

HOW TO ORDER

1 2 3 4 5 6 7 8
SD 50 - 25 F - 316 - S/V - A/S - L/S

1. Type of Actuator	2. Actuator Size	3. Valve Size
SD – Double Acting SA – Spring Return	40 – 300D 40 – 200D	15 – 400A
4. End Connection	5. Material	6.7.8. Accessories
F – Flange (Ball) S – Screw (Ball) BF – Wafer (Butterfly)	NON : SUS 304 316 : SUS 316 PVC : PVC	S/V – Solenoid Valve A/S – Filter – Regulator L/s – Limit Switch Box

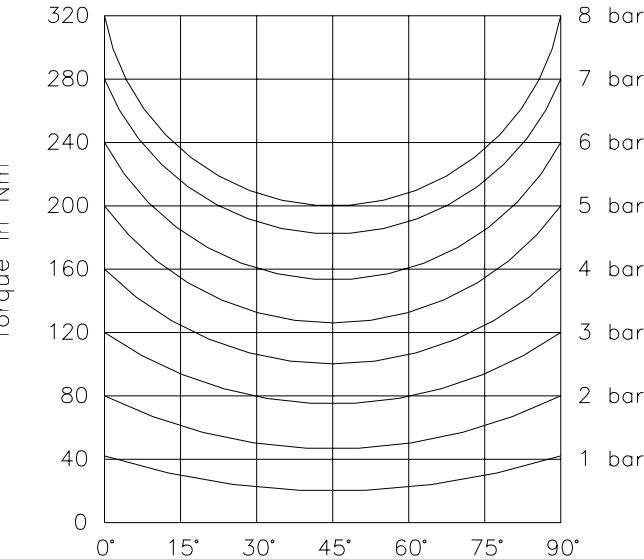
DOUBLE ACTING ACTUATORS OUTPUT TORQUES (Nm)

TPYE	ISO	Operating Pressure (bar)				
		3	4	5	6	7
SD	5211					
40	F03	9	12	15	18	21
50	F05	30	40	50	60	70
65	F05	60	80	100	120	140
80	F07	120	160	200	240	280
100	F10	240	320	400	480	560
140	F12	480	640	800	960	1120
200	F16	600	800	1000	1200	1400
200D	F16	1200	1600	2000	2400	2800
300	F30	1600	2400	3000	3600	4200
300D	F30	3200	4800	6000	7200	8400

Pneumatic Actuator & Valves

Actuator Feature and Advantage

As an example shown below is the hight break – away and ending torque type SD 80

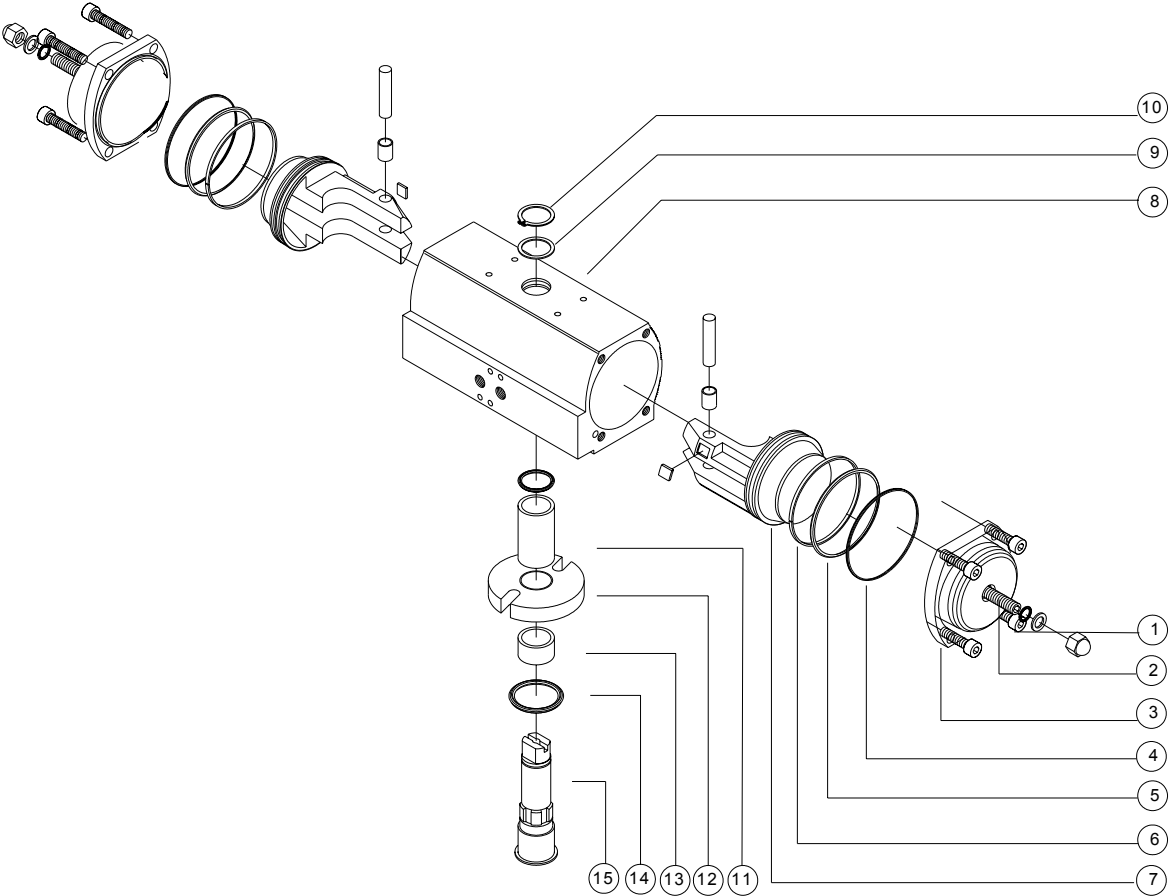


- Scotch – yoke type
- No Metal to metal touch
- Torque curve = Rotating valve torque
IT produced great torque at the beginning and the End position of rotating valves.
- Double piston ring (EPDM and Teflon). The drive Shaft is guided by protect seal of drive shaft
- Perfect weather proof.
- No fitting & tube necessary – “ namur “ standard.
- Paint : surface – Anodized
Internal – Double coating
- Easy maintenance – “ ISO “ standard.
- High quality and low price.

SPRING RETURN ACTUATORS OUTPUT TORQUES (Nm)

TPYE SY	ISO 5211	Operating Pressure (bar)					
		4.5		5		6	
		0°	90°	0°	90°	0°	90°
40	F03	9.4	70.6	12.4	10.6	15.3	13.5
50	F05	32	28	37	33	47	43
65	F05	65	50	75	60	95	80
80	F07	130	100	150	120	190	160
100	F10	220	155	260	195	340	295
140	F12	440	325	520	405	680	565
200	F16	680	510	805	630	1050	820
200D	F16	1360	1020	1610	1260	2100	1640

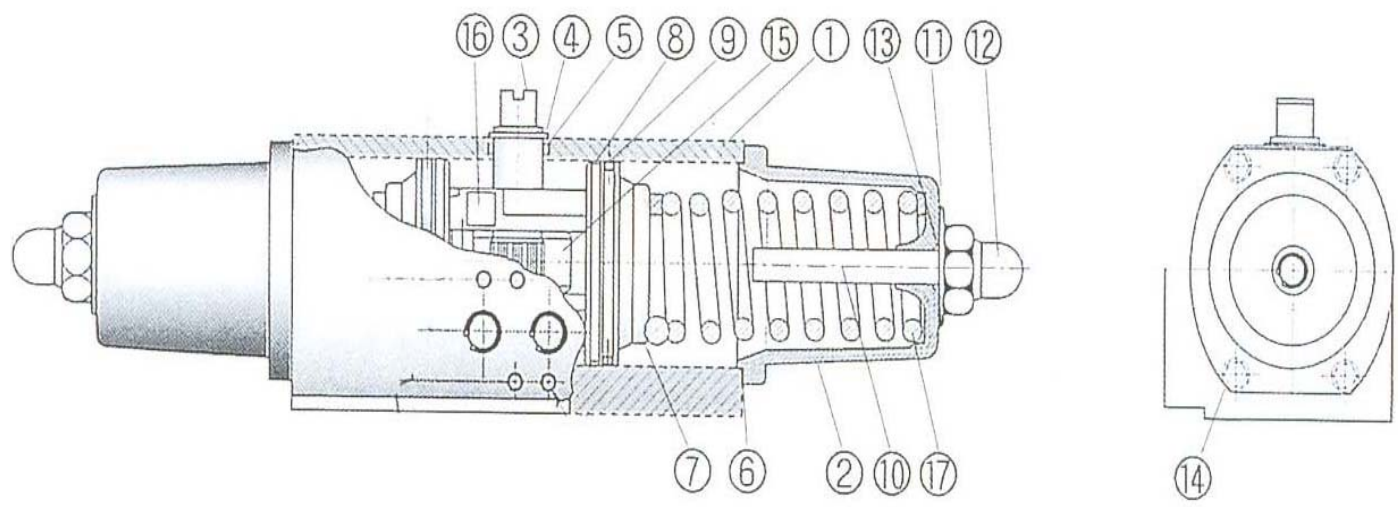
ACTUATOR ASSEMBLY



PART NAME

No.	DESCRIPTION	No.	DESCRIPTION
1	SOCKET SCREW	14	VITON
2	END BOLT	15	SHAFT
3	END CAP(SD)	16	
4	VITON O-RING	17	
5	DYNAMIC SEAL	18	
6	VITON O-RING	19	
7	PISTON	20	
8	CYLINDER	21	
9	VITION	22	
10	SNAP – RING	23	
11	SHAFT SUPPORT	24	
12	SCOTCH YOKE	25	
13	SHAFT SUPPORT		

CYLINDER ACTUATOR



PART NAME AND MATERIAL

17	SPRING	SUPG	2	
16	THRUST PAD	PTFE	4	
15	CTANK	S45C	1	
14	SOCKET SCREW	SUS304	4	
13	O-RING	VITON	2	
12	CAP NUT	SU304	2	
11	WASHER	BC6	2	
10	STOPPER	S25C	2	
9	O-RING	VITON	2	
8	THRUST PAD	TEFLON	2	
7	PISTION	AC4C	2	
6	O-RING	VITON	2	
5	O-RING	VITON	2	
4	SNAP RING	SK5M	1	
3	SHAFT	S45C	1	
2	SPRING CASE	AC4C	2	
1	CYLINDER	AC4C	1	
No.	NAME OF PARTS	MATERIALS	Q'TY	REMARKS

MONRING PAD:
DIN/ISO 5211 , DIN 3337
TEST PRESSRE :
10kg/cm²G
AIR SUPPLY :
5.5kg/cm²G
SPRING RANGE :
4kg/cm²G
ROTATION ANGLE:
90° + 3°

AIR CONSUMPTION

The air consumption of Actuator is calculated by below.
The air consumption is based on 1 action of used valve and do not calculate the Consumption per an hour.

Spring Return Actuator
< SA Series >

$V = B \times (P+1)/1 \times N$

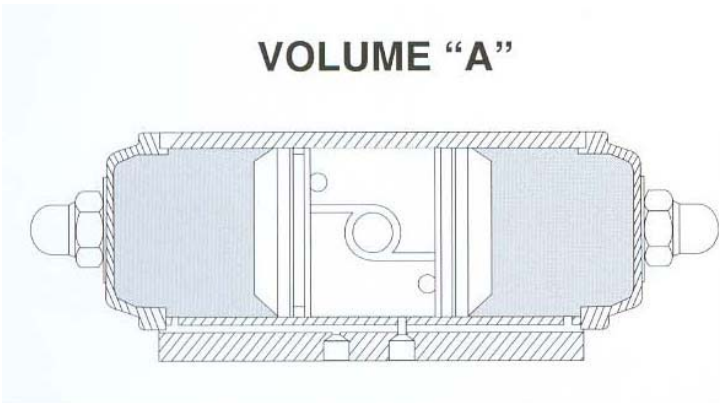
Double Acting Actuator
< SD Series >

$V = (B+A) \times (P+1)/1 \times N$

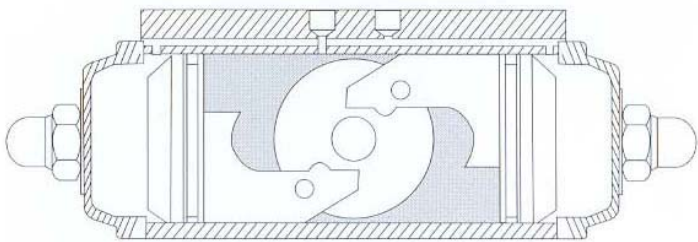
Where :

- V = Air Consumption
(N Liter)
- P = Supply Air Pressure
(kg/cm²)
- A,B = Actuator Volume
(Liter)
- N = Operation Times

VOLUME “A”



VOLUME “B”

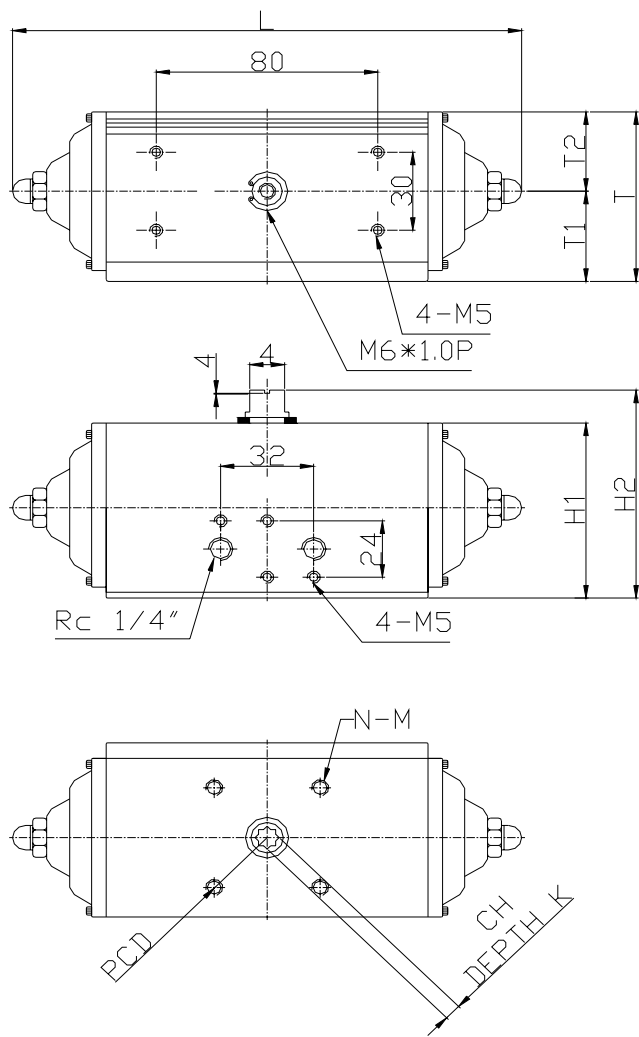


DOUBLE ACTING ACTUATORS OUTPUT TORQUES (Nm)

SIZE		ACTUATOR VOLUME (Liter)	
		A	B
SA40	SD40	0.07	0.06
SA50	SD50	0.13	0.11
SA65	SD65	0.25	0.24
SA80	SD80	0.54	0.48
SA100	SD100	0.97	0.86
SA140	SD140	1.74	1.45
SA200	SD200	2.9	2.67
SA200D	SD200D	5.8	5.34
	SD300	6.5	5.95
	SD300D	13	11.9

Pneumatic Actuator & Valves
OUTLINE DIMINTIONS

DOUBLE ACTING TYPE

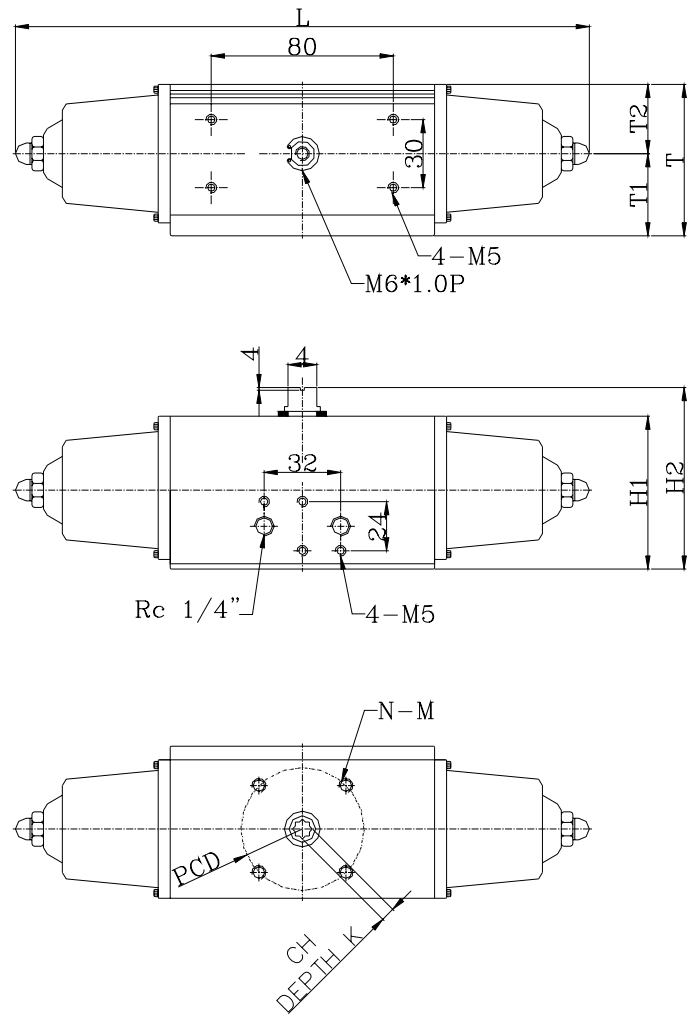


UNIT : mm

SIZE	ISO	L	T	T1	T2	H	H1	H2	H3	K	CH	PCD	N-M
SD50	F03/F05	175	69	40	29	80	33	31	10	13	11X11	50	4-M5/M6
SD65	F05/F07	254	82.5	46	36.5	108	47	39	19	17	14X14	50	4-M6/M8
SD80	F07	275	98	55.5	42.5	125	52	48	20	22	17X17	70	4-M8
SD100	F07/F10	382	114	60	53.5	146.5	64.5	58	21	29	22X22	125	A-M8-M10
SD140	F12	450	146	76	70	190	80	75	28	35	27X27	125	4-M12

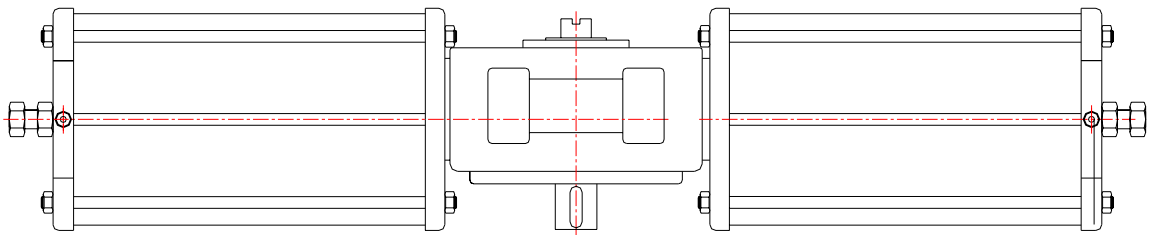
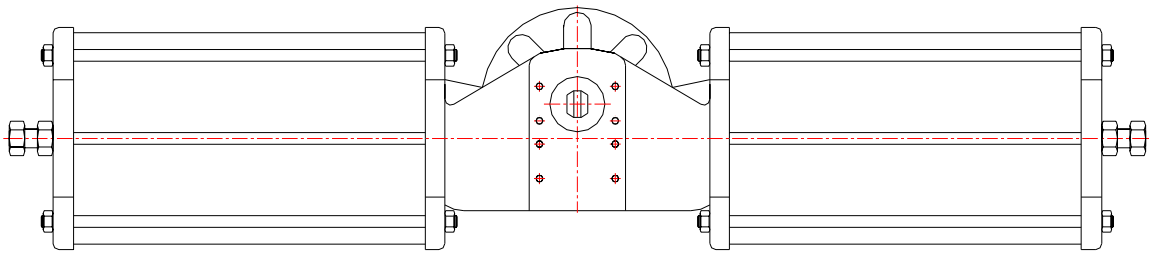
OUTLINE DIMINTIONS

SPRING RETUTRN TYPE



SIZE	ISO	L	T	T1	T2	H	H1	H2	H3	K	CH	PCD	N-M
SA50	F03/F05	255	69	40	29	80	33	31	10	13	11X11	50	4-M5/M6
SA65	F05/F07	340	82.5	46	36.5	108	47	39	19	17	14X14	50	4-M6/M8
SA80	F07	400	98	55.5	42.5	125	52	48	20	22	17X17	70	4-M8
SA100	F07/F10	504	114	60	53.5	146.5	64.5	58	21	29	22X22	102	4-M8-M10
SA140	F12	600	146	76	70	190	80	75	28	35	27X27	125	4-M12

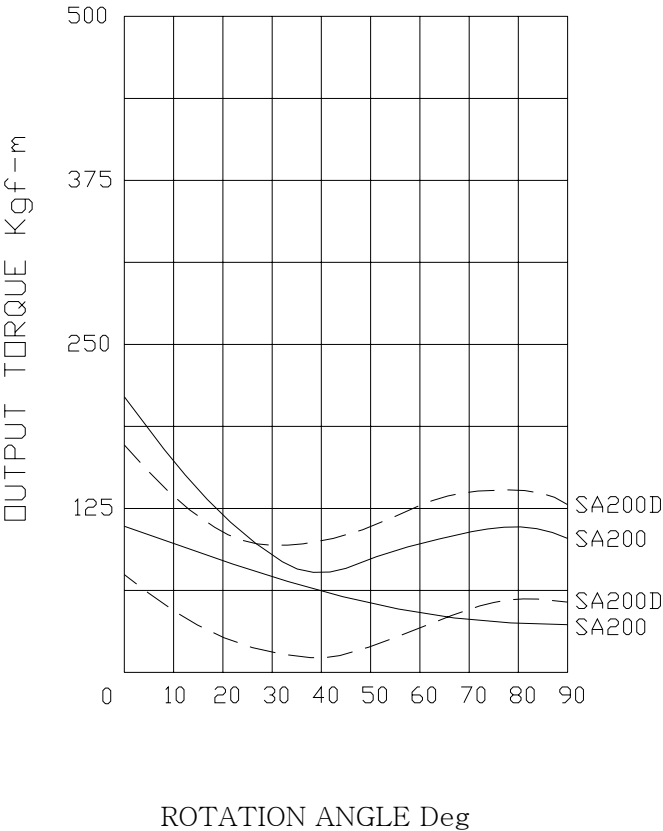
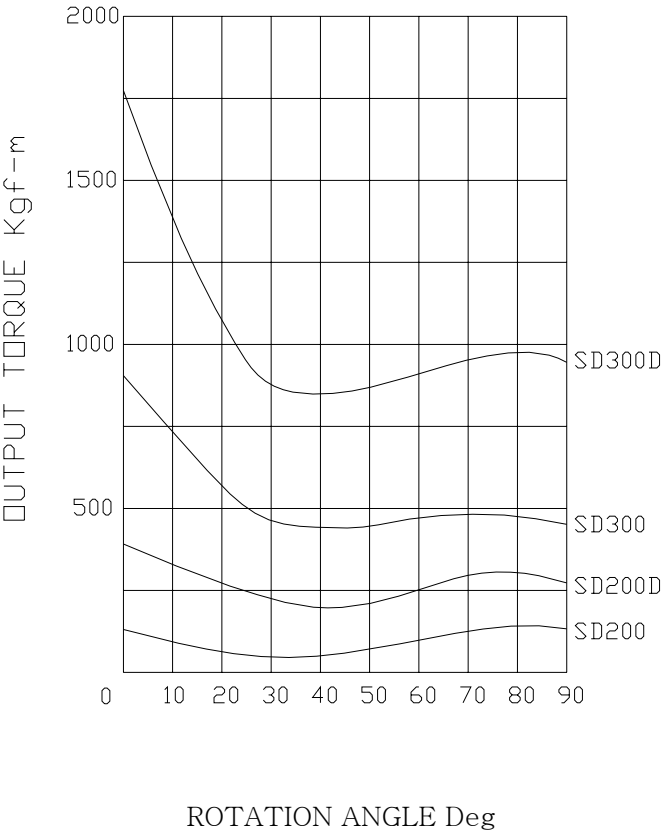
Pneumatic Actuator & Valves
HI-TORQUE CYLINDER ACTUATOR



TORQUE TABLE

1. DOUBLE ACTING

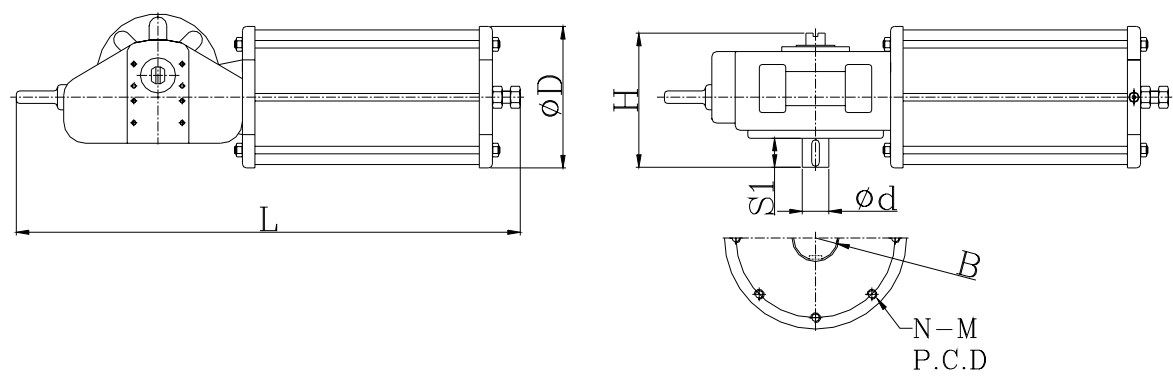
2. SPRING RETUTN



HI-TORQUE CYLINDER ACTUATOR

DIMENSIONS

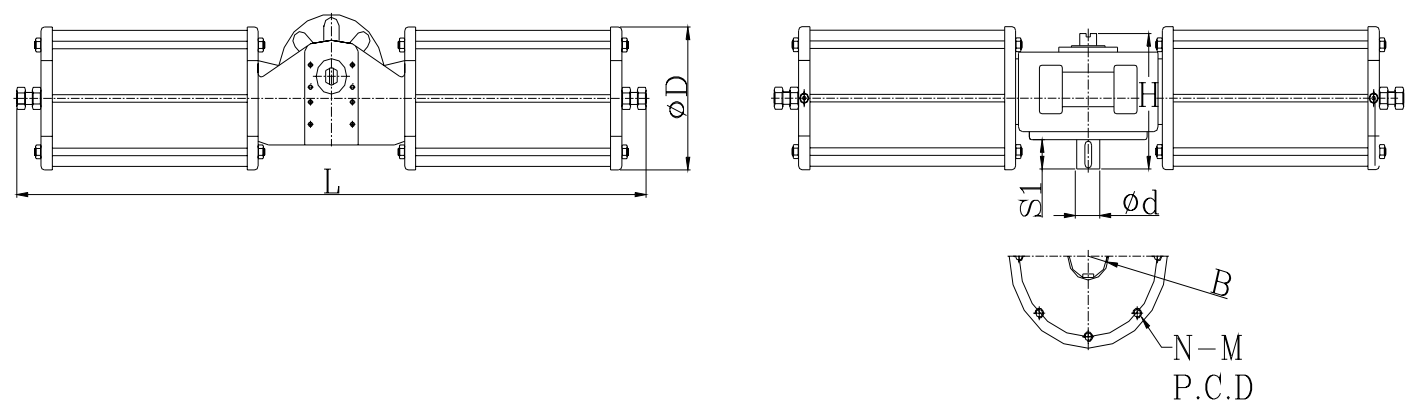
1. DOUBLE ACTING , SINGLE CYLINDER



UNIT : mm

SIZE	ISO	L	H	S1	ΦD	Φd	ΦB	KEY	N-M	ΦP.C.D
SD200	F16	770	260	60	260	55	200	16X10X55	4-M20	164

2. DOUBLE ACTING , DOUBLE CYLINDER



UNIT : mm

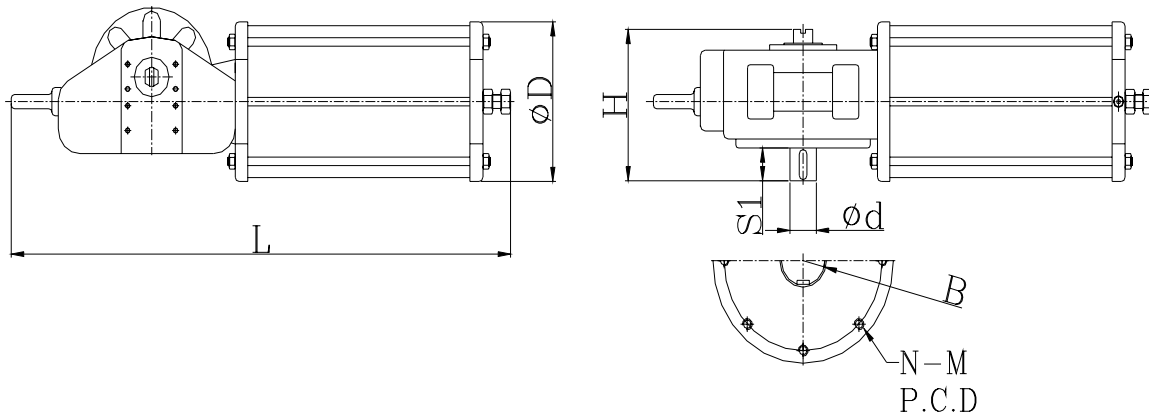
SIZE	ISO	L	H	S1	ΦD	Φd	ΦB	KEY	N-M	ΦP.C.D
SD200D	F16	870	260	60	260	55	200	16X10X55	4-M20	164
SD250D	F16	870	260	60	307	55	200	16X10X55	4-M20	164
SD300D	F30	1450	370	60	370	70	290	20X12X52	8-M16	254

Pneumatic Actuator & Valves

HI-TORQUE CYLINDER ACTUATOR

DIMENSIONS

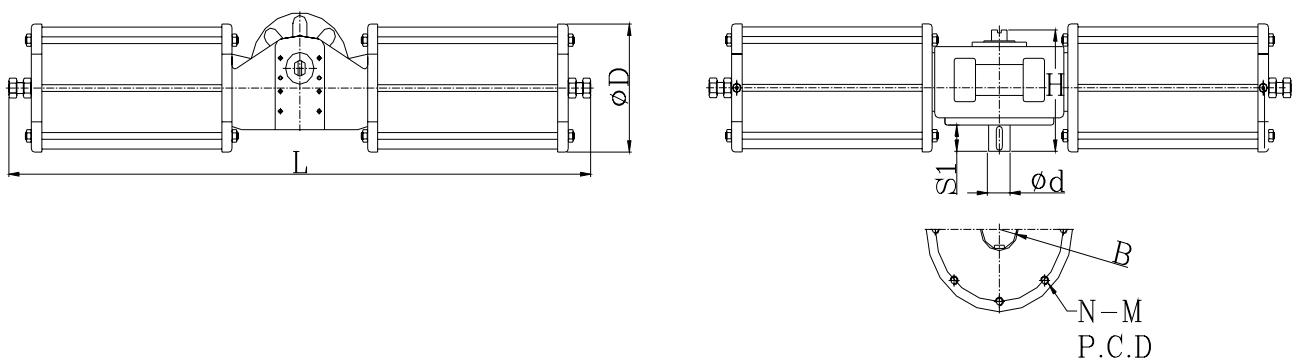
3. SPRING RETURN , SINGLE CYLINDER



UNIT : mm

SIZE	ISO	L	H	S1	ΦD	Φd	ΦB	KEY	N-M	$\Phi P.C.D$
SD200	F16	1110	260	60	260	55	200	16X10X55	4-M20	164

4. SPRING RETURN , DOUBLE CYLINDER



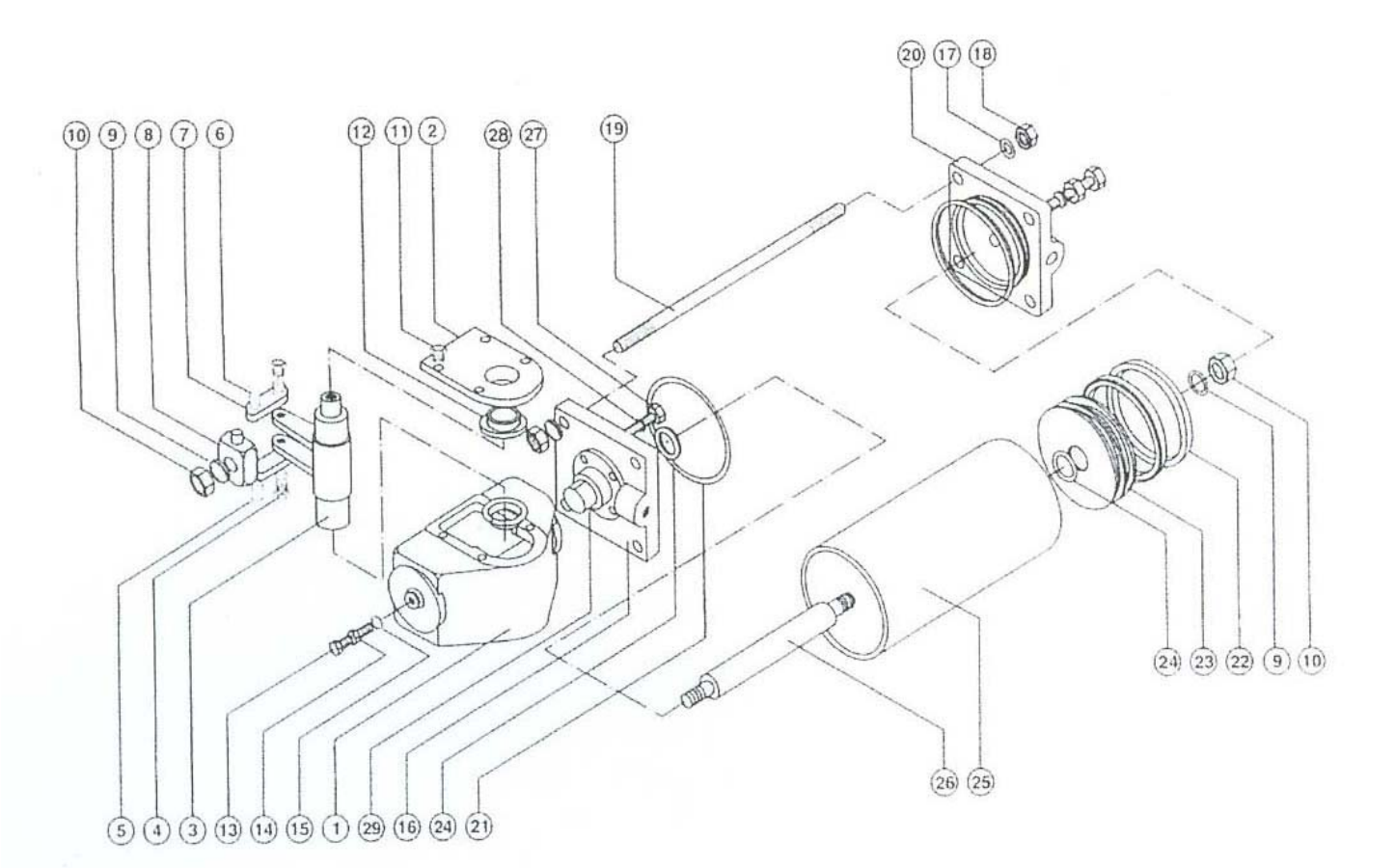
UNIT : mm

SIZE	ISO	L	H	S1	ΦD	Φd	ΦB	KEY	N-M	$\Phi P.C.D$
SD200D	F16	1520	260	60	260	55	200	16X10X55	4-M20	164

HI - TORQUE CYLINDER ACTUATOR

ACTUATOR ASSEMBLY

DOUBLE ACTING



SPRING RETURN

