Direction	Mounting Type	Pressure Range Kgf / cm ² (Kpa)	Range of Service Temperature °C	Standard Stroke mm
DNK-32	Ø32	Two - way	Standard 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		FA Type			
DNK-50	Ø50		FB Type			
DNK-63	Ø63		LB Type			
DNK-80	Ø80		CA Type			
DNK-100	Ø100		CB Type TC Type			

DNE series END LOCK CYLINDER

DNE



Model	Bore Size Ø mm	Braking Direction	Mounting Type	Pressure Range Kgf / cm ² (Kpa)	Range of Service Temperature °C	Standard Stroke mm
DNE-32	Ø32	Front cover type End cover type	Standard 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		FA Type			
DNE-50	Ø50		FB Type			
DNE-63	Ø63		LB Type			
DNE-80	Ø80		CA Type			
DNE-100	Ø100		CB Type TC Type			

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 / cm ² (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 / cm ² (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 / cm ² (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 / cm ² (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/cm ² (Kpa)	Output Capacity cc	Range of Service Temperature °C	Pressure Range Kgf / cm ² (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 / cm ² (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 / cm ² (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						

PRE series OVAL RODLESS CYLINDER

PRE



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Speed Range mm / s	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
PRE-20	16	10	50 ~ 1000	1.5 ~ 7 (150 ~ 700)	50 ~ 1000
PRE-25	20	15			
PRE-32	25	24			
PRE-40	32	40			50 ~ 1500

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

PRU series RODLESS CYLINDER

PRU



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Speed Range mm / s	Pressure Range Kgf / cm ² (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			
PRU-32	32	40			
PRU-40	40	62			50 ~ 1500

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

PRF series RODLESS CYLINDER (Plate Type)

PRF



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Speed Range mm / s	Pressure Range Kgf / cm ² (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			
PRF-32	32	40			
PRF-40	40	62			50 ~ 1500

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

PRUT series RODLESS CYLINDER (Linear Guide Type)

PRUT



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Speed Range mm / s	Pressure Range Kgf / cm ² (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			
PRUT-32	32	40			
PRUT-40	40	62			50 ~ 1500

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 / cm ² (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			100 ~ 500 (700)
MRD-20	20	15	1.1		1.5 ~ 6 (150 ~ 600)	100 ~ 800 (900)
MRD-25	25	24	1.2			
MRD-32	32	40	1.5			
MRD-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.

MRB series MAGNETIC RODLESS CYLINDER (Side Mount Type) **MRB**



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Max. Load Kgf	Speed Range mm / s	Pressure Range Kgf / cm ² (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			50 ~ 500 (500)
MRB-20	20	15	1.1		1.5 ~ 6 (150 ~ 600)	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 / cm ² (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			100 ~ 500 (700)
MRU-20	20	15	11		1.5 ~ 6 (150 ~ 600)	100 ~ 800 (1000)
MRU-25	25	24	19			100 ~ 800 (1200)
MRU-32	32	40	31			
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 / cm ² (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 Guide Type) **MRX**



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Max. Load Kgf	Speed Range mm / s	Pressure Range Kgf / cm ² (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			50 ~ 500 (700)
MRX-20	20	15	8		1.5 ~ 6 (150 ~ 600)	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 Guide Type) **MRY**



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Max. Load Kgf	Speed Range mm / s	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
MRY-10	10	4	4.2	50 ~ 500	1 ~ 5 (100 ~ 500)	50 ~ 300
MRY-15	15	8	7			50 ~ 500
MRY-20	20	15	12		1.5 ~ 6 (150 ~ 600)	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 / cm ² (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 / cm ² (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				
MSR(L)2-10	10	4			1.5 ~ 7 (150 ~ 700)	
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 / cm ² (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

MDQ series DUAL ROD PRECISION CYLINDER **MDQ**



Model	Bore Size Ø mm	Operation	Speed Range mm / s	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
MDQ-08	8	Double Acting	100~500	1~8.5 (200~850)	10 · 20 · 30
MDQ-12	12				40 · 50 · 75

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



Model	Bore Size Ø mm	Theoretical Thrust Kgf	Speed Range mm / s	Pressure Range Kgf / cm ² (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 / cm ² (Kpa)	Standard Stroke mm
MBX-6	6	1.4	100 ~ 500	1.5 ~ 7 (150 ~ 700)	5 , 10
MBX-8	8	2.5			10 , 20
MBX-10	10	4			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 / cm ² (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 / cm ² (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

MTX series SLIDE TABLE CYLINDER

MTX



Model	Bore Size Ø mm	Theoretical Thrust kgf	Speed Range mm / s	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
MTX-6	6	1.4	100 ~ 500	2 ~ 6 (200 ~ 600)	5,10,15
MTX-8	8	2.5			5,10,15,20
MTX-12	12	5.7			10,20,30

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 / cm ² (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	1 ~ 8.5 (100 ~ 850)	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 (Slide Bushing Type)

TDX



Model	Bore Size Ø mm	Rod Size Ø mm	Theoretical Thrust kgf	Speed Range mm / s	Pressure Range Kgf / cm ² (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 (Ball Bushing Type)

TDXU



Model	Bore Size Ø mm	Rod Size Ø mm	Theoretical Thrust kgf	Speed Range mm / s	Pressure Range Kgf / cm ² (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 SLIDE 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 / cm ² (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			
STU-32	32	16	60	3.5	50 ~ 170	1.5 ~ 9 (150 ~ 900)	25 ~ 250
STM-16	16	8	15	3			
STM-20	20	10	23	4			
STM-25	25	12	37	5			
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 SLIDE CYLINDER

STX



Model	Bore Size Ø mm	Rod Size Ø mm	Theoretical Thrust Kgf	Speed Range mm / s	Pressure Range Kgf / cm ² (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
STX-20	20	20	23			125,150
STX-25	25	25	37			

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

TB(U)2 series COMPACT 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 / cm ² (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				10 ~ 100
TB2-16		16	10.1	±0.18			25 ~ 200
TB2-20		20	15				
TB2-25		25	24	±0.17			30 ~ 250
TB2-32		32	40				
TB2-40		40	62	±0.16			30 ~ 250
TB2-50		50	98				
TB2-63		63	155	±0.15			30 ~ 150
TB2-80	80	251.2					
TB2-100	100	392.5	±0.1	30 ~ 150			
TU2-12	U: Linear Bearing Guide (Bearing steel rod)	12	5.7	±0.18	150 ~ 600	1.5 ~ 7 (150 ~ 700)	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			30 ~ 150
TU2-63		63	155				
TU2-80		80	251.2	±0.1			30 ~ 150
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 GUIDE SLIDE CYLINDER

TSB(U)



Model	Guide Type	Bore Size Ø mm	Theoretical Thrust Kgf	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm ² (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 ~ 150
TSB-40		40	62				
TSB-50	50	98	±0.05	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 ~ 150
TSU-40		40	62				
TSU-50	50	98	±0.05	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 GUIDE SLIDE CYLINDER

TXB(U)



Model	Guide Type	Bore Size Ø mm	Theoretical Thrust Kgf	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm ² (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				50 ~ 250
TXB-25		25	18					
TXB-32		32	30	±0.06			50 ~ 150	
TXB-40		40	52					
TXB-50		50	82	±0.05			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				50 ~ 250
TXU-25		25	18					
TXU-32		32	30	±0.07			50 ~ 150	
TXU-40		40	52					
TXU-50		50	82	±0.06			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 Kg/cm².

TMB(U) series 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 / cm ² (Kpa)	Standard Stroke mm
TMB(U)-20	B: Bush Guide (Mild 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	U: Linear Bearing Guide (Bearing steel rod)	30	40	B : ±0.05° U : ±0.05°	B : 50~500 U : 150~600	1.5 ~ 7 (150 ~ 700)	25 ~ 300 (500)
TMB(U)-40		40	62				

Note : 1. Theoretical Thrust : When air supply to be 5 Kg/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 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 / cm ² (Kpa)	Standard Stroke mm
GCB(U)-20	B: Bush Guide (Mild 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	U: Linear Bearing Guide (Bearing steel rod)	30	40	B : ±0.03° U : ±0.05°	B : 50~500 U : 150~600	1.5 ~ 7 (150 ~ 700)	25 ~ 300 (500)
GCB(U)-40		40	62				

Note : 1. Theoretical Thrust : When air supply to be 5 Kg/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 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 / cm ² (Kpa)	Standard Stroke mm	
GHB(U)-20	B: Bush Guide (Mild 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					50 ~ 500
GHB(U)-32		32	40					
GHB(U)-40		40	62				±0.06°	50 ~ 500
GHB(U)-50		50	98					
GHB(U)-63		63	155					

Note : 1. Theoretical Thrust : When air supply to be 5 Kg/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 / cm ² (Kpa)	Standard Stroke mm
TCR-40	40	B : Bush Guide (Mild Steel Rod)	62	B:±0.05° U:±0.08°	50 ~ 300	1 ~ 8 (100 ~ 800)	30 · 50 75 · 100
TCR-63	63	U : Linear Bearing Guide (Bearing Steel Rod)	155				
TCR-80	80		251				

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

TCF series TRIPLE-GUIDE CYLINDER (Flange Type)

TCF



Model	Bore Size Ø mm	Guide Type	Theoretical Thrust Kgf	Non-Rotating Accuracy θ	Speed Range mm / s	Pressure Range Kgf / cm ² (Kpa)	Standard Stroke mm
TCF-40	40	B : Bush Guide (Mild Steel Rod)	62	B:±0.05° U:±0.08°	50 ~ 300	1 ~ 8 (100 ~ 800)	30 · 50 75 · 100
TCF-63	63	U : Linear Bearing Guide (Bearing Steel Rod)	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/cm ² (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		3.8		
RTM-50	12		5		
RTM-63	15		10		
RTM-80	17		18		
RTM-100	25		35		
					Rod with keyway

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

RMF series ROTARY TABLE CYLINDER

RMF



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

RTZB series 3 POSITIONS ROTARY TABLE CYLINDER

RTZB



Model	Rod Size Ø mm	Rotation Angle	Rotary Mounting Method	Pressure Range Kgf/cm ² (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

RTB,RTBM series ROTARY TABLE CYLINDER

RTB / RTBM



Model	Rod Size Ø mm	Rotation Angle	Rotary Mounting Method	Pressure Range Kgf/cm ² (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

RTP series ROTARY CYLINDER

RTP



Model	Rod Size Ø mm	Rotation Angle	Rotary Mounting Method	Pressure Range Kgf/cm ² (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/cm ² (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/cm ² (Kpa)	Torque N · m
RTU-32	24	90°, 180°	Rod with keyway	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 ROTARY 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 / cm ² (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 (100)	
SCR(L)-25	25						18 (180)	
SCR(L)-32	32				15		30 (300)	
SCR(L)-40	40						53 (520)	
SCR(L)-50	50						83 (820)	
SCR(L)-63	63						142 (1400)	

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

HER series DOUBLE ROTARY 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 / cm ² (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						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 ROTARY CLAMP CYLINDER

HGR(L)



Model	Bore Size Ø mm	Operation	Rotation Angle	Rotating Direction	Stroke mm	Theoretical Thrust Kgf (N)	Pressure Range Kgf / cm ² (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 ROTARY CLAMP CYLINDER (No Magnet Type)

HSR(L)



Model	Bore Size Ø mm	Operation	Rotation Angle	Rotating Direction	Rotating Stroke mm	Stroke mm	Theoretical Thrust Kgf (N)	Pressure Range Kgf / cm ² (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				83 (820)			
HSR(L)-63	63				142 (1400)			

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

HBR(L) series ROTARY CLAMP CYLINDER (With Magnet Type)

HBR(L)



Model	Bore Size Ø mm	Operation	Rotation Angle	Rotating Direction	Rotating Stroke mm	Stroke mm	Theoretical Thrust Kgf (N)	Pressure Range Kgf / cm ² (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								266 (2660)

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

HFR(L) series ROTARY CLAMP CYLINDER (With Magnet Type)

HFR(L)



Model	Bore Size Ø mm	Operation	Rotation Angle	Rotating Direction	Rotating Stroke mm	Stroke mm	Theoretical Thrust Kgf (N)	Pressure Range Kgf / cm ² (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 LEVER CLAMP CYLINDER

HFK



Model	Bore Size Ø mm	Total Stroke mm	Under Pressure Stroke Ø mm	Operation	Theoretical Clamp Force (N)	Pressure Range Kgf / cm ² (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 ROTARY CLAMP CYLINDER

HUR(L)



Model	Bore Size Ø mm	Operation	Rotation Angle	Rotating Direction	Rotating Stroke mm	Stroke mm	Theoretical Thrust Kgf (N)	Pressure Range Kgf / cm ² (Kpa)
HUR(L)-25	25	Double Acting	90°	R : Right L : Left	11	11	84 (830)	10 (1000)
HUR(L)-32	32				13	13	175 (1720)	
HUR(L)-40	40				308 (3020)			
HUR(L)-50	50				480 (4710)			
HUR(L)-63	63				769 (7540)			

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

HUK series HYDRAULIC LEVER CLAMP CYLINDER

HUK



Model	Bore Size Ø mm	Standard Stroke mm	Theoretical Thrust (N) When 3 MPa	Operation	Manifold Type	Pressure Range Kgf / cm ² (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 (Axial Mounting Type) **HCF**



Model	Bore Size Ø mm	Theoretical Thrust (KN)When10 MPa	Operation	Mounting Type	Pressure Range Kgf / cm ² (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 (Side Mounting Type) **HCS**



Model	Bore Size Ø mm	Theoretical Thrust (KN)When10 MPa	Operation	Mounting Type	Pressure Range Kgf / cm ² (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 (With Magnet Type) **HCQ**



Model	Bore Size Ø mm	Theoretical Thrust (KN)When10 MPa	Operation	Mounting Type	Pressure Range Kgf / cm ² (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 HYDRAULIC CYLINDER **HN**



Model	Rod Size Ø mm	Rod Stroke	Theoretical Clip Force		Model Type	Pressure Range Kgf / cm ² (Kpa)
			100 Kg/cm ²	500 Kg/cm ²		
HN □ -12	12	10	110	570	HNZ : Female-flush mount	10 ~ 500 (100 ~ 5000)
HN □ -16	16	12	200	1010	HNS : Oval head-flush mount	
HN □ -20	20	15	310	1570	HNW : Female-flush Hexagon	
HN □ -25	25	16	490	2460	HNH : Oval head-Hexagon	

HS series HYDRAULIC SUPPORT CYLINDER (Threaded Body Type) **HS**



Model	Rod Size Ø mm	Rod Stroke mm	Adm. support Force 500 Kg/cm ²	Operation	Pressure Range Kgf / cm ² (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	8	6.5KN	Single Acting Flush mount-Normal Out	
HSP-16B8			9.5KN		

MEMO

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HDD series MINI TYPE GRIPPER

HDD



Model	Bore Size Ø mm	Operation	Angle / Bore size	Holding Force Kgf	Holder type	Pressure Range Kgf/cm ² (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)	∅2 ~ ∅10 mm 3 ~ 9 mm			
HDD-11	11	Single acting normally open(P)	-5.5° ~ 8°	2.0	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)	∅6 ~ ∅14 mm 6 ~ 14 mm			

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

HDS series ANGULAR TYPE GRIPPER

HDS



Model		Bore Size Ø mm	Angle	Holding Force Kgf (N)		Pressure Range Kgf/cm ² (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 TYPE GRIPPER

HDM



Model	Bore Size Ø mm	Operation	Angle	Holding Force Kgf (N)		Pressure Range Kgf/cm ² (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 PARRALLEL TYPE GRIPPER

HDP



Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm ² (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.

HDPM series PARRALLEL TYPE GRIPPER (Dustproof Type)

HDPM



Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm ² (Kpa)
				Open	Close	
HDPM-10	10	Double Acting	4	0.5 (4.9)	0.8 (7.8)	1.5 ~ 7.0 (150 ~ 700)
HDPM-16	16		8	1.8 (17.6)	2.4 (23.5)	
HDPM-20	20		12	3.5 (34.3)	4.7 (46)	
HDPM-25	25		14	6.0 (58.8)	7.5 (73.5)	
HDPM-32	32		16	8.5 (83.3)	10.0 (98)	

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

HDF series LINEAR GUIDE PARRALLEL TYPE GRIPPER

HDF



Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm ² (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 LINEAR GUIDE PARRALLEL TYPE GRIPPER

HDZ / HRZ



Model		Bore Size Ø mm	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm ² (Kpa)
Double Acting	Single Acting			Open	Close	
HDZ-6	HRZ-6	6	4	0.57 (5.6)	0.3 (3)	Double Acting : 2~7.0 (200~700) Single Actin : 3.5~7.0 (350~700)
HDZ-10	HRZ-10	10	4	1.84 (18)	1.1 (10.5)	
HDZ-16	HRZ-16	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-20	20	10	6.3 (62)	4.2 (41)	
HDZ-25	HRZ-25	25	14	10.2 (100)	6.4 (62.5)	
HDZ-32	HRZ-32	32	22	18.4 (180)	15.9 (155)	
HDZ-40	HRZ-40	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 LINEAR GUIDE PARRALLEL TYPE GRIPPER

HDZL / HRZL

(Long Stroke Type)



Model		Bore Size Ø mm	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm ² (Kpa)
Double Acting	Single Acting			Open	Close	
HDZL-10	HRZL-10	10	8	1.7 (17)	1.1 (11)	Double Acting : 2~7.0 (200~700) Single Acting : 3.5~7.0 (350~700)
HDZL-16	HRZL-16	16	12	4.5(45)	3.4 (34)	
HDZL-20	HRZL-20	20	18	6.7 (66)	4.2 (42)	Double Acting : 1~7.0 (100~700) Single Acting : 2.5~7.0 (250~700)
HDZL-25	HRZL-25	25	22	10.6 (104)	6.4 (65)	

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

HDZM series LINEAR GUIDE PARRALLEL TYPE GRIPPER (Dustproof Type)

HDZM



Model	Operation	Bore Size Ø mm	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm ² (Kpa)
				Open	Close	
HDZM-6	Double Acting	6	4	0.57 (5.6)	0.3 (3)	Double Acting : 2~7.0 (200~700) Single Acting : 3.5~7.0 (350~700)
HDZM-10		10	4	1.84 (18)	1.1 (10.5)	
HDZM-16		16	6	4.7 (46)	3.3 (32)	Double Acting : 1 ~ 7.0 (100 ~ 700) Single Acting : 2.5 ~ 7.0 (250 ~ 700)
HDZM-20		20	10	6.3 (62)	4.2 (41)	
HDZM-25		25	14	10.2 (100)	6.4 (62.5)	
HDZM-32		32	22	18.4 (180)	15.9 (155)	
HDZM-40		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.

HDW series PARRALLEL TYPE GRIPPER (Strong Type)

HDW



Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm ² (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.

HMW series PARRALLEL TYPE GRIPPER (Strong Type)

HMW



Model	Bore Size Ø mm	Operation	Operation Stroke mm	Holding Force (N)		Pressure Range Kgf/cm ² (Kpa)
				External Holding	Internal Gripping	
HMW18	18	Double Acting	2.5	100	120	2 ~ 8 (200 ~ 800)
HMW22	22		4	120	140	
HMW27	27		6	200	250	
HMW34	34		8	400	450	
HMW44	44		10	600	700	
HMW55	55		13	1000	1100	
HMW66	66		16	1600	1700	

HDG series PARRALLEL TYPE GRIPPER (Strong Type)

HDG



Model	Bore Size Ø mm	Operation	Operation Stroke mm	Holding Force (N)		Pressure Range Kgf/cm ² (Kpa)
				External Holding	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 WIDE TYPE GRIPPER

HDL



Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N)	Pressure Range Kgf/cm ² (Kpa)
HDL-16	16	Double Acting	12	1.8	2.0 ~ 7.0 (200 ~ 700)
HDL-20	20		14	3	
HDL-25	25		15	6	
HDL-32	32		16	10	

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

HDT series WIDE TYPE GRIPPER

HDT



Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N)	Pressure Range Kgf/cm ² (Kpa)
HDT-1020	10	Double Acting	20	1.4 (14)	1.5 ~ 7.0 (150 ~ 700)
HDT-1040			40		
HDT-1060			60		
HDT-1630	16		30	4.5 (44)	
HDT-1660			60		
HDT-1680			80		
HDT-2040	20		40	7.4 (73)	
HDT-2080			80		
HDT-20100			100		
HDT-2550	25		50	13.1 (128)	
HDT-25100			100		
HDT-25120			120		
HDT-3270	32	70	23.2 (228)		
HDT-32120		120			
HDT-32160		160			
HDT-40100	40	100	40 (396)		
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 ROUND BODY GRIPPER

HDQ

(2/3/4 Finger)



Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm ² (Kpa)
				External gripping	Internal gripping	
HDQ2-25	25	Double Acting	6	63	71	1.5 ~ 7.0 (150 ~ 700)
HDQ2-32	32		8	111	123	
HDQ2-40	40		8	177	195	
HDQ2-50	50		12	280	306	
HDQ2-63	63		16	502	537	
HDQ2-80	80		20	710	748	
HDQ2-100	100		24	1068	1111	
HDQ3-25	25		6	30	35	
HDQ3-32	32		8	70	82	
HDQ3-40	40		8	131	149	
HDQ3-50	50		12	282	314	
HDQ3-63	63		16	446	496	
HDQ3-80	80		20	578	641	
HDQ3-100	100		24	946	1009	
HDQ4-25	25		6	31	35	
HDQ4-32	32		8	55	61	
HDQ4-40	40		8	88	97	
HDQ4-50	50		12	140	153	
HDQ4-63	63		16	251	268	
HDQ4-80	80		20	355	374	
HDQ4-100	100		24	534	555	

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

HMQ series 2 FINGER GRIPPER

HMQ



Model	Bore Size Ø mm	Operation	Opening Stroke mm	Holding Force Kgf (N)		Pressure Range Kgf/cm ² (Kpa)
				External Holding	Internal Holding	
HMQ25	25	Double Acting	4	147	164	2 ~ 8 (200 ~ 800)
HMQ32	32		6	243	269	
HMQ44	44		8	471	509	
HMQ55	55		10	796	745	
HMQ70	70		12	1223	1290	
HMQ92	92		16	2123	2229	

RMZ series ROTARY GRIPPER

RMZ



Model	Bore Size Ø mm	Operation	Angle mm	Holding Force Kgf (N)		Pressure Range Kgf/cm ² (Kpa)
				Open	Close	
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.

RMT series 180° REVERSING CLAMPING CYLINDER

RMT



Model	Gripper Type	Pressure Range Kgf/cm ² (Kpa)	Temp °C	Lubricate	Port Size		Rotary cushion
					Rotary cyl.	Gripper	
RMT-25	HDQ、HMQ、MDW	4.5 ~ 7 (450 ~ 700)	5~60	Free	M5	M5	Oil absorber
RMT-50							

Model	Holding Force Kgf (N)		Fluid Type	Operation		Pressure Range Kgf/cm ² (Kpa)
	External Holding	Internal Holding		Rotary cyl.	Gripper	
RMT25-Q25	30	35	Air	Double Acting	Double Acting	4.5 ~ 7 (450 ~ 700)
RMT25-Q32	70	82				
RMT25-Q40	131	149				
RMT25-M25	147	164				
RMT25-M32	243	269				
RMT25-M44	471	509				
RMT25-W25	148	134				
RMT25-W32	245	221				
RMT50-Q50	282	314				
RMT50-Q63	446	496				
RMT50-M55	745	796				
RMT50-M70	1223	1290				
RMT50-W40	402	451				
RMT50-W50	662	738				

RBZ series ROTARY GRIPPER

RBZ



Model	Bore Size Ø mm	Operation	Angle mm	Holding Force Kgf (N)		Pressure Range Kgf/cm ² (Kpa)
				Open	Close	
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.

RTL series 90° SWIVEL MODULE

RTL



Model	Operation	Fluid Type	Pressure Range Kgf/cm ² (Kpa)	Temp °C	Port Size	Rotary Time (sec / 90°)	Torque (N · m)	Rotation angle	Range of adjustable
RTL-18	Double Acting	Air	1.5 ~ 7 (150 ~ 700)	0~50	M3x0.5P	0.3	0.7xP	90°	±3°
RTL-25						0.4	1.9xP		
RTL-32						0.6	4xP		
RTL-40					0.8	7xP			
RTL-50					1.0	15xP			

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 (With Valve Type)

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/cm ² (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 Pressure Switch Type)

VABS



Model	Tube dia (V)	Tube dia (P)	Nozzle Diameter mm	Pressure Range Kgf/cm ² (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 (Fitting Ported Type)

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		45
VMB-10-601			6		1.0
VMB-10-801	8	1/4"	1.5		
VMB-15-802	10				

VMD series VACUUM EJECTOR (Fitting Ported Type)

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		45
VMD-10-601			6		1.0
VMD-10-801	8	1/4"	1.5		
VMD-15-802	10				

VML series VACUUM EJECTOR (In-line Type)

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			37	45
VML-10-06	8	8	1.0		90	67.5
VML-10-08					150	90
VML-15-08	10	10	1.5		150	90
VML-15-10					150	90
VML-20-10	12	12	2.0			
VML-20-12						

VMK series VACUUM EJECTOR (In-line Type)

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"			37	45
VMK-10-601	8		1/4"		1.0	90
VMK-10-801		150				90
VMK-15-802	10	3/8"	1.5		150	90
VMK-15-103					150	90
VMK-20-103	12	1/2"	2.0			
VMK-20-124						

VMT series VACUUM EJECTOR (Body Ported Type)

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					37	45
VMT-10-06	6	6	1.0		90	67.5
VMT-10-08					150	90
VMT-15-08	8	8	1.5		150	90
VMT-15-10					150	90
VMT-20-10	10	10	2.0			
VMT-20-12						

VMBU series VACUUM EJECTOR (UNI-Fitting Ported Type)

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		0.7		23
VMBU-10-601	6		1.0		45
VMBU-10-801	8	1.0	45		
VMBU-15-802	10	1/4"	1.5		67.5
VMBU-15-102			1.5	67.5	

VMDU series VACUUM EJECTOR (UNI-Fitting Ported Type)

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		0.7		23
VMDU-10-601	6		1.0		45
VMDU-10-801	8	1.0	45		
VMDU-15-802	10	1/4"	1.5		67.5
VMDU-15-102			1.5	67.5	

VFD series VACUUM FILTER (Fitting Type)

VFD



Model	Tube dia (V)(P)	Tube dia (EX)	Reference Flow L/min (ANR)	Pressure Range Kgf/cm ² (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 μ	Reference Flow L/min (ANR)	Pressure Range Kgf/cm ² (Kpa)	Remarks
VFM-200	- 01 1/8"	40 μm	100	0.0 ~ -101.3	1. Without bowl gaud 2. Mounting bracket(option)
	- 02 1/4"				
VFM-300	- 02 1/4"		200		
	- 03 3/8"				
VFM-400	- 03 3/8"		300		
	- 04 1/2"				
VFM-450	- 04 1/2"	400	1. With bowl gaud 2. Mounting bracket(option)		
	- 06 3/4"				
VFM-500	- 04 3/4"	400			
	- 06 1"				

VFU series VACUUM FILTER (UNI-Fitting Type)

VFU



Model	Tube dia (V)(P)	Tube dia (EX)	Reference Flow L/min (ANR)	Pressure Range Kgf/cm ² (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

VK20B series VACUUM EJECTOR

VK20B



Model	Tube dia (V)	Tube dia (P)	Nozzie Diameter mm	Pressure Range Kgf/cm ² (Kpa)	Max. Vacuum (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VK20B-05-06	Ø6	Ø6	0.5	2.5 ~ 7 (250 ~ 700)	690	6	15
VK20B-07-06			0.7			12	25
VK20B-10-06			1.0			26	53

VK20S series VACUUM EJECTOR (Digital / Analog Pressure Switch)

VK20S



Model	Tube dia (V)	Tube dia (P)	Nozzie Diameter mm	Pressure Range Kgf/cm ² (Kpa)	Max. Vacuum (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VK20S-05-06	Ø6	Ø6	0.5	2.5 ~ 7 (250 ~ 700)	690	6	15
VK20S-07-06			0.7			12	25
VK20S-10-06			1.0			26	53

VK20T series VACUUM EJECTOR

VK20T



Model	Tube dia (V)	Tube dia (P)	Nozzie Diameter mm	Pressure Range Kgf/cm ² (Kpa)	Max. Vacuum (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VK20T-05-06	Ø6	Ø6	0.5	2.5 ~ 7 (250 ~ 700)	690	6	15
VK20T-07-06			0.7			12	25
VK20T-10-06			1.0			26	53

VK20ST series VACUUM EJECTOR (Digital / Analog Pressure Switch)

VK20ST



Model	Tube dia (V)	Tube dia (P)	Nozzie Diameter mm	Pressure Range Kgf/cm ² (Kpa)	Max. Vacuum (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VK20ST-05-06	Ø6	Ø6	0.5	2.5 ~ 7 (250 ~ 700)	690	6	15
VK20ST-07-06			0.7			12	25
VK20ST-10-06			1.0			26	53

VK30T series VACUUM EJECTOR (Large Flow)

VK30T



Model	Tube dia (V)	Tube dia (P)	Nozzie Diameter mm	Pressure Range Kgf/cm ² (Kpa)	Max. Vacuum (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VK30T-20-10	Ø10	Ø10	2.0	2.5 ~ 7 (250 ~ 700)	690	61	220

VK30ST series VACUUM EJECTOR (Large Flow)

VK30ST



Model	Tube dia (V)	Tube dia (P)	Nozzie Diameter mm	Pressure Range Kg/cm ² (Kpa)	Max. Vacuum (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VK30ST-20-10	Ø10	Ø10	2.0	2.5 ~ 7 (250 ~ 700)	690	61	220

VQ20B series VACUUM EJECTOR (Energy Saving)

VQ20B



Model	Tube dia (V)	Tube dia (P)	Nozzie Diameter mm	Pressure Range Kg/cm ² (Kpa)	Max. Vacuum (- mmHg)	Range Of Energy Saving (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VQ20B-10-06	Ø6	Ø6	1.0	4 ~ 7 (400 ~ 700)	690	350~600	26	53

VQ20S series VACUUM EJECTOR (Energy Saving)

VQ20S



Model	Tube dia (V)	Tube dia (P)	Nozzie Diameter mm	Pressure Range Kg/cm ² (Kpa)	Max. Vacuum (- mmHg)	Range Of Energy Saving (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VQ20S-10-06	Ø6	Ø6	1.0	4 ~ 7 (400 ~ 700)	690	350~600	26	53

VQ20T series VACUUM EJECTOR (Energy Saving)

VQ20T



Model	Tube dia (V)	Tube dia (P)	Nozzie Diameter mm	Pressure Range Kg/cm ² (Kpa)	Max. Vacuum (- mmHg)	Range Of Energy Saving (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VQ20T-10-06	Ø6	Ø6	1.0	4 ~ 7 (400 ~ 700)	690	350~600	26	53

VQ20ST series VACUUM EJECTOR (Energy Saving)

VQ20ST



Model	Tube dia (V)	Tube dia (P)	Nozzie Diameter mm	Pressure Range Kg/cm ² (Kpa)	Max. Vacuum (- mmHg)	Range Of Energy Saving (- mmHg)	Vacuum Current L/min (ANR)	Air Consumption L/min (ANR)
VQ20ST-10-06	Ø6	Ø6	1.0	4 ~ 7 (400 ~ 700)	690	350~600	26	53

MVS series VACUUM CYLINDER

MVS



Model	Rod Size ø mm	Theoretical Thrust Kg Push	Theoretical Thrust Kg Pull	Operation	Pad Size	Cushion Stroke mm	Pressure Range Kg/cm ² (Kpa)	Fluid Type	Standard Stroke mm	Temp °C	Port Size
MVS-06	6	1.4	1.05	Double Action	PA-02-15	3	1~7 (100~700)	Air	10	5~60	M3
MVS-10	10	3.9	3.25						10		
									15		

PAF series VACUUM PAD (Vertical Vacuum Entry)

PAF



Model	Connection Type	Pad Diameter	Material
PAF	Vertical 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 (Vertical Vacuum Entry with One-touch Fitting)

PAK



Model	Connection Type	Pad Diameter	Material
PAK	Vertical 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 (Lateral Vacuum Entry with Barb Fitting)

PAT



Model	Connection Type	Pad Diameter	Material
PAT	Lateral 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 (Vertical Vacuum Entry With Buffer)

PAFS



Model	Connection Type	Pad Diameter	Material
PAFS	Vertical 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 (Lateral Vacuum Entry with Barb Fitting & Buffer)

PATS



Model	Connection Type	Pad Diameter	Material
PATS	Lateral 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 BELLOWS TYPE VACUUM PAD (Vertical Vacuum Entry) PBF



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

PBK series BELLOWS TYPE VACUUM PAD (Vertical Vacuum Entry with One-touch Fitting) PBK



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

PBT series BELLOWS TYPE VACUUM PAD (Lateral Vacuum Entry with Barb Fitting) PBT



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

PBFS series BELLOWS TYPE VACUUM PAD (Vertical Vacuum Entry With Buffer) PBFS



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

PBTS series BELLOWS TYPE VACUUM PAD (Lateral Vacuum Entry with Barb Fitting & Buffer) PBTS



Model	Connection Type	Pad Diameter	Material
PBTS	Lateral 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 BELLOWS TYPE VACUUM PAD (Vertical Vacuum Entry) PCF



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

PCK series BELLOWS TYPE VACUUM PAD (Vertical Vacuum Entry with One-touch Fitting) PCK



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

PCT series BELLOWS TYPE VACUUM PAD (Lateral Vacuum Entry with Barb Fitting) PCT



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

PCFS series BELLOWS TYPE VACUUM PAD (Vertical Vacuum Entry With Buffer) PCFS



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

PCTS series BELLOWS TYPE VACUUM PAD (Lateral Vacuum Entry with Barb Fitting & Buffer) PCTS



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

PS series NON-CONTACT VACUUM PAD PS



Model	Connection Type	Pad Diameter	Port Size
PS-20	Vertical Connection	Ø20	M3
PS-40		Ø40	M5
PS-60		Ø50	M5

P□L series NON-ROTATING VACUUM PAD

P□L



Model	Pad Diameter	Spring Stroke	Connection Type	Pipe Dia.	Material
PAL	Φ5、Φ6、Φ8	6mm	Vertical Connection	Φ6	NBR Rubber Silicon Rubber PU Rubber SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber
	Φ10、Φ15	8mm			
	Φ20-Φ50	13mm			
PBL	Φ10、Φ15	8mm			
	Φ20-Φ50	13mm			
PCL	Φ5、Φ7	6mm			
	Φ10、Φ15	8mm			
	Φ20、Φ30、Φ40	13mm			

P□□-R series VACUUM PAD WITH BALL JOINT

P□□-R



Model	Pad Diameter	Connection Type	Swing Angle	Material
PA□-R	Φ05-Φ15	F : Vertical Connection T : Lateral Connection	30°	NBR Rubber Silicon Rubber PU Rubber SE Anti-Static Rubber E Low Resistance & Anti-Static Rubber
PB□-R	Φ20-Φ50	FS : Vertical Connection (With Spring) TS : Lateral Connection (With Spring)		
PC□-R	Φ60-Φ80	K : Vertical Connection (With connector)		

MEMO

CHELIC Products

Related Calculation / Common Caution

Air unit

Valve

Cylinder

Gripper

Vacuum Equipment

Fitting

Accessories

Swivel unit

Assembly pick and place robot

SQC Straight (Male)



Thread	Tube Size	
	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		

SQD Branch Tee



Thread	Tube Size	
	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		

SQG Straight (Female)



Thread	Tube Size	
	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		

SQU Branch Y



Thread	Tube Size	
	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		

SQL Elbow 90°



Thread	Tube Size	
	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		

SQH Union Straight



Tube	Tube Size	
	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

SQSL Long Elbow



Thread	Tube Size	
	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		

SQV Union L



Tube	Tube Size	
	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

SQM Branch Double Y



Thread	Tube Size	
	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		

SQE Union Tee



Tube	Tube Size	
	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

SQT Branch Tee



Thread	Tube Size	
	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		

SQY Union Y



Tube	Tube Size	
	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

SQX Cross



Tube	Tube Size	
	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



Thread	Tube Size	
	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	Tube Size	
	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



Thread	Tube Size	
	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	Tube Size	
	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



Thread	Tube Size	
	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	Tube Size	
	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



Thread	Tube Size	
	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	Tube Size	
	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



Thread	Tube Size	
	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



Thread	Tube Size	
	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



Thread	Tube Size	
	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		

QSC Speed Controller



Thread	Tube Size	
	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	•	•

QMC Speed Controller With Matal Body



Tube	Tube Size	
	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	•	•

QSU Speed Controller With Universal type



Tube	Tube Size	
	MM TYPE	INCH TYPE
	Ø4 Ø6 Ø8 Ø10 Ø12	10/32 1/8 1/4 3/8 1/2
M5	•	•
1/8	•	•
1/4	•	•
3/8	•	•
1/2	•	•

QHV Hand Valve



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

QSB Speed Controller - Large Flow Type



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

QVA Ball Valve with Fitting Type



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

QSS Speed Controller - Low Flow Type



Tube	Tube Size	
	MM TYPE	INCH TYPE
	Ø4 Ø6 Ø8 Ø10	5/32 1/4 5/16 3/8
M5	•	•
1/8	•	•
1/4	•	•

QVAH Ball Valve with Fitting/Bulkhead Type



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

QSM Speed Controller - Mini Type



Thread	Tube Size	
	MM TYPE	INCH TYPE
	Ø4 Ø6	5/32 1/4
M3	•	•
M5	•	•

QVAB Ball Valve with Fitting / Threaded Type



Thread	Tube Size	
	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	•	•

QSN Speed Controller - Fitting Type



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

QST Speed Controller - Panel Type



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

MSQC Mini Type Straight (Male)



Thread	Tube Size	
	MM TYPE	INCH TYPE
	Ø4 Ø6	5/32
M3	•	•
M5	•	•
1/8	•	•

MSQH Union



Tube	Tube Size	
	MM TYPE	INCH TYPE
	Ø4 Ø6	5/32
Ø3	•	•
Ø4	•	•
Ø6	•	•

MSQL Mini Type Elbow 90°



Thread	Tube Size	
	MM TYPE	INCH TYPE
	Ø4 Ø6	5/32
M3	•	•
M5	•	•
1/8	•	•

MSQR Threaded Type Union



Tube	Tube Size	
	MM TYPE	INCH TYPE
	Ø4 Ø6	5/32
Ø3	•	•
Ø4	•	•
Ø6	•	•

MSQE Mini Type Union Tee



Tube	Tube Size	
	MM TYPE	INCH TYPE
	Ø4 Ø6	5/32
Ø3	•	•
Ø4	•	•
Ø6	•	•

MSQB Rounded Straight (Male)



Thread	Tube Size	
	MM TYPE	INCH TYPE
	Ø4 Ø6	5/32
M3	•	•
M5	•	•
1/8	•	•

MSQT Mini Type Union Tee



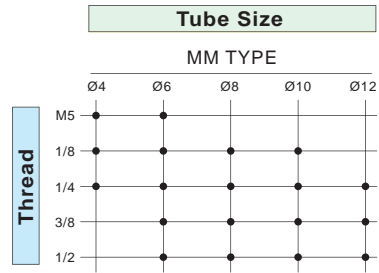
Thread	Tube Size	
	MM TYPE	INCH TYPE
	Ø4 Ø6	5/32
M3	•	•
M5	•	•
1/8	•	•

MSQJ 45° Fitting

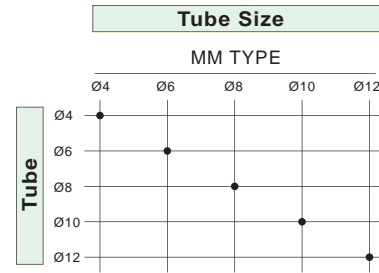


Thread	Tube Size	
	MM TYPE	INCH TYPE
	Ø4 Ø6	5/32
M3	•	•
M5	•	•
1/8	•	•

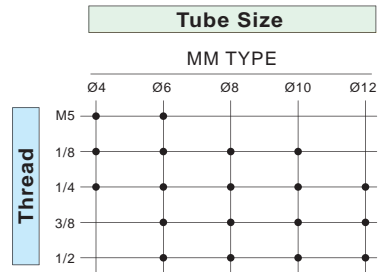
MPC Straight



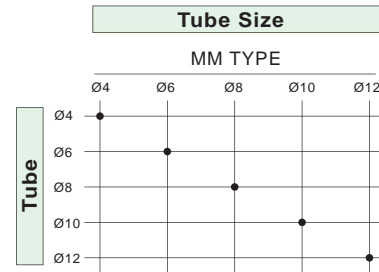
MPV Elbow



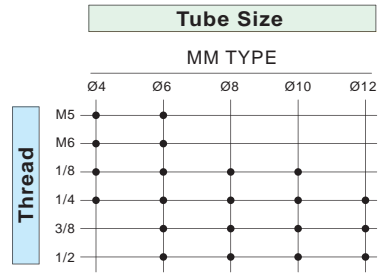
MPCF Straight



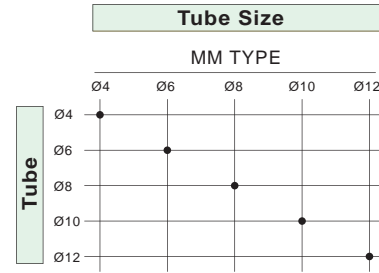
MPE Branch Tee



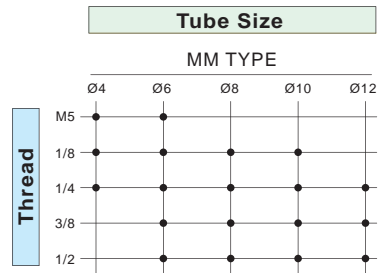
MPL Elbow



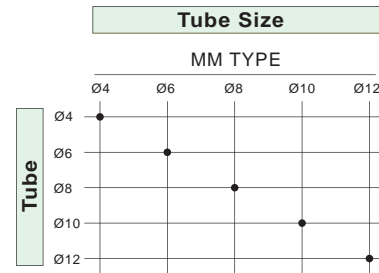
MPZ Cross



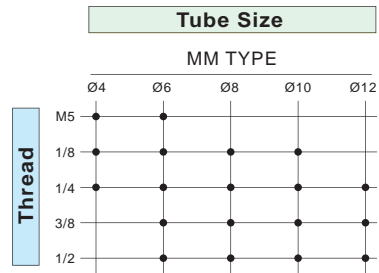
MPB Branch Tee



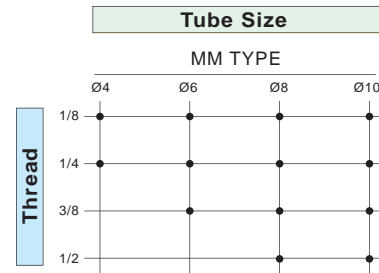
MPM Union



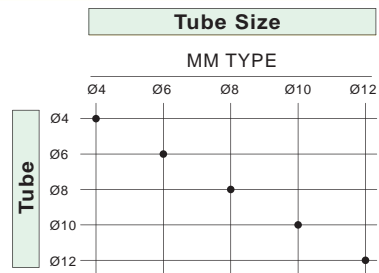
MPD Branch Tee



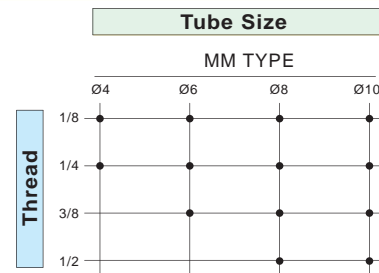
MPH Hex



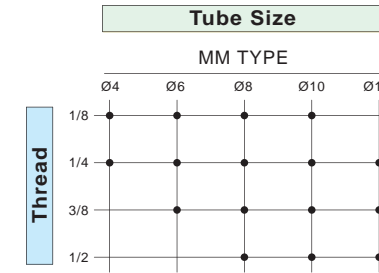
MPU Straight



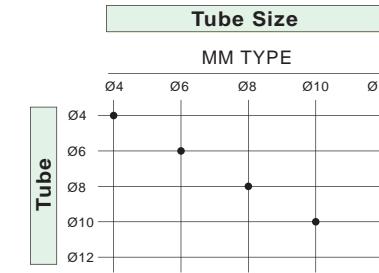
MSC Tube Fitting



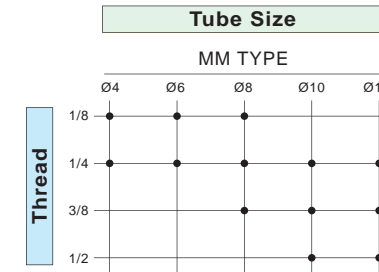
MPMF Straight



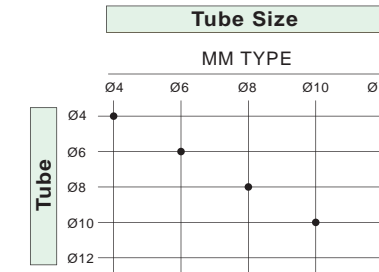
PPU Straight



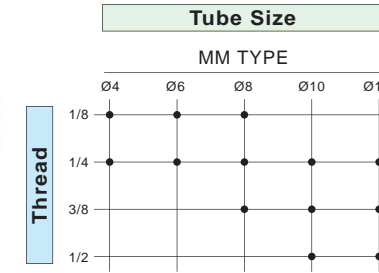
PPL Elbow



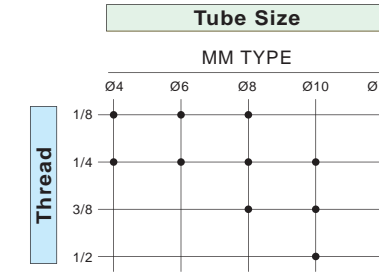
PPE Branch Tee



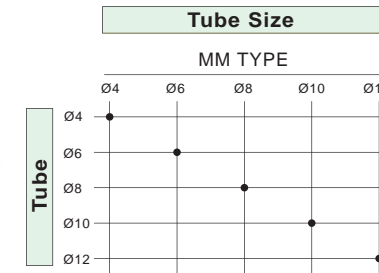
PPB Branch Tee



PPD Branch Tee



PPV Elbow



FITTING

STAINLESS FITTING SERIES

<p>MC Barb Fitting</p>  <p>SS304</p>	<p>ML Barb Elbow</p>  <p>SS304</p>	<p>MT Barb Tee</p>  <p>SS304</p>	<p>CVFC Hose Nipple</p>  <p>SS304</p>
<p>CVMC Hose Nipple</p>  <p>SS304</p>	<p>CVME Hose Elbow</p>  <p>SS304</p>	<p>CVU Hose Nipple</p>  <p>SS304</p>	<p>CVUE Hose Elbow</p>  <p>SS304</p>
<p>CVUT Union Tee</p>  <p>SS304</p>	<p>CPFC Female Connector</p>  <p>SS304</p>	<p>CPMC Hexagon Socket Head Male Connector</p>  <p>SS304</p>	<p>CPME Male Elbow</p>  <p>SS304</p>
<p>CPU Straight Union</p>  <p>SS304</p>	<p>CPUE Union Elbow</p>  <p>SS304</p>	<p>CPUT Union Tee</p>  <p>SS304</p>	<p>CCF Hose Nipple</p>  <p>SS316</p>
<p>CMC Hose Nipple</p>  <p>SS316</p>	<p>CME Hose Elbow</p>  <p>SS316</p>	<p>CVU2 Hose Nipple</p>  <p>SS316</p>	<p>CUT Union Tee</p>  <p>SS316</p>

FITTING

STAINLESS FITTING SERIES

<p>CUE Hose Elbow</p>  <p>SS316</p>	<p>CBU Hose Nipple</p>  <p>SS316</p>	<p>CRU Hose Nipple Different Diameter</p>  <p>SS316</p>	<p>N NUT</p>  <p>SS316</p>
<p>M PLUG</p>  <p>SS316</p>	<p>CAP BODY</p>  <p>SS316</p>	<p>FF Axis tube</p>  <p>SS316</p>	<p>IN Liner</p>  <p>SS316</p>
<p>CVF Female Needle Valve</p>  <p>SS304</p>	<p>CVT Tube End Needle Valve</p>  <p>SS304</p>	<p>CVM Male Check Valve</p>  <p>SS304</p>	<p>CVE Female Check Valve</p>  <p>SS304</p>
<p>CVF Female Needle Valve</p>  <p>SS316</p>	<p>CBV Tube End Ball Valve</p>  <p>SS316</p>	<p>CTSM Quick Coupling</p>  <p>SS304</p>	<p>CTSF Quick Coupling</p>  <p>SS304</p>
<p>CTSH Quick Coupling</p>  <p>SS304</p>	<p>CTPM Quick Coupling</p>  <p>SS304</p>	<p>CTPF Quick Coupling</p>  <p>SS304</p>	<p>CTPH Quick Coupling</p>  <p>SS304</p>

CHELIC
Products

Related Calculation
Common Caution

Air unit

Valve

Cylinder

Gripper

Vacuum
Equipment

Fitting

Accessories

Swivel unit

Assembly pick
and place robot

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	200	6400	1.65	
CJ-M16X1.5					
CJ-M18X1.5	50,63	300	11500	2.15	
CJ-M20X1.5	63,80	490			
CJ-M22X1.5	80,100	750	12500	2.65	
CJ-M24X1.5					
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"			For B , P series F.R.L.
MBV-02	1/4"			
MCV-03	3/8"			
MCV-04	1/2"			
MCV-06	3/4"			

SLP series PLASTIC SILENCER

SLP



Model	Port Size Rc (PT)	Material	Noise Reduction Effect dB	Pressure Range Kgf/cm ² (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			
SLP-04	1/2			
SLP-06	3/4			
SLP-10	1			

SL series BRASS SILENCER

SL



Model	Port Size Rc (PT)	Material	Noise Reduction Effect dB	Pressure Range Kgf/cm ² (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		
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		
SAC - 1408	8	15	50		Ø12 ~ Ø25
SAC - 1416	16	20	70	2.0	Ø16 ~ Ø32
SAC - 2020	20	40	200		Ø20 ~ Ø40
SAC - 2050	50	60	400	2.5	Ø25 ~ Ø63
SAC - 2525	25	80	800		Ø25 ~ Ø80
SAC - 2540	40	120	1200		Ø32 ~ Ø100
SAC - 3660	60	250	1500		

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	3.0	Ø25 ~ Ø80
SAD - 3650	50	30.6	1400		Ø32 ~ Ø100
SAD - 4250	50	51.0	4000		4.5

SHR series Hydraulic Retarder

SHR



Item Model	Max. Stroke	Operating Temp.	Max. Load	Adjustable Speed Range	Allowable Power
SHR15	15 mm	0 ~ 60 °C	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				

CS series SENSOR SWITCH

CS



Model	Voltage V	Current mA	Contact	Range of Service Temp. °C
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		Normally Open
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	Normally Open	-10 ~ 70
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		
CS-181	DC. 10 ~ 28	5 ~ 50		
CS-190	DC. 10 ~ 28	80		
CS-190N(P)	DC. 10 ~ 28	80		
CS-5BF	DC. 5 ~ 30	50		
CS-5BF-NPN(PNP)	DC. 5 ~ 30	80		
CS-5GF	DC. 5 ~ 30	50		
CS-5GF-NPN(PNP)	DC. 5 ~ 30	80		
CS-7BF	DC. 5 ~ 30	50		
CS-7BF-NPN(PNP)	DC. 5 ~ 30	80		
CS-8GF	DC. 5 ~ 30	50		
CS-8GF-NPN(PNP)	DC. 5 ~ 30	80		
CS-9BF	DC. 5 ~ 110	100		
CS-9DF	DC. 5 ~ 110	100		
CS-210	DC. 5 ~ 240	100		
CS-210K	DC. 5 ~ 30	50		
CS-210N(P)	DC. 5 ~ 30	200		

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

PSS series PRECISION PRESSURE SENSOR

PSS



Model	Pressure Range	Voltage	Fluid Type	Port Size	Analog output
PSS-N-01	0~0.1L/min	DC-24V	空氣	PT 1/4" PF 1/4" NPT 1/4"	DC0.5~4.5V DC4~4.5mA
PSS-N-02	0~0.2L/min				
PSS-N-07	0~0.7L/min				
PSS-N-10	0~1.0L/min				

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	NPN	5 ms or less	Ø6,M5,1/8" (G,PT,NPT)
PS [V] - 05		-100 ~ 100 Kpa			
PS [N] - 10		-0.1 ~ 1.0 Mpa			
PS [L] - 10		0 ~ 100 Kpa			
PS [V] - 10		-101 ~ 0 Kpa			
PS [N] - 30		-0.1 ~ 1.0 Mpa			
PS [C] - 30		-100 ~ 100 Kpa			
PS [V] - 30		0 ~ -101 Kpa			
PS [N] - 40		-0.1 ~ 1.0 Mpa			
PS [C] - 40		-100 ~ 100 Kpa			
PS [V] - 40		0 ~ -101 Kpa			
PS [N] - 41		-0.1 ~ 1.0 Mpa	PNP	≤ 2.5 ms Function : 24 ms,192 ms, 768 ms (Option)	1/8" (G,PT,NPT)
PS [N] - 42		-100 ~ 100 Kpa			
PS [C] - 42		0 ~ -101 Kpa			
PS [V] - 42		-0.1 ~ 1.0 Mpa			
PS [N] - 43		-100 ~ 100 Kpa			
PS [C] - 43		-101 ~ 101 Kpa			
PS [N] - 46		-0.1 ~ 1.0 Mpa			
PS [C] - 46		-101 ~ 101 Kpa			
PS [N] - 50		-0.1 ~ 1.0 Mpa			
PS [H] - 50	-0.1 ~ 2.0 Mpa				
PS [V] - 50	10 ~ -101.3 Kpa				
PS [C] - 50	-101 ~ 101 Kpa				

PU series PU TUBE

PU



Model	OD x ID (mm)	Standard Length (m)	Min. Bending Radius (mm)	Range of service temp. °C	Pressure Range Kgf/cm ² (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).

PUL series TELESCOPIC TUBE

PUL



Model	OD x ID (mm)	Standard Length (m)	Min. Bending Radius (mm)	Range of service temp. °C	Pressure Range Kgf/cm ² (Kpa)
PUL0640	6 x 4	6 · 9 · 12 · 15	15	0 ~ 50	0 ~ 10 (0 ~ 1000)
PUL0850	8 x 5	6 · 9 · 12 · 15	15		
PUL1065	10 x 6.5	6 · 9 · 12 · 15	20		
PUL1280	12 x 8	6 · 9 · 12 · 15	30		

※ Standard Color : Orange (Black · Blue and other color to be customized).

PN series NYLON TUBE

PN



Model	OD x ID (mm)	Standard Length (m)	Min. Bending Radius (mm)	Range of service temp. °C	Pressure Range Kgf/cm ²
PN0425	4 x 2.5	200	17	0 ~ 50	< 20
PN0640	6 x 4		37		
PN0860	8 x 6	100	48		
PN1075	10 x 7.5		66		
PN1290	12 x 9	76			

※ Standard Color : Transparent.

CHELIC Products
 Related Calculation / Common Caution
 Air unit
 Valve
 Cylinder
 Gripper
 Vacuum Equipment
 Fitting
 Accessories
 Swivel unit
 Assembly pick and place robot

APR2 series PICK AND PLACE ROBOT

APR2



Item		Model	APR2 - 50	APR2 - 70	APR2 - 100
Operation			Double Acting		
Fluid			Air		
Pressure Range		Kgf/cm ² (Kpa)	1.5 ~ 6 (150 ~ 600)		
Max. service pressure		Kgf/cm ² (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

APL2 series PICK AND PLACE ROBOT

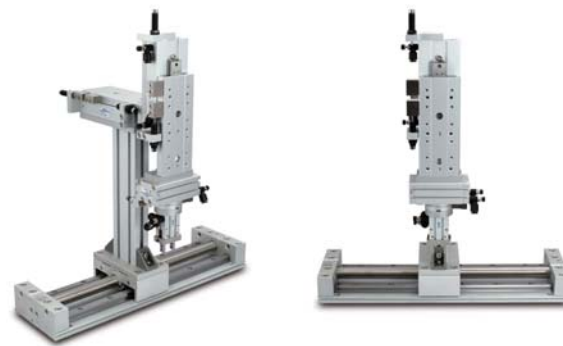
APL2



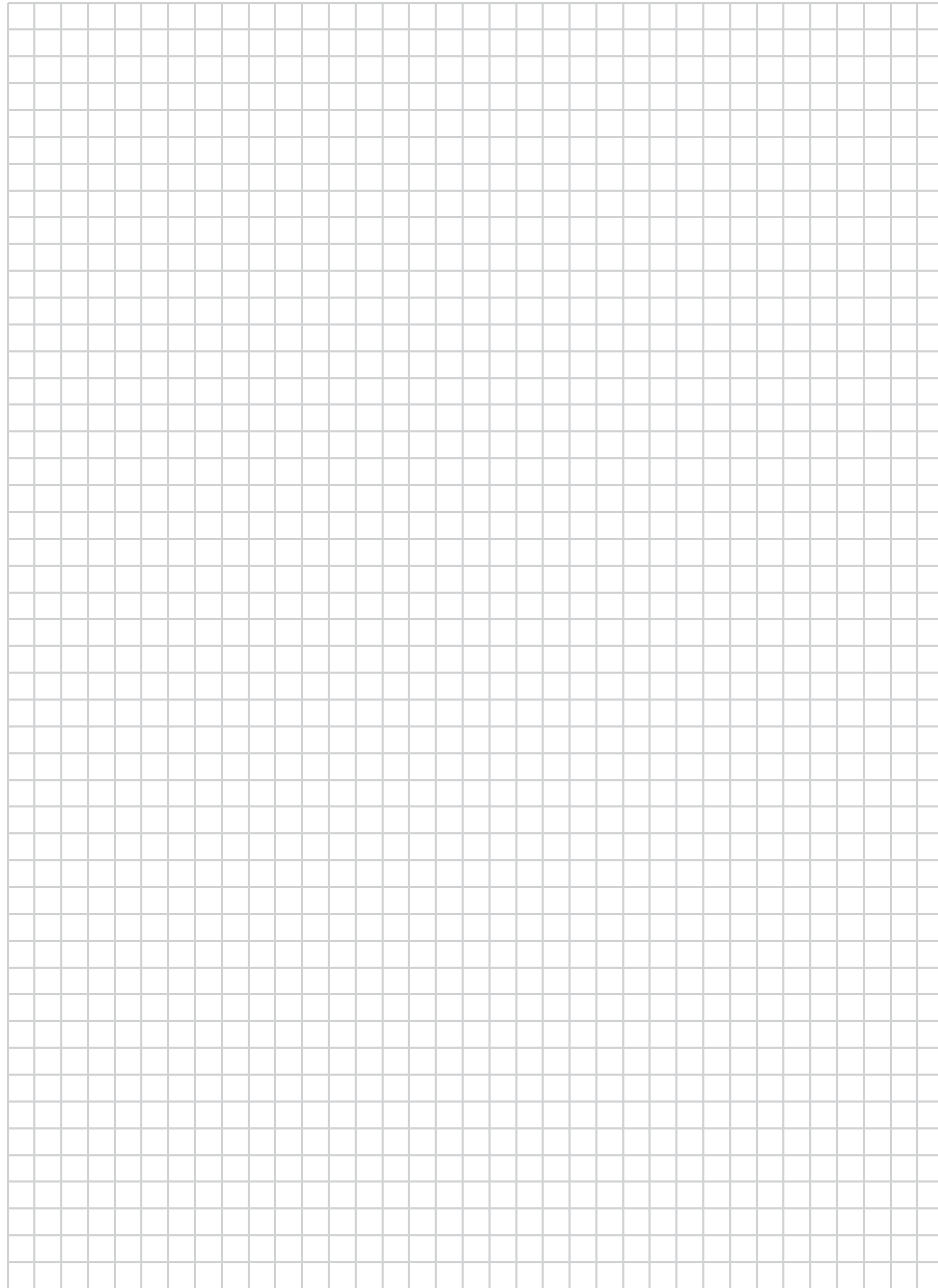
Item		Model	APL2 - 10	APL2 - 15	APL2 - 20
Operation			Double Acting		
Fluid			Air		
Pressure Range		Kgf/cm ² (Kpa)	1.5 ~ 6 (150 ~ 600)		
Max. service pressure		Kgf/cm ² (Kpa)	7 (700)		
X Axis Horizontal moving	Model	(mm)	MRX 10	MRX 15	MRX 20
	Cylinder thrust	(kgf)	4.7	10	18
Y Axis Vertical moving	Model	(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

APS2 series PICK AND PLACE ROBOT

APS2



Item		Model	APS2 - 10	APS2 - 15	APS2 - 20
Operation			Double Acting		
Fluid			Air		
Pressure Range		Kgf/cm ² (Kpa)	1.5 ~ 6 (150 ~ 600)		
Max. service pressure		Kgf/cm ² (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



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