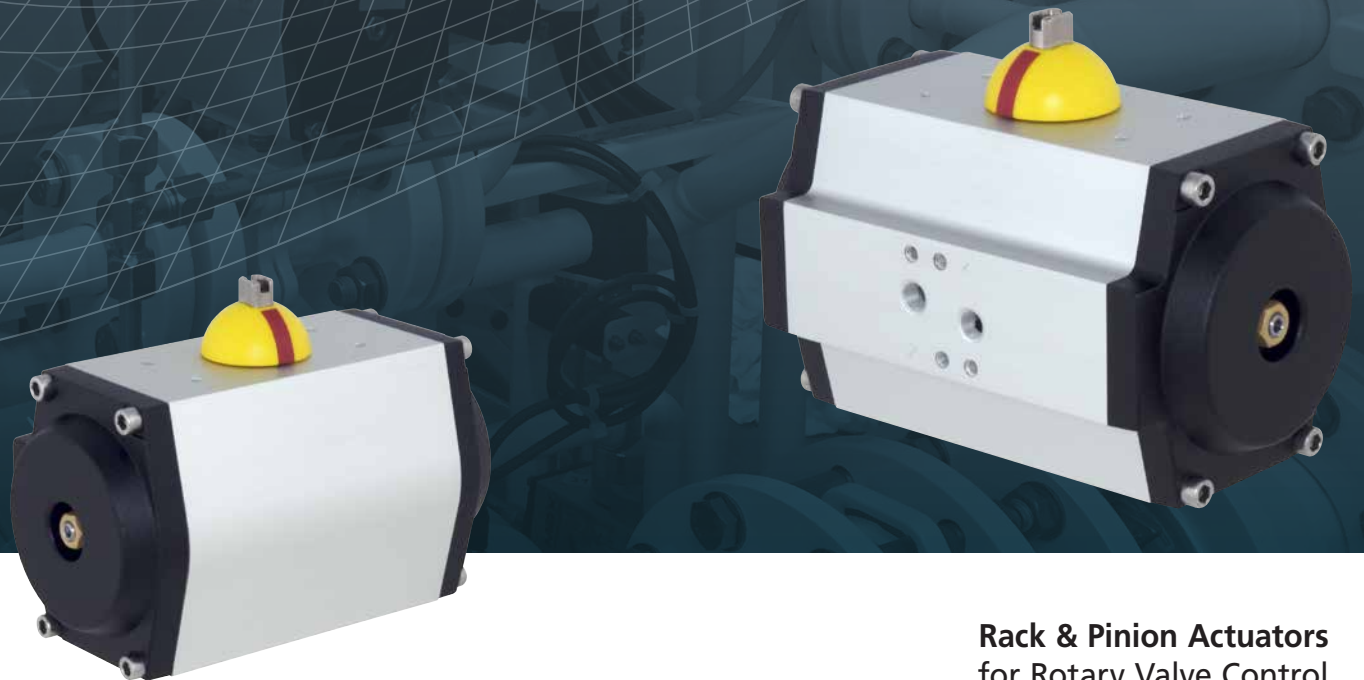


rotork[®]

Fluid Systems

GT Range



Rack & Pinion Actuators
for Rotary Valve Control

Keeping the World Flowing

Rotork Actuators – Quality Controlled

Since the company was founded in 1957, Rotork has become the standard for excellence in the field of valve and damper automation for the oil, gas, power, water and waste treatment industries around the world.

As established leaders in actuation technology, we owe our success to a commitment to quality at every stage, and at every level, of Rotork's operations.

At the heart of the company is an exceptional workforce – the highly trained, forward thinking engineers, technicians, and sales support staff who each play a crucial role in maintaining Rotork's unrivalled reputation for innovation, reliability and first class after sale support.

With several fluid power product factories and additional Centres of Excellence located around the globe, we are able to offer creative solutions and design systems for virtually any application – from subsea hydraulics to the most sophisticated yet simple fluid power control system.

Contact Rotork for your operational or safety application requirements. We will work with you from conception, to design, to manufacture, to installation, and finally to maintenance and service support.



GT Range Rack & Pinion Actuators

The GT range of pneumatic rack & pinion actuators has been proven by a 30-year history of service in hundreds of thousands of installations encompassing a variety of diverse applications. There are 15 body sizes available in both double-acting and spring-return configurations. Units can be easily changed from one to the other – even in the field. In addition to the usual 90 degree rotation, GTs are also available with rotations of 120, 180 and 240.

Many options are available to optimise the actuator for particular applications. Options include high- and low-temperature versions, anti-corrosion materials and treatments, valve mounting kits, and declutchable manual gear overrides.

We can also provide actuator control and indication components for virtually any functional requirement and installation environment. Accessory mounting conforms to NAMUR specifications and valve mounting dimensions are per ISO 5211 standards.

Rotork can provide a variety of additional services including application engineering, installation and retrofit, as well as maintenance and repair by factory-trained service personnel.

With superior design, material specification, manufacturing precision, and an industry-best global sales and service support network, Rotork GT range actuators are the wisest choice for any rack & pinion valve actuation requirement.



Fitting Accessories

The Right Accessory Solutions

Valves and actuators only perform as well as the solution is engineered. With decades of experience engineering fluid power valve automation for a multitude of applications and markets, you can depend on Rotork to provide a reliable and safe automation solution to meet your requirements.

In addition to the valve actuator itself, through our Instruments division, we offer a wide range of precision

control and valve accessory products from the Rotork Fairchild, Young Tech, Soldo®, Rotork Midland, Bifold® Fluidpower and M&M International companies.

Through our Gears division we provide an extensive range of valve gearboxes and override options with designs to withstand the challenges of any valve operating environment. They also provide a complete range of mounting kits and accessories.



Inside The GT Actuator

Every Rotork Fluid Systems actuator is built to provide long and efficient service with minimum maintenance. The design, engineering and materials used in their construction ensure optimum performance even in the harshest of environments.

Supply Filtered air PNEUROP/ISO class 4
 Optional: Others on request

Operating Pressure 2 to 10 bar (30 to 145 psi)

Torque Output 2.4 to 5800 Nm (21 to 51300 lbf.in)

Temperature Ranges

Standard: -50 to +70 °C (-58 to +158 °F)
 NBR O-Ring, Delrin Guide

Optional: -15 to +160C (+5 to +320°F)
 Viton O-Ring, IXEF Guide

Optional: -30 to +200 °C (-22 to +392 °F)
 Silicone O-Ring, PTFE Guide

Mounting Standards

Air supply: VDI/ VDE 3845, NAMUR

Accessories: VDI/ VDE 3845, NAMUR

Valve: ISO 5211, DIN 3337

Output shaft: ISO 5211 with 90° ■ and DIN 79 with 45° ◆, and NAMUR

Rotation 90°

Optional: 120°, 180°, 240°, or custom angles

Stroke Adjustment -5° to +5° from 90° position
 Single- or dual-direction travel stops acting upon the piston(s)¹

Optional: Extended travel adjustment on the opening stroke is available with installation of a longer stop screw

Materials

Body: Anodised aluminium ASTM 6063

Optional: Stainless steel AISI 316 (limited sizes) or epoxy paint

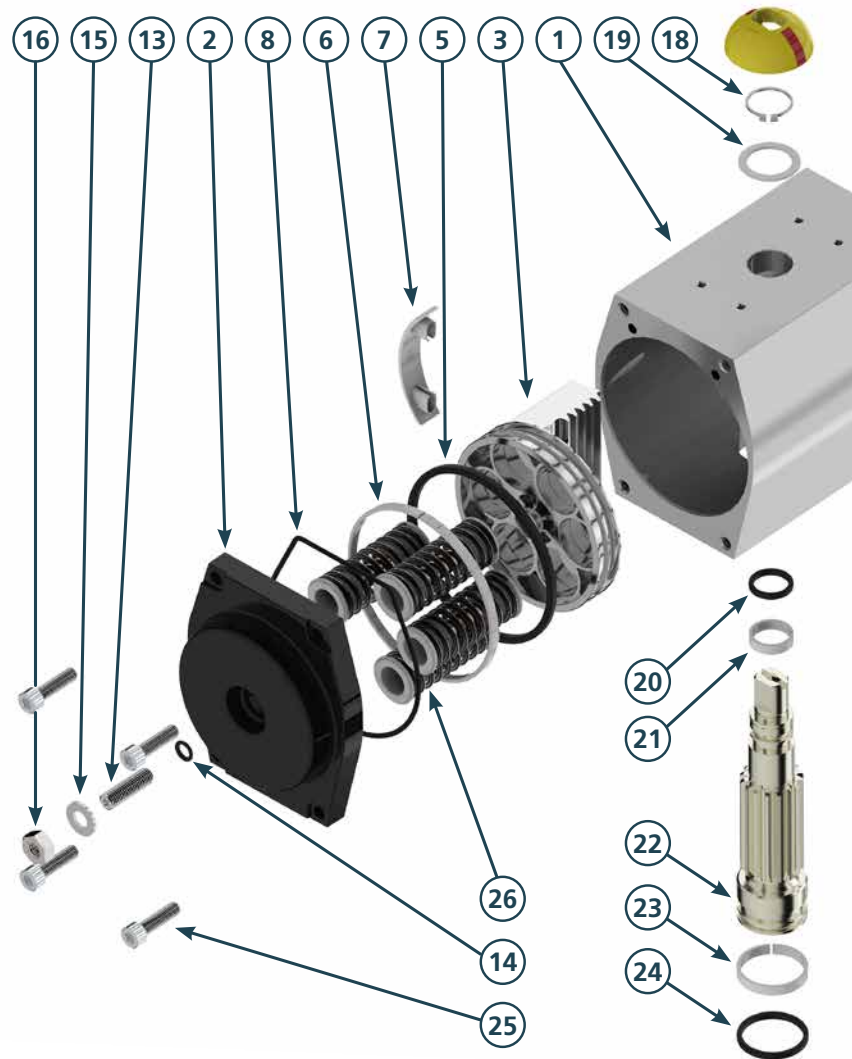
Pinion: Carbon steel EN 11SMNPB37 electroless nickel plated

Optional: Stainless steel AISI 303 or 316

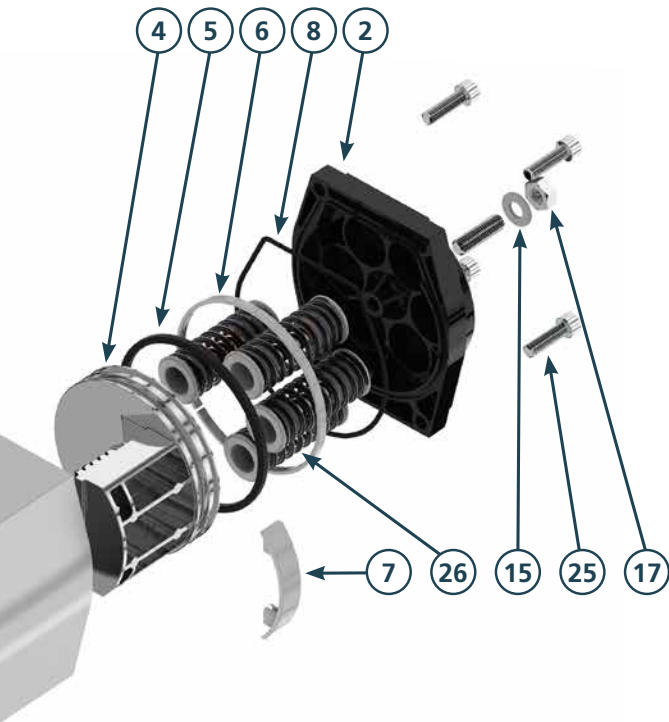
Pistons: Die-cast aluminium UNI EN1706

End caps: Die-cast aluminium UNI EN1706, EN AC- 46100, epoxy paint

Spring Cartridge: Carbon steel, epoxy paint



Inside The GT Actuator



Approvals and Industry Standards

- Actuators certified in accordance with ATEX 94/9/EC
- Complies with EN60529 (1991) + (A1:2000) for IP66M
- EAU Certificates of Conformity
- Management system in accordance with ISO 9001:2008
- Certified suitable for use at SIL3 as a single device in accordance with IEC 61508

Item	Description	Material	Quantity
1	Actuator Body	Anodised Aluminium ASTM 60663	1
2	Body End Cap	Die-Cast Aluminium EN AC-46100	2
3	Piston (blind)	Die-Cast Aluminium EN AC-46100	1
4	Piston (drilled) (not shown ¹)	Die-Cast Aluminium EN AC-46100	1
5	Piston O-ring	Buna N Nitrile Rubber	1
6	Piston Guide Ring	Acetalic Resin (Delrin)	1
7	Piston Guide Block	Acetalic Resin (Delrin)	1
8	End Cap O-ring	Buna N Nitrile Rubber	1
9	Internal Stop Screw (not shown ¹)	Stainless Steel AISI 304	1
10	Internal Stop Screw O-Ring (not shown ¹)	Buna N Nitrile Rubber	1
11	Internal Stop Screw Bushing (not shown ¹)	PTFE (Teflon)	1
12	Internal Stop Screw Washer (not shown ¹)	Aluminium Alloy	1
13	External Stop Screw	Stainless Steel AISI 304	1
14	External Stop Screw O-Ring	Buna N Nitrile Rubber	1
15	External Stop Screw Washer	Stainless Steel AISI 304	1
16	External Stop Nut	Stainless Steel AISI 304	1
17	Internal Stop Nut	Stainless Steel AISI 304	1
18	Pinion Retaining Ring	Stainless Steel UNI 7435	1
19	Pinion Upper Bearing	Acetalic Resin (Delrin)	1
20	Pinion Upper O-Ring	Buna N Nitrile Rubber	1
21	Pinion Upper Guide Bearing	Acetalic Resin (Delrin)	1
22	Pinion	Carbon Steel 11SMNPB37 (electroless nickel plated)	1
23	Pinion Lower Guide Bearing	Acetalic Resin (Delrin)	1
24	Pinion Lower O-Ring	Buna N Nitrile Rubber	1
25	End Cap Retaining Screws	Stainless Steel AISI 304	8
26	Spring Cartridge	Steel (epoxy painted)	0-12

1. GT range actuators are available with either single- or dual-direction of travel stop adjustment, except on the smallest sizes, 33, 34, 43, and 44 which are adjustable only at the outboard end of piston travel. Outboard stop adjustment is +/- 5° (e.g. 85° - 95°). Inboard stop adjustment is +5°/-25°.

The illustration above depicts an actuator with single-direction travel stop adjustment.

Torque Output Data

Double-Acting Actuators

Model	Pneumatic Torque (Nm)													
	2 bar	2.5 bar	3 bar	3.5 bar	4 bar	4.5 bar	5 bar	5.5 bar	6 bar	6.5 bar	7 bar	8 bar	9 bar	10 bar
33, 34	2.4	2.9	3.5	4.1	4.7	5.2	5.8	6.5	7.0	7.6	8.2	9.4	10.5	11.7
43, 44	4.7	5.8	7.0	8.2	9.4	10.5	11.7	13.1	14.0	15.2	16.4	18.7	21.0	23.4
52	7.8	9.7	11.7	13.6	15.6	17.5	19.5	21.8	23.4	25.3	27.3	31.2	35.1	39.0
63	11.6	14.5	17.4	20.3	23.2	26.1	29.0	32.5	34.8	37.7	40.6	46.4	52.2	58.0
75	20.0	25.0	30.0	35.0	40.0	45.0	50.0	56.0	60.0	65.0	70.0	80.0	90.0	100.0
83	29.0	36.2	43.5	50.7	58.0	65.2	72.5	81.2	87.0	94.2	101.5	116.0	130.5	145.0
92	40.0	50.0	60.0	70.0	80.0	90.0	100.0	112.0	120.0	130.0	140.0	160.0	180.0	200.0
110	58.0	72.5	87.0	101.5	116.0	130.5	145.0	162.4	174.0	188.5	203.0	232.0	261.0	290.0
118	86.0	107.5	129.0	150.5	172.0	193.5	215.0	240.8	258.0	279.5	301.0	344.0	387.0	430.0
127	116.0	145.0	174.0	203.0	232.0	261.0	290.0	324.8	348.0	377.0	406.0	464.0	522.0	580.0
143	186.0	232.5	279.0	325.5	372.0	418.5	465.0	520.8	558.0	604.5	651.0	744.0	837.0	930.0
160	230.0	287.5	345.0	402.5	460.0	517.5	575.0	644.0	690.0	747.5	805.0	920.0	1,035	1,150
190	400.0	500.0	600.0	700.0	800.0	900.0	1,000	1,120	1,200	1,300	1,400	1,600	1,800	2,000
210	480.0	600.0	720.0	840.0	959.9	1,080	1,200	1,344	1,440	1,560	1,680	1,920	2,160	2,400
253	690.5	863.1	1,035	1,208	1,381	1,553	1,726	1,933	2,071	2,244	2,416	2,762	3,107	3,452
254	920.0	1,150	1,380	1,610	1,840	2,070	2,300	2,576	2,760	2,990	3,220	3,680	4,140	4,600
255	1,160	1,450	1,740	2,030	2,320	2,610	2,900	3,248	3,480	3,770	4,060	4,640	5,220	5,800
300, 300-F25	1,600	2,000	2,400	2,800	3,200	3,600	4,000	4,480	4,800	5,200	5,600	6,400	7,200	8,000
302, 302-F25	3,060	3,825	4,590	5,355	6,120	6,885	7,650	8,568	9,180	9,945	10,710	12,240	13,770	15,300

Single-Acting Actuators

Model	Springs	Spring Torque (Nm)		Pneumatic Torque (Nm)																			
				2 bar		3 bar		4 bar		5 bar		5.5 bar		6 bar		7 bar		8 bar		9 bar		10 bar	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
43, 44	2	1.68	2.53	2.97	2.09	5.31	4.43	7.64	6.77	9.98	9.11	11.39	10.51	12.32	11.45	14.66	13.79	17.00	16.12	19.34	18.46	21.68	20.80
	4	3.36	5.07	-	-	3.59	1.85	5.93	4.18	8.27	6.52	9.68	7.93	10.61	8.86	12.95	11.20	15.29	13.54	17.63	15.88	19.97	18.22
	6	5.03	7.60	-	-	-	-	4.22	1.60	6.56	3.94	7.96	5.34	8.90	6.28	11.24	8.61	13.58	10.95	15.92	13.29	18.26	15.63
	8	6.71	10.14	-	-	-	-	-	4.85	1.35	6.25	2.75	7.19	3.69	9.53	6.03	11.87	8.37	14.21	10.71	16.54	13.05	
52	2	1.91	3.19	5.84	4.54	9.74	8.44	13.64	12.34	17.54	16.23	19.87	18.57	21.43	20.13	25.33	24.03	29.23	27.92	33.12	31.82	37.02	35.72
	4	3.82	6.37	3.90	1.29	7.79	5.19	11.69	9.09	15.59	12.98	17.92	15.32	19.48	16.88	23.38	20.78	28.28	24.67	31.17	28.57	35.07	32.47
	6	5.73	9.56	-	-	5.84	1.94	9.74	5.83	13.64	9.73	15.98	12.07	17.53	13.63	21.43	17.52	25.33	21.42	29.23	25.32	33.12	29.22
	8	7.64	12.75	-	-	-	-	7.79	2.58	11.69	6.48	14.03	8.82	15.59	10.38	19.48	14.27	23.38	18.17	27.28	22.07	31.17	25.96
	10	9.55	15.94	-	-	-	-	-	9.74	3.23	12.08	5.57	13.64	7.13	17.53	11.02	21.43	14.92	25.33	18.82	29.22	22.71	
	12	11.46	19.12	-	-	-	-	-	-	-	10.13	2.32	11.69	3.88	15.59	7.77	19.48	11.67	23.38	15.57	27.28	19.46	
63	2	3.01	4.42	8.54	7.09	14.34	12.89	20.14	18.69	25.94	24.50	29.42	27.98	31.74	30.30	37.54	36.10	43.34	41.90	49.14	47.70	54.94	53.50
	4	6.01	8.84	5.47	2.58	11.27	8.38	17.07	14.18	22.87	19.99	26.35	23.47	28.67	25.79	34.47	31.59	40.27	37.39	46.08	43.19	51.88	48.99
	6	9.02	13.26	-	-	8.20	3.87	14.00	9.68	19.81	15.48	23.29	18.96	25.61	21.28	31.41	27.08	37.21	32.88	43.01	38.68	48.81	44.48
	8	12.03	17.68	-	-	-	-	10.94	5.17	16.74	10.97	20.22	14.45	22.54	16.77	28.34	22.57	34.14	28.37	39.94	34.17	45.74	39.97
	10	15.03	22.11	-	-	-	-	-	13.67	6.46	17.15	9.94	19.47	12.26	25.27	18.06	31.08	23.86	36.88	29.66	42.68	35.46	
12	18.04	26.53	-	-	-	-	-	-	-	14.09	5.43	16.41	7.75	22.21	13.55	28.01	19.35	33.81	25.15	39.61	30.95		
75	2	5.24	7.96	14.65	11.87	24.65	21.87	34.65	31.87	44.65	41.87	50.65	47.87	54.64	51.87	64.64	61.86	74.64	71.86	84.64	81.86	94.64	91.86
	4	10.48	15.93	9.31	3.75	19.31	13.75	29.31	23.75	39.30	33.75	45.30	39.74	49.30	43.74	59.30	53.74	69.30	63.74	79.30	73.74	89.29	83.74
	6	15.71	23.89	-	-	13.96	5.63	23.96	15.63	33.96	25.62	39.96	31.62	43.96	35.62	53.96	45.62	63.95	55.62	73.95	65.62	83.95	75.61
	8	20.95	31.85	-	-	-	-	18.62	7.50	28.62	17.50	34.62	23.50	38.62	27.50	48.61	37.50	58.61	47.50	68.61	57.49	78.61	67.49
	10	26.19	39.81	-	-	-	-	-	23.27	9.38	29.27	15.38	33.27	19.38	43.27	29.38	53.27	39.37	63.27	49.37	73.26	59.37	
	12	31.43	47.78	-	-	-	-	-	17.93	1.26	23.93	7.26	27.93	11.26	37.93	21.25	47.93	31.25	57.92	41.25	67.92	51.25	
83	2	7.23	11.19	21.62	17.58	36.12	32.07	50.62	46.57	65.11	61.07	73.81	69.77	79.61	75.56	94.11	90.06	108.6	104.6	123.1	119.1	137.6	133.6
	4	14.46	22.39	14.25	6.16	28.75	20.65	43.24	35.15	57.74	49.65	66.44	58.35	72.24	64.15	86.73	78.64	101.2	93.14	115.7	107.6	130.2	122.1
	6	21.68	33.58	-	-	21.37	9.24	35.87	23.73	50.37	38.23	59.07	46.93	64.86	52.73	79.36	67.23	93.86	81.72	108.4	96.22	122.9	110.7
	8	28.91	44.78	-	-	-	-	28.50	12.31	42.99	26.81	51.69	35.51	57.49	41.31	71.99	55.81	86.49	70.30	101.0	84.80	115.5	99.30
	10	36.14	55.97	-	-	-	-	-	35.62	15.39	44.32	24.09	50.12	29.89	64.62	44.39	79.11	58.89	93.61	73.36	108.1	87.88	
12	43.37	67.17	-	-	-	-	-	28.25	3.98	36.95	12.67	42.75	18.47	57.24	32.97	71.74	47.47	86.24	61.96	100.7	76.46		
92	2	9.10	14.34	30.72	25.37	50.73	45.38	70.73	65.38	90.73	85.38	102.7	97.39	110.7	105.4	130.7	125.4	150.7	145.4	170.7	165.4	190.7	185.4
	4	18.20	28.69	21.44	10.74	41.44	30.75	61.45	50.75	81.45	70.75	93.45	82.75	101.5	90.76	121.5	110.8	141.5	130.8	161.5	150.8	181.5	170.8
	6	27.31	43.03	-	-	32.16	16.12	52.16	36.12	72.16	56.12	84.17	68.12	92.17	76.12	112.2	96.13	132.2	116.1	152.2	136.1	172.2	156.1
	8	36.41	57.38	-	-	-	-	42.88	21.49	62.88	41.49	74.88	53.49	82.88	61.49	102.9	81.50	122.9	101.5	142.9	121.5	162.9	141.5
	10	45.51	71.72	-	-	-	-	33.59	6.86	53.60	26.86	65.60	38.86	73.60	46.86	93.60	66.86	113.6	86.87	133.6	106.9	153.6	126.9
	12	54.61	86.07	-	-	-	-	-	44.31	12.23	56.31	24.23	64.32	32.23	84.32	52.23	104.3	72.24	124.3	92.24	144.3	112.2	

Torque Output Data

Single-Acting Actuators *continued*

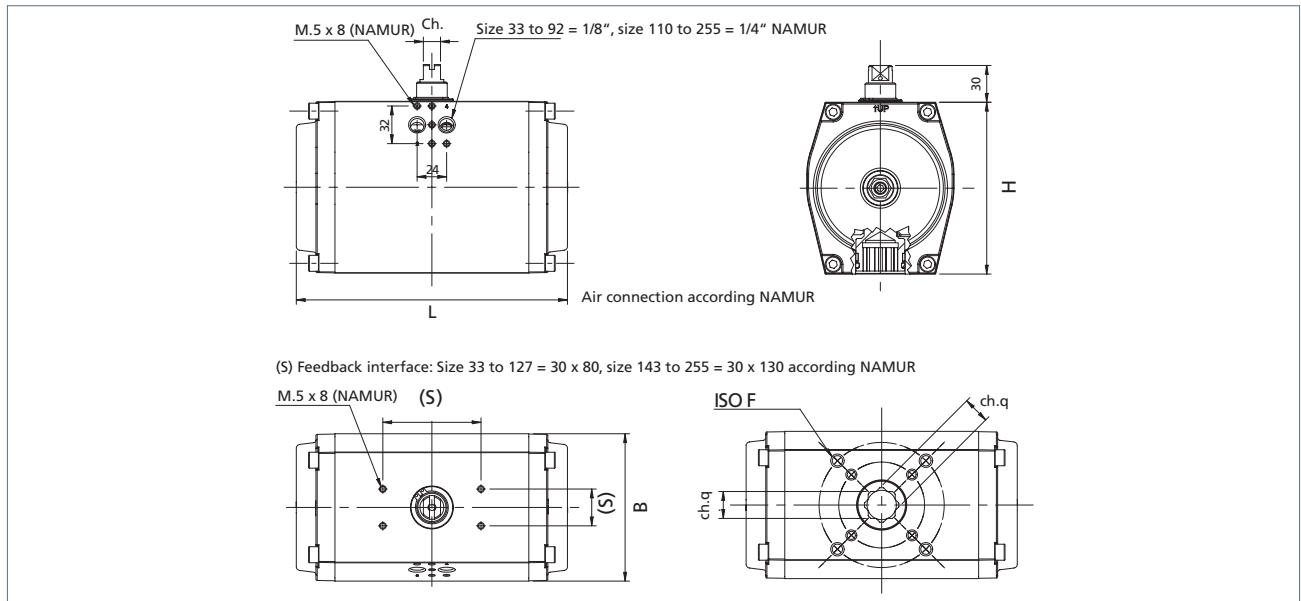
Model	Springs	Spring Torque (Nm)		Pneumatic Torque (Nm)																			
				2 bar		3 bar		4 bar		5 bar		5.5 bar		6 bar		7 bar		8 bar		9 bar		10 bar	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
110	2	15.81	23.71	41.9	33.8	70.9	62.8	99.9	91.8	128.9	120.8	146.3	138.2	157.9	149.8	186.9	178.8	215.9	207.8	244.9	236.8	273.9	265.8
	4	31.61	47.42	25.8	9.6	54.8	38.6	83.8	67.6	112.8	96.6	130.2	114.1	141.8	125.7	170.8	154.7	199.8	183.7	228.8	212.7	257.8	241.7
	6	47.42	71.13	-	-	38.6	14.5	67.6	43.5	96.6	72.5	114.1	89.9	125.7	101.5	154.7	130.5	183.7	159.5	212.7	188.5	241.7	217.5
	8	63.22	94.84	-	-	-	-	51.5	19.3	80.5	48.3	97.9	65.7	109.5	77.3	138.5	106.3	167.5	135.3	196.5	164.3	225.5	193.3
	10	79.03	118.5	-	-	-	-	-	-	64.4	24.1	81.8	41.5	93.4	53.1	122.4	82.1	151.4	111.1	180.4	140.1	209.4	169.1
	12	94.84	142.3	-	-	-	-	-	-	-	-	-	65.7	17.3	77.3	28.9	106.3	57.9	135.3	86.9	164.3	115.9	193.3
118	2	21.25	36.46	64.3	48.8	107.3	91.8	150.3	134.8	193.3	177.8	219.1	203.6	236.3	220.8	279.3	263.8	322.3	306.8	365.3	349.8	408.3	392.8
	4	42.50	72.92	42.7	11.6	85.7	54.6	128.7	97.6	171.7	140.6	197.5	166.4	214.7	183.6	257.7	226.6	300.7	269.6	343.7	312.6	386.7	355.6
	6	63.75	109.4	-	-	64.0	17.4	107.0	60.4	150.0	103.4	175.8	129.2	193.0	146.4	236.0	189.4	279.0	232.4	322.0	275.4	365.0	318.4
	8	84.99	145.8	-	-	-	-	85.3	23.3	128.3	66.3	154.1	92.1	171.3	109.3	214.3	152.3	257.3	195.3	300.3	238.3	343.3	281.3
	10	106.2	182.3	-	-	-	-	-	-	106.6	29.1	132.4	54.9	149.6	72.1	192.6	115.1	235.6	158.1	278.6	201.1	321.6	244.1
	12	127.5	218.7	-	-	-	-	-	-	-	-	-	110.8	17.7	128.0	34.9	171.0	77.9	214.0	120.9	257.0	163.9	300.0
127	2	29.94	48.78	85.5	66.2	143.5	124.2	201.5	182.2	259.5	240.2	294.2	275.0	317.4	298.2	375.4	356.2	433.4	414.2	491.4	472.2	549.4	530.2
	4	59.88	97.57	54.9	16.5	112.9	74.5	170.9	132.5	228.9	190.5	263.7	225.3	286.9	248.5	344.9	306.5	402.9	364.5	460.9	422.5	518.9	480.5
	6	89.82	146.3	-	-	82.4	24.7	140.4	82.7	198.4	140.7	233.2	175.5	256.4	198.7	314.4	256.7	372.4	314.7	430.4	372.7	488.4	430.7
	8	119.8	195.1	-	-	-	-	109.8	33.0	167.8	91.0	202.6	125.8	225.8	149.0	283.8	206.9	341.8	264.9	399.8	322.9	457.8	380.9
	10	149.7	243.9	-	-	-	-	-	-	137.3	41.2	172.1	76.0	195.3	99.2	253.3	157.2	311.3	215.2	369.3	273.2	427.3	331.2
	12	179.6	292.7	-	-	-	-	-	-	-	-	-	141.6	26.2	164.8	49.4	222.8	107.4	280.8	165.4	338.8	223.4	396.8
143	2	48.1	68.9	137.0	115.7	230.0	208.7	323.0	301.7	416.0	394.7	471.8	450.5	509.0	487.7	602.0	580.7	695.0	673.7	788.0	766.7	881.0	859.8
	4	96.1	137.8	87.9	45.5	181.0	138.5	274.0	231.5	367.0	324.5	422.8	380.3	460.0	417.5	553.0	510.5	646.0	603.5	739.0	696.5	832.0	789.5
	6	144.2	206.7	-	-	131.9	68.2	224.9	161.2	317.9	254.2	373.7	310.0	410.9	347.2	503.9	440.2	596.9	533.2	689.9	626.2	782.9	719.2
	8	192.3	275.6	-	-	-	-	175.9	90.9	268.9	183.9	324.7	239.7	361.9	276.9	454.9	369.9	547.9	462.9	640.9	555.9	733.9	648.9
	10	240.3	344.4	-	-	-	-	126.9	20.7	219.9	113.7	275.7	169.5	312.9	206.7	405.9	299.7	498.9	392.7	591.9	485.7	684.9	578.7
	12	288.4	413.3	-	-	-	-	-	-	170.8	43.4	226.6	99.2	263.8	136.4	356.8	229.4	449.8	322.4	542.9	415.4	635.9	508.4
160	2	55.9	83.0	172.4	144.5	287.4	259.5	402.5	374.5	517.5	489.5	586.5	558.5	632.5	604.5	747.5	719.5	862.5	834.5	977.5	949.5	1,092	1,065
	4	111.8	166.0	114.9	59.0	229.9	174.0	344.9	289.0	459.9	404.0	528.9	473.0	574.9	519.0	689.9	634.1	804.9	749.1	919.9	864.1	1,035	979.1
	6	167.6	249.0	-	-	172.3	88.6	287.3	203.6	402.3	318.6	471.3	387.6	517.3	433.6	632.3	548.6	747.3	663.6	862.3	778.6	977.3	893.6
	8	223.5	332.0	-	-	-	-	229.8	118.1	344.8	233.1	413.8	302.1	459.8	348.1	574.8	463.1	689.8	578.1	804.8	693.1	919.8	808.1
	10	279.4	415.0	-	-	-	-	172.2	32.6	287.2	147.6	356.2	216.6	402.2	262.6	517.2	377.6	632.2	492.6	747.2	607.6	862.2	722.6
	12	335.3	498.0	-	-	-	-	-	-	229.7	62.1	298.7	131.1	344.7	177.1	459.7	292.1	574.7	407.1	689.7	522.1	804.7	637.1
190	2	106.2	133.9	290.6	262.1	490.6	462.1	690.6	662.1	890.6	862.1	1,011	982.1	1,091	1,062	1,291	1,262	1,491	1,462	1,691	1,662	1,891	1,862
	4	212.5	267.8	181.2	124.2	381.2	324.2	581.2	524.2	781.2	724.2	901.2	844.2	981.2	924.2	1,181	1,124	1,381	1,324	1,581	1,524	1,781	1,724
	6	318.7	401.7	-	-	271.8	186.3	471.8	386.3	671.8	586.3	791.8	706.3	871.8	786.3	1,072	986.3	1,272	1,186	1,472	1,386	1,672	1,586
	8	424.9	535.6	-	-	162.4	48.4	362.4	248.4	562.4	448.4	682.4	568.4	762.4	648.4	962.4	848.4	1,162	1,048	1,362	1,248	1,562	1,448
	10	531.2	669.5	-	-	-	-	253.0	110.5	453.0	310.5	573.0	430.5	653.0	510.5	853.0	710.5	1,053	910.5	1,253	1,111	1,453	1,311
	12	637.4	803.4	-	-	-	-	-	-	343.5	172.6	463.6	292.6	543.6	372.6	743.6	572.6	943.6	772.6	1,144	972.6	1,344	1,173
210	2	114.2	160.7	362.4	314.5	602.3	554.5	842.3	794.5	1,082	1,034	1,226	1,178	1,322	1,274	1,562	1,514	1,802	1,754	2,042	1,994	2,282	2,234
	4	228.4	321.3	244.7	149.0	484.7	389.0	724.7	629.0	964.7	868.9	1,109	1,016	1,205	1,109	1,445	1,349	1,685	1,589	1,925	1,829	2,165	2,069
	6	342.6	482.0	-	-	367.1	223.5	607.1	463.5	847.1	703.5	991.1	847.4	1,097	943.4	1,327	1,183	1,567	1,423	1,807	1,663	2,047	1,903
	8	456.8	642.7	-	-	249.5	58.0	489.5	298.0	729.4	538.0	873.4	682.0	969.4	777.9	1,209	1,018	1,449	1,258	1,689	1,498	1,929	1,738
	10	571.0	803.4	-	-	-	-	371.8	132.5	611.8	372.5	755.8	516.5	851.8	612.5	1,092	852.4	1,332	1,092	1,572	1,332	1,812	1,572
	12	685.2	964.0	-	-	-	-	-	-	494.2	207.0	638.2	351.0	734.2	447.0	974.2	686.9	1,214	926.9	1,454	1,167	1,694	1,407
253	1	83.8	115.3	607.4	576.3	952.7	921.6	1,298	1,266	1,643	1,612	1,850	1,819	1,988	1,957	2,333	2,302	2,679	2,647	3,024	2,993	3,369	3,338
	2	167.7	230.6	524.4	462.2	869.7	807.4	1,214	1,152	1,560	1,498	1,767	1,705	1,905	1,843	2,250	2,188	2,596	2,533	2,941	2,879	3,286	3,224
	3	251.6	345.9	441.4	348.0	786.6	693.3	1,131	1,038	1,477	1,383	1,684	1,591	1,822	1,729	2,167	2,074	2,513	2,419	2,858	2,764	3,203	3,110
	4	335.5	461.2	358.3	233.8	703.6	579.1	1,048	924.4	1,394	1,269	1,601	1,476	1,739	1,614	2,084	1,960	2,429	2,305	2,775	2,650	3,120	2,996
	5	419.3	576.5	275.3	119.7	620.6	465.0	965.8	810.2	1,311	1,155	1,518	1,362	1,656	1,500	2,001	1,846	2,346	2,191	2,692	2,536	3,037	2,881
	6	503.2	691.8	-	-	537.5	350.8	882.8	696.1	1,228	1,041	1,435	1,248	1,573	1,386	1,918	1,731	2,263	2,077	2,609	2,422	2,954	2,767
	7	587.1	807.1	-	-	454.5	236.6	799.8	581.9	1,145	927.2	1,352	1,134	1,490	1,272	1,835	1,617	2,180	1,963	2,526	2,308	2,871	2,653
	8	671.0	922.5	-	-	371.5	122.5	716.7	467.7	1,062	813.0	1,269	1,020	1,407	1,158	1,752	1,503	2,097	1,848	2,443	2,194	2,788	2,539
	9	754.8	1,037	-	-	-	-	633.7	353.6	978.9	698.8	1,186	906.0	1,324	1,044	1,669	1,389	2,014	1,734	2,360	2,079	2,705	2,425
	10	838.7	1,153	-	-	-	-	550.6	239.4	895.9	584.7	1,103	791.8	1,241	929.9	1,586	1,275	1,931	1,620	2,277	1,965	2,622	2,311
	11	922.6	1,268	-	-	-	-	-	-	812.9	470.5	1,020	677.7	1,158	815.8	1,503	1,161	1,848	1,506	2,193	1,851	2,539	2,196
	12	1,006	1,383	-	-	-	-	-	-	729.8	356.4	937.0	563.5	1,075	701.6	1,420	1,046	1,765	1,392	2,110	1,737	2,456	2,082

Torque Output Data

Single-Acting Actuators *continued*

Model	Springs	Spring Torque (Nm)		Pneumatic Torque (Nm)																			
				2 bar		3 bar		4 bar		5 bar		5.5 bar		6 bar		7 bar		8 bar		9 bar		10 bar	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°
254	2	238.1	321.3	674.8	589.1	1,135	1,049	1,595	1,509	2,055	1,969	2,331	2,245	2,515	2,429	2,975	2,889	3,435	3,349	3,895	3,809	4,355	4,269
	4	476.3	642.7	429.5	258.1	889.6	718.2	1,350	1,178	1,810	1,638	2,086	1,914	2,270	2,098	2,730	2,558	3,190	3,018	3,650	3,478	4,110	3,938
	6	714.4	964.0	-	-	644.3	387.2	1,104	847.2	1,564	1,307	1,840	1,583	2,024	1,767	2,484	2,227	2,945	2,687	3,405	3,147	3,865	3,607
	8	952.5	1,285	-	-	-	-	859.1	516.2	1,319	976	1,595	1,252	1,779	1,436	2,239	1,896	2,699	2,356	3,159	2,816	3,619	3,276
	10	1,191	1,607	-	-	-	-	613.8	185.2	1,074	645	1,350	921	1,534	1,105	1,994	1,565	2,454	2,025	2,914	2,485	3,374	2,945
	12	1,429	1,928	-	-	-	-	-	-	829	314	1,105	590	1,289	774	1,749	1,234	2,209	1,694	2,669	2,154	3,129	2,614
255	2	272.2	406.1	880	742	1,460	1,322	2,040	1,902	2,620	2,482	2,968	2,830	3,200	3,062	3,780	3,642	4,360	4,222	4,940	4,802	5,520	5,382
	4	544.4	812.2	599	323	1,179	903	1,759	1,484	2,339	2,064	2,687	2,412	2,919	2,644	3,499	3,224	4,079	3,804	4,659	4,384	5,239	4,964
	6	816.6	1,218	-	-	899	485	1,479	1,065	2,059	1,645	2,407	1,993	2,639	2,225	3,219	2,805	3,799	3,385	4,379	3,965	4,959	4,545
	8	1,089	1,624	-	-	-	-	1,199	647	1,779	1,227	2,127	1,575	2,359	1,807	2,939	2,387	3,519	2,967	4,099	3,547	4,679	4,127
	10	1,361	2,031	-	-	-	-	918	229	1,498	809	1,846	1,157	2,078	1,389	2,658	1,969	3,238	2,549	3,818	3,129	4,398	3,709
	12	1,633	2,437	-	-	-	-	-	-	1,218	390	1,566	738	1,798	970	2,378	1,550	2,958	2,130	3,538	2,710	4,118	3,290
300, 300-F25	1	136	203	1,460	1,391	2,260	2,191	3,060	2,991	3,860	3,791	4,340	4,271	4,660	4,591	5,460	5,391	6,260	6,191	7,060	6,991	7,860	7,791
	2	272	406	1,320	1,182	2,120	1,982	2,920	2,782	3,720	3,582	4,200	4,062	4,520	4,382	5,320	5,182	6,120	5,982	6,920	6,782	7,720	7,582
	3	408	609	1,179	973	1,979	1,773	2,779	2,573	3,579	3,373	4,059	3,853	4,379	4,173	5,179	4,973	5,979	5,773	6,779	6,573	7,579	7,373
	4	544	812	1,039	763	1,839	1,563	2,639	2,363	3,439	3,163	3,919	3,643	4,239	3,963	5,039	4,763	5,839	5,563	6,639	6,363	7,439	7,163
	5	681	1,015	899	554	1,699	1,354	2,499	2,154	3,299	2,954	3,779	3,434	4,099	3,754	4,899	4,554	5,699	5,354	6,499	6,154	7,299	6,954
	6	817	1,218	759	345	1,559	1,145	2,359	1,945	3,159	2,745	3,639	3,225	3,959	3,545	4,759	4,345	5,559	5,145	6,359	5,945	7,159	6,745
	7	953	1,421	619	136	1,419	936	2,219	1,736	3,019	2,536	3,499	3,016	3,819	3,336	4,619	4,136	5,419	4,936	6,219	5,736	7,019	6,536
	8	1,089	1,624	-	-	1,278	727	2,078	1,527	2,878	2,327	3,358	2,807	3,678	3,127	4,479	3,927	5,279	4,727	6,079	5,527	6,879	6,327
	9	1,225	1,827	-	-	1,138	518	1,938	1,318	2,738	2,118	3,218	2,598	3,538	2,918	4,338	3,718	5,138	4,518	5,938	5,318	6,738	6,118
	10	1,361	2,031	-	-	998	309	1,798	1,109	2,598	1,909	3,078	2,389	3,398	2,709	4,198	3,509	4,998	4,309	5,798	5,109	6,598	5,909
	11	1,497	2,234	-	-	-	-	1,658	899	2,458	1,699	2,938	2,179	3,258	2,499	4,058	3,299	4,858	4,099	5,658	4,899	6,458	5,699
	12	1,633	2,437	-	-	-	-	1,518	690	2,318	1,490	2,798	1,970	3,118	2,290	3,918	3,090	4,718	3,890	5,518	4,690	6,318	5,490
	13	1,769	2,640	-	-	-	-	1,378	481	2,178	1,281	2,658	1,761	2,978	2,081	3,778	2,881	4,578	3,681	5,378	4,481	6,178	5,281
	14	1,906	2,843	-	-	-	-	1,237	272	2,037	1,072	2,517	1,552	2,837	1,872	3,637	2,672	4,437	3,472	5,237	4,272	6,037	5,072
	15	2,042	3,046	-	-	-	-	-	-	1,897	863	2,377	1,343	2,697	1,663	3,497	2,463	4,297	3,263	5,097	4,063	5,897	4,863
	16	2,178	3,249	-	-	-	-	-	-	1,757	654	2,237	1,134	2,557	1,454	3,357	2,254	4,157	3,054	4,957	3,854	5,757	4,654
302, 302-F25	10	1,135	1,930	1,940	1,122	3,470	2,652	5,000	4,182	6,530	5,712	7,448	6,630	8,060	7,242	9,590	8,772	11,120	10,302	12,650	11,832	14,180	13,362
	11	1,249	2,123	1,828	928.0	3,358	2,458	4,888	3,988	6,418	5,518	7,336	6,436	7,948	7,048	9,478	8,578	11,008	10,108	12,538	11,638	14,068	13,168
	12	1,362	2,316	-	-	3,246	2,264	4,776	3,794	6,306	5,324	7,224	6,242	7,836	6,854	9,366	8,384	10,896	9,914	12,426	11,444	13,956	12,974
	13	1,476	2,509	-	-	3,134	2,071	4,664	3,601	6,194	5,131	7,112	6,049	7,724	6,661	9,254	8,191	10,784	9,721	12,314	11,251	13,844	12,781
	14	1,589	2,702	-	-	3,022	1,877	4,552	3,407	6,082	4,937	7,000	5,855	7,612	6,467	9,142	7,997	10,672	9,527	12,202	11,057	13,732	12,587
	15	1,703	2,895	-	-	2,910	1,683	4,440	3,213	5,970	4,743	6,888	5,661	7,500	6,273	9,030	7,803	10,560	9,333	12,090	10,863	13,620	12,393
	16	1,816	3,088	-	-	2,798	1,489	4,328	3,019	5,858	4,549	6,776	5,467	7,388	6,079	8,918	7,609	10,448	9,139	11,978	10,669	13,508	12,199
	17	1,930	3,281	-	-	2,686	1,295	4,216	2,825	5,746	4,355	6,664	5,273	7,276	5,885	8,806	7,415	10,336	8,945	11,866	10,475	13,396	12,005
	18	2,043	3,474	-	-	2,574	1,102	4,104	2,632	5,634	4,162	6,552	5,080	7,164	5,692	8,694	7,222	10,224	8,752	11,754	10,282	13,284	11,812
	19	2,157	3,667	-	-	-	-	3,992	2,438	5,522	3,968	6,440	4,886	7,052	5,498	8,582	7,028	10,112	8,558	11,642	10,088	13,172	11,618
	20	2,270	3,860	-	-	-	-	3,880	2,244	5,410	3,774	6,328	4,692	6,940	5,304	8,470	6,834	10,000	8,364	11,530	9,894	13,060	11,424
	21	2,384	4,053	-	-	-	-	3,768	2,050	5,298	3,580	6,216	4,498	6,828	5,110	8,358	6,640	9,888	8,170	11,418	9,700	12,948	11,230
	22	2,497	4,246	-	-	-	-	3,656	1,856	5,186	3,386	6,104	4,304	6,716	4,916	8,246	6,446	9,776	7,976	11,306	9,506	12,836	11,036
	23	2,611	4,439	-	-	-	-	3,544	1,663	5,074	3,193	5,992	4,111	6,604	4,723	8,134	6,253	9,664	7,783	11,194	9,313	12,724	10,843
	24	2,724	4,632	-	-	-	-	3,432	1,469	4,962	2,999	5,880	3,917	6,492	4,529	8,022	6,059	9,552	7,589	11,082	9,119	12,612	10,649
	25	2,838	4,825	-	-	-	-	3,320	1,275	4,850	2,805	5,768	3,723	6,380	4,335	7,910	5,865	9,440	7,395	10,970	8,925	12,500	10,455
26	2,951	5,018	-	-	-	-	3,208	1,081	4,738	2,611	5,656	3,529	6,268	4,141	7,798	5,671	9,328	7,201	10,858	8,731	12,388	10,261	
27	3,065	5,211	-	-	-	-	-	-	4,626	2,417	5,544	3,335	6,156	3,947	7,686	5,477	9,216	7,007	10,746	8,537	12,276	10,067	
28	3,178	5,404	-	-	-	-	-	-	4,514	2,224	5,432	3,142	6,044	3,754	7,574	5,284	9,104	6,814	10,634	8,344	12,164	9,874	
29	3,292	5,597	-	-	-	-	-	-	4,402	2,030	5,320	2,948	5,932	3,560	7,462	5,090	8,992	6,620	10,522	8,150	12,052	9,680	
30	3,405	5,790	-	-	-	-	-	-	4,290	1,836	5,208	2,754	5,820	3,366	7,350	4,896	8,880	6,426	10,410	7,956	11,940	9,486	
31	3,519	5,983	-	-	-	-	-	-	4,178	1,642	5,096	2,560	5,708	3,172	7,238	4,702	8,768	6,232	10,298	7,762	11,828	9,292	
32	3,632	6,176	-	-	-	-	-	-	4,066	1,448	4,984	2,366	5,596	2,978	7,126	4,508	8,656	6,038	10,186	7,568	11,716	9,098	

Dimension Data



Dimensions

Model	Dimensions (mm)							Air consumption (dm ³)				Weight (kg)				
	90°	120°	180°	H	B	Ch	Ch.q	ISO	SR 90°	90°	DA 120°	180°	SR 90°	90°	DA 120°	180°
33	90	-	-	65	61.5	10	9/11	F03	-	0.15	-	-	-	0.47	-	-
34	90	-	-	65	61.5	10	9/11	F04	-	0.15	-	-	-	0.47	-	-
43	116	-	-	65	61.5	10	9/11	F03/F05	0.10	0.18	-	-	0.66	0.60	-	-
44	116	-	-	65	61.5	10	9/11	F04	0.10	0.18	-	-	0.66	0.60	-	-
52	133	151	195	74	68.5	10	14	F03/F05	0.13	0.25	0.28	0.46	1.00	0.90	1.10	1.30
63	137	155	200	88	80	10	14	F05/F07	0.21	0.40	0.45	0.74	1.62	1.45	1.70	2.00
75	161	183	237	100	92.5	10	17	F05/F07	0.32	0.60	0.68	1.12	2.45	2.10	2.46	2.90
83	180	205	268	108	99.5	10	17	F05/F07	0.45	0.88	1.00	1.63	2.95	2.50	2.95	3.50
92	209	239	310	117	110.5	14	17	F05/F07	0.62	1.20	1.35	2.25	4.00	3.40	4.00	4.60
110	221	251	322	140	120	14	22	F07/F10	0.98	1.90	2.15	3.52	6.20	5.20	6.10	7.20
118	291	341	421	140	120	20	22	F07/F10	1.40	2.70	3.05	5.00	8.35	7.10	8.00	9.70
127	301	353	453	160	137	20	22	F07/F10	2.00	3.65	4.10	6.80	10.7	9.00	10.0	12.5
143	337	387	488	198	172	20	27	F10/F12	2.50	4.60	6.12	9.20	15.8	12.4	14.0	16.0
160	379	444	570	198	172	28	27	F10/F12	3.80	7.00	8.00	13.0	20.1	16.4	18.8	26.0
190	422	-	-	255	224	28	36	F12/F16	6.50	12.5	-	-	37.8	28.0	-	-
210	468	544	696	255	224	32	36	F14	8.00	15.0	17.0	21.5	39.6	31.8	37.4	49.2
253	524	600	751	302	272	32	46	F16	10	19.2	22	29	56	44	50	63
254	609	711	911	302	272	32	46	F16	14.0	27.0	31.5	41.0	70.6	55.5	66.5	79.8
255	689	815	-	302	272	32	46	F16	17.0	32.0	38.0	-	84.3	69.2	77.0	-
300	689	814	-	360	360	32	46	F16	25	46	68	25.0	107	92	105	107.1
300-F25	689	814	-	392	360	32	55	F25	25	46	68	25.0	124	109	68	114
302	1,176	-	-	360	360	32	46	F16	46	84	-	92	187	144	-	156
302-F25	1,176	-	-	392	360	32	55	F25	46	84	-	92	193	154	-	156

SR = Spring-Return DA = Double-Acting

Model Number Designation

Example Model Number

GTS - 52 - FC - 04 - W - ST - SS - 1 - A - 507 - 11 - 30 - C - CL - N

Range and Rotation

- GTA** = 90° rotation
- GTB** = 120° rotation
- GTC** = 180° rotation
- GTS** = 90° rotation 316SS actuator

Body Size

33, 34, 43, 44, 52, 63, 75, 83, 92, 110, 118, 127,
143, 160, 190, 210, 253, 254, 255, 300, 302

Effect

- DA** = Double-acting
- FC** = Spring return, fail to close (clockwise)
- FO** = Spring return, fail to open (counter-clockwise)

Spring Set

01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16
17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32 (not applicable for double-acting)

Travel Stop

- K** = Single direction
- W** = Two direction (not applicable for double-acting)

Temperature Range

- ST** = Standard
- HT** = High
- LT** = Low

Surface Treatment

- SA** = Standard. Silver anodised body with black epoxy-painted end caps (not applicable to GTS)
- HA** = Hard anodised body
- ENP** = Electroless nickel-plated body and end caps
- SS** = Bare material without surface treatment

Body Threading - Air Connection Type

- 0** = Imperial
- 1** = Metric standard
- 2** = Metric standard 1/4"
- 3** = Metric standard 1/2"

Assembly Configuration

- A** = Fail close - Upper shaft perpendicular to body [I]
- B** = Fail close - Upper shaft parallel to body [—]
- C** = Fail open - Upper shaft perpendicular to body [I]
- D** = Fail open - Upper shaft parallel to body [—]

ISO Valve Mounting

- 0003** = F03
- 0305** = F03 and F05
- 0005** = F05
- 0507** = F05 and F07
- 0007** = F07
- 0710** = F07 and F10
- 0010** = F10
- 1012** = F10 and F12
- 0012** = F12

Pinion Shaft Size (mm)

9, 11, 14, 17, 22, 27, 36, 46, 55
DD = Double D

Pinion Shaft Height (mm)

20, 30

Shaft Material

- SSE** = Electroless nickel-plated carbon steel
- SS6** = 316 stainless steel
- SS4** = 304 stainless steel
- C** = Chrome-plated carbon steel









Label

- RL** = Standard Rotork label
- CL** = Custom label. Consult Rotork

Special Coating Options

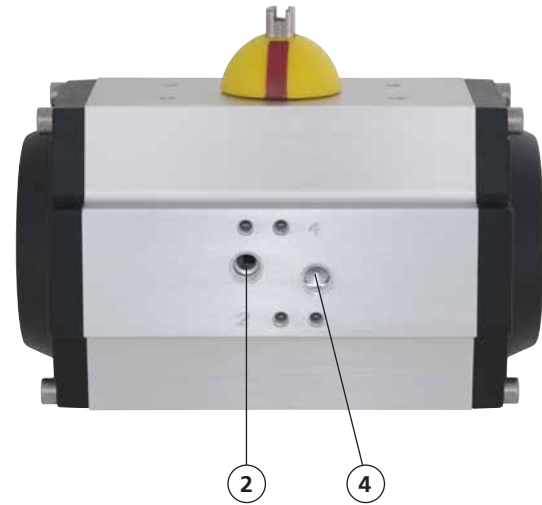
- N** = None
- PP** = Polyester treatment (body and end caps). Contact Rotork to specify colour
- SP** = Special paint. Contact Rotork to specify colour

Assembly Configurations

STYLE	PORT 4 (OUTBOARD) PRESSURISED	PORT 2 (INBOARD) PRESSURISED
A	 CW	 CCW
B	 CW	 CCW
C	 CCW	 CW
D	 CCW	 CW

The graphic above shows the relative orientation of the piston and pinion for each configuration, as viewed from the top side of the actuator. In the descriptions that follow, that perspective is assumed. Pinion rotation is indicated for each as CW (clockwise) or CCW (counter-clockwise).

Port 2 is connected to the inboard side of the pistons. Pressurising port 2 will force the pistons out until they reach the travel stops. The direction of pinion rotation is determined by the assembly configuration. Venting is through port 4.



Port 4 is connected to the outboard side of the pistons. Pressurising port 4 will force the pistons in until they reach the travel stops (if the actuator is so equipped as they're optional). The direction of pinion rotation is determined by the assembly configuration. Venting is through port 2.

Note that on spring-return actuators, as with double-acting, pressurising port 2 will move the pistons out. When port 2 is depressurised, spring force will move the pistons in. Venting is through port 4. Port 4 is not to be pressurised on spring-return actuators.

Consult the GT Range Installation and Commissioning Manual or Rotork for detailed connection and operation information.

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