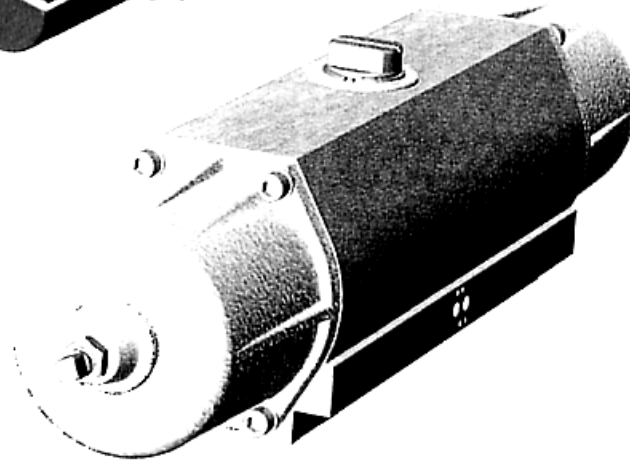
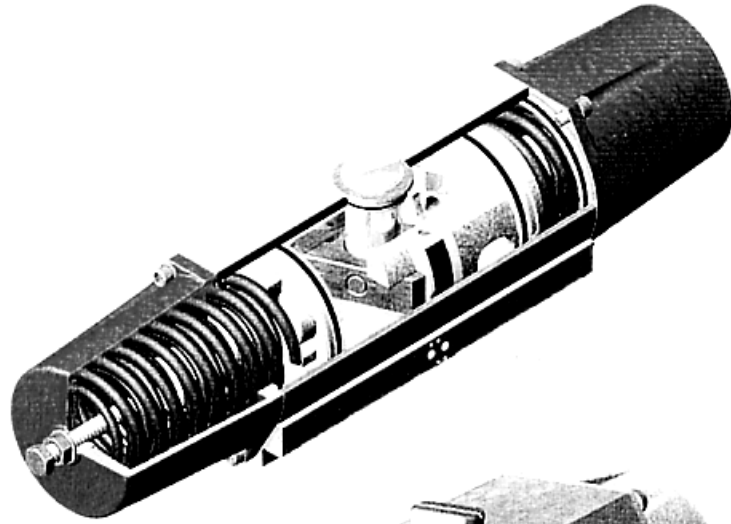


WEH Valves & Controls

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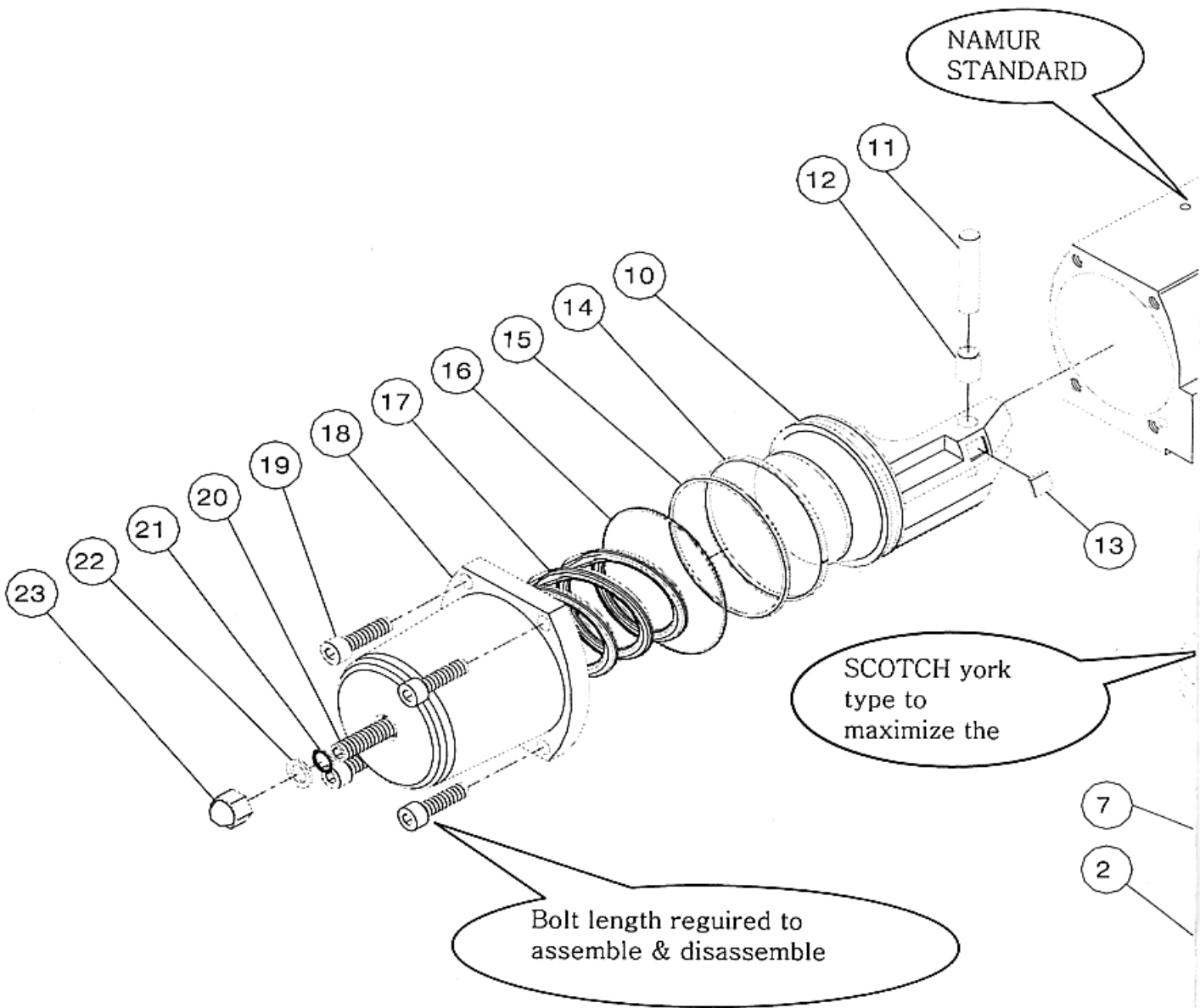
ACTUATOR PRODUCTS

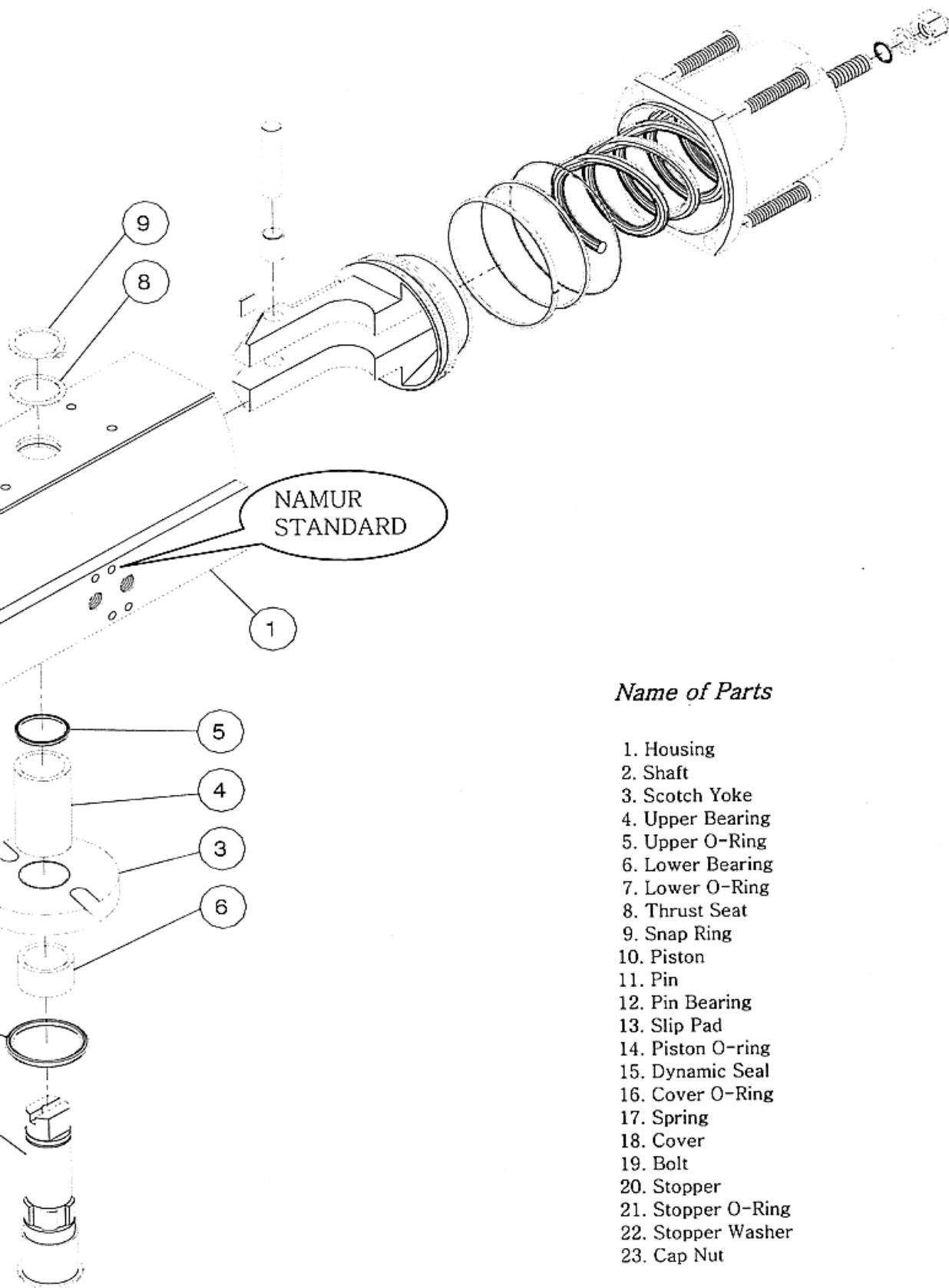
Technical Innovation

Hopkinsons has developed the advanced power cylinder actuator, Cano-Cyl, with high technologies and various site experiences accumulated for many years in conformity to the customer needs. Cano-Cyl is designed to fit in with recent trends of industrial demand with an independent quality assurance system and unmitigated design logistics.

Cano-Cyl is designed to provide good interchangeability to various kinds of valves with standard connection acc. to ISO 5211 and NAMUR Standard which offer many advantages on attachment of standard valve accessories on wide range of valves.

Cano-Cyl is produced with the concept of TROUBLE FREE and the quality of Cano-Cyl has been guaranteed from our customers through actual operation industrial field for past several years. All members of Hopkinsons always try to exert our customer to the utmost through extensive and continuous investigation of fastidious site requirements from the initial stage of production





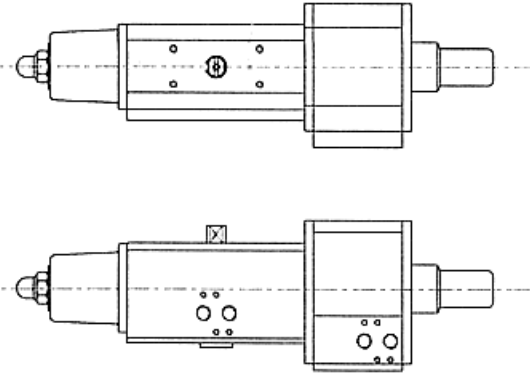
NAMUR
STANDARD

Name of Parts

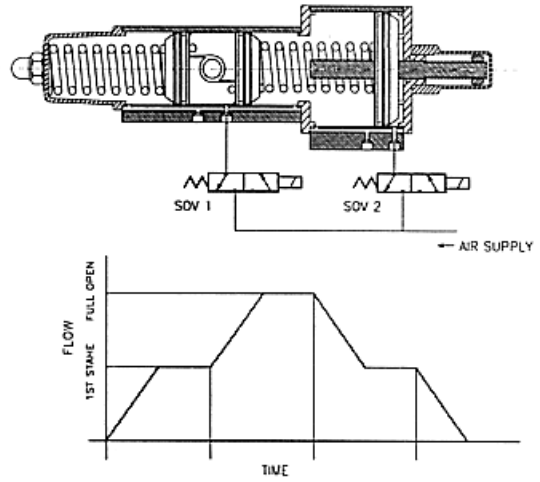
1. Housing
2. Shaft
3. Scotch Yoke
4. Upper Bearing
5. Upper O-Ring
6. Lower Bearing
7. Lower O-Ring
8. Thrust Seat
9. Snap Ring
10. Piston
11. Pin
12. Pin Bearing
13. Slip Pad
14. Piston O-ring
15. Dynamic Seal
16. Cover O-Ring
17. Spring
18. Cover
19. Bolt
20. Stopper
21. Stopper O-Ring
22. Stopper Washer
23. Cap Nut

OPTIONS

TWO-STAGE CONTROL

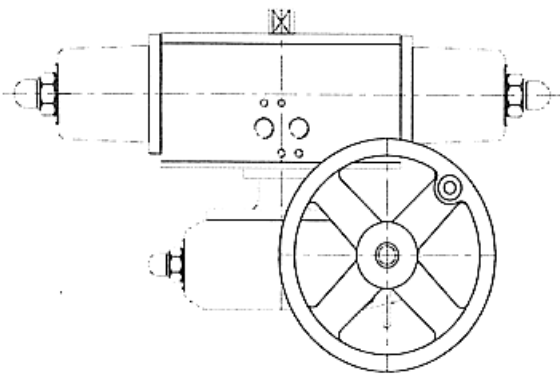


Cano-Cyl Actuator can be applied to two-stage operation with two separate solenoid valves. The stroke of 1st stage is easily adjusted from 10 to 90% ranges by means of stroke adjuster in the large cylinder.

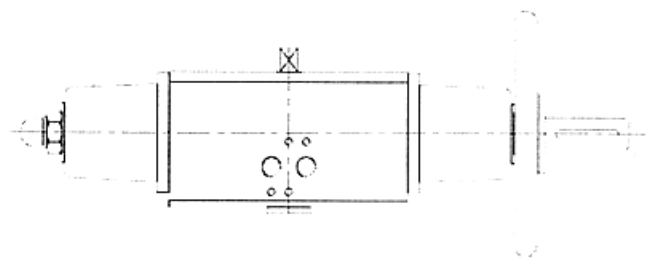


SOL. 1	ON	ON	ON	OFF
SOL. 2	ON	OFF	ON	OFF
POSITION	1ST STAGE	FULL OPEN	1ST STAGE	FULL CLOSE

MANUAL OVERRIDE



Declutched Handwheel
for Double Acting & Spring return



Screw Type Handwheel
for Spring return

AIR CONSUMPTION

The air consumption rate of Cano-Cyl is computed as following equations. The numerical value obtained from equations below is on the basis of a full reciprocal operation and does not demonstrate the air consumption rate per operating time.

*** Spring Return Cylinder**
< SA Series >

$$V = B \times \left(\frac{P+1}{1} \right) \times N$$

*** Double Acting Cylinder**
< SD Series >

$$V = (B + A) \times \left(\frac{P+1}{1} \right) \times N$$

Where ;

V = Air Consumption
 (N Liter)

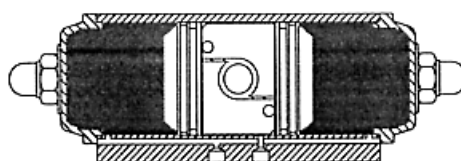
P= Supply Air Pressure
 (kg / cm2G)

A, B = Cylinder Volume
 (Liter)

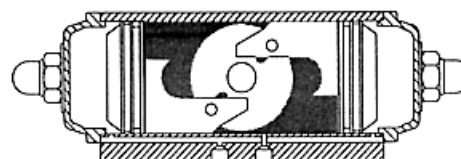
N = Operation Times

Size		Cylinder Volume	
		A	B
SA50	SD50	0.12	0.1
SA65	SD65	0.26	0.23
SA80	SD80	0.53	0.47
SA100	SD100	0.98	0.85
SA140	SD140	2.77	2.44

Volume " A



Volume " B



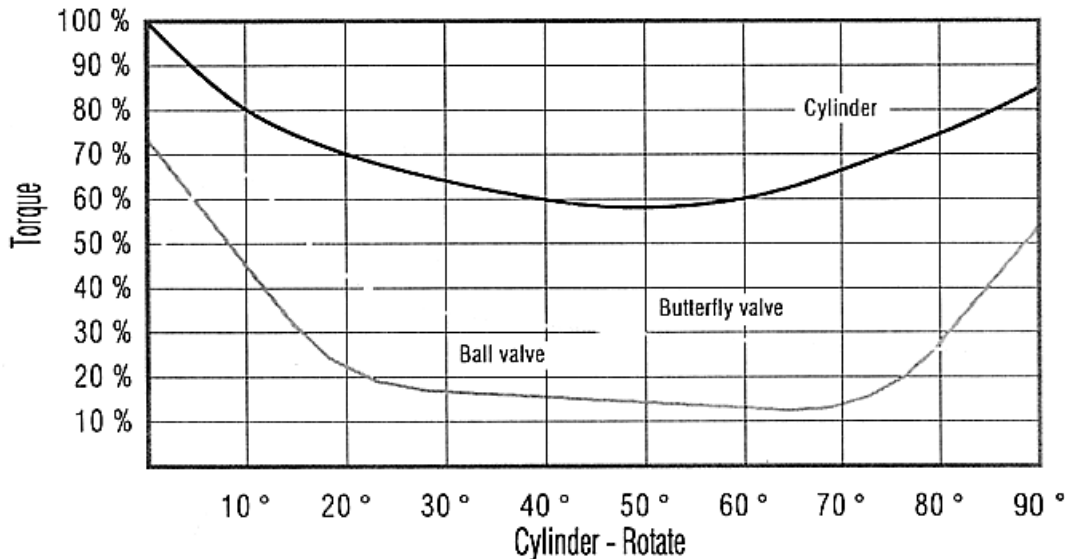
Advantages of **Cano-Cyl**

Scotch Yoke Design

Cano-Cyl is designed to acquire maximum torque output at the beginning of valve operation with most efficient force required.

Double Piston-Double Power

Cano-Cyl has twice bigger torque as compared to the single cylinder by means of the double piston operated simultaneously that is made up of 2 separated pistons.



Various materials and coatings

The housing of Cano-Cyl is finely proof against corrosive environment and mechanical impact through hard-anodizing surface treatment. Other surface treatment are available on request and stainless steel is available as the housing materials.

- Epoxy coated Aluminum Alloy Housing
- Urethane coated Aluminum Alloy Housing

Other major component materials

Cap : Epoxy coated Aluminum Alloy
Piston : Aluminium Alloy
Shaft : Nickel coated Hardened Steel / Stainless Steel
Gasket: NBR O-Ring

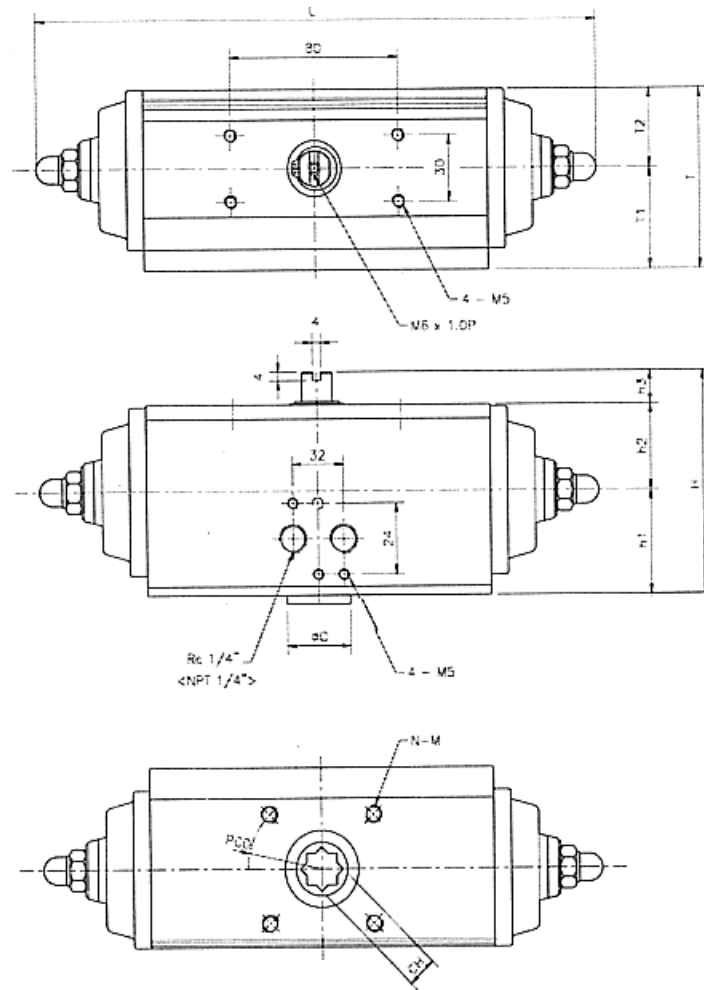
Design Temperature : -20 ~ 80 °C with NBR O-Ring
-40 ~ 150 °C with VITON O-Ring

Interchangeability

DIN / ISO 5211 PART 1 , 2 : Rotary Cylinder and Valve
NAMUR or VDI/VDE 3845 : Rotary Cylinder and Signal Unit Other special

OUTLINE DIMENSIONS

Double Acting Type



UNIT : mm

SIZE	ISO	L	T	T1	T2	H	H1	H2	H3	K	CH	PCD	N-M	Weight <Kg>
SD50	F03 / F05	175	69	40	29	80	33	31	20	13	9 x 9 11 x 11	36 / 50	4-M6	1.2
DS65	F05 / F07	254	82.5	46	36.5	108	47	39	20	17	14 x 14	50 / 70	4-M6 / M8	2.4
SD80	F07	275	98	55.5	42.5	125	52	48	20	22	17 x 17	70	4-M8	4
SD100	F07 / F10	382	114	60	54	146.5	64.5	58	20	29	22 x 22	70 / 102	4-M8 / M10	7
SD140	F10 / F12	450	146	76	70	190	80	75	20	35	27 x 27	102 / 125	4-M12	16.8
SD200	F14	510	280	142	138	240	125	115	30	50	36 x 36	140	4-M12	40.4

TORQUE TABLE

"SD" Double Acting Actuators Output Torques < N-M >

MODEL	ANGLE	3 Bar	4 Bar	5 Bar	6 Bar	7 Bar	8 Bar
SD-50	0°	32.1	42.9	53.6	64.3	75	55.7
	50°	16.1	21.4	26.8	32.1	37.5	42.9
	90°	24.1	32.1	40.2	48.2	56.3	64.3
SD-65	0°	64.3	85.7	107.1	128.6	150	171.4
	50°	32.1	42.9	53.6	64.3	75	85.7
	90°	48.2	64.3	80.4	96.4	112.5	128.6
SD-80	0°	128.6	171.4	214.3	254.1	300	342.9
	50°	64.3	85.7	107.4	128.6	150	171.4
	90°	90.4	120	100.7	192.6	225	257.1
SD-100	0°	257.3	342.9	426.6	514.3	600	885.7
	50°	128.6	171.4	214.3	257.1	300	342.9
	90°	192.9	257.1	321.4	385.7	450	514.3
SD-140	0°	625.3	715.3	880	1135.6	1263.5	1452.1
	50°	344.1	445.3	560	760.3	815.7	992.5
	90°	485.7	615.3	720	1030.5	1135.2	1265.3
SD-200	0°	916.3	1221.7	1714.3	2057.1	2238	2443.4
	50°	514.3	685.8	857.1	960	1200	1371.4
	90°	771.4	916.3	1285.7	1440	1800	2057.1

"SA" Spring Return Actuators Output Torques < N-M >

MODEL	ANGLE	8bar(40PSI)		4.2bar(60PSI)		5.6bar(80PSI)	
		SPRING	AIR	SPRING	AIR	SPRING	AIR
SA-50	0°	15	10	22.5	15	30	20
	50°	7.5	7.5	11.3	11.3	15	15
	90°	10	15	15	22.5	20	30
SA-65	0°	30	20	45	30	60	40
	50°	15	15	22.5	22.5	30	30
	90°	20	30	30	45	40	60
SA-80	0°	60	40	90	60	120	80
	50°	30	30	45	45	60	60
	90°	40	60	60	90	80	120
SA-100	0°	120	80	180	120	240	160
	50°	60	60	90	90	120	120
	90°	80	120	120	180	160	240
SA-140	0°	360	280	520	480	680	480
	50°	220	220	260	260	340	340
	90°	280	360	480	520	480	680
SA-200	0°	550	420	830	552	1110	740
	50°	276	276	414	414	552	552
	90°	420	550	552	830	740	1110



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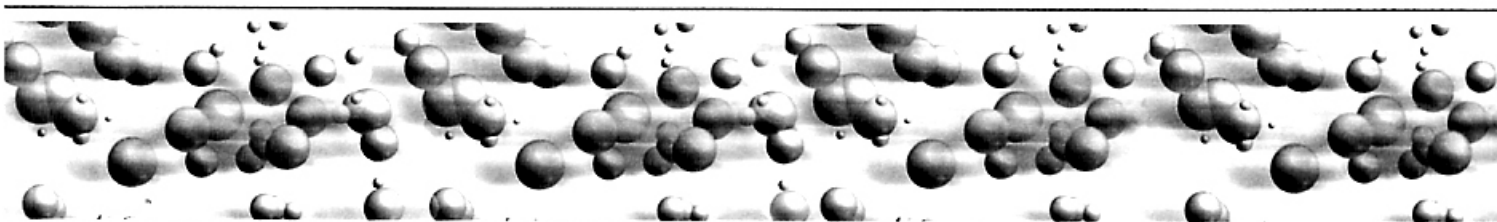
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