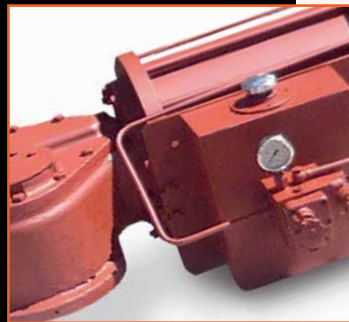


PNEUMATIC & HYDRAULIC ACTUATORS

SHORT VERSION

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



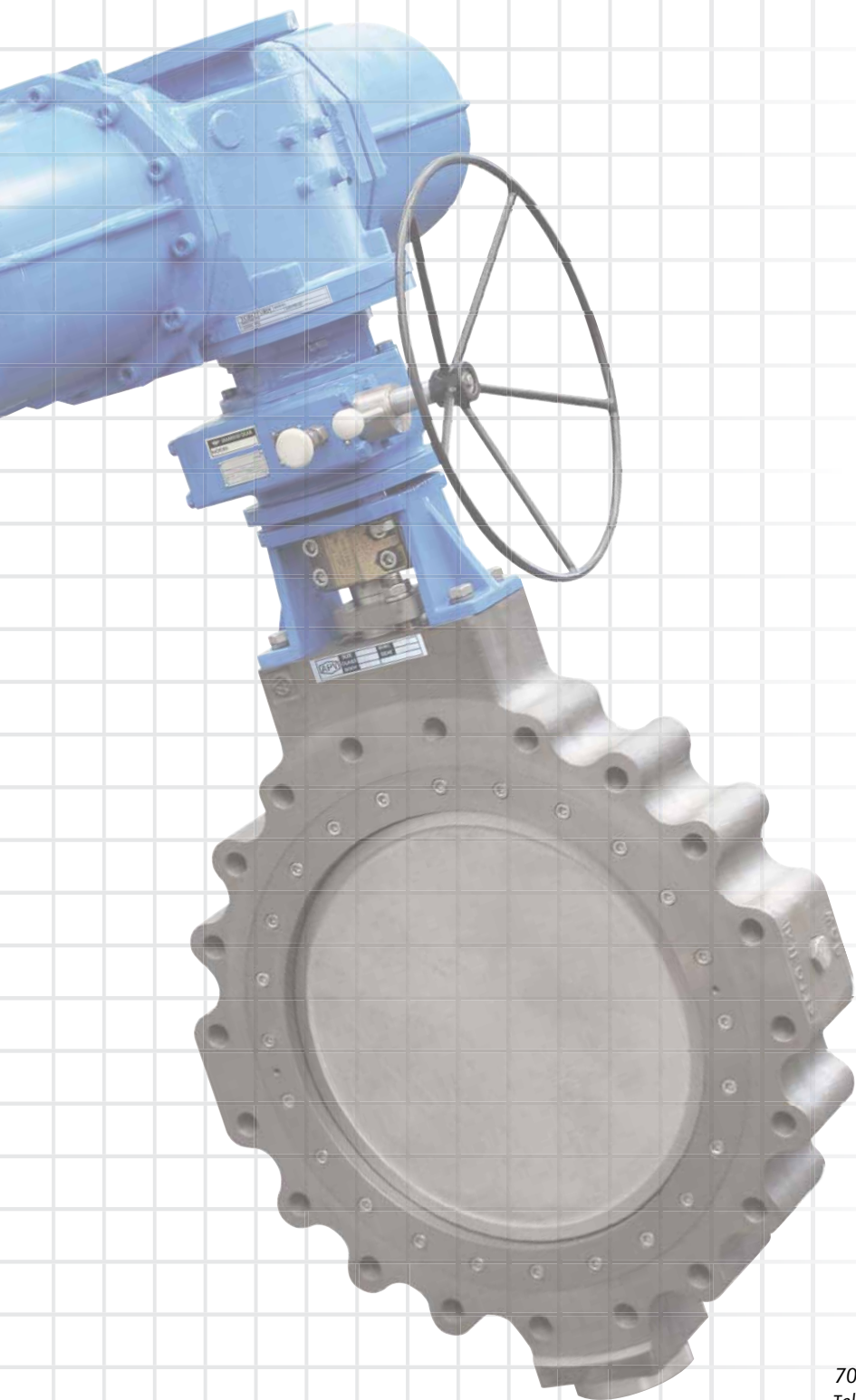
TORQTURN®



**AUSTRALIAN
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QUALITY VALVE MANUFACTURER



QUALITY COMMITMENT

Quality is Our First Priority.

Consistent product quality and a proven track record makes Australian Pipeline Valve a dependable choice where total reliability is the number one concern.

Since its founding, APV's philosophy has been focused on quality. Our valves are manufactured in full compliance to worldwide standards (such as ASME/ANSI, API, EN, ISO, BS, AS).



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CONTENTS - SHORT VERSION*

Overview JC/JA/SW Series Pneumatic Actuators	5*
JC Series Pneumatic Actuators Specifications & Drawings	6~8*
JA Series Pneumatic Actuators Specifications & Drawings	9~12*
JA/JC Series Pneumatic Actuators Torque Chart	13~14*
SW Series Pneumatic Actuators Specifications & Drawings	15~18*
SW Series Pneumatic Actuators Torque Chart	19*
GP/GH Series Pneumatic & Hydraulic Actuators Specifications & Drawings	20~47*
ASK Series Pneumatic Actuators Specifications & Drawings	48~51*
RP Series Pneumatic Compact Actuators	52~61*
Compact Quad Pneumatic Actuators	62~74*
ZT Series Linear Pneumatic Actuators	75~76*
Electro - Pneumatic Positioner	77~79*
Electric Actuators	80~82*
Intelligent Electric Actuators	83*

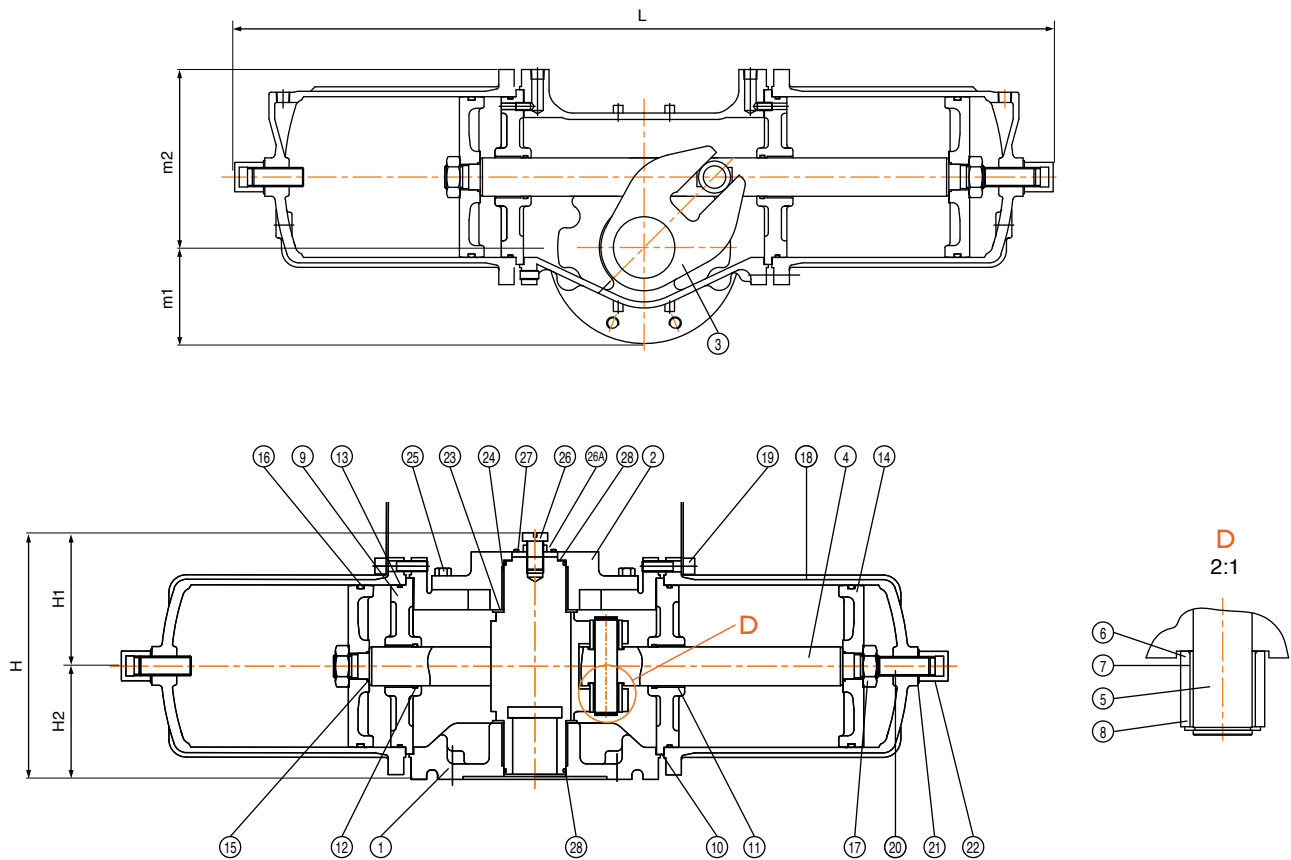
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JA SERIES DOUBLE ACTING JA130, JA170, JA200, JA280

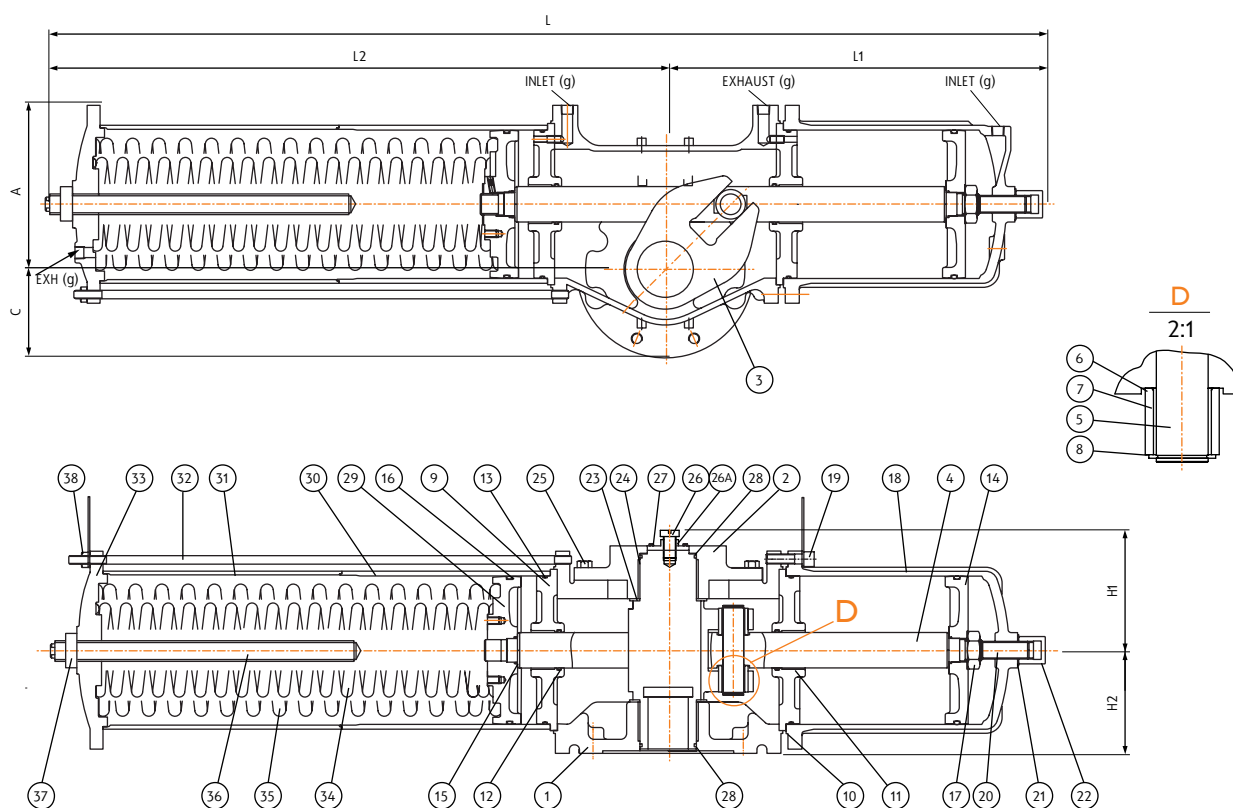


No.	Part Name	Material
1	Body	FCD450
2	Body Cap	FCD450
3	Para Arm	FCD450
4	Piston Rod	S45C
5	Pin	S45C
6	Roller	S45C
7	Bearing	304+PTFE
8	Snap Ring	65Mn
9	Adapter	FC200
10	Gasket	T-1995
11	Bearing	304+PTFE
12	O-Ring	Viton
13	O-Ring	Viton
14	Piston	FC200

No.	Part Name	Material
15	O-Ring	Viton
16	O-Ring	Viton
17	Nut	SS400
18	Cylinder	FCD450+PTFE Lined
19	Cap Screw	SCM435
20	Stopper Bolt	SCM435
21	Gasket	304+Viton
22	Adjustable Cap Nut	SS400
23	Thrust Bearing	RPTFE
24	Bearing	304+PTFE
25	Bolt	SCM435
26	Position Indicator	304
26A	Indicator Arrow Plate	304
27	Feedback Roller Nut	304
28	O-Ring	Viton

CYLINDER SIZE	m1	M2	L	H	H1	H2	Wt (Kg)	Flange ISO 5211
JA-130	68	132	640	188	103	85	60	F14
JA-170	95	176	755	381	209	105	80	F16
JA-200	115	232	1060	457	244	130	130	F25
JA-280	158	302	1360	578	305	165	250	F30

JA SERIES SPRING RETURN JA130S, JA170S, JA200S, JA280S



No.	Part Name	Material
1	Body*	FCD450
2	Body Cap	FCD450
3	Para Arm	FCD450
4	Piston Rod	S45C + HCr
5	Pin	S45C
6	Roller	S45C
7	Bearing	304+PTFE
8	Snap Ring	65Mn
9	Adaptor	FC200
10	Gasket	T-1995
11	Bearing	304+PTFE
12	O-Ring	Viton
13	O-Ring	Viton
14	Piston	FC200
15	O-Ring	Viton
16	O-Ring	Viton
17	Nut	SS400
18	Cylinder	FCD450* + PTFE Lined
19	Cap Screw	SCM435

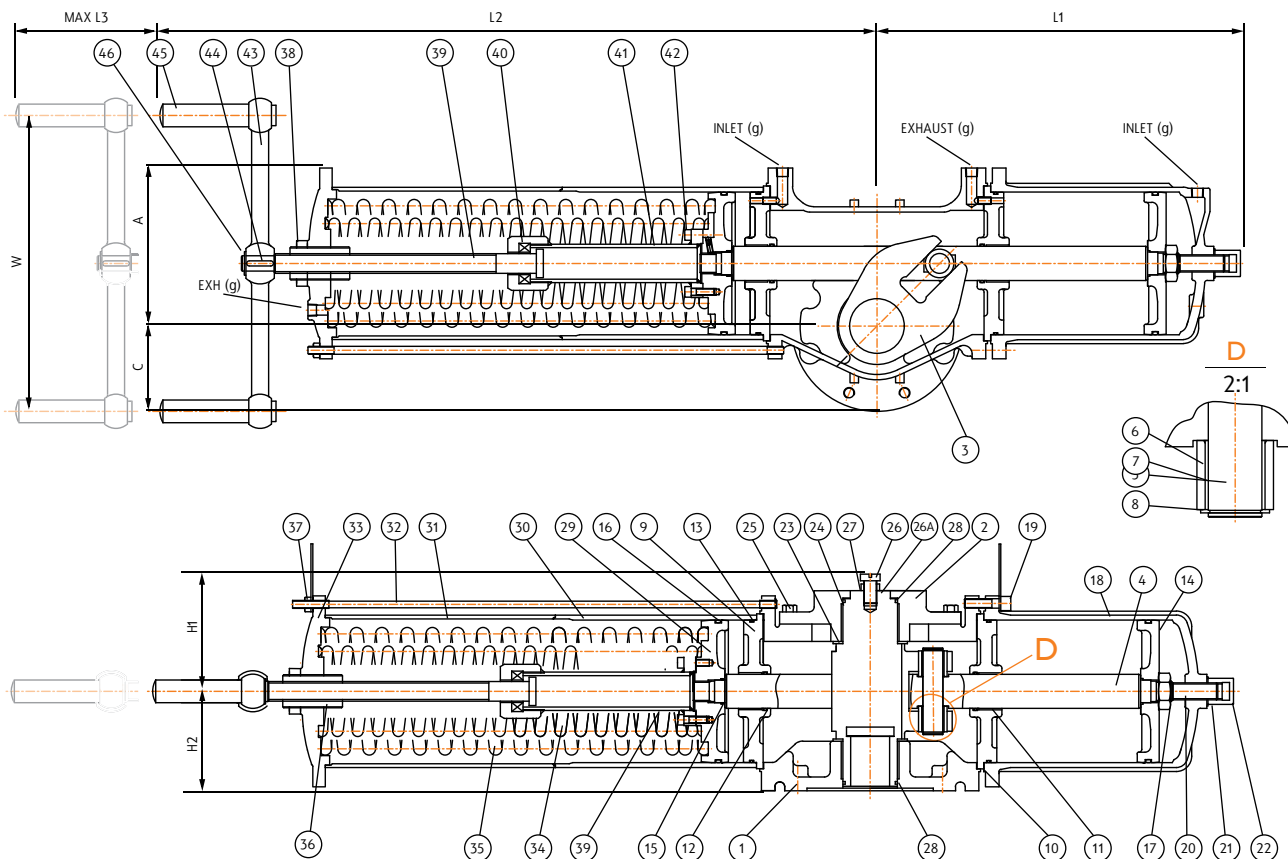
No.	Part Name	Material
20	Stopper Bolt	SCM435
21	Gasket	304 + Viton
22	Cap Nut	SS400 + ENP
23	Thrust Bearing	R.PTFE
24	Bearing	304 + PTFE
25	Bolt	SCM435
26	Position Indicator	304
26A	Indicator Arrow Plate	304
27	Feedback Roller Nut	304
28	O-Ring	Viton
29	Spring Retainer	FCD450
30	Cylinder	Carbon Steel + PTFE Lined
31	Spring Case*	Carbon Steel + PTFE Lined
32	Long Bolt	S45C
33	Spring Cover*	FCD450
34	Spring	60Si2Mn
35	Spring	60Si2Mn
36	Limit Stud	S45C + ENP
37	Adjusting Nut	S45C + ENP
38	Tie Bar Nut	Alloy Steel 2H

* 3 Coat paint system

CYLINDER SIZE	L	L1	L2	A	C	H1	H2	g	Flange ISO 5211
JA-130S	843	320	523	132	68	103	85	1/4"	F14
JA-170S	988	378	610	176	95	129	116	3/8"	F16
JA-200S	1415	530	885	232	115	152	130	3/8"	F25
JA-280S	1840	680	1160	302	158	188	175	1/2"	F30

JA SERIES SPRING RETURN MANUAL OVER-RIDE

JA130SH, JA170SH, JA200SH, JA280SH C/W HANDWHEEL - MANUAL OVER-RIDE



No.	Part Name	Material
1	Body*	FCD450
2	Body Cap*	FCD450
3	Para Arm/Yoke	FCD450
4	Piston Rod	S45C+HCr (AISI 1045)
5	Pin	S45C
6	Roller	S45C
7	Bearing	304+PTFE
8	Snap Ring	65Mn
9	Adaptor	FC200
10	Gasket	T-1995
11	Bearing	304+PTFE
12	O-Ring	Viton
13	O-Ring	Viton
14	Piston	FC200
15	O-Ring	Viton
16	O-Ring	Viton
17	Nut	SS400
18	Cylinder*	FCD450+PTFE Lined
19	Cap Screw	SCM435
20	Stopper Bolt	SCM435
21	Gasket	304+Viton
22	Cap Nut	SS400+ENP
23	Thrust Bearing	RPTFE

No.	Part Name	Material
24	Bearing	304+PTFE
25	Bolt	SCM435
26	Position Indicator	304
26A	Indicator Arrow Plate	304
27	Feedback Roller Nut	304
28	O-Ring	Viton
29	Spring Retainer	FCD450
30	Cylinder*	Carbon Steel + PTFE Lined
31	Spring Case*	Carbon Steel + PTFE Lined
32	Long Bolt	S45C
33	Spring Cover	FCD450
34	Spring	60Si2Mn
35	Spring	60Si2Mn
36	Limit Stud	S45C+ENP
37	Nut	2H
38	Nut	S45C+ENP
39	Stem Screw	S45C+ENP
40	Bearing	Assembly
41	Bearing Sleeve	A283M (Gr) C
42	Bolt	S45C
43	Handwheel	FCD450
44	Key	S45C
45	Handle	S45C+ZN
46	Snap Ring	65Mn

*3 Coat Paint System

CYLINDER SIZE	L1	L2	L3	A	C	H1	H2	g	W	Flange ISO 5211
JA-130SH	320	523	130	132	68	103	85	1/4"	250	F14
JA-170SH	378	700	150	176	95	129	116	3/8"	260	F16
JA-200SH	530	960	240	232	115	152	130	3/8"	440	F25
JA-280SH	680	1250	300	302	158	188	177	1/2"	760	F30

G RANGE GP & GH ACTUATORS

ADVANTAGES

Corrosion Protected

O-Rings are fitted on body caps and all joints. This ensures an effective seal to prevent ingress of water. With one way vent checks, total O-Ring sealing, the model GP and GH design prevents water ingress and seals out the environment. Also the Air/Hydraulic cylinder is PTFE lined. Tie-bars on power module are corrosion resistant, and internal and external surfaces are coated to protect in harsh environments.

ISO Valve Mounting

The G Range Actuators interface meets ISO 5011 standard, and meets the dimensional requirements of ISO defined for each torque range.

Standardised Interface

The shaft driven accessory interface conforms to NAMUR and are identical on all G Range models, allowing standardisation of accessory mounting hardware and installation practices.

Wear Resistant

The guide rod and piston rod have an advanced surface treatment, which combined with self-lubricating bearings, provides superior wear resistance and extends the life of all sliding components. PTFE air/hydraulic cylinder lining ensures long life and smooth running.

High Efficiency

The piston rod and guide block connection have superior surface finishes and self-lubricating bearings

to maximise input energy transfer directly to the valve stem. Efficiency is further enhanced by the tension - loaded spring, minimising radial loads on the piston rod.

Bidirectional Travel Stops

Integral bidirectional travel stops, adjustable from 80° to 100° of total valve travel prevents excessive valve seat wear.

Long Service Life

The G Range actuators incorporate four stages of internal and external coatings to resist severe weather, chemical and petroleum environments. The inner surface of the air cylinder is coated with PTFE providing enhanced corrosion resistance and self-lubrication.

Modular Design

G Range actuators design provides field serviceable drive, power, spring and over-ride modules. The modules are removable, serviceable and inter-changeable without the need to remove the actuator from the valve. Modules are available for separate purchase to reduce spare parts inventory.

Spring Module

To ensure the safety of personnel during installation and maintenance, the spring module has been designed so that it can only be removed from the power module with the spring in the fully extended position. This prevents accidental release of the spring force, protecting personnel from injury and the actuator from accidental damage.



Pneumatic Model GP Spring Return



High Pressure Hydraulic Model GH Spring Return



Pneumatic Model GP Double Acting

GENERAL APPLICATION

Torque Outputs

Double acting: 830~250,000 Nm
Spring return end torques: 307~71764 Nm

Operating Temperatures

Standard: -20°C~80°C
Low Temperature: -40°C~80°C
High Temperature: -20°C~120°C

Operating Pressures

Pneumatic: 3~7 Bar
Hydraulic: 70~200 Bar

SPRING RETURN

Symmetric or Canted (Inclined) Yokes

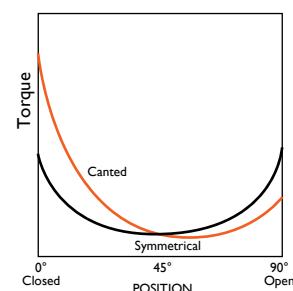
Torqturn G-Range actuators are available with either symmetric or canted yokes. The traditional symmetric yokes provide efficient operation at both the 'end to close' and 'break to open' positions. Canted yokes provide higher 'break to open' torques and are used where lower 'run' and 'end' torques are acceptable. Torqturn actuators utilise the optimal solution depending on actuator size.



Symmetrical Yoke



Canted Yoke



G RANGE GP & GH ACTUATORS

DESIGN FEATURES OFFER UNIQUE BENEFITS

1. Safe Spring Lock

Positively locks the spring module in place under load. Prevents spring module detachment from the drive module.

2. Reduced Wear

The design of connection between the piston rod and the guide block compensates for side load deflection and thereby reduces wear on the rod, bearings and seals.

3. Standardised Mounting

The NAMUR mounting configuration allows standardisation of mounting hardware for a wide range of shaft driven accessories.

4. Replaceable Bearings

Replaceable bearings protect sliding and rotating components, with suitability for either dry or lubricated working conditions.

5. Coated Guide Bar

PTFE thrust bar prevents yoke pin axial movement, transferring axial loads directly to the drive module case.

6. Optional Over-ride

Internal hydraulic over-ride cylinder module for spring-return models doesn't increase actuator length.

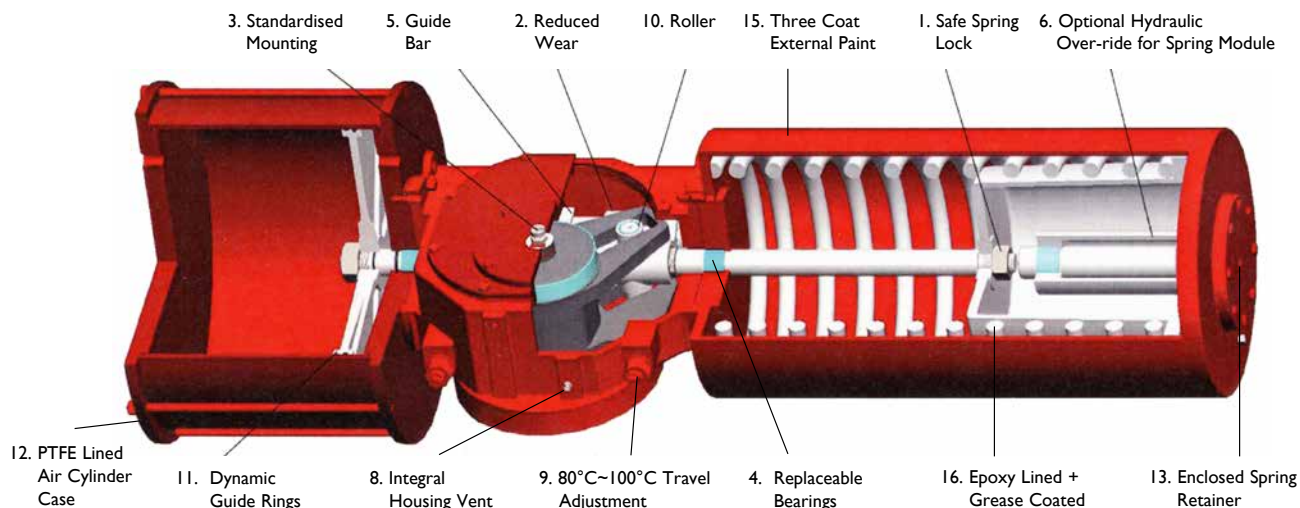
7. Ease of Lifting

G25 and larger models are equipped with four lifting eyes for safe actuator handling during shipping installation and removal.

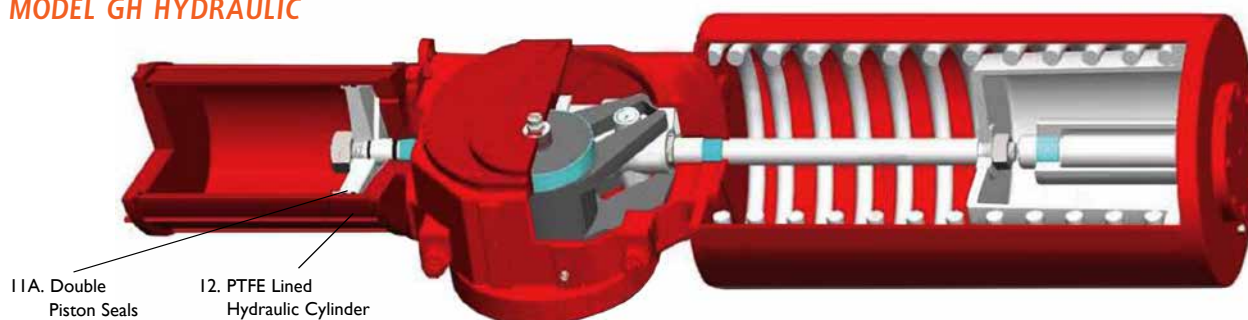
8. Integral Housing Vent

The main actuator housing incorporates an integral check valve in order to release overpressure.

MODEL GP PNEUMATIC



MODEL GH HYDRAULIC



9. 80°~100° Travel Adjustment

Bi-directional travel stops are integral to the actuator. The stops allow 80° ~ 100° total travel adjustment and are designed to prevent ingress of foreign matter and water.

10. Roller

Rollers are used which reduces friction between the yoke arm and pin, minimising wear to the yoke arm and pin.

11. PTFE Guide Ring

The PTFE Guide prevents metal to metal contact with the cylinder bore, thus ensuring the cylinder is not damaged by the piston whilst also reducing torque as well as ensuring ease of operation.

11A. Double Piston Seals

Hydraulic cylinders have double sealing with o-ring and dynamic seal ring to prevent metal to metal contact between cylinder and piston.

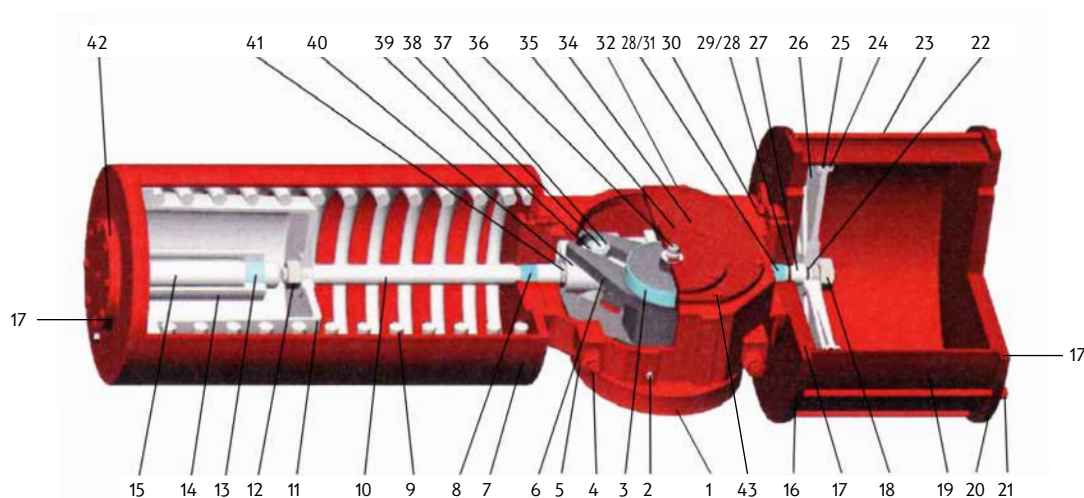
12. PTFE Lined Cylinder

The Air/Hydraulic Cylinder is PTFE lined to ensure smooth low torque operation over the life of the actuator and also prevent corrosion.

13. Spring Safety

The retaining nut system & cover positively locks and covers the spring module to allow its safe removal and installation, eliminating accidental release of the spring force.

G RANGE - MODEL GP PNEUMATIC ACTUATORS



ASSEMBLY DRAWING - MATERIALS LIST - SPRING RETURN

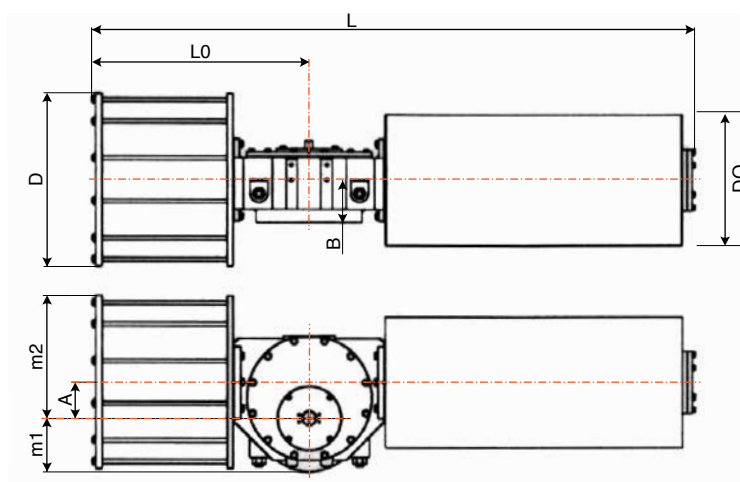
No.	Name	Material	No.	Name	Material
1	Body	Ductile Iron +3 Coat Paint	23	Screw	Alloy Steel
2	Vent Valve	Carbon Steel	24	Dynamic Guide Ring	PTFE / Viton
3	Sliding Bearing	Metal + PTFE	25	O-Ring	Viton
4	Adjust Stud	Alloy Steel	26	Piston	Ductile Iron
5	Nut	2H	27	Centre Bar	Alloy Steel
6	Yoke	Carbon Steel	28	O-Ring	Viton
7	Spring Case	Carbon Steel* Epoxy Lined + Grease Coated	29	Stud	Alloy Steel
8	Sliding Bearing	Metal + PTFE	30	Nut	2H
9	Spring	Alloy Steel	31	Sliding Bearing	Metal + PTFE
10	Tension Rod	Alloy Steel	32	Bolt	Carbon Steel
11	Spring Seat	Carbon Steel	33	Body Cap	Ductile Iron
12	Nut	2H	34	Bolt	Carbon Steel
13	Sliding Bearing	Metal + PTFE	35	Cover	Ductile Iron
14	Hydraulic Cylinder	Carbon Steel	36	Drive Shaft	Alloy Steel
15	Hydraulic Piston	Carbon Steel	37	Roller	Alloy Steel
16	Adaptor	Ductile Iron	38	Sliding Bearing	Metal + PTFE
17	O-Ring	Viton	39	Pin	Alloy Steel
18	Nut	2H	40	Guide Block	Ductile Iron
19	Cylinder	Carbon Steel + PTFE Lined	41	Nut	Carbon Steel
20	End Cap	Ductile Iron	42	Cover Plate	Carbon Steel
21	Tie Bar** & Nut	Alloy Steel* / 2H	43	O-Ring	Viton
22	O-Ring	Viton			

* Or Ductile Iron in smaller sizes. ** Stainless Steel or no external tie option available. Sample only, refer to as built B.O.M for each size.

G RANGE - MODEL GP DIMENSIONS - SR3~SR6

SPRING RETURN ACTING

Indicative dimensions only,
refer to as built drawing as
dimensions vary according
to configuration.



Model	Flange	L	L0	m1	m2	A	B	D	DO	Air Port	Weight (kg)
GP12S-170 SR3~6	F12	962	364	65	165	50	80	230	*	RC3/8"	79
GP12S-200 SR3~6		962	364	78	178	50	80	256	*	RC3/8"	93
GP14S-200 SR3~6	F14	1105	449	87.5	187.5	60	88	255	*	RC3/8"	117
GP14S-250 SR3~6		1105	449	87.5	212.5	60	88	305	*	RC1/2"	156
GP14S-300 SR3~6		1125	449	87.5	237.5	60	88	360	*	RC1/2"	182
GP16S-250 SR3~6	F16	1289	499	105	222.5	70	92	305	*	RC1/2"	184
GP16S-300 SR3~6		1289	499	105	247.5	70	92	360	*	RC1/2"	209
GP16S-350 SR3~6		1318	499	105	272.5	70	92	415	*	RC1/2"	268
GP25S-350 SR3~6	F25	1576	556	150	292.5	90	104	415	*	RC1/2"	316
GP25S-400 SR3~6		1576	556	150	317.5	90	104	465	*	RC3/4"	355
GP25S-450 SR3~6		1674	556	150	350	90	104	520	*	RC3/4"	386
GP30S-450 SR3~6	F30	1807	662	175	370	110	130	520	*	RC3/4"	534
GP30S-500 SR3~6		1807	662	175	395	110	130	570	*	RC3/4"	609
GP30S-550 SR3~6		1807	662	175	420	110	130	620	*	RC3/4"	758
GP35S-550 SR3~6	F35	2005	817	207.5	450	140	165	620	*	RC3/4"	997
GP35S-600 SR3~6		2005	817	207.5	450	140	165	670	*	RC1"	1102
GP35S-700 SR3~6		2005	817	207.5	475	140	165	770	*	RC1"	1310
GP40S-600 SR3~6	F40	2695	960	237.5	505	170	200	670	*	RC1"	1230
GP40S-700 SR3~6		2695	960	237.5	555	170	200	770	*	RC1"	1420
GP40S-800 SR3~6		2695	960	237.5	607.5	170	200	875	*	RC1.1/2"	1865
GP48S-800 SR3~6	F48	3395	1130	280	637.5	200	210	875	*	RC1.1/2"	2340
GP48S-900 SR3~6		3395	1130	280	687.5	200	210	975	*	RC2"	2816
GP48S-1000 SR3~6		3585	1130	280	787.5	200	210	1075	*	RC2"	3380
GP60S-800 SR3~6	F60	4185	1380	343	707.5	270	230	875	*	RC1.1/2"	3170
GP60S-900 SR3~6		4185	1380	343	757.5	270	230	975	*	RC2"	3718
GP60S-1000 SR3~6		4750	1380	343	807.5	270	230	1075	*	RC2"	4230
GP60S-1100 SR3~6		4750	1380	343	857.5	270	230	1175	*	RC2"	4940

General overview only, refer to drawing for dimensions. *Refer to drawing.

G RANGE - MODEL GP TORQUE CHARTS

SPRING RETURN TORQUES (Nm) - SPRING SIZE/AIR SUPPLY 5 BAR

Model	Max Torque of Drive Module	Air Start (BTO)	Run (Air)	Air End (ETO)	Spring Break (BTC)	Run (Spring)	Spring End (ETC)
GP12S-170 SR5	1000 Nm	489	245	330	485	243	326
GP12S-200 SR5		688	337	448	698	343	453
GP14S-200 SR5	2000 Nm	877	456	594	789	402	506
GP14S-250 SR5		1347	671	818	1345	670	815
GP14S-300 SR5		1908	975	1235	1880	957	1206
GP16S-250 SR5	4000 Nm	1692	881	1150	1553	795	1011
GP16S-300 SR5		2438	1213	1472	2421	1202	1455
GP16S-350 SR5		3215	1744	2106	3194	1637	2085
GP25S-350 SR5	8000 Nm	3826	2044	2400	3960	2013	2534
GP25S-400 SR5		5309	2685	3352	4955	2466	2999
GP25S-450 SR5		6788	3402	4188	6326	3117	3726
GP30S-450 SR5	16000 Nm	7892	4001	4922	7929	3968	4869
GP30S-500 SR5		10042	5125	6490	9375	4712	5824
GP30S-550 SR5		12106	6162	7772	11426	5741	7092
GP35S-550 SR5	32000 Nm	15527	7909	9984	14449	7241	8907
GP35S-600 SR5		18327	9058	10894	18185	8971	10752
GP35S-700 SR5		25470	12767	15715	23864	11772	14109
GP40S-600 SR5	63000 Nm	21644	11014	13884	21426	10879	13666
GP40S-700 SR5		29304	14679	18046	30015	15120	18757
GP40S-800 SR5		41095	21218	27349	35425	17702	21679
GP48S-800 SR5	125000 Nm	44755	22574	28063	45789	23214	29097
GP48S-900 SR5		58269	29261	36121	57348	28690	35200
GP48S-1000 SR5		72776	36756	45792	69602	34789	42618
GP60S-800 SR5	250000 Nm	61439	30300	36302	63398	31515	38261
GP60S-900 SR5		76967	38524	47305	78878	39710	49217
GP60S-1000 SR5		97605	48824	59891	95891	47761	58177
GP60S-1100 SR5		116733	59787	76127	112369	57081	71764

BTO = Break To Open Torque (Air Start)
RUN = Running Minimum (Half-Stroke Torque)
ETO = End To Open Torque (Air End)
BTC = Break To Close Torque (Spring Start)
ETC = End To Close Torque (Spring End)

G RANGE - MODEL GP TORQUE CHARTS

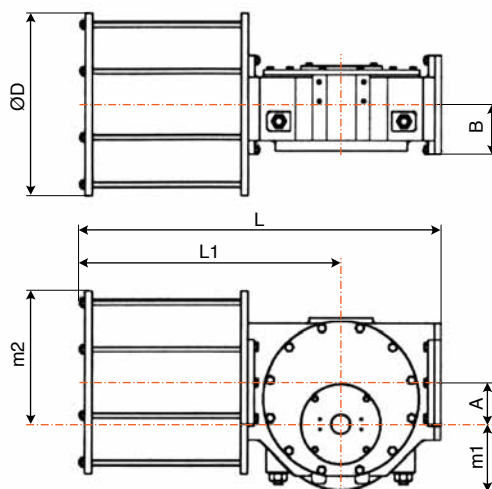
SPRING RETURN TORQUES (Nm) - SPRING SIZE/AIR SUPPLY 5.5 BAR

Model	Max Torque of Drive Module	Air Start (BTO)	Run (Air)	Air End (ETO)	Spring Break (BTC)	Run (Spring)	Spring End (ETC)
GP12S-170 SR5.5	1000 Nm	550	298	380	530	266	356
GP12S-200 SR5.5		753	373	491	757	576	496
GP14S-200 SR5.5	2000 Nm	944	458	582	940	455	578
GP14S-250 SR5.5		1475	726	946	1433	701	904
GP14S-300 SR5.5		2089	1062	1450	1976	994	1337
GP16S-250 SR5.5	4000 Nm	1747	836	1078	1896	948	1227
GP16S-300 SR5.5		2707	1314	1808	2475	1215	1576
GP16S-350 SR5.5		3517	1763	2361	3469	1734	2313
GP25S-350 SR5.5	8000 Nm	4207	2111	2831	4165	2086	2604
GP25S-400 SR5.5		5529	2760	3673	5465	2722	3609
GP25S-450 SR5.5		7074	3456	4447	7119	3483	4492
GP30S-450 SR5.5	16000 Nm	8769	4264	5391	8745	4217	5312
GP30S-500 SR5.5		10912	5237	6544	10908	5234	6540
GP30S-550 SR5.5		13194	6289	7769	13348	6381	7924
GP35S-550 SR5.5	32000 Nm	16786	8053	10057	16820	8073	10092
GP35S-600 SR5.5		20090	9674	12158	19828	9517	11897
GP35S-700 SR5.5		27512	13581	17757	25780	12542	16025
GP40S-600 SR5.5	63000 Nm	24041	11554	14473	24368	11750	14800
GP40S-700 SR5.5		33087	16322	21320	31547	15398	19780
GP40S-800 SR5.5		43011	20546	25475	43576	20885	26040
GP48S-800 SR5.5	125000 Nm	50263	24359	30936	50301	24382	30974
GP48S-900 SR5.5		63321	30734	39126	63690	30955	39595
GP48S-1000 SR5.5		78760	39161	51777	75157	36999	48173
GP60S-800 SR5.5	250000 Nm	68043	33285	42906	66764	32517	41627
GP60S-900 SR5.5		83076	41892	56263	82539	41389	55726
GP60S-1000 SR5.5		107625	53261	69911	101449	49555	63736

BTO = Break To Open Torque (Air Start)
RUN = Running Minimum (Half-Stroke Torque)
ETO = End To Open Torque (Air End)
BTC = Break To Close Torque (Spring Start)
ETC = End To Close Torque (Spring End)

G RANGE - DIMENSIONS

DOUBLE ACTING



Model	Flange	L	L1	m1	m2	A	B	D	Air Port	Weight (kg)
GP12S-170DA	F12	499	364	73	165	50	80	230	RC3/8"	41
GP12S-200DA		499	364	73	178	50	80	256	RC3/8"	48
GP14S-200DA	F14	594	449	87.5	187.5	60	88	255	RC3/8"	57
GP14S-250DA		594	449	87.5	212.5	60	88	305	RC1/2"	69
GP14S-300DA		594	449	87.5	237.5	60	88	360	RC1/2"	87
GP16S-250DA	F16	679	499	105	222.5	70	92	305	RC1/2"	89
GP16S-300DA		679	499	105	247.5	70	92	360	RC1/2"	108
GP16S-350DA		679	499	105	272.5	70	92	415	RC1/2"	129
GP25S-350DA	F25	766	556	150	292.5	90	104	415	RC1/2"	158
GP25S-400DA		766	556	150	317.5	90	104	465	RC3/4"	202
GP25S-450DA		766	556	150	350	90	104	520	RC3/4"	223
GP30S-450DA	F30	922	662	175	370	110	130	520	RC3/4"	285
GP30S-500DA		922	662	175	395	110	130	570	RC3/4"	325
GP30S-550DA		922	662	175	420	110	130	620	RC3/4"	351
GP35S-550DA	F35	1130	817	207.5	450	140	165	620	RC3/4"	427
GP35S-600DA		1130	817	207.5	450	140	165	670	RC1"	463
GP35S-700DA		1130	817	207.5	475	140	165	770	RC1"	542
GP40S-600DA	F40	1320	960	237.5	505	170	200	670	RC1"	636
GP40S-700DA		1320	960	237.5	555	170	200	770	RC1"	723
GP40S-800DA		1320	960	237.5	607.5	170	200	875	RC1.1/2"	842
GP48S-800DA	F48	1580	1130	280	637.5	200	210	875	RC1.1/2"	1073
GP48S-900DA		1580	1130	280	687.5	200	210	975	RC2"	1335
GP48S-1000DA		1580	1130	280	787.5	200	210	1075	RC2"	1560
GP60S-800DA	F60	1960	1380	343	707.5	270	230	875	RC1.1/2"	1685
GP60S-900DA		1960	1380	343	757.5	270	230	975	RC2"	1970
GP60S-1000DA		1960	1380	343	807.5	270	230	1075	RC2"	2210
GP60S-1100DA		1960	1380	343	857.5	270	230	1175	RC2"	2510

G RANGE - MODEL GP TORQUE CHARTS

DOUBLE ACTING TORQUES (Nm)

Model	Max Torque of Drive Module	Air Pressure									
		3 Bar		4 Bar		5 Bar		6 Bar		7 Bar	
		Start End	Run	Start End	Run	Start End	Run	Start End	Run	Start End	Run
GP12S-170	1000 Nm	489	292	652	390	815	487	978	585	1141	683
GP12S-200		681	408	908	545	1135	681	1362	817	1589	954
GP14S-200	2000 Nm	830	504	1107	672	1384	839	1660	1007	1937	1175
GP14S-250		1298	787	1730	1049	2163	1312				
GP14S-300		1861	1129								
GP16S-250	4000 Nm	1622	984	2163	1312	2704	1640	3245	1968	3786	2296
GP16S-300		2336	1417	3115	1889	3894	2362				
GP16S-350		3180	1929	4240	2572						
GP25S-350	8000 Nm	3926	2381	5235	3175	6543	3969	7852	4763		
GP25S-400		4984	3023	6646	4031	8307	5039				
GP25S-450		6309	3827	8412	5103						
GP30S-450	16000 Nm	7710	4677	10280	6236	12580	7631	15420	9354		
GP30S-500		9519	5774	12693	7700	15866	9625				
GP30S-550		11519	6988	15359	9317						
GP35S-550	32000 Nm	14660	8893	19547	11858	24433	14822	29320	17787	34207	20752
GP35S-600		17447	10584	23263	14112	29078	17640	34894	21169		
GP35S-700		23748	14407	31664	19209						
GP40S-600	63000 Nm					35310	21421	42373	25706	49435	29990
GP40S-700				38449	23325	48062	29157	57674	34988	67286	40820
GP40S-800		37664	22849	50219	40366	62774	38082				
GP48S-800	125000 Nm					73852	44803	88623	53764	103393	62725
GP48S-900				74775	45363	93468	56703	112162	68044	130856	79385
GP48S-1000		69237	42003	92316	56005	115395	70006				
GP60S-800	250000 Nm							119641	72582	139581	84679
GP60S-900				100947	61241	126183	76551	151420	91861	176657	107171
GP60S-1000		93469	56704	124626	75606	155782	94507	186939	113409	218095	132310
GP60S-1100		113097	68612	150797	91483	188496	114354	226195	137224	263894	160095

G RANGE - PART NUMBER SYSTEM



Endurance Test Certified

GP	30	S	-	5	0	0	S	R	5	V	-	H	W	S	T	C
1	2	3		4			5		6	7		8			9	

1 Actuator Type

GP = Pneumatic
GH = Hydraulic

2 Centre Body Size

10
12
14
16
25
30
35
40
48
60

3 Yoke Type

S = Symmetric
C = Canted

4 Cylinder Size

40	170	450
50	190	500
60	200	550
70	220	600
80	245	700
90	250	800
100	270	900
110	300	1000
120	320	1100
130	350	
150	400	

5 Acting Type

DA = Double Acting
SR = Single Acting

6 Spring Size

1
2
3
4
5
5.5
6

7 Temperature

L = Low Temperature (HNBR) (-45~80°C)
M = Mid Temperature (NBR) (-25~100°C)
V = High Temperature (Viton) (-20~130°C)

8 Special Code

HW = Jack Screw Manual Over-ride
EX = Extended Travel Stop
HY = Hydraulic Over-ride
MG = Manual Gear Over-ride

9 Air Failure Position*

STC = Spring to Close
STO = Spring to Open

*Only applicable to single acting spring return



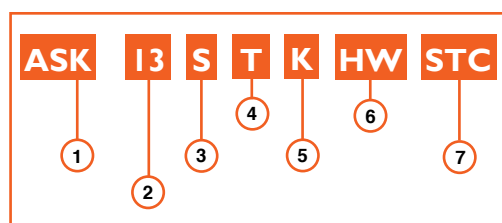
ASK SERIES PNEUMATIC ACTUATOR

'CB' STYLE PISTON TYPE SCOTCH YOKE

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.
- ISO 5211 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)

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

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.



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



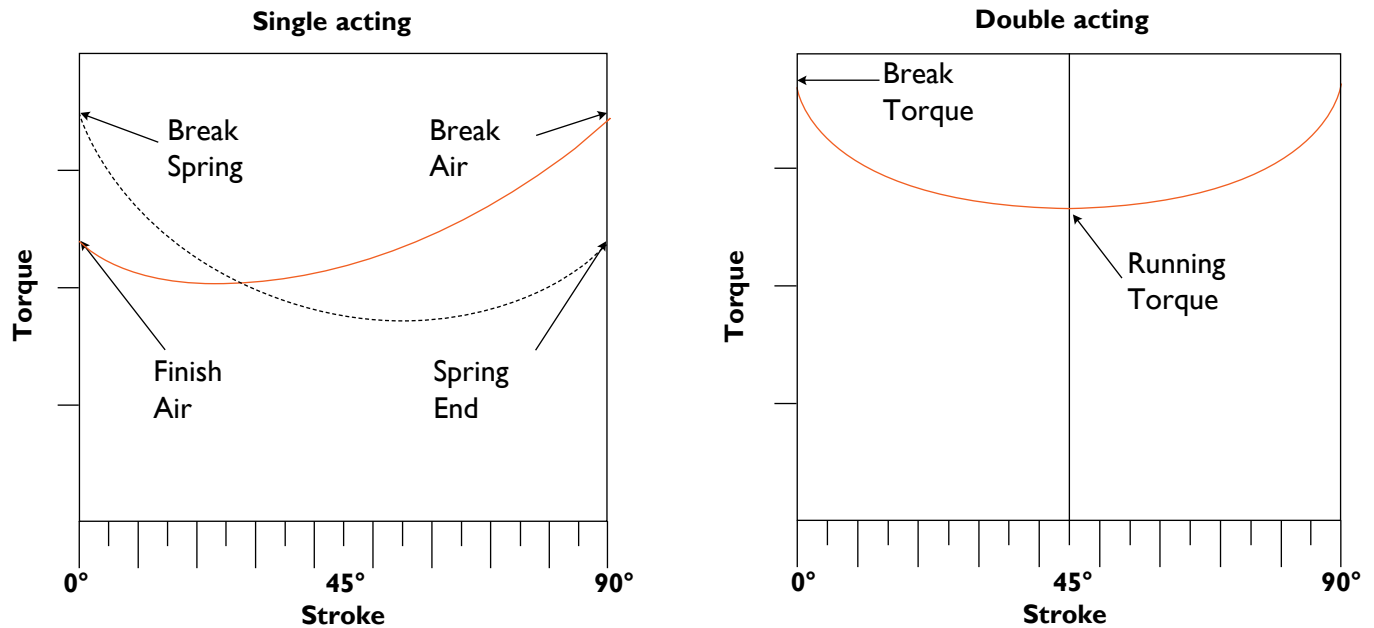
ISO 15848-1 Class C02
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RANGE OF SUPPLY (ASK series)

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



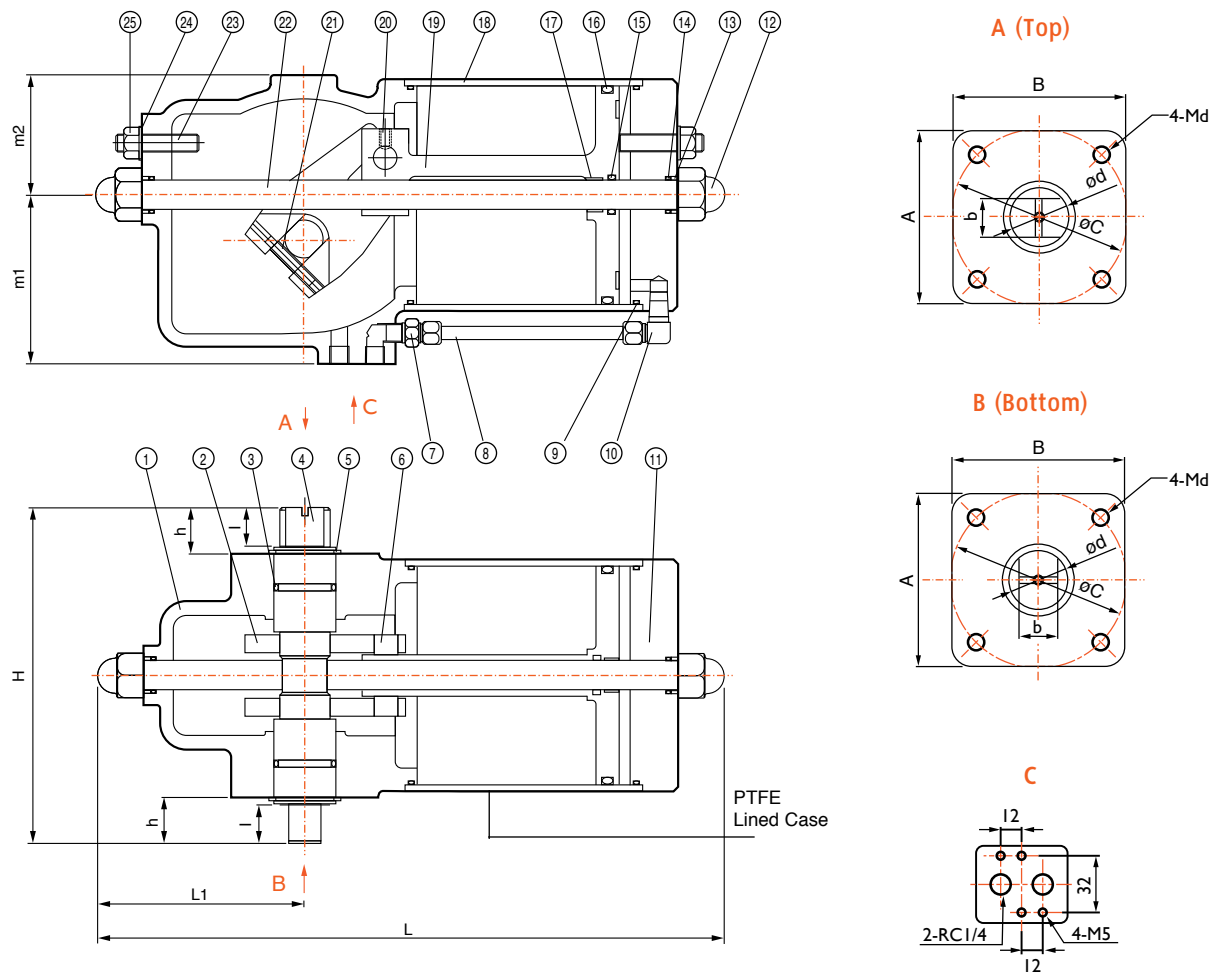
OUTPUT TORQUE (Nm) single acting - spring return

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 - DOUBLE ACTING



DIMENSIONS

Torque Cylinder	L	L1	I	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

MATERIALS

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

No.	Part Name	Material
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



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produces isolation,
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severe and critical service
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competitive portfolio
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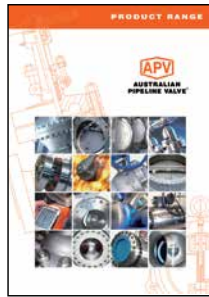
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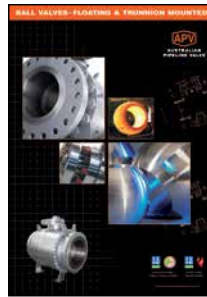
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AUSTRALIAN PIPELINE VALVE BRAND RANGE - CATALOGUES



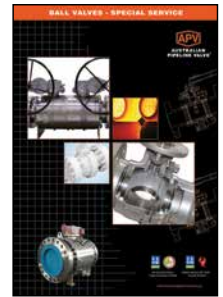
Product Brochure



**Ball Valves Floating
& Trunnion Mounted**



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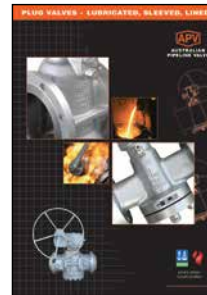
**Ball Valves
Special Service**



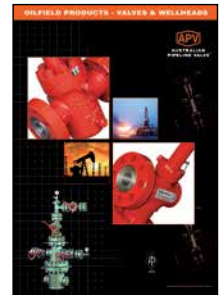
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Valves - Cast Steel**



**Gate, Globe & Check
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**Plug Valves Lubricated,
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& Check Valves**



**Flowturn
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**Flowturn Strainers
& Sight Glasses**



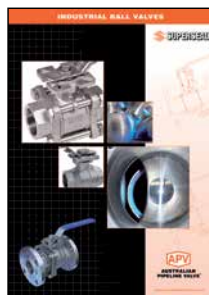
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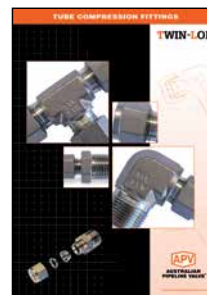
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**Superseal
Industrial Ball Valves**



Torqturn Actuators



TwinLok Tube Fittings

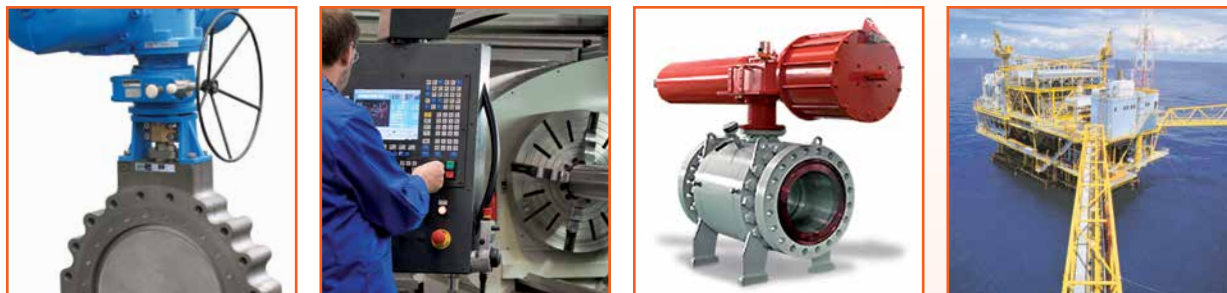


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