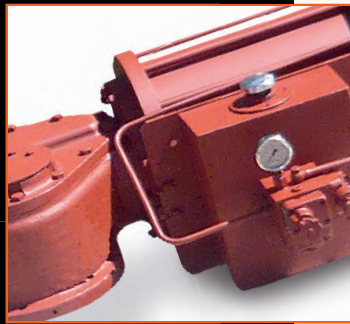
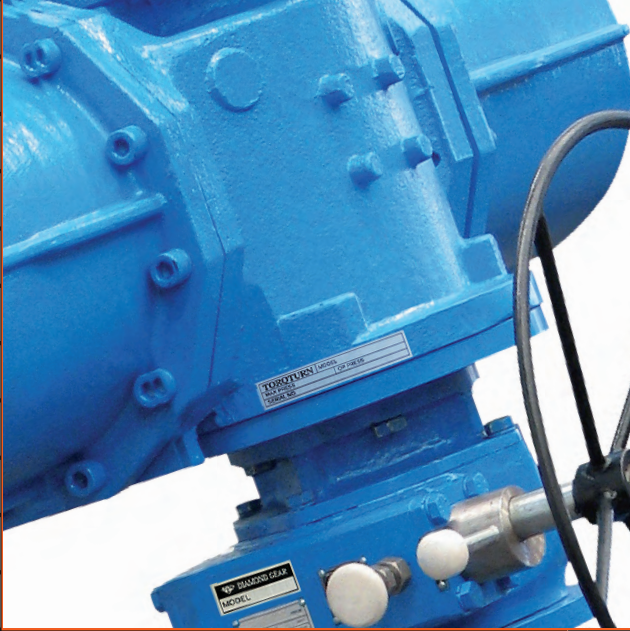
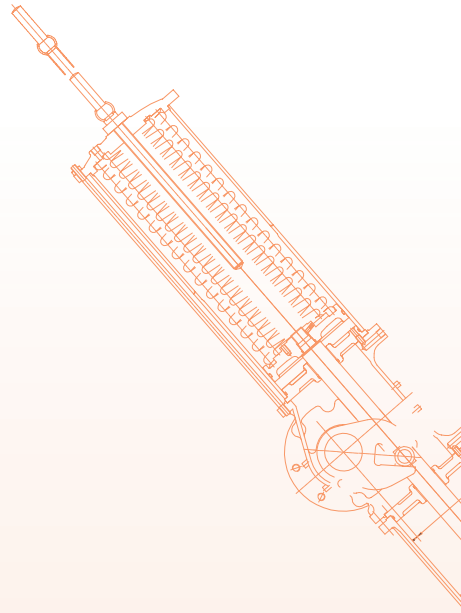
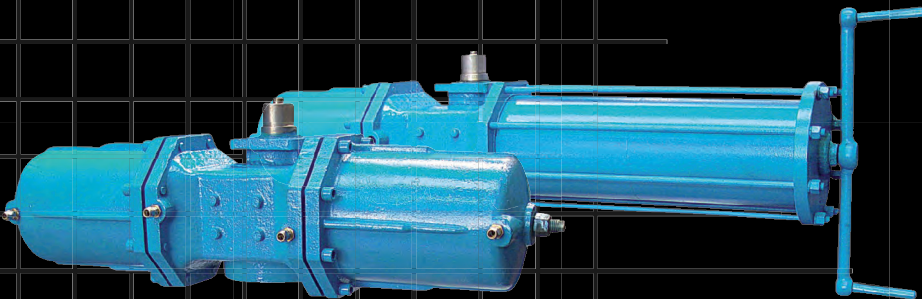


PNEUMATIC & HYDRAULIC ACTUATORS

TORQTURN®



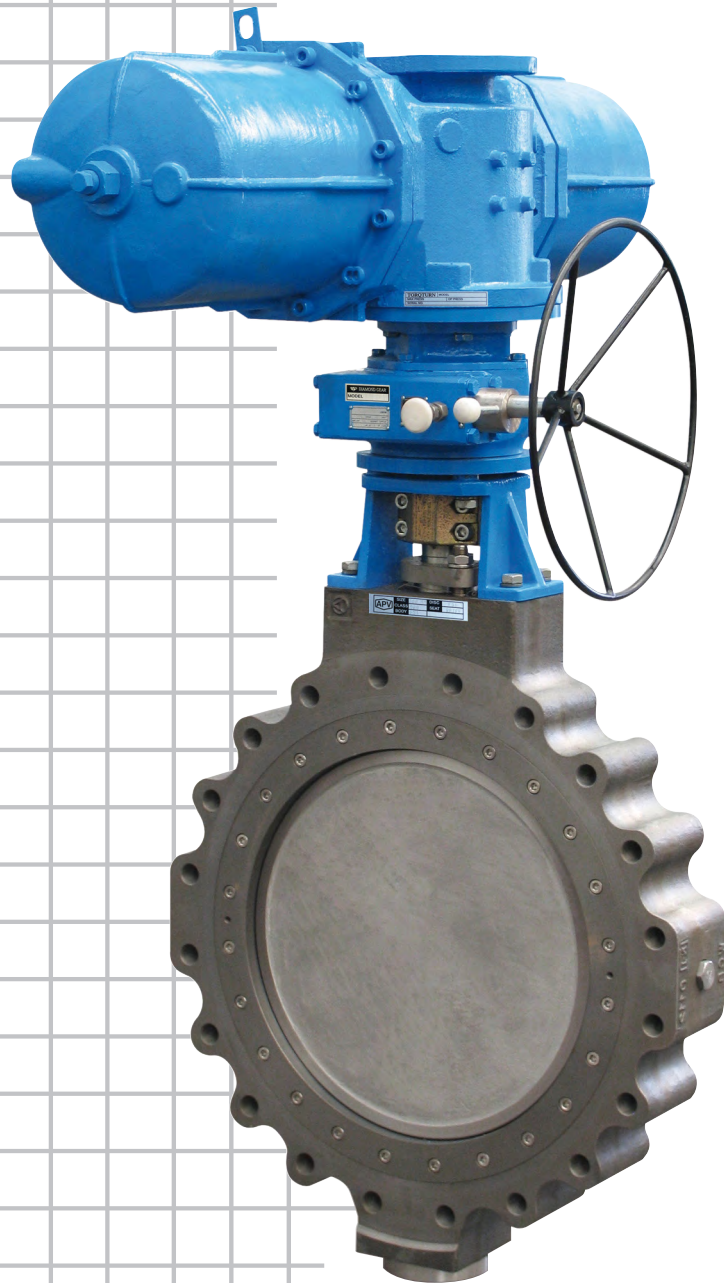
API 622 & ISO 15848-1, CL C02
Endurance Test Certified



**AUSTRALIAN
PIPELINE VALVE®**

www.australianpipelinevalve.com.au

QUALITY VALVE MANUFACTURER



TORQTURN®

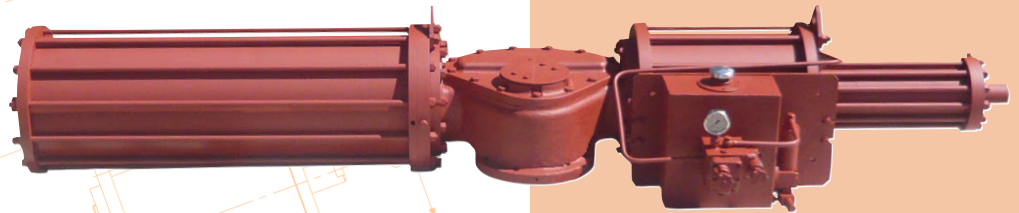


Scotch Yoke Quarter Turn Heavy Duty Pneumatic & Hydraulic Actuators

Contents

Overview	Page 4
JC Series Specifications & Drawings	Page 5-7
JA Series Specifications & Drawings	Page 9-15
Torque Charts, JC/JA	Page 16-17
SW Series Specifications & Drawings	Page 18-22
ASK Series Specifications & Drawings	Page 23-27

Overview	Page 4
JC Series Specifications & Drawings	Page 5-7
JA Series Specifications & Drawings	Page 9-15
Torque Charts, JC/JA	Page 16-17
SW Series Specifications & Drawings	Page 18-22
ASK Series Specifications & Drawings	Page 23-27



AUSTRALIAN PIPELINE VALVE®
9-15 Boolcunda Avenue Salisbury Plain South Australia 5109
Telephone +61 (0)8 8285 0033 Fax +61 (0)8 8285 0044
email: admin@australianpipelinevalve.com.au

JC/JA/SW/SK SERIES PNEUMATIC ACTUATORS

The TORQTURN pneumatic actuator is a rugged ductile iron or steel case scotch yoke heavy duty piston style pneumatic quarter turn actuator. This robust compact design is ideal for services requiring a reliable rugged operator. The maximum supply pressure is 150 PSI. A high pressure hydraulic model is also available.

FEATURES

- **Separation of Air Chamber (Cylinder) from Mechanism (Body)**

The air chamber where the piston moves linearly within the cylinder is sealed from the centre body which converts the piston linear motion into rotary output with zero air loss. All models have a rugged ductile iron air cylinder case and PTFE lining. The spring cylinder is carbon steel with ENP lining.

- **High Output Torque**

Output is produced using the compound pressure method of two pistons in the double cylinder type, this allows a balanced, smooth, high torque output.

- **Opening Indicator**

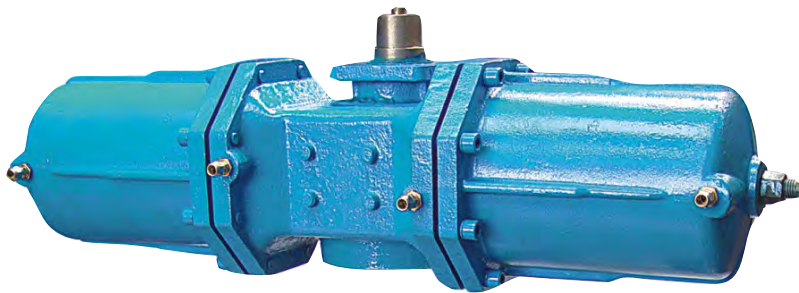
The output shaft is equipped with an indicator to show the opening position.

- **Stops**

A stop is provided to control the opening and closing position. The stops enable the opening and closing to be adjusted up to +or- 5 degrees.

- **Piston / Plating**

The bore of the air cylinder is PTFE lined for long life and low torque. The seals are viton. The bore of the carbon steel spring cylinder is ENP.



API 622 & ISO 15848-1, CL CO2
Endurance Test Certified



AS 4629

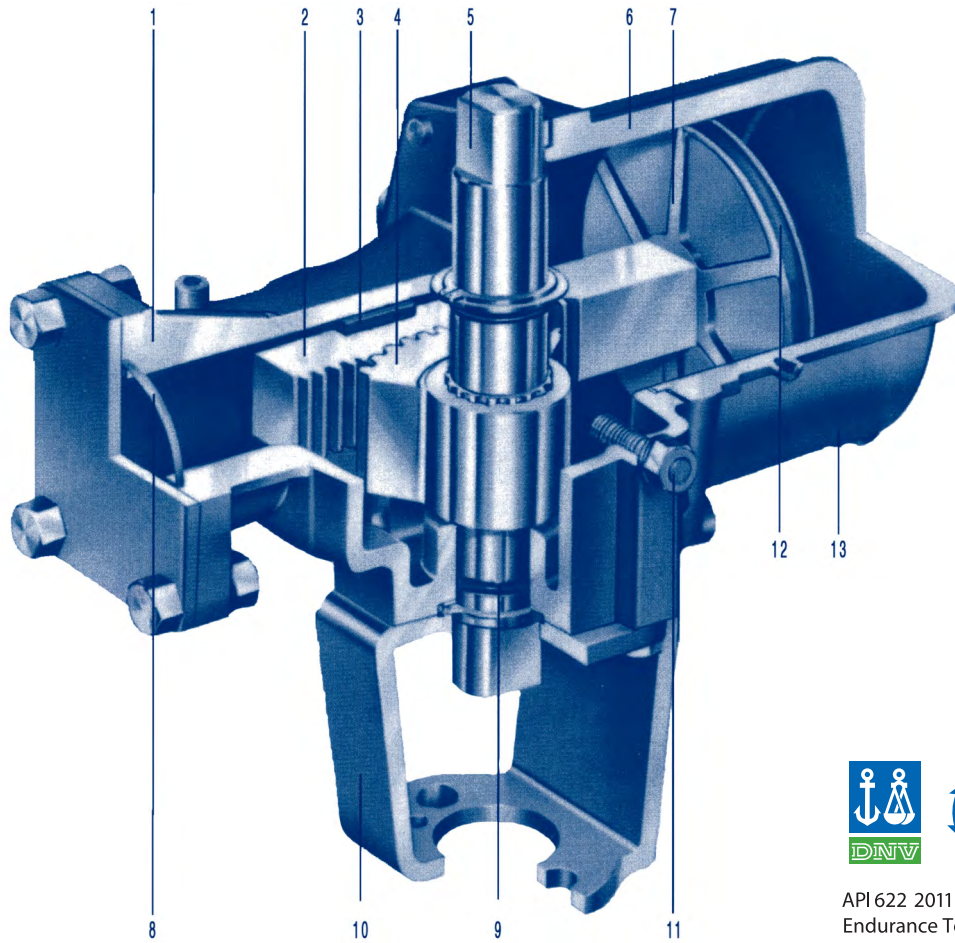


API 622 & ISO 15848-1
Fugitive Emission Certified

JC SERIES

(FOR LOWER TORQUE VALVES)

The JC series is available in double acting and spring return to suit 0.4 to 0.7mpa from -20°C to +100°C. It is a very efficient compact, light weight style. The spring return unit still has a separate cassette just like the JA series which is ENP plated. The piston bore is PTFE lined for low friction and to resist corrosion. See pages 16 to 17 for Torque charts



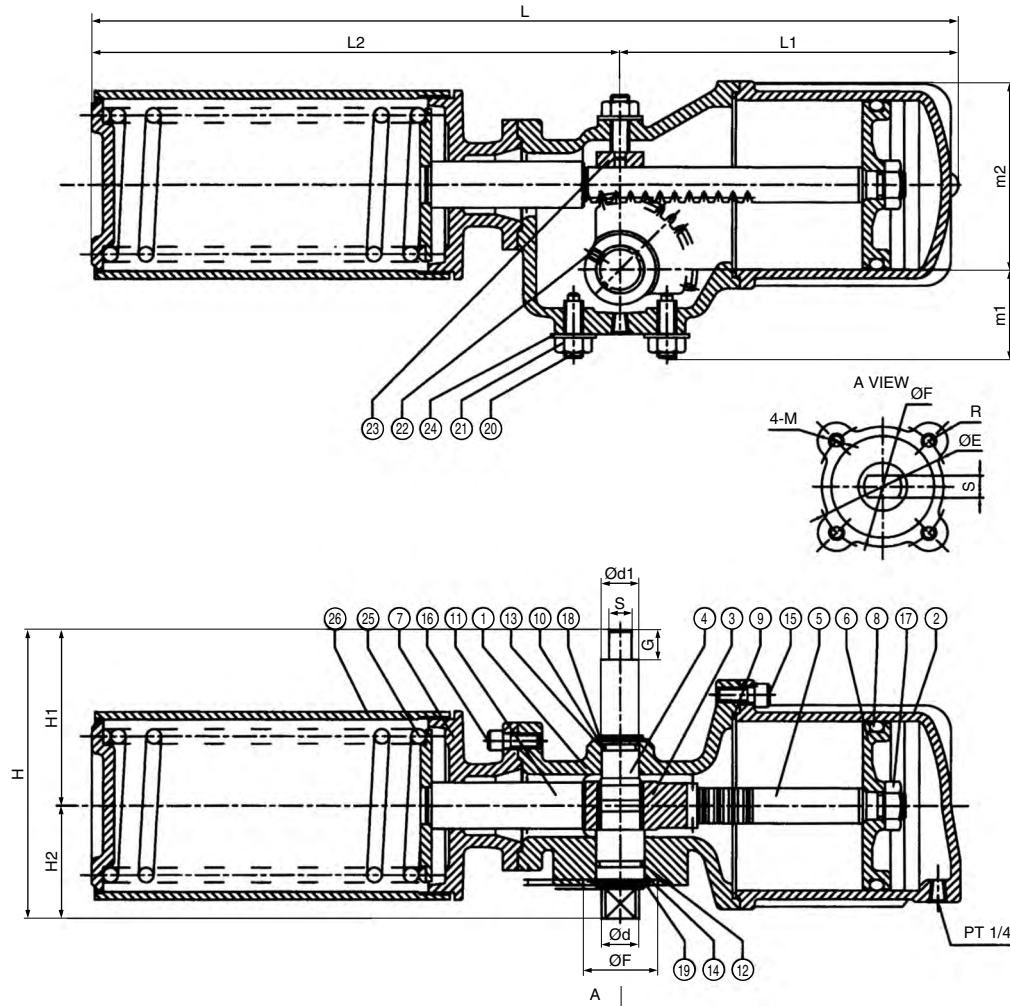
API 622 2011 2nd Edition
Endurance Test Certified

- | | |
|---|---|
| <ul style="list-style-type: none"> 1. Compact, rugged Ductile iron body (Carbon steel spring cylinder) 2. Rack gear, converts linear motion to rotary motion in connection with a pinion. 3. Lubricating metal with low friction. 4. Rugged, sintered metal pinion. Connected firmly to the stem. 5. Carbon steel stem transmits rotary movement to valves stem. | <ul style="list-style-type: none"> 6. Air cylinder has a compact design and tough construction with PTFE lining for low friction and to resist corrosion. 7. Light-weight, rugged Aluminum Alloy piston. 8. 9. 12 O-Ring Viton. 10. Yoke (option). 11. Tamper-proof externally adjustable stop bolt. 13. Air connection Rc1/4". |
|---|---|



TORQTURN®

JC SERIES SPRING RETURN JC60S, JC90S



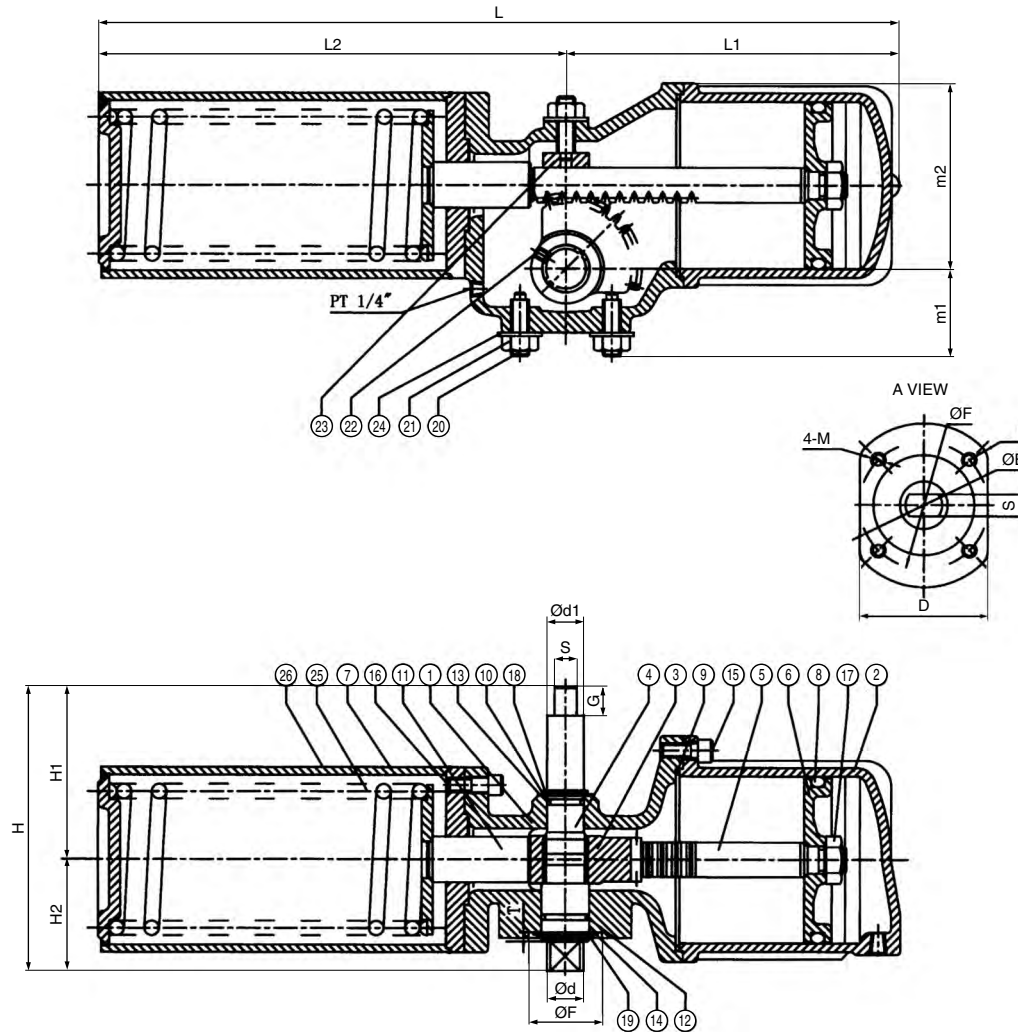
CYLINDER SIZE	Ød	ød1	G	T	S	L	L1	L2	H	H1	H2	m1	m2	øF	øE	M	R
JC60S	14	16	13	3	8	329	136	193	131	78	53	42	78	35	50	M6	7.5
JC90S	20	30	16	3	12	463	181	282	156	95	61	47	105	55	70	M8	10

NO.	PART NAME	MATERIAL
1	BODY	A48 NO25
2	CYLINDER	885 ALLOY-SCI14A & PTFE LINED
3	SECTOR GEAR	STEEL
4	STEM	A536 (G) 1045
5	RACK	A536 (G) 1045
6	PISTON	A48 NO 25
7	FLANGE	A48 NO25
8	O-RING	VITON
9	O-RING	VITON
10	O-RING	VITON
11	SPRING PISTON	STEEL
12	O-RING	VITON
13	THRUST BEARING	NYLON
14	THRUST BEARING	NYLON
15	BOLT	A36
16	BOLT	A36
17	NUT	A36
18	SNAP RING	AISI W1
19	SNAP RING	AISI W1
20	BOLT	A36
21	NUT	A36
22	SET SCREW	A576 (G) 1015
23	RACK GUIDE	STEEL
24	FASTENER SEAL	VITON + A36
25	SPRING	AISI 6150
26	SPRING CYLINDER	CARBON STEEL + ENP
27		
28		
29		
NOTE		
TITLE	JC60S/JC90S TORQUE CYLINDER (ISO5211 FLANGE)	
DWG NO.	JE-1014-JC60S, JC90S	



TORQTURN®

JC SERIES SPRING RETURN JC130S



CYLINDER SIZE	Ød	ød1	G	T	S	L	L1	L2	H	H1	H2	m1	m2	øF	øE	M	D	R
JC130S	34	35	28	3	22	683	257	426	224	131	93	70	155	70	102	M10	100	11.5

NO.	PART NAME	MATERIAL
1	BODY	A48 NO25
2	CYLINDER	885 ALLOY-SC114A & PTFE LINED
3	SECTOR GEAR	STEEL
4	STEM	A536 (G) 1045
5	RACK	A536 (G) 1045
6	PISTON	A48 NO 25
7	SPRING CYLINDER	STKM13
8	O-RING	VITON
9	O-RING	VITON
10	O-RING	VITON
11	SPRING PISTON	STEEL
12	O-RING	VITON
13	THRUST BEARING	NYLON
14	THRUST BEARING	NYLON
15	BOLT	A36
16	BOLT	A36
17	NUT	A36
18	SNAP RING	AISI W1
19	SNAP RING	AISI W1
20	BOLT	A36
21	NUT	A36
22	SET SCREW	A576 (G) 1015
23	RACK GUIDE	STEEL
24	FASTENER SEAL	VITON + A36
25	SPRING	AISI 6150
26	SPRING CYLINDER	CARBON STEEL + ENP
27		
28		
29		
NOTE		
TITLE	JC130S TORQUE CYLINDER (ISO5211 FLANGE)	
DWG NO.	JE-1015-JC130S	

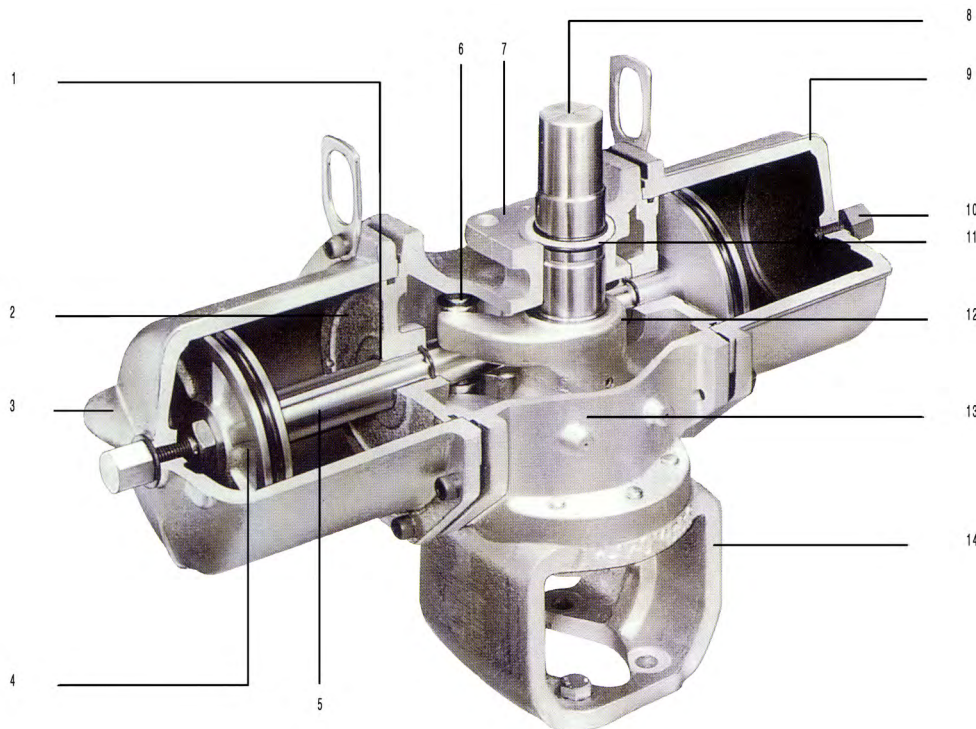
This page has been deliberately left blank.

JA SERIES

(MEDIUM TORQUE RANGE)

With larger size valves, the required torque is highest at “break to open” and “end to close” positions. The design of the JA series optimises this requirement. The SW series is also available for higher torque requirements.

The piston linear motion is converted into rotary motion using a Para Arm to obtain output characteristics suitable for operating large size valves.



API 622 & ISO 15848-1
Fugitive Emission Certified

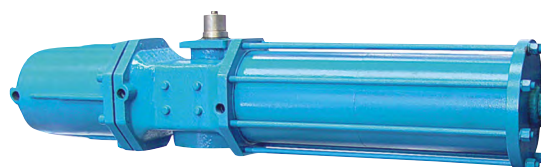
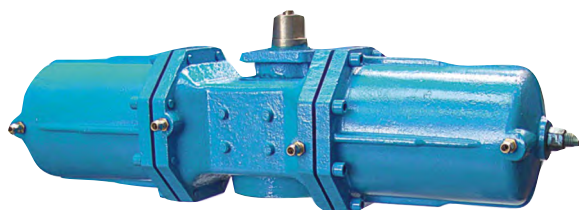


AS 4629



API 622 & ISO 15848-1
Endurance Test Certified

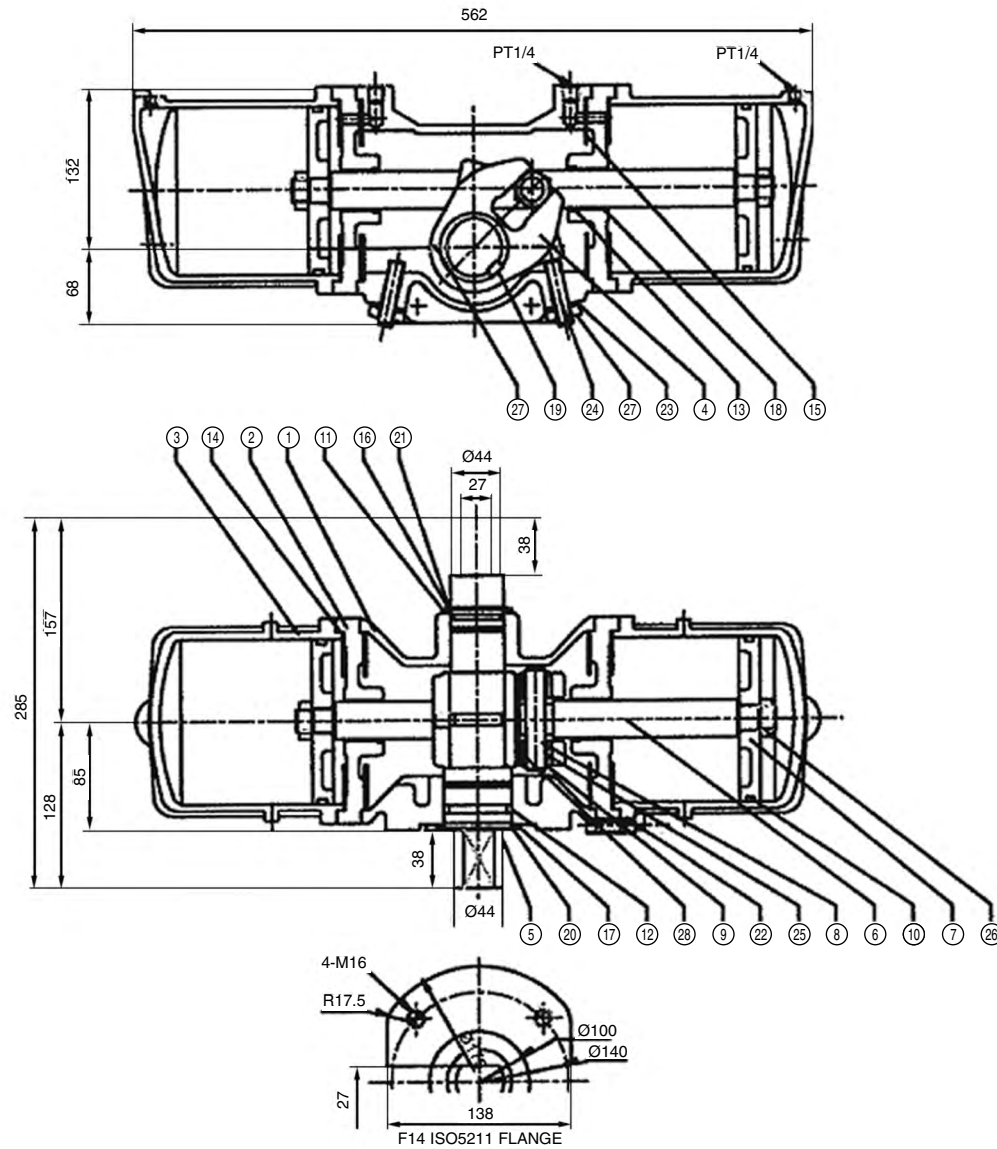
1. **Bearing:** Low friction
2. **Adaptor:** Dual air chambers standard on double-acting units, which increase torque output and suppress piston eccentricity caused by uneven loading.
3. **Air Supply Port:** Size: RC 1/4 to R/C 1/2 depending on the pipe size.
4. **Piston Assembly:** Design geometry and seal technology that promote a smoother stroke and maximises the amount of torque delivered to the valve.
5. **Piston Rod:** Hard Chrome plated for low friction, longer life and increased sealing capability.
6. **Pin:** Hardened to effectively deliver increased torque.
7. **Mounting Plate for manual gear.**
8. **Stem:** The shaft rotating part is hard-chromium plated to improve wear resistance.
9. **Air Cylinder:** Rugged Ductile iron construction. PTFE lined.
- 9a. **Piston Cylinder:** Carbon Steel, ENP lined.
10. **Adjustable Stops:** Opening and closing stops adjustable to + or - 5° to accommodate close seating devices.
11. **O-Ring viton to provide a weather proof seal.**
12. **Para Arm:** High strength ductile iron construction, providing high frequency operation and superior wear resistance.
13. **Body:** A robust, compact construction.
14. **Yoke (option).**





TORQTURN®

**JA SERIES
DOUBLE ACTING
JA130**

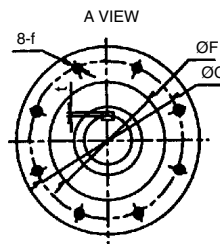
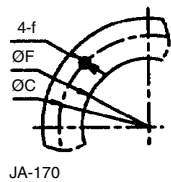
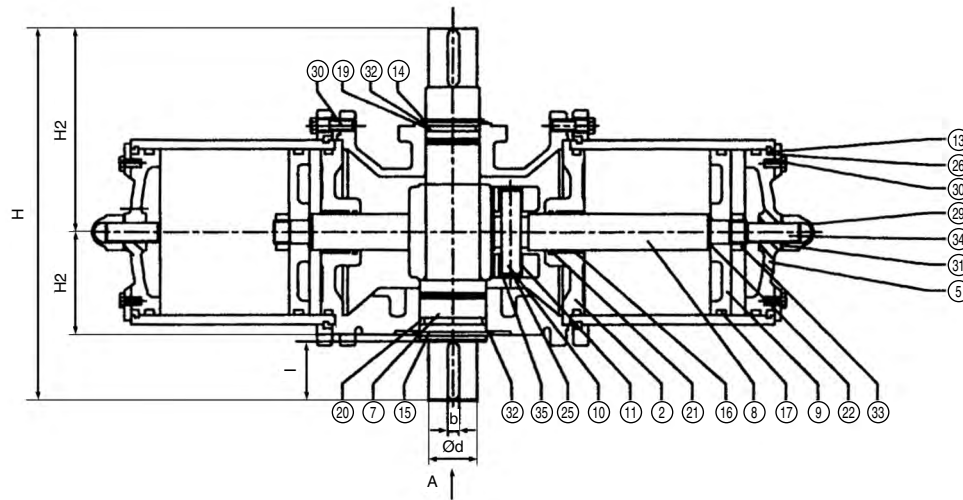
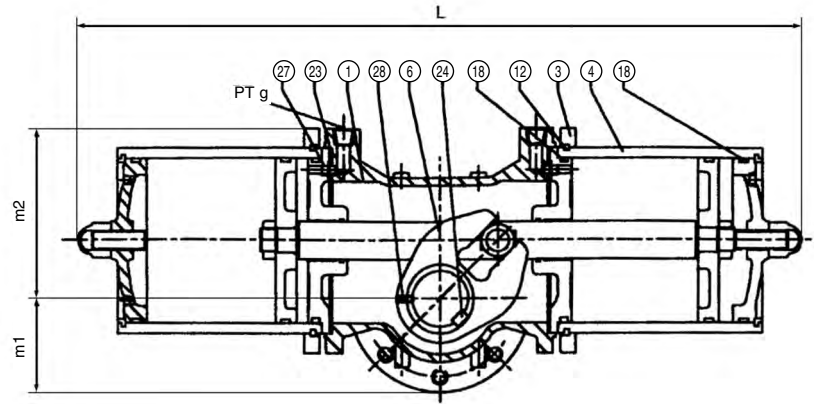


NO.	PART NAME	MATERIAL
1	BODY	A48 NO25 (DI)
2	ADAPTOR	A48 NO25
3	CYLINDER	885 ALLOY-SC114A + PTFE LINED
4	PARA ARM	A536 (G) 65-45-12
5	STEM	A576 (G) 1045
6	PISTON ROD	A576 (G) 1045
7	PISTON	Zn ALLOY
8	ROLLER	AISI (T) 329
9	PIN	A576 (G) 1045 HCr
10	O-RING	VITON
11	O-RING	VITON
12	O-RING	VITON
13	O-RING	VITON
14	O-RING	VITON
15	GASKET	CNAF
16	THRUST BEARING	NYLON
17	THRUST BEARING	NYLON
18	BEARING	REINFORCED PTFE
19	KEY	A576 (G) 1045
20	SNAP RING	AISI W1
21	SNAP RING	AISI W1
22	SNAP RING	AISI W1
23	FASTENER SEAL	VITON
24	NUT	A36
25	SOCKET HEAD BOLT	A576 Gr 1045
26	NUT	A36
27	SET SCREW	A576 Gr 1015
28	BEARING	REINFORCED PTFE
29		
NOTE		
TITLE	JA130 TORQUE CYLINDER (ISO5211 FLANGE)	
DWG NO.	JE-1007-JA130	



TORQTURN®

JA SERIES DOUBLE ACTING JA170, JA200, JA280



CYLINDER SIZE	m1	M2	L	H	H1	Wt (Kg)
JA-170	95	176	755	381	209	80
JA-200	115	232	1060	457	244	130
JA-280	158	302	1360	578	305	250

H2	C	F	f	g	ød	l	b	t	Flange ISO5211
105	165	130	M20	3/8"	50	60	12	3.5	516
130	254	200	M16	3/8"	64	75	18	6	F25
165	298	230	M20	1/2"	85	100	24	80	F30

NO.	PART NAME	MATERIAL
1	BODY	A48 NO25 (DI)
2	ADAPTOR	A48 NO25
3	FLANGE	A536 (G) 65-45-12
4	CYLINDER	A53 (G) A (DI) + PTFE LINED
5	CYLINDER COVER	A536 (G) 65-45-12
6	PARA ARM	A536 (G) 65-45-12
7	STEM	A536 (G) 1045
8	PISTON ROD	A536 (G) 1045
9	PISTON	A48 NO25
10	PIN	A536 (G) 1045
11	ROLLER	AISI (T) 329
12	SET RING	A53 (G) A
13	SNAP RING	A53 (G) A
14	SNAP RING	AISI W1
15	BEARING	ANSI W1
16	O-RING	REINFORCED PTFE
17	O-RING	VITON
18	O-RING	VITON
19	O-RING	VITON
20	O-RING	VITON
21	O-RING	VITON
22	O-RING	VITON
23	GASKET	CNAF
24	KEY	A576 (G) 1045
25	SNAP RING	AISI W1
26	ROCKING PLATE	A36
27	PIPE PIECE	O ST
28	SET SCREW	A576 (G) 1045
29	NUT	A36
30	BOLT	A36
31	GASKET	ASBESTOS
3	THRUST BEARING	NYLON
33	NUT	A36
34	SET SCREW	A576 (G) 1015
35	BEARING	REINFORCED PTFE

NOTE

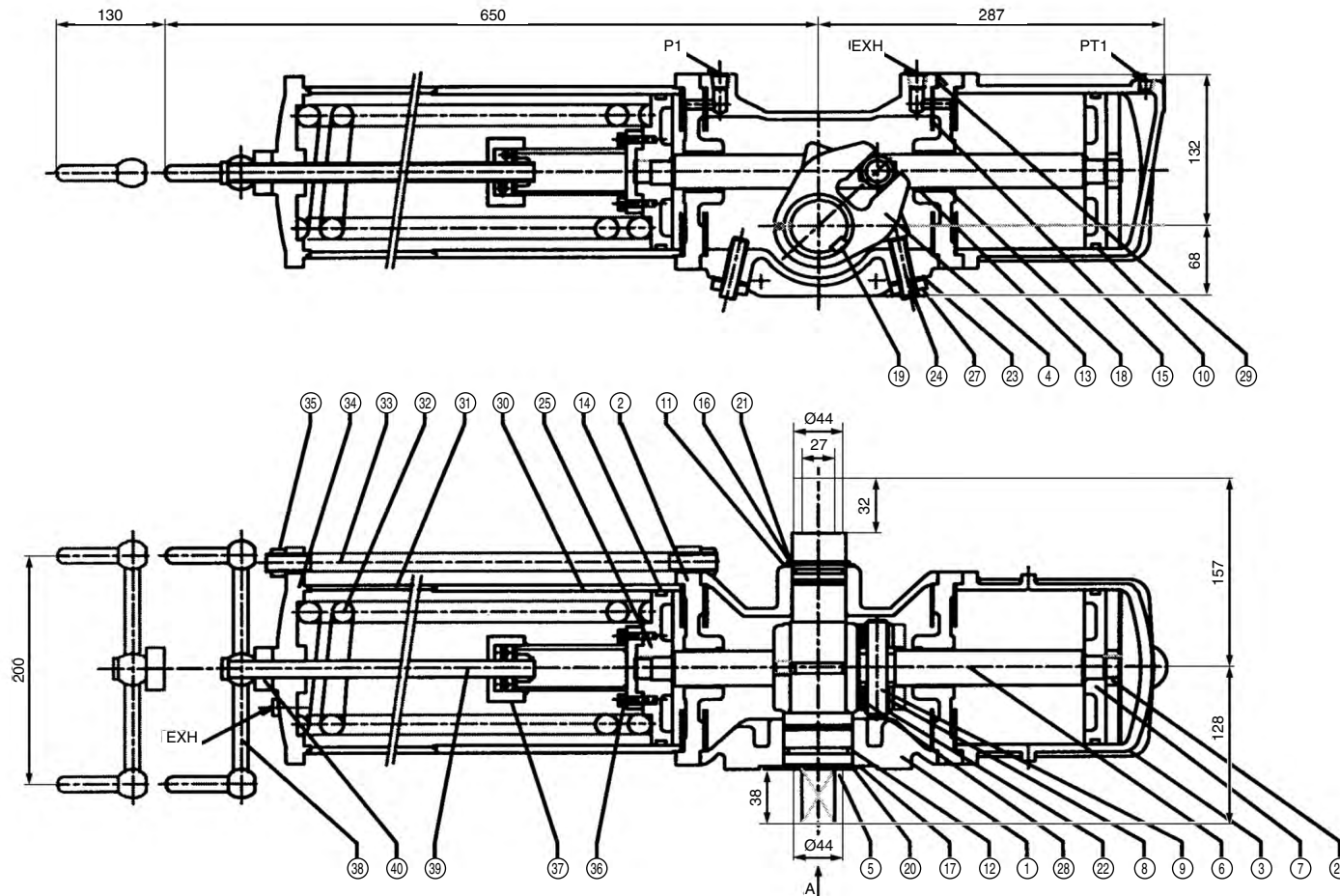
TITLE JA170-JA280 TORQUE CYLINDER (ISO5211 FLANGE)

DWG NO. JE-1010-JA170, J200, JA280



TORQTURN®

**JA SERIES
SPRING RETURN MANUAL OVERRIDE
JA130SH
C/W Handwheel - Manual Over-Ride**



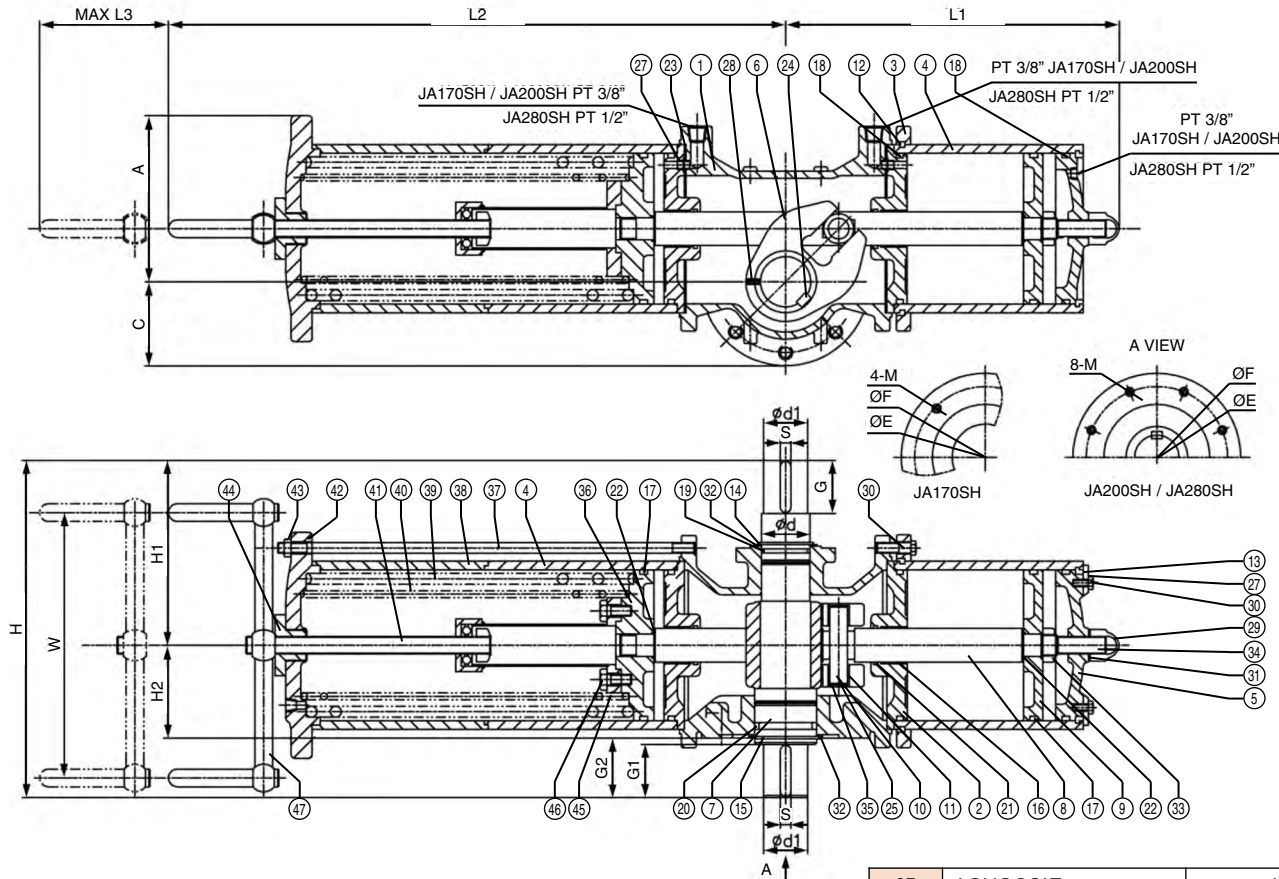
37	CYLINDER	STKM13
38	HANDLE	A576 (G) 1045
39	LONG BOLT	Zn-PLATING
40	NUT	A36

NO.	PART NAME	MATERIAL
1	BODY	A48 NO25 (DI)
2	ADAPTOR	A48 NO25
3	CYLINDER	885 ALLOY-SCI14A + PTFE
4	PARA ARM	A536 (G) 65-45-12
5	STEM	A576 (G) 1045
6	PISTON ROD	A576 (G) 1045
7	PISTON	Zn ALLOY
8	ROLLER	AISI (T) 329
9	PIN	A576 (G) 1045 HCr
10	O-RING	VITON
11	O-RING	VITON
12	O-RING	VITON
13	O-RING	VITON
14	O-RING	VITON
15	GASKET	CNAF
16	THRUST BEARING	NYLON
17	THRUST BEARING	NYLON
18	BEARING	REINFORCED PTFE
19	KEY	A576 (G) 1045
20	SNAP RING	AISI W1
21	SNAP RING	AISI W1
22	SNAP RING	AISI W1
23	FASTNER SEAL	VITON
24	NUT	A36
25	SPRING PISTON	FCD450
26	NUT	A36
27	SET SCREW	A576 Gr 1015
28	BEARING	REINFORCED PTFE
29	GASKET	NON ASBESTOS
30	CYLINDER	CARBON STEEL
31	SPRING CASE	CARBON STEEL + ENP
32	SPRING	SUP10
33	LONG BOLT	Zn-PLATING
34	SPRING COVER	FCD450
35	NUT	Zn-PLATING
36	BOLT	A (193)
NOTE		
TITLE	JA130SH TORQUE CYLINDER SIDE HANDLE (ISO5211 FLANGE)	
DWG NO.	JE-1009-JA130SH	



TORQTURN®

**JA SERIES
SPRING RETURN MANUAL OVER-RIDE
JA170SH, JA200SH, JA280SH
C/W Handwheel - Manual Over-ride**



CYLINDER SIZE	ød	ød1	G	G1	G2	T	S	M	F
JA170SH	50	50	60	60	67	4	12	m20	130
JA200SH	70	64	75	75	83	4	18	m16	200
JA280SH	90	85	100	100	108	4	24	m20	230

E	L1	L2	L3	A	C	H	H1	H2	g	w	Flange ISO5211
165	378	700	150	176	95	381	209	105	1/4"	260	F16
254	530	960	240	232	115	457	244	130	3/8"	440	F25
298	680	1250	300	302	158	578	305	165	1/2"	760	F30

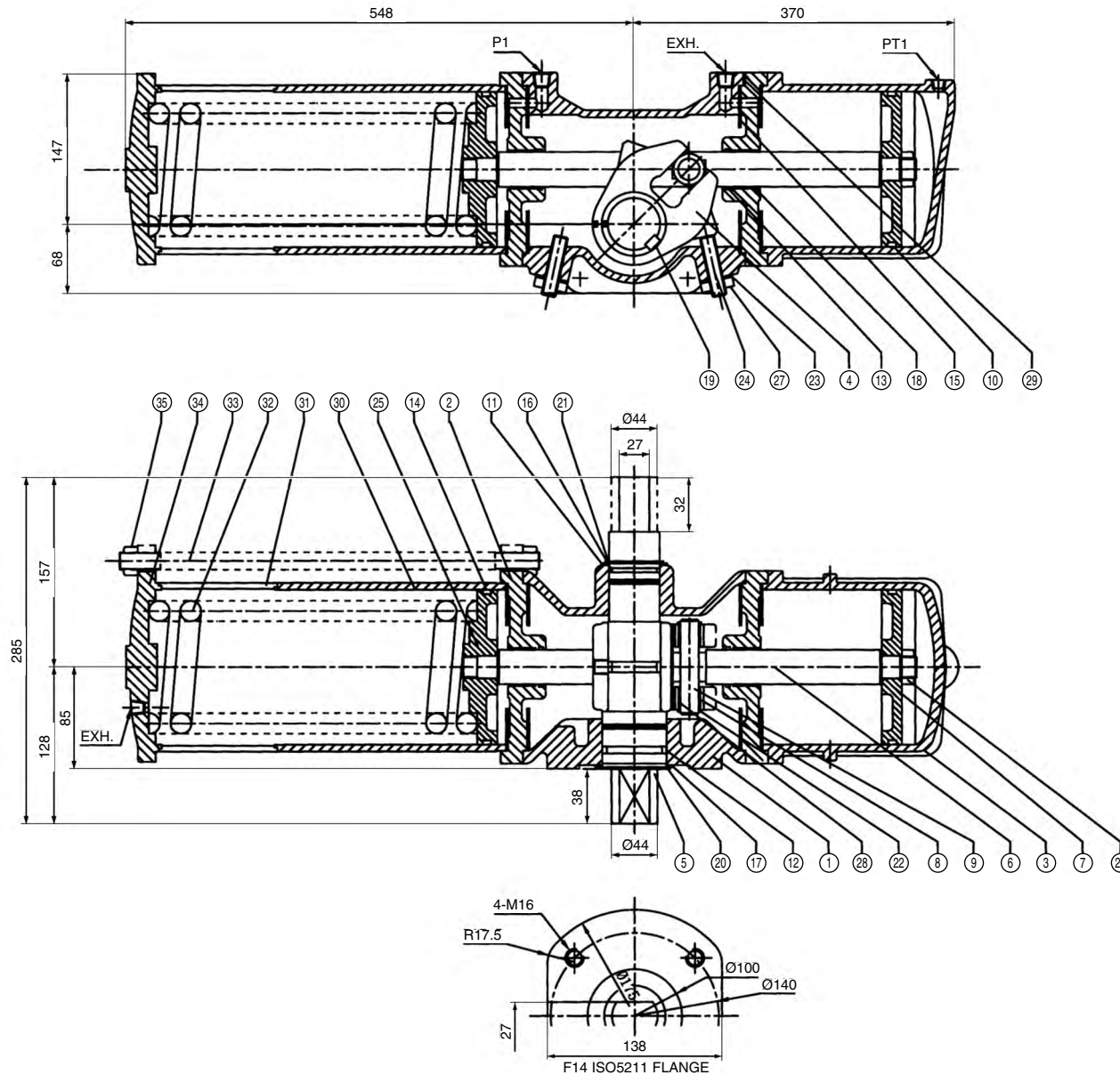
37	LONG BOLT	A576 (G) I045
38	SPRING CASE	A53 (G) A CARBON STEEL + ENP
39	SPRING	AISI 6150
40	SPRING	AISI 6150
41	STOPPER BOLT	A576 (G) I045
42	SPRING COVER	A536 (G) 65-45-12
43	NUT	A576 (G) I045
44	NUT	A36
45	CYLINDER	CARBON STEEL + ENP
46	NUT	A576 (G) I045
47	HANDLE	A576 (G) I045

NO.	PART NAME	MATERIAL
1	BODY	A48 NO25 (DI)
2	ADAPTOR	A48 NO25
3	FLANGE	A536 (G) 65-45-12
4	CYLINDER	DUCTILE IRON + ENP
5	CYLINDER COVER	A536 (G) 65-45-12
6	PARA ARM	A536 (G) 65-45-12
7	STEM	A536 (G) I045
8	PISTON ROD	A536 (G) I045
9	PISTON	A48 NO25 (PISTON BORE TO BE ENP)
10	PIN	A536 (G) I045
11	ROLLER	AISI (T) 329
12	SET RING	A53 (G) A
13	SET RING	A53 (G) A
14	SNAP RING	AISI W1
15	SNAP RING	AISI W1
16	BEARING	REINFORCED PTFE
17	O-RING	VITON
18	O-RING	VITON
19	O-RING	VITON
20	O-RING	VITON
21	O-RING	VITON
22	O-RING	VITON
23	GASKET	NON ASBESTOS
24	KEY	A576 (G) I045
25	SNAP RING	AISI W1
26	ROCKING PLATE	A36
27	PIPE PIECE	O ST
28	SET SCREW	A576 (G) I015
29	NUT	A36
30	BOLT	A36
31	GASKET	CNAF
32	THRUST BEARING	NYLON
33	NUT	A36
34	SET SCREW	A576 (G) I015
35	BEARING	REINFORCED PTFE
36	SPRING PISTON	A48 NO25
NOTE		
TITLE	JA170SH-JA280SH TORQUE CYLINDER (ISO5211 FLANGE)	
DWG NO.	JE-1012-HW-JA170SH, JA200SH, JA280SH	



TORQTURN®

JA SERIES SPRING RETURN JA130S

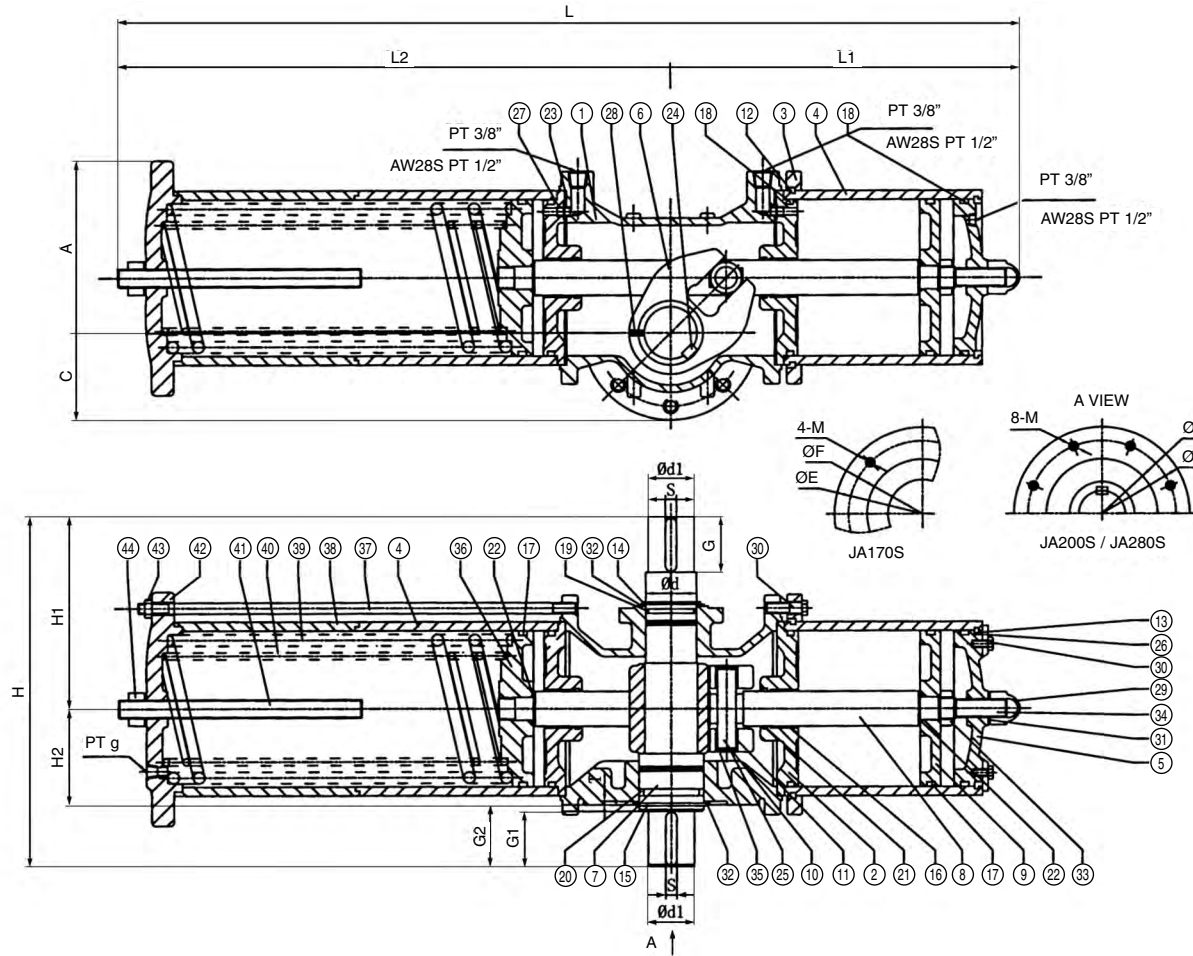


NO.	PART NAME	MATERIAL
1	BODY	A48 NO25 (DI)
2	ADAPTOR	A48 NO25
3	CYLINDER	885 ALLOY-SCII4A + PTFE
4	PARA ARM	A536 (G) 65-45-12
5	STEM	A576 (G) 1045
6	PISTON ROD	A576 (G) 1045
7	PISTON	A48 NO25 (PISTON BORE PTFE LINED)
8	ROLLER	AISI (T) 329
9	PIN	A576 (G) 1045 HCr
10	O-RING	VITON
11	O-RING	VITON
12	O-RING	VITON
13	O-RING	VITON
14	O-RING	VITON
15	GASKET	CNAF
16	THRUST BEARING	NYLON
17	THRUST BEARING	NYLON
18	BEARING	REINFORCED PTFE
19	KEY	A576 (G) 1045
20	SNAP RING	AISI W1
21	SNAP RING	AISI W1
22	SNAP RING	AISI W1
23	FASTENER SEAL	NBR
24	NUT	A36
25	SPRING PISTON	FCD450
26	NUT	A36
27	SET SCREW	A576 Gr 1015
28	BEARING	REINFORCED PTFE
29	O-RING	VITON
30	CYLINDER	CARBON STEEL
31	SPRING CASE	CARBON STEEL + ENP
32	SPRING	SUPI0
33	LONG BOLT	Zn-PLATING
34	SPRING COVER	FCD450
35	NUT	Zn-PLATING
NOTE		
TITLE	JA130 TORQUE CYLINDER (ISO5211 FLANGE)	
DWG NO.	JE-1008-JA130S	



TORQTURN®

JA SERIES SPRING RETURN JA170S, JA200S, JA280S



CYLINDER SIZE	Ød	ød1	G	G1	G2	T	S	M	F
JA-170S	55	50	60	60	67	4	12	M20	130
JA-200S	70	64	75	75	83	4	18	M16	200
JA-280S	90	85	100	108	108	4	24	B20	230

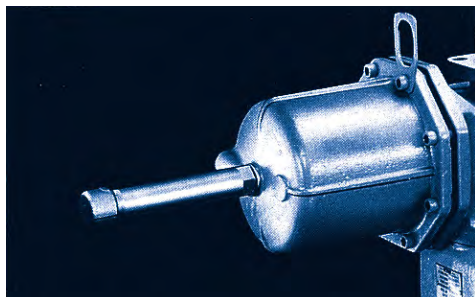
E	L	L1	L2	A	C	H	H1	H2	g	Flange ISO5211
165	988	378	610	176	95	381	209	105	1/4"	F16
254	1415	530	885	232	115	457	244	130	3/8"	F25
298	1840	680	1160	302	158	578	305	165	1/2"	F30

37	LONG BOLT	A576 (G) 1045
38	SPRING CASE	A53 (G) A CARBON STEEL + ENP
39	SPRING	AISI 6150
40	SPRING	AISI 6150
41	STOPPER BOLT	A576 (G) 1045
42	SPRING COVER	A536 (G) 65-45-12 CARBON STEEL
43	NUT	A576 (G) 1045
44	NUT	A36

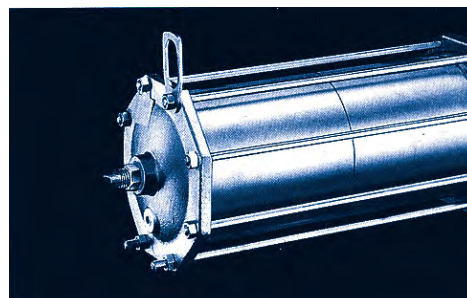
NO.	PART NAME	MATERIAL
1	BODY	A48 NO25 (DI)
2	ADAPTOR	A48 NO25
3	FLANGE	A536 (G) 65-45-12
4	CYLINDER	A53 (G) A
5	CYLINDER COVER	A536 (G) 65-45-12 + PTFE
6	PARA ARM	A536 (G) 65-45-12
7	STEM	A536 (G) 1045
8	PISTON ROD	A536 (G) 1045
9	PISTON	A48 NO25 (PISTON BORE ENP)
10	PIN	A536 (G) 1045
11	ROLLER	AISI (T) 329
12	SNAP RING	A53 (G) A
13	SNAP RING	A53 (G) A
14	SNAP RING	AISI W1
15	BEARING	AISI W1
16	O-RING	REINFORCED PTFE
17	O-RING	VITON
18	O-RING	VITON
19	O-RING	VITON
20	O-RING	VITON
21	O-RING	VITON
22	O-RING	VITON
23	GASKET	CNAF
24	KEY	A576 (G) 1045
25	SNAP RING	AISI W1
26	ROCKING PLATE	A36
27	PIPE PIECE	O ST
28	SET SCREW	A576 (G) 1015
29	NUT	A36
30	BOLT	A36
31	GASKET	ASBESTOS
32	THRUST BEARING	NYLON
33	NUT	A36
34	SET SCREW	A576 (G) 1015
35	BEARING	REINFORCED PTFE
36	SPRING PISTON	A48 NO25
NOTE		
TITLE	JA170S/JA200S/JA280S TORQUE CYLINDER (ISO5211 FLANGE)	
DWG NO.	JE-1011-JA170S, JA200S, JA280S	

JA SERIES

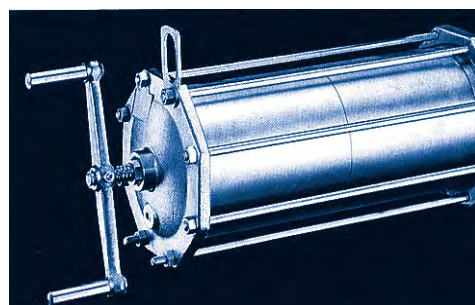
MANUAL OVER-RIDE/LOCKING DEVICES



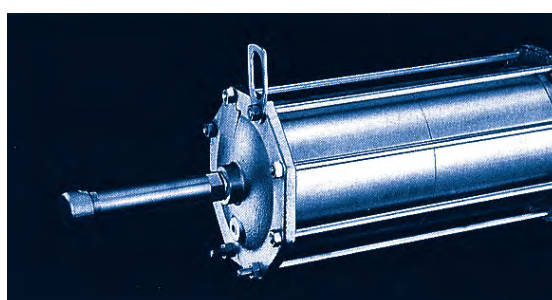
Lift locking device for double-acting



Spring return standard configuration



Manual over ride for spring return (HW)



Lift locking device for spring return

TORQUE CHART

DOUBLE ACTING ACTUATORS

TYPE	AIR SUPPLY 60 PSI (4 BAR)		AIR SUPPLY 80 PSI (5.5 BAR)	
	BREAK (NM)	RUNNING (NM)	BREAK (NM)	RUNNING (NM)
JC50 (AG06)	35	21	45	28
JC60	65	35	84	45
JC90 (AG09)	100	59	130	77
JC110	230	100	287	130
JC130 (AG13)	336	190	436	247
JA130 (AW13)	799	474	999	592
JA170 (AW17)	1714	1017	2143	1272
JA200 (AW20)	3822	2269	4777	2836
JA280 (AW28)	9162	5440	11453	6800

JA SERIES TORQUE CHART

SPRING RETURN ACTUATORS

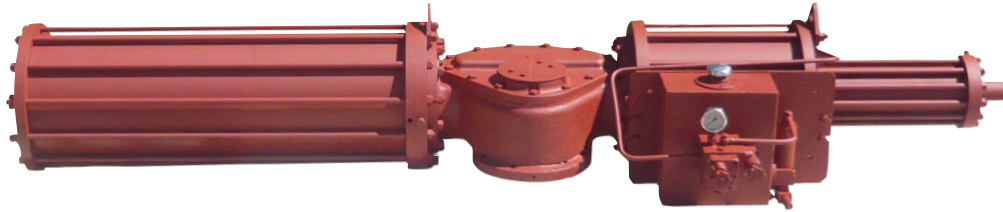
TYPE	AIR SUPPLY 4.0 BAR (60PSI)				
	BTO	RUN	ETO	BTC	ETC
	AIR BREAK TO OPEN (NM)	RUNNING MINIMUM (NM)	AIR END TO OPEN (NM)	SPRING BREAK TO CLOSE (NM)	SPRING END TO CLOSE (NM)
JC50S (AG06S)	18	14	13	17	12
JC60S	39	30	27	49	25
JC90S (AG09S)	53	45	35	59	35
JC110S	96	75	69	123	68
JC130S (AG13S)	178	135	112	189	108
JA130S (AW13S)	462	210	283	344	280
JA170S (AW17S)	1025	500	642	820	650
JA200S (AW20S)	2328	1100	1447	1804	1450
JA280S (AW28S)	5363	2600	3670	4264	3500

TYPE	AIR SUPPLY 5.5 BAR (80 PSI)				
	BTO	RUN	ETO	BTC	ETC
	AIR BREAK TO OPEN (NM)	RUNNING MINIMUM (NM)	AIR END TO OPEN (NM)	SPRING BREAK TO CLOSE (NM)	SPRING END TO CLOSE (NM)
JC50S (AG06S)	23	18	14	17	12
JC60S	49	39	29	40	25
JC90S (AG09S)	74	63	44	59	35
JC110S	129	97	77	98	68
JC130S (AG13S)	248	189	148	169	109
JA130S (AW13S)	547	280	330	462	280
JA170S (AW17S)	1280	700	738	1025	650
JA200S (AW20S)	2950	1540	1550	2328	1450
JA280S (AW28S)	7872	3435	4620	5363	3500

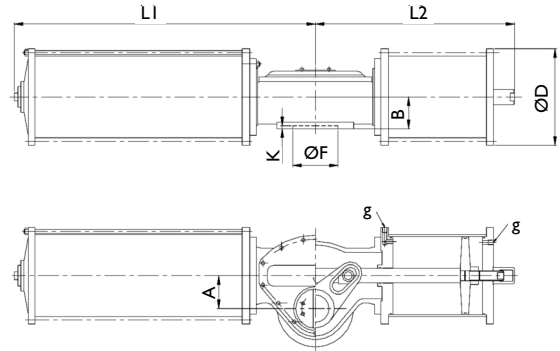
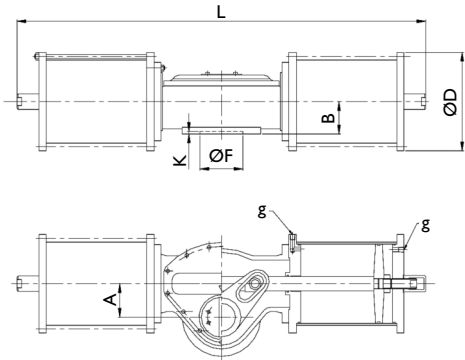
SW SERIES

HIGH TORQUE RANGE

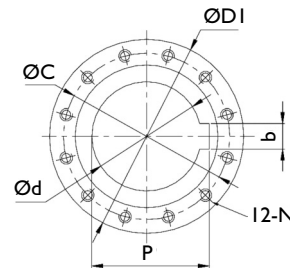
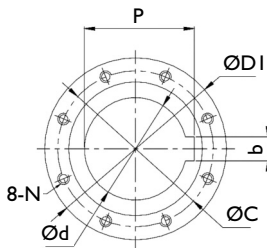
SW35-SW60 Large Torque Cylinder actuator
(Shown with optional hydraulic manual over-ride)



DIMENSIONS (SW35-SW60)



BOTTOM FLANGE



SW35	SW35S	SW35SS
-------------	--------------	---------------

SW49	SW60
-------------	-------------

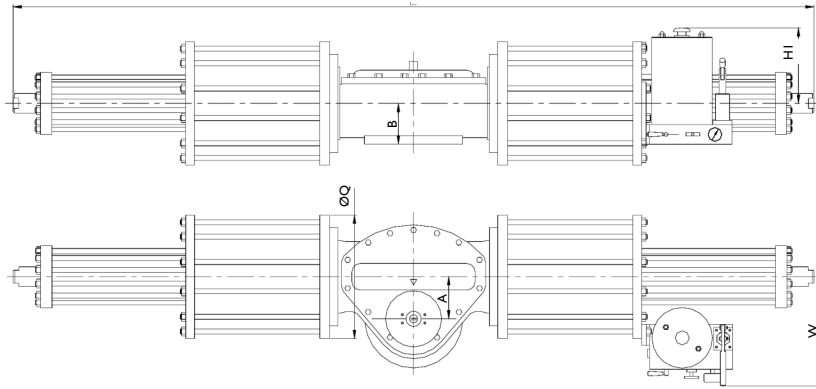
MODEL	L	LI	L2	A	B	g	D	C	P	b	d	N	DI	F	K
SW35	1825			150	145	RC1/2	440	300	109	28	100	M24	350	240	6
SW49	2130			180	160	RC3/4	562	350	130	32	120	M24	400	280	4
SW60	2530			220	189	RC3/4	700	450	152	35	140	M27	500	360	4
SW35S		1590	912	150	145	RC1/2	440	300	109	28	100	M24	350	240	6
SW35SS		1780	930	150	145	RC1/2	562	300	109	28	100	M24	350	240	6

SW SERIES

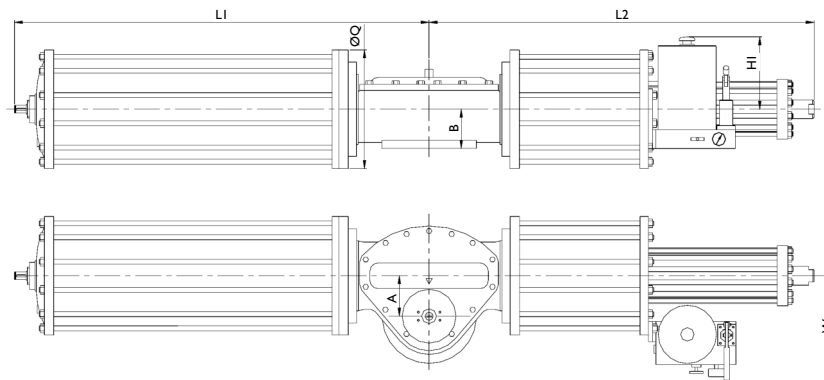
HYDRAULIC MANUAL OVER-RIDE

DIMENSIONS (SW35-HY~ SW60-HY)

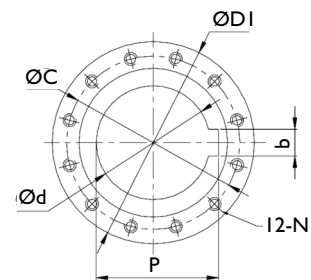
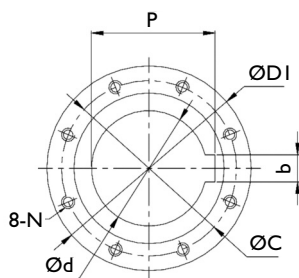
SW35-HY SW49-HY SW60-HY



SW35S-HY SW35SS-HY



BOTTOM FLANGE



SW35-HY SW35S-HY SW35SS-HY

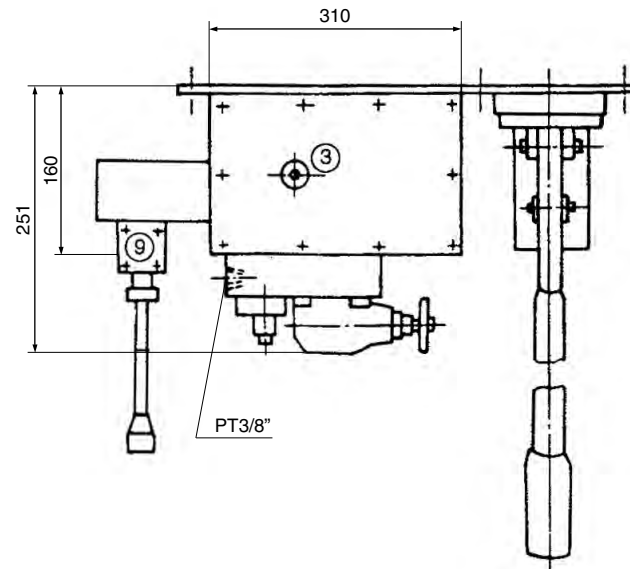
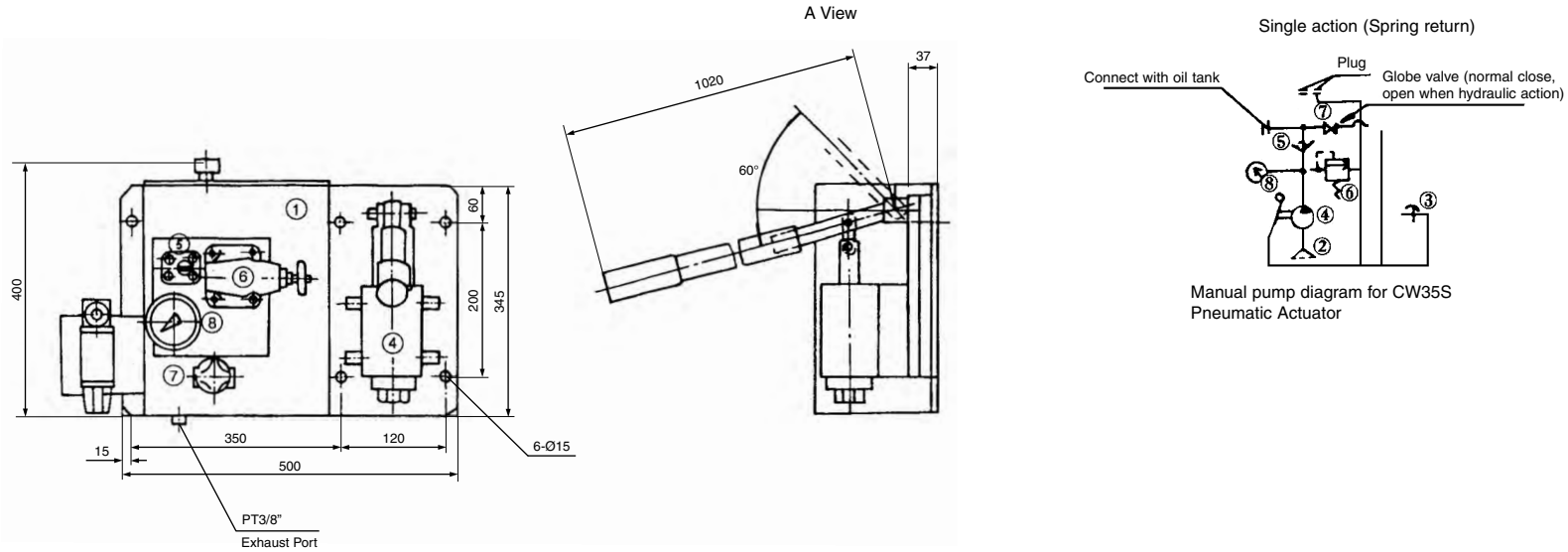
SW49-HY SW60-HY

MODEL	L	L1	L2	A	B	g	gl	DI	C	P	b	d	N	D	F	K
SW35-HY	2910			150	145	RC1/2	RC1/2	350	300	109	28	100	M24	440	240	6
SW49-HY	3330			180	160	RC3/4	RC1/2	400	350	130	32	120	M24	562	280	4
SW60-HY	3920			220	189	RC3/4	RC1/2	500	450	152	35	140	M27	700	360	4
SW35S-HY		1590	1420	150	145	RC1/2	RC1/2	350	300	109	28	100	M24	440	240	6
SW35SS-HY		1780	1540	150	145	RC1/2	RC1/2	350	300	109	28	100	M24	440	240	6



TORQTURN®

MANUAL HYDRAULIC OVER-RIDE

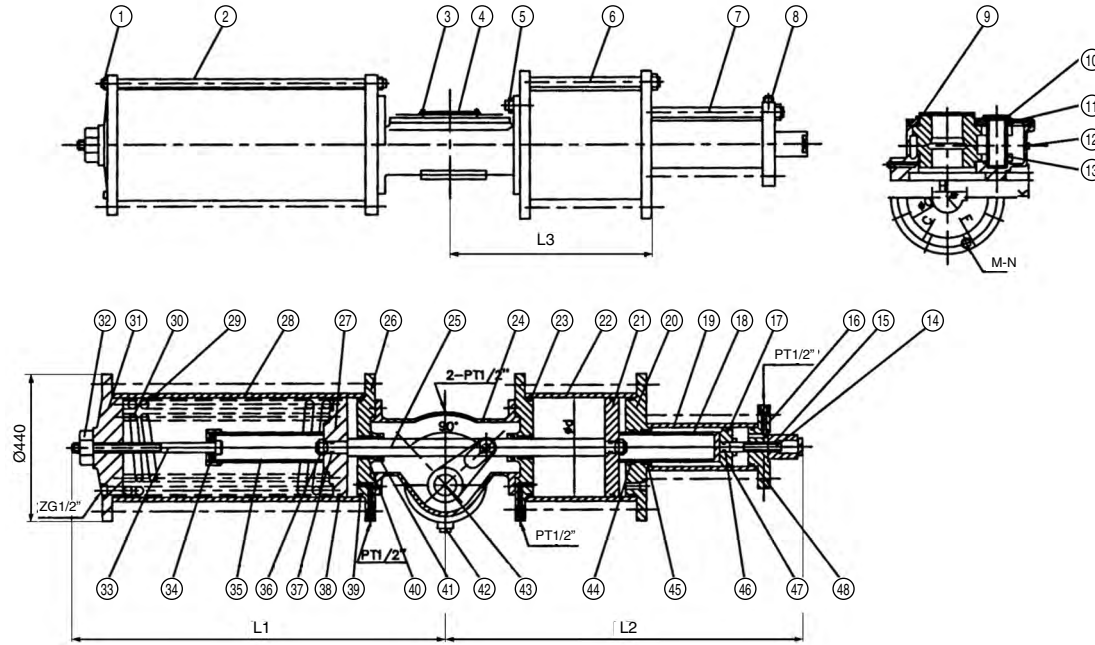


NO.	PART NAME	MATERIAL
1	OIL TANK	ASSEMBLY
2	FILTER NET	ASSEMBLY
3	BRETHE VALVE	ASSEMBLY
4	MANUAL PUMP	ASSEMBLY
5	CHECK VALVE	ASSEMBLY
6	OVERFLOW VALVE	ASSEMBLY
7	GLOBE VALVE	ASSEMBLY
8	PRESSURE GAUGE	ASSEMBLY
9	PLUG	ASSEMBLY
NOTE		
TITLE	SW35S PNEUMTIC ACTUATOR MANUAL PUMP	
DWG NO.	3-7501	



TORQTURN®

SW SERIES SPRING RETURN SW35S



Also see SW35S (Same) pages 18-19-21

A	B	C	ØD	F	H	K	L	M	N	ØO	b	S	L1	L2*	L3	Ød	Ø
150	145	298	/	350	109	6	/	8	M20	230	28	/	1420	1590	912	350	100

*Including optional hydraulic over-ride see page 19 for over-ride details

37	O-RING	VITON
38	O-RING	VITON
39	O-RING	VITON
40	BEARING	REINFORCED PTFE
41	O-RING	VITON
42	STOPPER	A1025 + Zn
43	PARA ARM	A48 NO25
44	O-RING	VITON
45	BEARING	REINFORCED PTFE
46	O-RING	VITON
47	O-RING	VITON
48	O-RING	VITON

NO.	PART NAME	MATERIAL
1	NUT	2H
2	STUD	A576 (G) 1045
3	STUD	A576 (G) 1045
4	CAP	A576 (G) 105
5	STUD	A576 (G) 1045
6	STUD	A576 (G) 1045
7	STUD	A576 (G) 1045
8	STOPPER	A576 (G) 105
9	BEARING	REINFORCED PTFE
10	COVER	A48 NO25
11	BEARING	REINFORCED PTFE
12	STOPPER	A576 (G) 105
13	BEARING	REINFORCED PTFE
14	STOPPER NUT	A576 (G) 1045
15	CYLINDER COVER	A36
16	PISTON	A576 (G) 105
17	CYLINDER	A48 NO25
18	PIPE PIECE	A576 (G) 105
19	CYLINDER	A576 (G) 105
20	CYLINDER COVER	A576 (G) 105
21	PISTON	A48 NO25
22	CYLINDER	A576 (G) 105 CARBON STEEL + PTFE
23	O-RING	VITON
24	BODY	A48 NO25
25	PISTON ROD	A576 (G) 1045
26	CYLINDER COVER	A576 (G) 105
27	PISTON	A48 NO25
28	CYLINDER	A576 (G) 105 CARBON STEEL + ENP
29	SPRING	AI51 6150
30	SPRING	AI51 6150
31	SPRING COVER	A576 (G) 105
32	STOPPER NUT	A36
33	STOPPER BOLT	A576 (G) 1045
34	BEARING	ASSEMBLY
35	PIPE PIECE	A576 (G) 105
36	NUT	A36
NOTE		
TITLE	JA350-S TORQUE CYLINDER (ISO5211 FLANGE)	
DWG NO.	JE-1016-SW35S, (JA350-S)	

SW SERIES

TORQUE CHART

DOUBLE ACTING ACTUATORS

TYPE	AIR SUPPLY 4 BAR (60PSI)		AIR SUPPLY 5.5 BAR (80 PSI)	
	BREAK (NM)	RUNNING (NM)	BREAK (NM)	RUNNING (NM)
SW35	18000	11000	24300	14900
SW49	43400	23000	56000	30000
SW60	65740	37440	84000	49900

SPRING RETURN ACTUATORS

TYPE	AIR SUPPLY 4.0 BAR (60 PSI)				
	BTO	RUN	ETO	BTC	ETC
	AIR BREAK TO OPEN (NM)	RUNNING MINIMUM (NM)	AIR END TO OPEN (NM)	SPRING BREAK TO CLOSE (NM)	SPRING END TO CLOSE
SW35S	12300	5800	7391	13900	7380
SW35SS	17500	7576	10735	17120	9619

SPRING RETURN ACTUATORS

TYPE	AIR SUPPLY 5.5 BAR (80 PSI)				
	BTO	RUN	ETO	BTC	ETC
	AIR BREAK TO OPEN (NM)	RUNNING MINIMUM (NM)	AIR END TO OPEN (NM)	SPRING BREAK TO CLOSE (NM)	SPRING END TO CLOSE (NM)
H-SW35S	17220	7886	9600	13900	7380
H-SW35SS	24900	10606	17900	17120	9619

ASK SERIES

'CB' STYLE PNEUMATIC CYLINDRICAL PISTON TYPE SCOTCH YOKE ACTUATOR

FEATURES AND BENEFITS

- Scotch yoke design using precision bearings eliminates the usual dead zone present in other yoke mechanisms, providing the maximum torque output at beginning and end of stroke.
- Travel stops located at the centre of the piston rod eliminates side loading to the output shaft.
- ISO5211 standard mounting.
- Top of the actuators have NAMUR mounting design, for ease of mounting limit switch and positioner
- ASK series actuators are available with different shafts on request (male or female)

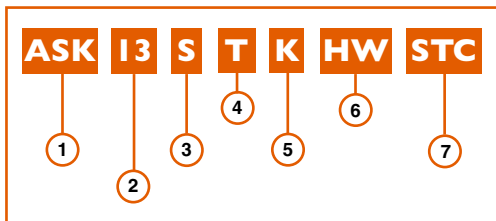
TECHNICAL DATA

- Maximum supply pressure : 0.7MPa
- Rated supply pressure : 0.4 ~ 0.7MPa
- Temperature :
Standard : 20°C to 80°C
- Optional : 45°C to 120°C mounting
- Angular rotation: 90 degrees ± 10 degrees

GENERAL APPLICATION

ASK series actuators are normally used for remote control of any quarter-turn application: ball, butterfly, rotary plug or damper style valves, etc. Used in oil and gas, chemical process, food and beverage, iron and steel, off-shore marine, pharmaceutical, power, pulp and paper, and textile industries.

MODEL CODE SYSTEM



1. Type:

ASK - yoke structure model prefix

2. Model Suffix:

ASK 07, ASK 09, ASK 10, ASK 12, ASK 13

3. Features:

- D - Double acting, pressure: 0.3 ~ 0.7MPa
- S - Spring Return pressure: 0.4 ~ 0.7MPa
- L - Spring Return (low pressure)
pressure: 0.29 ~ 0.39MPa

4. Special specification:

- A - Standard
- B - Stainless steel nut and bolt
- C - Control
- F - High frequency
- K - High temperature (0 ~ 120°C)
- M - Manual over-ride
- T - Low temperature (-45 ~ 60°C)
- Q - High speed

5. Output type

- S - Shaft output (male)
- K - Hole output (female)

6. Manual over-ride (option)

- H - for double acting with manual lever
- HG - for double acting with manual gear
- HW - for spring return with outside wheel

7. Position when air fails

- STC - air fail valve close
- STO - air fail valve open



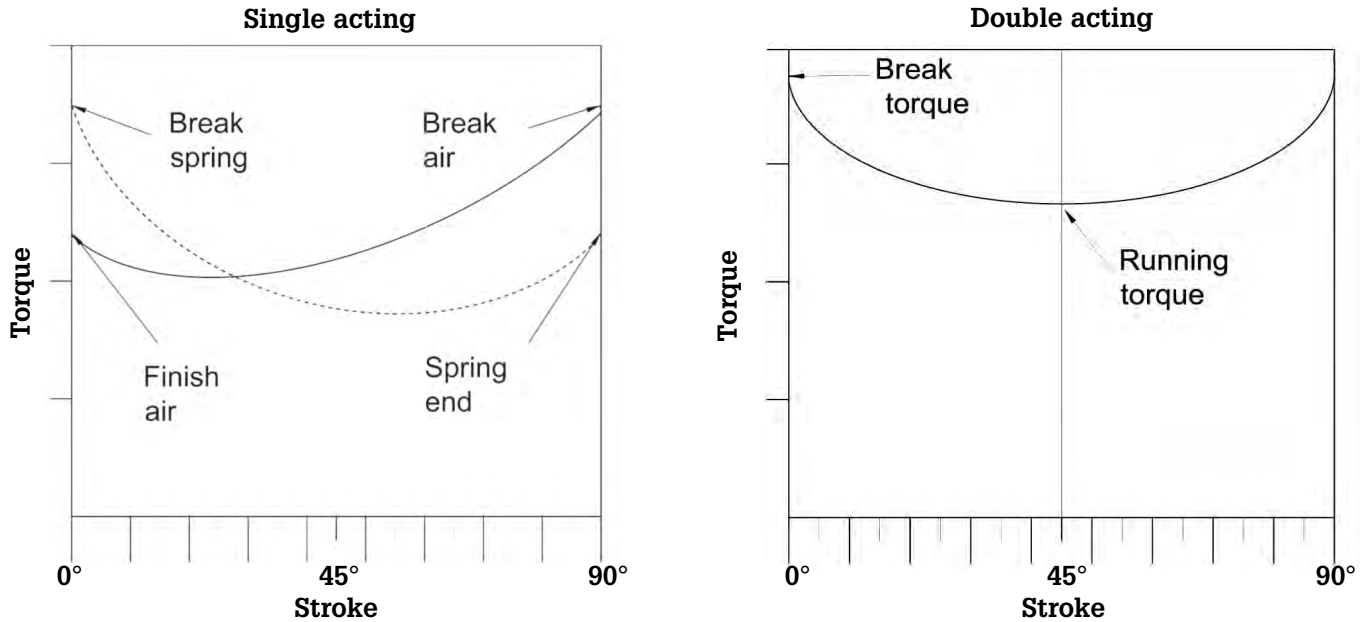
ISO 15848-1 Class CO2
Endurance Test Certified

RANGE OF SUPPLY (SK series)

TYPE	MODEL					
	DOUBLE ACTING			SINGLE ACTING		
	STANDARD	LOW TEMP.	HIGH TEMP.	STANDARD	LOW TEMP.	HIGH TEMP.
SCOTCH YOKE	ASK07	ASK07T	ASK07K	ASK07S	ASK07ST	ASK07SK
	ASK10	ASK10T	ASK10K	ASK10S	ASK10ST	ASK10SK
	ASK12	ASK12T	ASK12K	ASK12S	ASK12ST	ASK12SK
	ASK15	ASK15T	ASK15K	ASK15S	ASK15ST	ASK15SK

ASK SERIES

TORQUE CHARACTERISTICS



OUTPUT TORQUE (Nm) single acting - spring return

MODEL	OUTPUT TORQUE OF SPRING		AIR PRESSURE					
			4.0 BAR		5.0 BAR		6.0 BAR	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
ASK07S	34	21	33	22	70	35	90	46
ASK10S	68	42	67	44	100	70	120	93
ASK12S	162	100	164	102	308	118	398	170
ASK15S	267	166	261	163	479	245	615	328

OUTPUT TORQUE (Nm) double acting

MODEL		AIR PRESSURE			
		3.0 BAR	4.0 BAR	5.0 BAR	6.0 BAR
ASK07	RUNNING	60	80	100	120
	BREAK	36	48	60	72
ASK10	RUNNING	85	114	142	170
	BREAK	51	68	85	102
ASK12	RUNNING	266	355	443	532
	BREAK	158	211	263	316
ASK15	RUNNING	412	550	687	825
	BREAK	246	328	410	492

ASK SERIES

AIR CONSUMPTION

Momentary flow rate: Qp, Qs

Double acting: $Q_p = A \{(P+0.1)/0.1\} 60/T$

Single acting: $Q_s = B \{(P+0.1)/0.1\} 60/T$

Air consumption: Vp, Vs

Double acting: $V_p = (A+B)\{(P+0.1)/0.1\}n$

Single acting: $V_s = B \{(P+0.1)/0.1\}n$

Remarks:

Qp = Momentary flow rate of double acting type (L/min)

Qs = Momentary flow rate of single acting type (L/min)

Vp = Air consumption of double acting type (L)

Vs = Air consumption of single acting type (L)

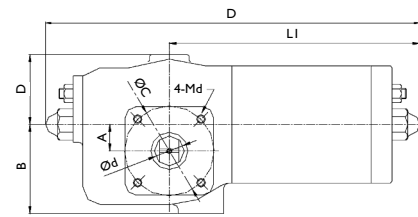
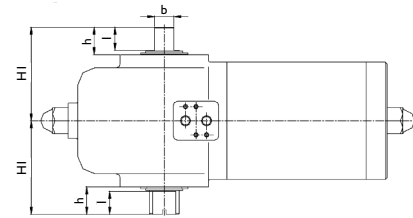
A, B = Cylinder capacity (L)

P = Operation pressure (MPa)

T = Operation time (Sec)

n = Operation time within a certain period

DIMENSIONS

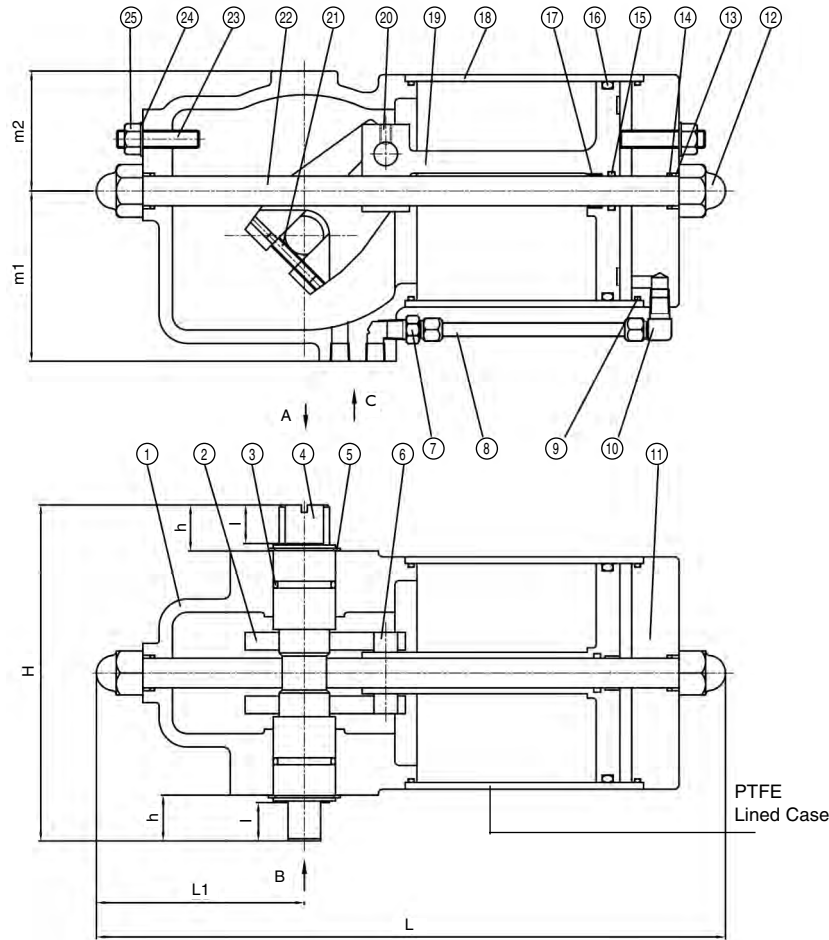


MODEL	ASK07	ASK10	ASK12	ASK15	ASK07S	ASK10S	ASK12S	ASK15S
L	300	305	430	430	400	405	558	558
LI	202	205	288	288	302	305	356	356
A	35	35	55	55	35	35	55	55
B	73	88	101	115	73	88	101	115
D	55	72	83	83	55	72	83	83
HI	73.5	85.5	106	113.5	73.5	85.5	106	113.5
I	18	22	26	26	18	22	26	26
h	23.5	25.5	31	31	23.5	25.5	31	31
b	12	17	22	22	12	17	22	22
d	20	28	34	34	20	28	34	34
C	70	70	102	102	70	70	102	102
Md	M8	M8	M10	M10	M8	M8	M10	M10

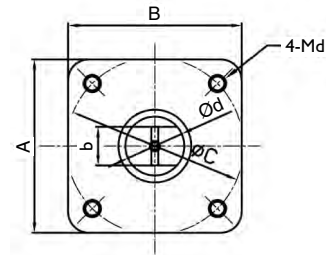


TORQTURN®

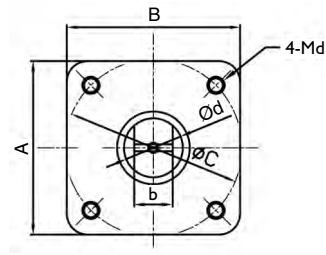
ASK SERIES - DOUBLE ACTING



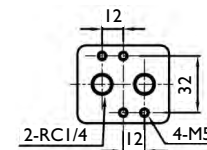
Direction A



Direction B



Direction C



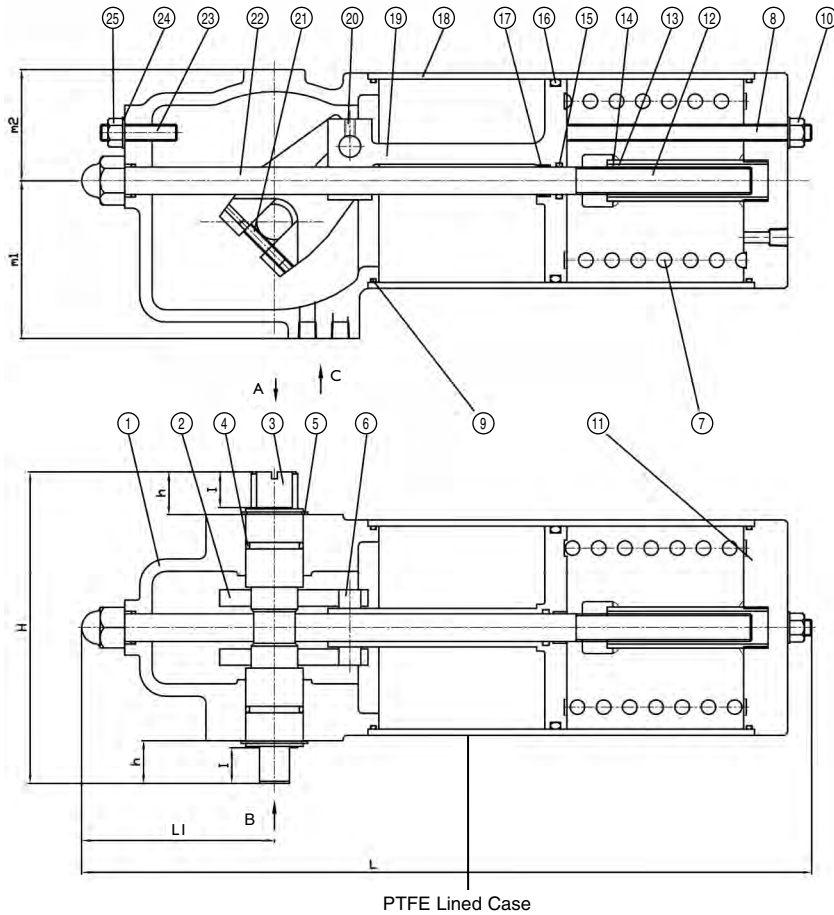
TORQUE CYLINDER	L	L1	l	H	h	d	b	C	A	B	m1	m2	Md
ASK07	310	100	18	171	23.5	20	12	70	100	70	53	75	M8
ASK10	310	100	22	147	25.5	27	17	70	100	70	68	90	M8
ASK12	424	140	26	202	31	34	22	202	100	100	71	113	M10
ASK15	424	140	26	227	31	34	22	202	100	100	85	113	M10

NO.	PART NAME	MATERIAL
1	BODY	HT200
2	PARA ARM	QT450-10
3	STEM	45 HCr
4	O-RING	VITON
5	SNAP RING	65Mn
6	PIN	45
7	CONNECTOR	304
8	PIPE	304
9	O-RING	VITON
10	CONNECTOR	304
11	CYLINDER CAP	25
12	CAP NUT	Q235
13	WASHER	304
14	O-RING	VITON
15	O-RING	VITON
16	O-RING	VITON
17	BEARING	304+PTFE
18	CYLINDER	20
19	PISTON	QT450-10
20	SCREW	45
21	PIN	45
22	PISTON ROD	304
23	STOPPER BOLT	45
24	GASKET	304+VITON
25	NUT	2H
NOTE		
TITLE	SK07-SK17 TORQUE CYLINDER <DOUBLE ACTING>	
DWG NO.	SK-10001	

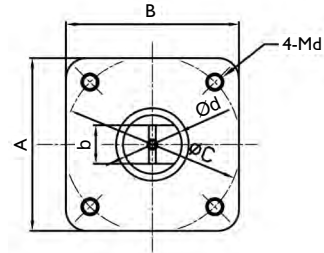


TORQTURN®

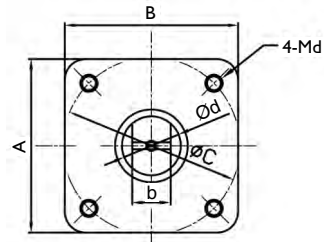
ASK SERIES - SPRING RETURN



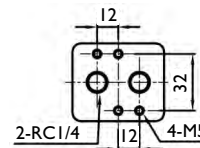
Direction A



Direction B



Direction C



TORQUE CYLINDER	L	LI	l	H	h	d	b	C	A	B	m1	m2	Md
ASK07	410	100	18	171	23.5	20	12	70	70	70	53	75	M8
ASK10	410	100	22	147	25.5	27	17	70	70	70	68	90	M8
ASK12	560	140	26	202	31	34	22	202	100	100	71	113	M10
ASK15	560	140	26	227	31	34	22	202	100	100	85	113	M10

NO.	PART NAME	MATERIAL
1	BODY	HT200
2	PARA ARM	QT450-10
3	STEM	45 HCr
4	O-RING	VITON
5	SNAP RING	65Mn
6	PIN	45
7	SPRING	60Si2Mn
8	STOPPER BOLT	45
9	O-RING	VITON
10	NUT	2H
11	CYLINDER CAP	25
12	CAP NUT	Q235
13	WASHER	304
14	O-RING	VITON
15	O-RING	VITON
16	O-RING	VITON
17	BEARING	304+PTFE
18	CYLINDER	ALLOY STEEL+PTFE
19	PISTON	QT450-10
20	SCREW	45
21	PIN	45
22	PISTON ROD	304
23	STOPPER BOLT	45
24	GASKET	304+VITON
25	NUT	2H
NOTE		
TITLE	SK07S-SK17S TORQUE CYLINDER <SPRING RETURN>	
DWG NO.	SK-10002	

Notes



Notes



Notes

A series of horizontal lines for writing notes, spanning most of the page width and positioned below the 'Notes' header.





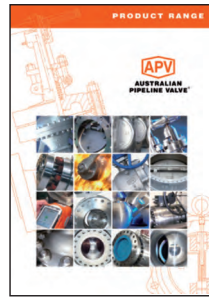
AUSTRALIAN PIPELINE VALVE®

COMPLETE PRODUCT LINE

“Australian Pipeline Valve produces isolation, control and flow reversal protection products for severe and critical service media in utility, steam, pipelines, oil and gas and process industries. APV valves and pipeline products form the most competitive portfolio in the market.”



AUSTRALIAN PIPELINE VALVE BRAND RANGE - CATALOGUES



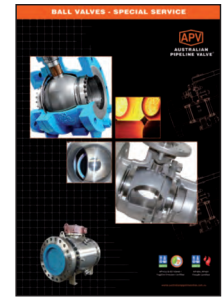
Product Brochure



Ball Valves Floating & Trunnion Mounted



Ball Valves Floating Small Bore



Ball Valves Special Service



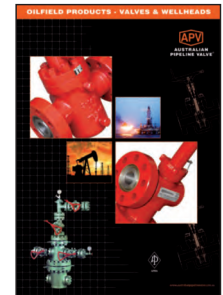
Gate, Globe & Check Valves - Cast



Gate, Globe & Check Valves - Forged Steel



Plug Valves Lubricated, Sleeved & Lined



Oilfield Products Valves & Wellheads

APV FAMILY OF BRANDS RANGE - CATALOGUES



Diamond Gear Gearboxes



Flowturn Ball Valves Multiway & Deadman



Flowturn Gate, Globe & Check Valves



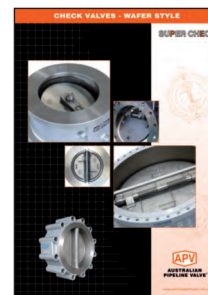
Flowturn Instrument Valves



Flowturn Strainers & Sight Glasses



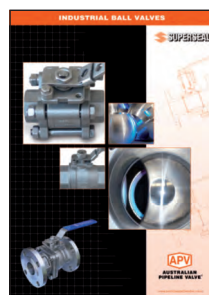
Steamco Steam Valves



Supercheck Wafer Check Valves



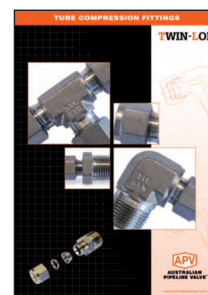
Superseal Butterfly Valves



Superseal Industrial Ball Valves



Torqturn Actuators



TwinLok Tube Fittings



Uniflo Check Valves

Download our catalogues at www.australianpipelinevalve.com.au



AUSTRALIAN PIPELINE VALVE®



www.australianpipelinevalve.com.au

LOCAL DISTRIBUTOR



API 622 & ISO 15848-1, CL C02
Endurance Test Certified

QUALITY ASSURANCE AND CERTIFICATION

We are continually improving all facets of quality assurance. Full metallurgical and test certificates can be supplied.

We have endeavoured to provide a broad outline of our range and capabilities. Because we are continually developing new products for our customers this catalogue will, to some extent be incomplete. This catalogue is a general overview only, individual drawings and data sheets can be furnished on request.

If you have any requirement in the field of valves and actuators, please contact us for a prompt response. Continuous development of Australian Pipeline Valve products may necessitate changes in the design or manufacturing processes. Australian Pipeline Valve reserves the right to effect any such changes without prior notice.

