rotork®

Keeping the World Flowing
for Future Generations



GTE Range

Rack and pinion actuators for
part-turn valve control

The GTE range pneumatic rack and pinion actuators provide an optimised, cost-efficient solution for a wide range of applications.

There are a wide range of 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.

The GTE range is optimised for applications requiring 90 degree drive rotation. Optional valve mounting kits and de-clutchable manual gear overrides are also available, all designed to suit the GTE.

In addition to stand-alone actuators, Rotork can supply optimised valve automation packages based on customer requirements. For example, the GTE actuators can be equipped with NAMUR solenoid valves, limit switches and applicable precision instrumentation components. 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.

The compact design and wide selection of available options makes GTE a perfect choice for many applications requiring rack and pinion type valve actuation.

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

As a global leader in valve actuation technology, we provide a comprehensive range of valve actuators, controls and associated equipment. We also supply a variety of valve actuator services including commissioning, preventive maintenance and retrofit solutions.

Rotork specialises in the production and support of fluid power actuators and control systems. We are dedicated to providing the marketplace with the latest technology, consistently high quality, innovative design, excellent reliability and superior performance.

We maintain dedicated engineering groups for Applications, Product Improvement and New Product Development so that our customers can gain all the benefits that ever-advancing technologies have to offer and to ensure our efforts are in step with the continually evolving needs of our customers.

Most importantly, we have a long-standing commitment to meeting the special needs of a wide range of applications including: oil and gas exploration and transportation; municipal water and wastewater treatment; power generation; and the chemical and process industries.

With over 60 years of engineering and manufacturing expertise, we have hundreds of thousands of successful valve actuator installations throughout the world.





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The right accessory solutions

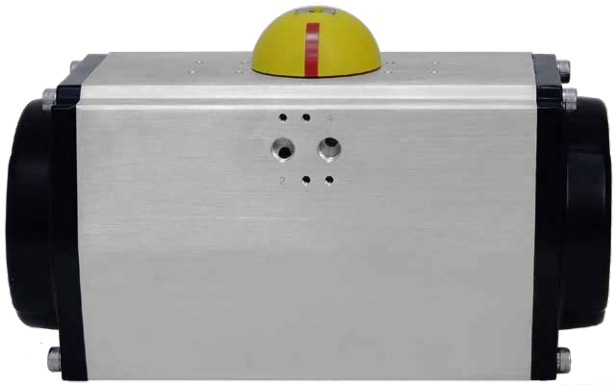
Valves and actuators only perform as well as the solution is engineered. With decades of experience engineering fluid power valve automation for a multitude of applications and markets, you can depend on Rotork to provide a reliable and safe automation solution to meet your requirements.

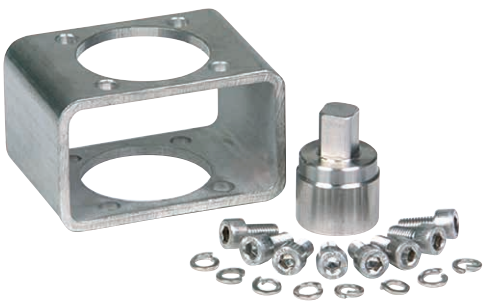
In addition to the valve actuator itself, Rotork manufactures a wide range of precision flow control and accessory products as well as a variety of gearboxes and override options. We have designs to withstand the challenges of any valve operating environment.









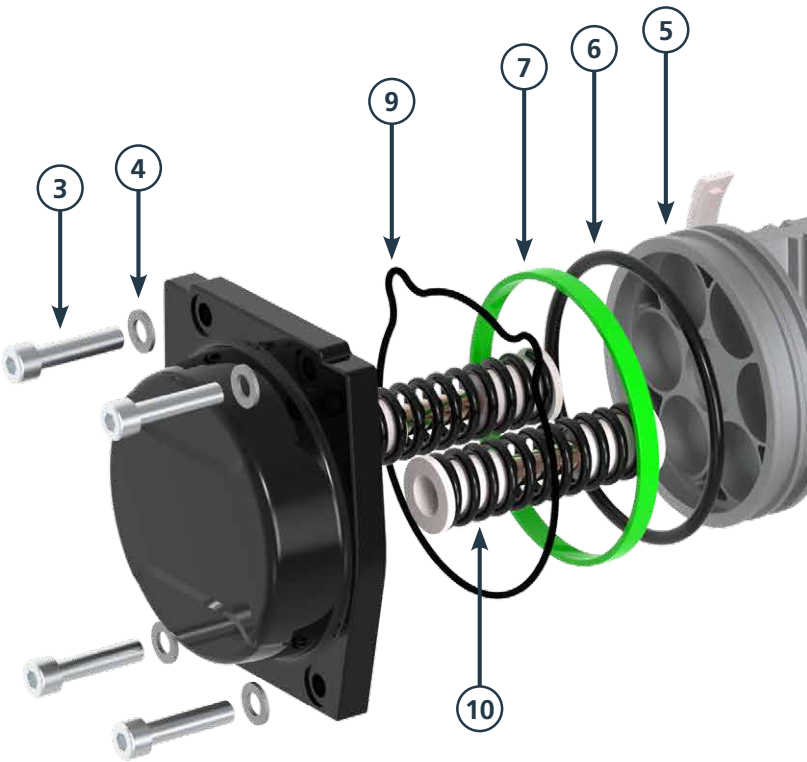




Inside the GTE Actuator

Every Rotork 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.

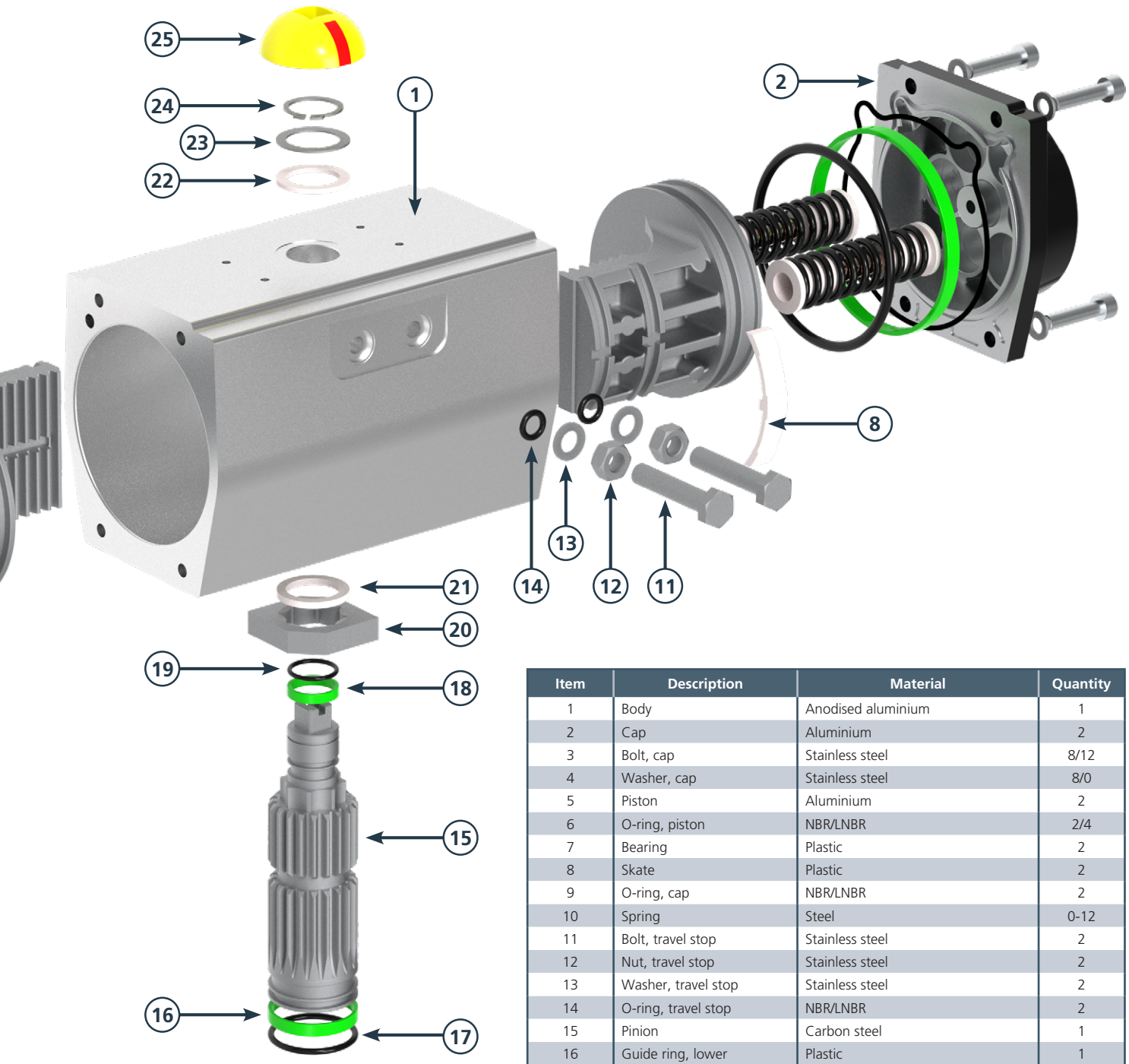
Supply	Filtered air ISO 8573-1 Class 4
Optional:	Others on request
Operating pressure	2.5 to 8 bar (36 to 116 psi)[1,2]
Torque output	2 to 6,300 Nm (18 to 55,760 lbf.in)
Temperature ranges	
Normal:	-18 to +80 °C (-0.4 to +176 °F) (sizes from 050 to 210)
	-20 to +80 °C (-4 to +176 °F) (sizes from 240 to 300)
	NBR/Silicone O-ring, Nylon 66 guide
Enhanced:	-40 to +80 °C (-40 to +176 °F) LNBR/Silicone O-ring, Nylon 66 guide
Mounting standards	
Air supply:	VDI/VDE 3845, NAMUR
	EN ISO 228 G ⅛" (sizes from 050 to 075)
	EN ISO 228 G ¼" (sizes from 085 to 210)
	EN ISO 228 G ½" (sizes from 240 to 300)
Accessories:	VDI/VDE 3845, NAMUR
Valve interface:	ISO 5211
Valve shaft interface:	ISO 5211 double square
	Other interface options available, see Page 8.
Rotation	90°
Stroke adjustment	-5° to +5° from 0° and 90° position. Dual-direction travel stops acting upon the piston(s)[3]
Materials	
Body:	Anodised aluminium
Pinion:	Carbon steel electroless nickel plated
Pistons:	Aluminium
End caps:	Aluminium, epoxy paint (black RAL 9005)
Spring:	Spring steel



Approvals and Industry Standards

- Complies with IEC 60529 (1989)+(A1:1999)+(A2:2013) for IP66M/67M
- Management system in accordance with ISO 9001:2015
- Complies with 2006/42/EC: Machinery Directive, 2014/34/EU: ATEX Directive and ISO 80079-36 and ISO 80079-37

1. For GTEA300 double-acting: max operating pressure is 6.7 bar (97 psi), for GTEA300 spring-return: max operating pressure is 7 bar (101 psi).
2. Design pressure 12 bar (174 psi)
3. GTE range actuators are available with dual-direction of travel stop adjustment. Both inboard and outboard stop adjustments are +/- 5° (e.g. -5° to +5°, 85° to 95°).



Item	Description	Material	Quantity
1	Body	Anodised aluminium	1
2	Cap	Aluminium	2
3	Bolt, cap	Stainless steel	8/12
4	Washer, cap	Stainless steel	8/0
5	Piston	Aluminium	2
6	O-ring, piston	NBR/LNBR	2/4
7	Bearing	Plastic	2
8	Skate	Plastic	2
9	O-ring, cap	NBR/LNBR	2
10	Spring	Steel	0-12
11	Bolt, travel stop	Stainless steel	2
12	Nut, travel stop	Stainless steel	2
13	Washer, travel stop	Stainless steel	2
14	O-ring, travel stop	NBR/LNBR	2
15	Pinion	Carbon steel	1
16	Guide ring, lower	Plastic	1
17	O-ring, pinion, lower	NBR/LNBR	1
18	Guide ring, upper	Plastic	1
19	O-ring, pinion, upper	NBR/LNBR	1
20	Block	Carbon steel	1
21	Spacer, inner	Plastic	1
22	Spacer, outer	Plastic	1
23	Washer	Stainless steel	1
24	Retaining ring	Stainless steel	1
25	Indicator	Plastic	1

Torque Charts

Double-acting actuators (Nm)

Type	Air supply (unit: bar)									
	2.5	3	3.5	4	4.5	5	5.5	6	7	8
GTEA050DA	9.3	11.1	13.0	14.9	16.8	18.7	20.6	22.5	26.3	30.0
GTEA065DA	19.3	23.1	26.9	30.7	34.5	38.3	42.1	45.8	53.4	61.0
GTEA075DA	24.7	30.0	35.2	40.5	45.7	51.0	56.2	61.5	72.0	82.5
GTEA085DA	40.1	48.4	56.7	64.9	73.2	81.5	89.8	98.0	114.6	131.1
GTEA095DA	59.3	71.6	83.9	96.3	108.6	120.9	133.2	145.6	170.2	194.9
GTEA110DA	81.1	98.0	114.9	131.7	148.6	165.5	182.4	199.3	233.1	266.9
GTEA125DA	129.4	156.3	183.1	210.0	236.8	263.7	290.5	317.4	371.1	424.8
GTEA140DA	218.0	262.4	306.9	351.3	395.8	440.2	484.7	529.2	618.1	707.0
GTEA160DA	331.2	398.7	466.1	533.6	601.0	668.5	736.0	803.4	938.4	1073.3
GTEA190DA	504.3	606.1	708.0	809.8	911.7	1013.6	1115.4	1217.3	1421.0	1624.7
GTEA210DA	627.2	757.0	886.8	1016.5	1146.3	1276.1	1405.8	1535.6	1795.1	2054.7
GTEA240DA	985.8	1176.6	1367.4	1558.2	1749.0	1939.8	2130.6	2321.4	2703.0	3084.6
GTEA270DA	1460.5	1746.6	2032.6	2318.7	2604.7	2890.8	3176.8	3462.9	4035.0	4607.1
GTEA300DA	1982.8	2375.6	2768.4	3161.1	3553.9	3946.7	4339.5	4732.3	5517.8	6303.4

Single-acting actuators (Nm)

Type	Air supply (unit: bar)																				Spring torque	
	2.5		3		3.5		4		4.5		5		5.5		6		7		8			
	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
GTEA050FC05	6.2	3.2	8.1	5.2	10.0	7.1	11.9	9.0	13.8	11.0	15.7	12.9	17.7	14.9	19.6	16.8	23.4	20.7	27.2	24.6	5.0	2.9
GTEA050FC06	5.5	2.1	7.4	4.1	9.3	6.0	11.2	7.9	13.1	9.8	15.0	11.7	16.9	13.7	18.8	15.6	22.7	19.4	26.5	23.2	6.1	3.7
GTEA050FC07	-	-	6.6	2.9	8.6	4.8	10.5	6.7	12.4	8.6	14.3	10.5	16.2	12.4	18.2	14.3	22.0	18.1	25.9	21.9	7.2	4.4
GTEA050FC08	-	-	-	-	7.8	3.8	9.7	5.7	11.7	7.6	13.6	9.5	15.6	11.4	17.5	13.3	21.4	17.0	25.2	20.8	8.4	5.1
GTEA050FC09	-	-	-	-	-	-	9.0	4.4	11.0	6.3	12.9	8.2	14.9	10.1	16.8	12.1	20.7	15.9	24.6	19.7	9.5	5.8
GTEA050FC10	-	-	-	-	-	-	-	-	10.2	5.0	12.2	7.0	14.1	8.9	16.1	10.9	20.0	14.8	23.9	18.7	10.7	6.5
GTEA050FC11	-	-	-	-	-	-	-	-	-	-	11.5	5.7	13.5	7.7	15.4	9.6	19.4	13.4	23.3	17.3	11.8	7.2
GTEA050FC12	-	-	-	-	-	-	-	-	-	-	-	-	12.8	6.4	14.8	8.3	18.7	12.1	22.7	15.8	12.9	7.9
GTEA065FC05	10.7	5.7	14.7	9.6	18.7	13.5	22.7	17.4	26.6	21.3	30.6	25.2	34.6	29.1	38.5	33.0	46.5	40.7	54.4	48.5	11.9	6.5
GTEA065FC06	9.4	3.2	13.4	7.1	17.3	11.0	21.3	14.9	25.2	18.9	29.2	22.8	33.1	26.7	37.1	30.6	45.0	38.4	52.9	46.2	14.4	7.9
GTEA065FC07	-	-	12.2	4.7	16.1	8.6	20.1	12.5	24.0	16.4	27.9	20.4	31.8	24.3	35.8	28.2	43.6	36.0	51.5	43.8	16.8	9.3
GTEA065FC08	-	-	-	-	14.9	5.8	18.8	9.7	22.7	13.7	26.6	17.7	30.5	21.6	34.4	25.6	42.3	33.5	50.1	41.5	19.3	10.6
GTEA065FC09	-	-	-	-	-	-	17.0	6.8	20.9	10.8	24.9	14.8	28.8	18.8	32.8	22.9	40.7	30.9	48.6	38.9	21.7	12.0
GTEA065FC10	-	-	-	-	-	-	-	-	19.1	8.0	23.1	12.0	27.1	16.1	31.1	20.1	39.1	28.2	47.1	36.3	24.2	13.4
GTEA065FC11	-	-	-	-	-	-	-	-	-	-	21.6	9.6	25.6	13.7	29.6	17.7	37.7	25.9	45.8	34.1	26.6	14.7
GTEA065FC12	-	-	-	-	-	-	-	-	-	-	-	-	24.1	11.3	28.1	15.4	36.3	23.6	44.4	31.8	29.1	16.1
GTEA075FC05	15.2	6.9	20.4	12.0	25.6	17.2	30.8	22.3	36.0	27.5	41.2	32.7	46.4	37.8	51.6	43.0	62.0	53.3	72.4	63.6	16.2	9.5
GTEA075FC06	12.5	3.3	17.8	8.4	23.0	13.5	28.2	18.7	33.4	23.8	38.6	28.9	43.9	34.0	49.1	39.2	59.5	49.4	70.0	59.7	19.8	11.5
GTEA075FC07	-	-	15.1	4.8	20.4	10.0	25.6	15.1	30.8	20.3	36.1	25.5	41.3	30.7	46.6	35.9	57.1	46.2	67.6	56.6	23.4	13.6
GTEA075FC08	-	-	-	-	18.1	6.4	23.3	11.6	28.6	16.9	33.8	22.1	39.0	27.3	44.2	32.6	54.6	43.0	65.1	53.5	27.0	15.7
GTEA075FC09	-	-	-	-	-	-	21.1	8.0	26.4	13.1	31.6	18.3	36.8	23.4	42.1	28.6	52.6	38.8	63.1	49.1	30.7	17.8
GTEA075FC10	-	-	-	-	-	-	-	-	24.2	9.4	29.4	14.5	34.7	19.5	40.0	24.6	50.5	34.7	61.0	44.8	34.3	19.9
GTEA075FC11	-	-	-	-	-	-	-	-	-	-	27.4	11.5	32.7	16.5	37.9	21.5	48.4	31.4	58.8	41.3	37.9	22.0
GTEA075FC12	-	-	-	-	-	-	-	-	-	-	-	-	30.6	13.2	35.8	18.2	46.2	28.1	56.6	38.1	41.5	24.1
GTEA085FC05	23.9	12.0	32.1	20.2	40.3	28.4	48.4	36.5	56.6	44.7	64.8	52.9	73.0	61.1	81.2	69.3	97.6	85.6	114.0	102.0	28.0	16.2
GTEA085FC06	19.7	5.5	27.9	13.8	36.2	22.0	44.4	30.3	52.7	38.5	60.9	46.8	69.2	55.1	77.4	63.3	94.0	79.8	110.5	96.3	33.7	19.6
GTEA085FC07	-	-	23.8	7.5	32.1	15.8	40.4	24.1	48.7	32.4	57.0	40.7	65.4	49.0	73.7	57.3	90.3	73.9	107.0	90.5	39.4	23.0
GTEA085FC08	-	-	-	-	28.7	10.7	36.9	18.8	45.1	26.9	53.3	35.0	61.5	43.1	69.7	51.2	86.1	67.5	102.5	83.7	45.1	26.4
GTEA085FC09	-	-	-	-	-	-	33.6	12.6	41.7	20.7	49.8	28.8	58.0	36.9	66.1	45.0	82.4	61.2	98.7	77.3	50.8	29.8
GTEA085FC10	-	-	-	-	-	-	-	-	38.3	14.5	46.4	22.6	54.5	30.7	62.6	38.7	78.8	54.9	95.0	71.0	56.5	33.2
GTEA085FC11	-	-	-	-	-	-	-	-	-	-	42.6	16.1	50.8	24.5	59.0	32.9	75.5	49.7	91.9	66.5	62.2	36.6
GTEA085FC12	-	-	-	-	-	-	-	-	-	-	-	-	47.1	18.4	55.5	27.0	72.2	44.1	88.9	61.3	67.9	40.0
GTEA095FC05	38.5	23.7	50.7	36.2	62.9	48.6	75.1	61.1	87.4	73.6	99.6	86.1	111.8	98.6	124.0	111.1	148.5	136.1	172.9	161.0	34.7	20.4
GTEA095FC06	34.1	15.9	46.4	28.4	58.7	40.9	71.0	53.3	83.3	65.8	95.6	78.3	107.9	90.7	120.2	103.2	144.8	128.1	169.4	153.1	42.2	24.8
GTEA095FC07	-	-	42.1	20.7	54.5	33.1	66.9	45.5	79.3	58.0	91.6	70.4	104.0	82.9	116.4	95.3	141.2	120.2	166.0	145.1	49.7	29.3
GTEA095FC08	-	-	-	-	49.6	25.1	61.9	37.6	74.3	50.1	86.7	62.6	99.1	75.1	111.5	87.6	136.2	112.6	161.0	137.6	57.2	33.7
GTEA095FC09	-	-	-	-	-	-	56.7	29.5	69.0	42.0	81.4	54.4	93.7	66.9	106.0	79.4	130.7	104.3	155.4	129.2	64.7	38.2
GTEA095FC10	-	-	-	-	-	-	-	-	63.7	33.9	76.0	46.3	88.3	58.7	100.6	71.1	125.2	96.0	149.8	120.8	72.2	42.6
GTEA095FC11	-	-	-	-	-	-	-	-	-	-	72.0	38.6	84.2	51.0	96.5	63.5	121.0	88.4	145.5	113.3	79.7	47.1
GTEA095FC12	-	-	-	-	-	-	-	-	-	-	-	-	80.2	43.4	92.4	55.9	116.8	80.8	141.1	105.7	87.2	51.5
GTEA110FC05	56.0	31.1	72.3	48.5	88.6	66.0	105.0	83.5	121.3	100.9	137.7	118.4	154.0	135.8	170.4	153.3	203.0	188.2	235.7	223.1	49.4	31.7
GTEA110FC06	49.2	21.0	65.5	38.3	81.8	55.6	98.1	72.9	114.4	90.2	130.7	107.6	147.0	124.9	163.3	142.2	195.9	176.8	228.5	211.4	59.8	38.0
GTEA110FC07	-	-	59.0	27.3	75.3	44.6	91.5	62.0	107.8	79.3	124.1	96.6	140.3	114.0	156.6	131.3	189.1	166.0	221.6	200.7	70.1	44.4
GTEA110FC08	-	-	-	-	68.3	34.8	84.4	51.9	100.6	68.9	116.8	85.9	132.9	103.0	149.1	120.0	181.4	154.1	213.7	188.2	80.4	50.7
GTEA110FC09	-	-	-	-	-	-	78.4	40.0	94.6	57.4	110.8	74.8	127.0	92.2	143.2	109.6	175.6	144.4	207.9	179.2	90.8	57.0
GTEA110FC10	-	-	-	-	-	-	-	-	88.1	46.3	104.3	63.8	120.5	81.2	136.7	98.7	169.2	133.6	201.7	168.6	101.1	63.3
GTEA110FC11	-	-	-	-	-	-	-	-	-	-	97.5	53.0	113.6	70.4	129.8	87.9	162.0	122.8	194.3	157.7	111.4	69.6
GTEA110FC12	-	-	-	-	-	-	-	-	-	-	-	-	107.1	59.6	123.2	77.2	155.3	112.4	187.5	147.5	121.8	76.0

Single-acting actuators (Nm) *continued*

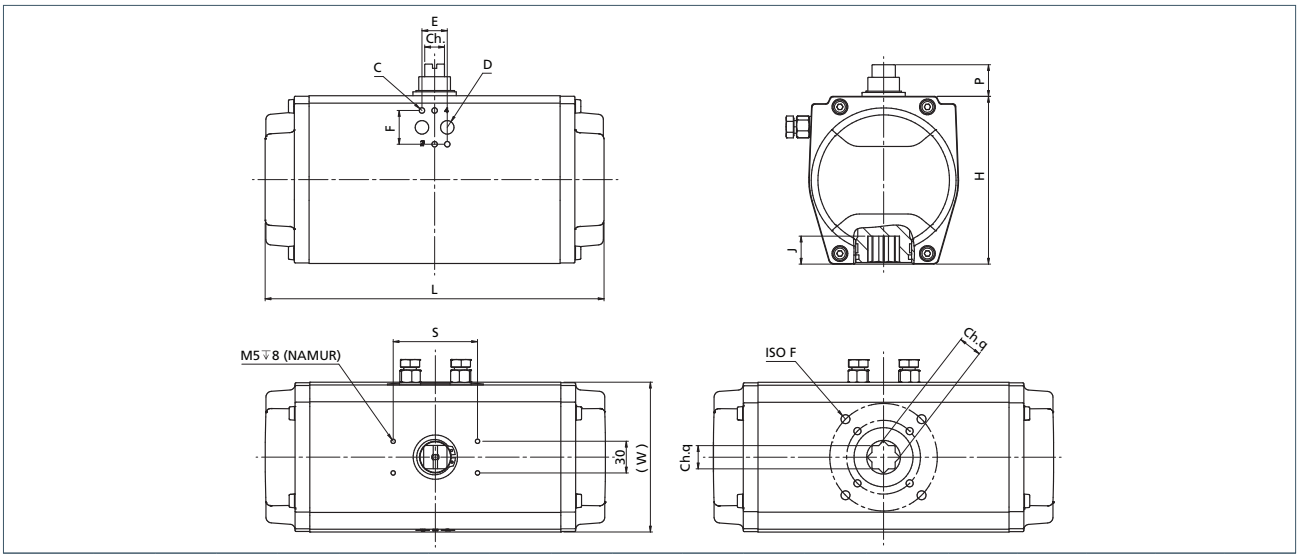
Type	Air supply (unit: bar)																				Spring torque	
	2.5		3		3.5		4		4.5		5		5.5		6		7		8			
	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
GTEA125FC05	73.7	46.8	100.5	73.7	127.4	100.6	154.2	127.5	181.1	154.4	208.0	181.3	234.8	208.2	261.7	235.1	315.4	288.9	369.1	342.6	79.4	53.7
GTEA125FC06	63.2	29.6	89.9	56.1	116.6	82.7	143.3	109.2	170.0	135.7	196.7	162.3	223.4	188.8	250.1	215.4	303.5	268.4	356.9	321.5	96.0	64.8
GTEA125FC07	-	-	81.1	38.6	107.5	64.7	133.9	90.9	160.2	117.1	186.6	143.3	213.0	169.5	239.4	195.6	292.1	248.0	344.9	300.4	112.5	76.0
GTEA125FC08	-	-	-	-	-	-	122.0	75.5	148.8	101.8	175.7	128.1	202.5	154.4	229.4	180.7	283.0	233.3	336.7	285.8	129.1	87.1
GTEA125FC09	-	-	-	-	-	-	110.4	57.1	137.2	83.2	163.9	109.4	190.7	135.6	217.5	161.8	271.0	214.1	324.5	266.5	145.7	98.3
GTEA125FC10	-	-	-	-	-	-	-	-	125.5	65.1	152.2	91.8	178.9	118.5	205.6	145.1	258.9	198.4	312.3	251.7	162.3	109.4
GTEA125FC11	-	-	-	-	-	-	-	-	-	-	140.7	71.2	167.3	97.9	194.0	124.6	247.2	177.9	300.5	231.2	178.8	120.6
GTEA125FC12	-	-	-	-	-	-	-	-	-	-	-	-	155.8	82.0	182.4	108.3	235.6	161.1	288.8	213.8	195.4	131.7
GTEA140FC05	127.3	76.2	172.3	120.7	217.3	165.2	262.3	209.7	307.2	254.3	352.2	298.8	397.2	343.3	442.2	387.8	532.1	476.9	622.1	565.9	130.0	81.6
GTEA140FC06	110.0	47.0	155.1	91.7	200.2	136.5	245.3	181.3	290.4	226.0	335.5	270.8	380.6	315.5	425.7	360.3	515.9	449.8	606.1	539.4	157.5	99.4
GTEA140FC07	-	-	138.0	62.7	183.2	107.8	228.4	152.8	273.6	197.8	318.8	242.8	364.0	287.8	409.2	332.8	499.7	422.8	590.1	512.8	184.9	117.2
GTEA140FC08	-	-	-	-	166.1	81.0	211.0	126.0	255.9	171.0	300.8	216.0	345.7	261.0	390.6	306.0	480.5	396.1	570.3	486.1	212.4	135.1
GTEA140FC09	-	-	-	-	-	-	191.3	97.8	236.4	143.2	281.6	188.7	326.7	234.1	371.9	279.6	462.2	370.5	552.5	461.4	239.8	152.9
GTEA140FC10	-	-	-	-	-	-	-	-	216.9	115.4	262.3	161.3	307.7	207.2	353.1	253.1	443.8	344.9	534.6	436.7	267.3	170.7
GTEA140FC11	-	-	-	-	-	-	-	-	-	-	244.2	134.5	289.4	179.7	334.7	225.0	425.1	315.5	515.6	405.9	294.8	188.6
GTEA140FC12	-	-	-	-	-	-	-	-	-	-	-	-	271.2	152.2	316.3	196.8	406.5	286.0	496.6	375.2	322.2	206.4
GTEA160FC05	202.6	119.7	269.0	187.3	335.4	255.0	401.8	322.6	468.2	390.2	534.6	457.9	601.1	525.5	667.5	593.1	800.3	728.4	933.1	863.7	195.9	124.7
GTEA160FC06	178.7	72.2	245.0	140.1	311.3	208.0	377.6	275.9	443.8	343.9	510.1	411.8	576.4	479.7	642.7	547.6	775.3	683.4	907.8	819.2	237.7	150.0
GTEA160FC07	-	-	221.4	92.0	287.6	160.1	353.8	228.2	420.1	296.2	486.3	364.3	552.5	432.3	618.7	500.4	751.2	636.5	883.6	772.6	279.4	175.3
GTEA160FC08	-	-	-	-	264.0	112.2	330.1	180.4	396.3	248.6	462.4	316.8	528.6	385.0	594.7	453.1	727.0	589.5	859.4	725.9	321.1	200.7
GTEA160FC09	-	-	-	-	-	-	301.7	138.7	367.8	206.1	434.0	273.5	500.2	340.9	566.4	408.3	698.7	543.1	831.1	677.9	362.9	226.0
GTEA160FC10	-	-	-	-	-	-	-	-	339.4	163.7	405.6	230.3	471.8	296.9	538.0	363.5	670.4	496.7	802.8	629.9	404.6	251.3
GTEA160FC11	-	-	-	-	-	-	-	-	-	-	379.8	189.7	445.9	255.9	511.9	322.2	644.0	454.6	776.1	587.1	446.4	276.7
GTEA160FC12	-	-	-	-	-	-	-	-	-	-	-	-	419.9	215.0	485.8	280.8	617.7	412.5	749.5	544.3	488.1	302.0
GTEA190FC05	299.3	184.1	402.7	288.4	506.2	392.6	609.6	496.9	713.0	601.2	816.4	705.5	919.8	809.8	1023.3	914.1	1230.1	1122.6	1436.9	1331.2	293.4	187.0
GTEA190FC06	259.9	123.4	363.1	226.9	466.3	330.4	569.5	434.0	672.6	537.5	775.8	641.0	879.0	744.6	982.2	848.1	1188.6	1055.1	1394.9	1262.2	354.0	225.5
GTEA190FC07	-	-	324.1	167.7	427.2	270.9	530.2	374.0	633.3	477.2	736.4	580.3	839.5	683.5	942.5	786.6	1148.7	992.9	1354.8	1199.2	414.5	263.9
GTEA190FC08	-	-	-	-	388.1	211.3	491.0	314.1	594.0	416.9	696.9	519.6	799.9	622.4	902.9	725.2	1108.8	930.7	1314.7	1136.3	475.1	302.3
GTEA190FC09	-	-	-	-	-	-	447.6	245.0	550.9	349.3	654.2	453.5	757.5	557.8	860.8	662.0	1067.4	870.5	1274.1	1079.0	535.6	340.7
GTEA190FC10	-	-	-	-	-	-	-	-	507.8	281.7	611.5	387.4	715.1	493.2	818.8	598.9	1026.1	810.3	1233.5	1021.8	596.2	379.1
GTEA190FC11	-	-	-	-	-	-	-	-	-	-	570.5	325.2	673.6	430.9	776.6	536.5	982.7	747.8	1188.8	959.1	656.7	417.6
GTEA190FC12	-	-	-	-	-	-	-	-	-	-	-	-	632.1	368.6	734.5	474.1	939.3	685.3	1144.2	896.5	717.3	456.0
GTEA210FC05	390.1	263.1	520.5	394.9	650.9	526.7	781.3	658.5	911.7	790.3	1042.2	922.1	1172.6	1053.9	1303.0	1185.7	1563.9	1449.3	1824.7	1712.8	339.4	243.6
GTEA210FC06	337.4	186.2	467.1	316.9	596.7	447.5	726.3	578.1	856.0	708.7	985.6	839.4	1115.2	970.0	1244.9	1100.6	1504.1	1361.9	1763.4	1623.2	408.2	294.6
GTEA210FC07	-	-	416.0	242.3	545.3	372.4	674.5	502.4	803.8	632.5	933.0	762.5	1062.2	892.5	1191.5	1022.6	1450.0	1282.7	1708.4	1542.8	477.0	345.7
GTEA210FC08	-	-	-	-	493.8	297.2	622.7	426.7	751.5	556.2	880.4	685.6	1009.2	815.1	1138.1	944.6	1395.8	1203.5	1653.5	1462.4	545.7	396.8
GTEA210FC09	-	-	-	-	-	-	571.0	349.5	700.3	479.5	829.5	609.6	958.8	739.7	1088.1	869.8	1346.7	1130.0	1605.3	1390.2	614.5	447.8
GTEA210FC10	-	-	-	-	-	-	-	-	649.0	402.9	778.7	533.6	908.4	664.3	1038.2	795.1	1297.7	1056.5	1557.1	1317.9	683.2	498.9
GTEA210FC11	-	-	-	-	-	-	-	-	-	-	723.2	465.9	852.5	593.5	981.7	721.0	1240.1	976.2	1498.6	1231.4	752.0	549.9
GTEA210FC12	-	-	-	-	-	-	-	-	-	-	-	-	796.5	522.6	925.2	647.0	1182.6	896.0	1440.1	1145.0	820.8	601.0
GTEA240FC05	577.4	424.4	772.5	621.2	967.6	818.1	1162.8	1014.9	1357.9	1211.7	1553.0	1408.6	1748.1	1605.4	1943.2	1802.2	2333.5	2195.9	2723.7	2589.6	513.7	357.0
GTEA240FC06	485.3	298.2	682.1	496.2	878.8	694.1	1075.6	892.1	1272.3	1090.0	1469.1	1288.0	1665.8	1485.9	1862.6	1683.8	2256.1	2079.7	2649.6	2475.6	626.6	434.9
GTEA240FC07	-	-	586.7	367.8	784.3	566.3	981.8	764.8	1179.4	963.3	1377.0	1161.8	1574.5	1360.3	1772.1	1558.8	2167.3	1955.8	2562.4	2352.8	739.4	512.9
GTEA240FC08	-	-	-	-	689.7	438.5	888.1	637.6	1086.5	836.6	1284.9	1035.7	1483.3	1234.7	1681.6	1433.7	2078.4	1831.8	2475.2	2229.9	852.2	590.8
GTEA240FC09	-	-	-	-	-	-	808.2	519.5	1006.1	719.4	1204.1	919.3	1402.1	1119.2	1600.1	1319.0	1996.1	1718.8	2392.0	2118.6	965.1	668.8
GTEA240FC10	-	-	-	-	-	-	-	-	925.8	602.1	1123.4	802.9	1321.0	1003.6	1518.5	1204.3	1913.7	1605.8	2308.8	2007.3	1077.9	746.8
GTEA240FC11	-	-	-	-	-	-	-	-	-	-	1030.3	684.2	1228.7	885.5	1427.2	1086.8	1824.0	1489.4	2220.9	1892.1	1190.7	824.7
GTEA240FC12	-	-	-	-	-	-	-	-	-	-	-	-	1136.5	767.4	1335.8	969.2	1734.4	1373.0	2133.0	1776.8	1303.5	902.7
GTEA270FC05	784.5	591.0	1078.2	884.7	1371.9	1178.4	1665.7	1472.1	1959.4	1765.9	2253.1	2059.6	2546.8	2353.3	2840.5	2647.0	3428.0	3234.5	4015.4	3821.9	730.4	529.8
GTEA270FC06	666.2	433.1	959.9	726.8	1253.7	1020.5	1547.4	1314.2	1841.1	1608.0	2134.8	1901.7	2428.6	2195.4	2722.3	2489.1	3309.7	3076.6	3897.2	3664.0	888.5	635.2
GTEA270FC07	-	-	841.7	568.9	1135.4	862.6	1429.1	1156.3	1722.8	1450.1	2016.6	1743.8	2310.3	2037.5	2604.0	2331.2	3191.4	2918.7	3778.9	3506.1	1046.7	740.6
GTEA270FC08	-	-	-	-	1017.1	704.7	1310.8	998.4	1604.6	1292.2	1898.3	1585.9	2192.0	1879.6	2485.7	2173.3	3073.2	2760.8	3660.6	3348.2	1204.8	846.1
GTEA270FC09	-	-	-	-	-	-	1192.6	840.5	1486.3	1134.3	1780.0	1428.0	2073.7	1721.7	2367.5	2015.4	2954.9	2602.9	3542.3	3190.3	1363.0	951.5
GTEA270FC10	-	-	-	-	-	-	-	-	1368.0	976.4	1661.7	1270.1	1955.5	1563.8	2249.2	1857.5	2836.6	2445.0	3424.1	3032.4	1521.1	1056.9
GTEA270FC11	-	-	-	-	-	-	-	-	-	-	1543.5	1112.2	1837.2	1405.9	2130.9	1699.6	2718.4	2287.1	3305.8	2874.5	1679.3	1162.4
GTEA270FC12	-	-	-	-	-	-	-	-	-	-	-	-	1718.9	1248.0	2012.6	1541.7	2600.1	2129.2	3187.5	2716.6	1837.5	1267.8
GTEA300FC05	1017.1	667.9	1398.8	1049.6	1780.5	1431.3	2162.2	1813.0	2543.9	2194.7	2925.6	2576.4	3307.3	2958.1	3689.0	3339.8	4452.4	4103.2	5215.8	4866.6	1082.0	720.1
GTEA300FC06	862.9	443.9	1244.6	825.6	1626.4	1207.3	2008.1	1589.0	2389.8	1970.7	2771.5	2352.4	3153.2	2734.1	3534.9	3115.9	4298.3	3879.3	5061.7	4642.7	1303.9	868.7
GTEA300FC07	-	-	1090.5	601.7	1472.2	983.4	1853.9	1365.1	2235.6	1746.8	2617.3	2128.5	2999.0	2510.2	3380.8	2891.9	4144.2	3655.3	4907.6	4418.7	1525.9	1017.3
GTEA300FC08	-	-	-	-	1318.1	759.4	1699.8	1141.1	2081.5	1522.8	2463.2	1904.5	2844.9	2286.2	3226.6	2667.9	3990.0	3431.4	4753.5	4194.8	1747.8	1165.9
GTEA300FC09	-	-	-	-	-	-	1545.7	917.2	1927.4	1298.9	2309.1	1680.6	2690.8	2062.3	3072.5	2444.0	3835.9	3207.4	4599.3	3970.8	1969.7	1314.5
GTEA300FC10	-	-	-	-	-	-	-	-	1773.3	1074.9	2155.0	1456.6	2536.7	1838.3	2918.4	2220.0	3681.8	2983.4	4445.2	3746.9	2191.6	1463.1
GTEA300FC11	-	-	-	-	-	-	-	-	-	-	2000.9	1232.7	2382.6	1614.4	2764.3	1996.1	3527.7	2759.5	4291.1	3522.9	2413.5	1611.6
GTEA300FC12	-	-	-	-	-	-	-	-	-	-	-	-	2228.5	1390.4	2610.2	1772.1	3373.6	2535.5	4137.0	3298.9	2635.4	1760.2

Model Number Designation

Example model number **GTEA 050 FC 05 NR**

Range and rotation	**GTEA** = 90° rotation
Body size	**050, 065, 075, 085, 095, 110, 125, 140, 160, 190, 210, 240, 270, 300**
Effect	**DA** = Double-acting **FC** = Spring-return, fail to close (clockwise) **FO** = Spring-return, fail to open (counter-clockwise)
Spring set	**05, 06, 07, 08, 09, 10, 11, 12** (spring-return), **00** (double-action)
Temperature range	**NR** = Normal -18 to +80 °C (-0.4 to +176 °F) (sizes 050 to 210) -20 to +80 °C (-4 to +176 °F) (sizes 240 to 300) **EH** = Enhanced -40 to +80 °C (-40 to +176 °F)

Dimension Data and Mounting Standards



Model	Dimensions (mm)													Displacement (dm³)			Weight (kg)	
	L	W	H	P	C	D	E	F	S	Ch	Ch.q	J	ISO	Open	Close		SR	DA
					According to NAMUR										SR	DA		
050	152	68.5	70	20	M5 x 8	G⅛"	24	32	80	10	11	12	F03/F05	0.11	0.14	0.15	1.4	1.3
065	169	84.5	89	20	M5 x 8	G⅛"	24	32	80	10	14	16	F05/F07	0.22	0.26	0.27	2.2	2.1
075	182.5	94	100	20	M5 x 8	G⅛"	24	32	80	14	14	16	F05/F07	0.31	0.40	0.43	2.8	2.5
085	211	113	113	20	M5 x 8	G¼"	24	32	80	14	17	19	F05/F07	0.45	0.59	0.62	4.4	4.0
095	263	124.5	123	20	M5 x 8	G¼"	24	32	80	14	17	19	F05/F07	0.70	0.94	1.00	7.3	6.5
110	286	118	136	20	M5 x 8	G¼"	24	32	80	14	17	19	F07/F10	0.94	1.32	1.42	8.1	7.0
125	323	142	159	30	M5 x 8	G¼"	24	32	80/130	22.1	22	25	F07/F10	1.54	1.91	2.04	13.9	10.7
140	404	157	178	30	M5 x 8	G¼"	24	32	80/130	22.1	27	31	F10/F12	2.64	3.06	3.25	17.9	15.5
160	462	177	200	30	M5 x 8	G¼"	24	32	80/130	22.1	27	31	F10/F12	4.15	4.71	4.98	25.5	22.0
190	494	210	232	30	M5 x 8	G¼"	24	32	130	22.1	36	41	F10/F14	5.85	7.17	7.63	38.2	31.5
210	532	230	255	30	M5 x 8	G¼"	24	32	130	32.5	36	41	F14	7.46	9.53	9.99	51.0	41.5
240	610	262	292.5	30	M6 x 10	G½"	40	45	130	32	46	53.5	F16	11.07	14.34	15.03	68.2	55.2
270	734	296	332	30	M6 x 10	G½"	40	45	130	32	46	50	F16	17.43	22.14	23.08	100.0	80.0
300	771	379	352	30	M6 x 10	G½"	40	45	130	32	46	64	F16	25.01	28.21	29.75	126.5	100.1
300-F25	771	379	384	30	M6 x 10	G½"	40	45	130	32	55	64	F25	25.01	28.21	29.75	132.6	106.2

Optional body air connections:
Size from 050 to 075 = ASME B1.20.1 ⅛" NPT
Size from 085 to 210 = ASME B1.20.1 ¼" NPT
Size from 240 to 300 = ASME B1.20.1 ½" NPT
Size from 110 to 210 = UNI EN ISO 228 G ½"
Size from 240 to 300 = UNI EN ISO 228 G ¾"
Size from 110 to 210 = ASME B1.20.1 ½" NPT
Size from 240 to 300 = ASME B1.20.1 ¾" NPT

Rotork provides customised shaft interface and surface painting options. Please contact Rotork for details.

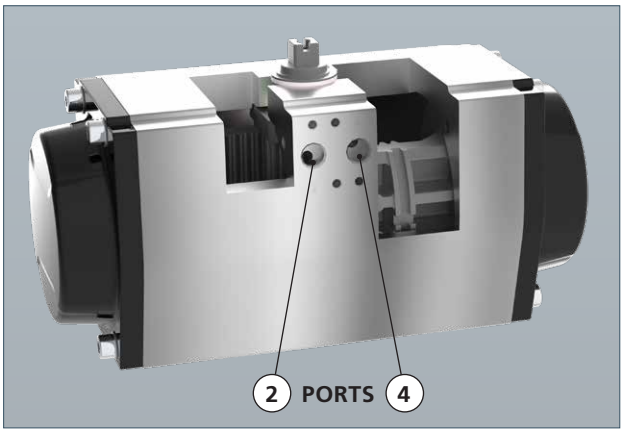
Assembly Configurations

The following illustrations show the relative arrangement of the piston and pinion for each configuration (mounting variant), viewed from the top of the actuator. This viewing direction is assumed in the descriptions below. The direction of rotation of the pinion is specified as CW (clockwise) or CCW (counter-clockwise).

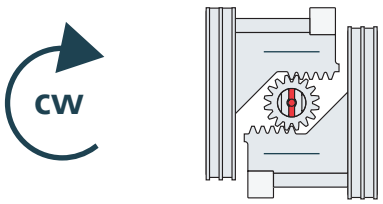
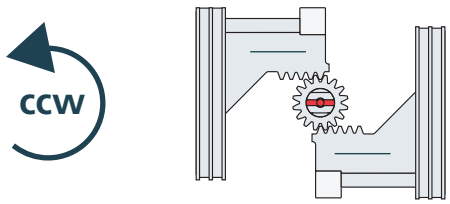
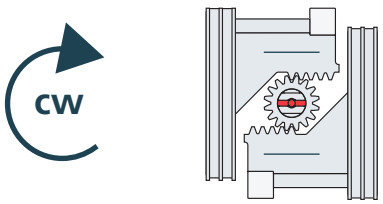
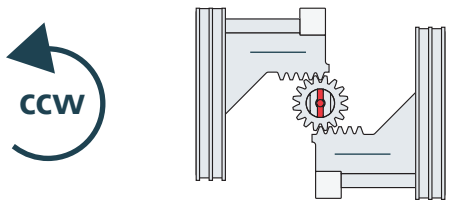
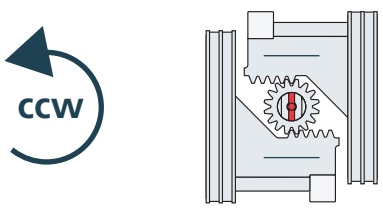
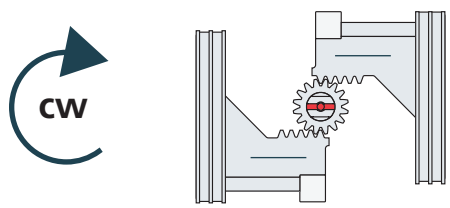
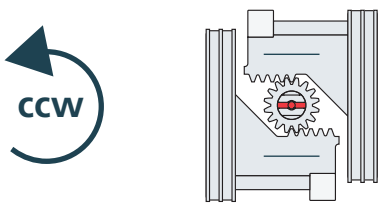
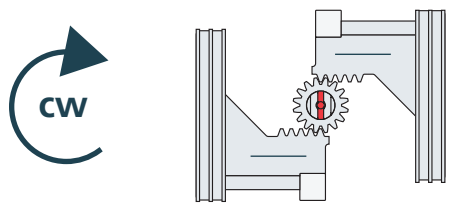
Port 2 is connected to the inner piston chamber. When Port 2 is pressurised, the pistons move outwards until they reach the mechanical end stop. The direction of pinion rotation is determined by the respective mounting configuration. Exhausting occurs via Port 4.

Port 4 is connected to the outer piston chambers. When Port 4 is pressurised, the pistons move inwards until they reach the mechanical end stop. The direction of pinion rotation is determined by the mounting configuration. Exhausting occurs via Port 2.

Note on spring-return actuators: For spring-return actuators – as with double-acting actuators – pressurising Port 2 moves the pistons outwards. When Port 2 is depressurised, the springs move the pistons back to their starting position. Exhausting occurs via Port 2, while the outer piston chambers are simultaneously vented with ambient air via Port 4. **Port 4 must not be pressurised or plugged in spring-return actuators.**



For detailed information on connection, installation, and operation, please refer to the GTE Series installation and maintenance manual or the corresponding Rotork documentation.

STYLE	PORT 4 (OUTBOARD) PRESSURISED *Shown at end of stroke*	PORT 2 (INBOARD) PRESSURISED *Shown at end of stroke*
A STANDARD		
B OPTIONAL		
C OPTIONAL		
D OPTIONAL		

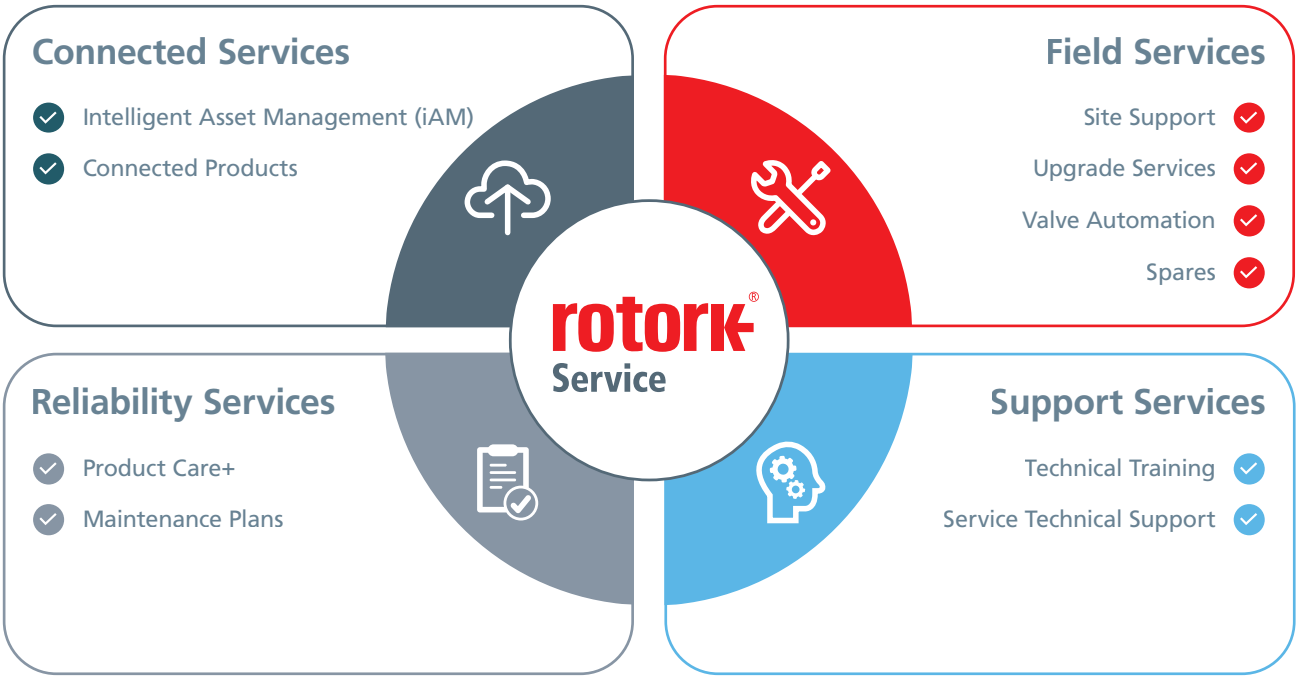
We offer specialist expertise to support mission-critical flow control and instrumentation solutions across oil and gas, water and power, and chemical, process and industrial markets.

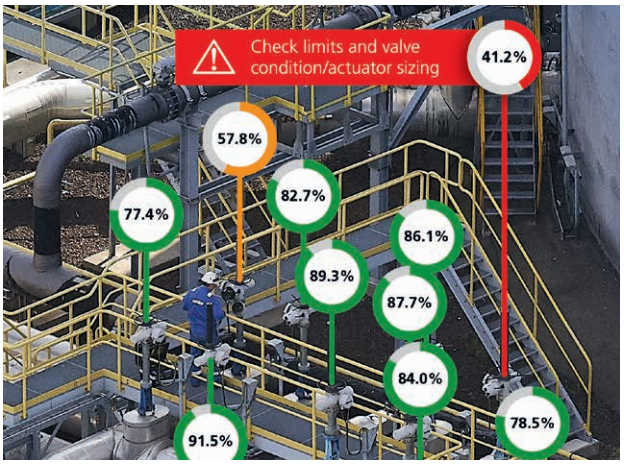
With a global presence and decades of experience, we offer services including installation, commissioning, Reliability Services, Intelligent Asset Management (iAM), product upgrades, spare parts, and overhauls.

Our engineers are highly trained, ensuring consistent, high-quality service worldwide. We operate dedicated workshops for the repair, calibration and testing of our products and only use genuine parts to guarantee top-level performance and reliability.

Our service offering covers four key areas:

- **Connected Services** including Rotork's Intelligent Asset Management (iAM) system
- **Field Services** including site support, upgrade solutions, valve automation and spares
- **Reliability Services** including health checks and product maintenance
- **Support Services** including technical training and support





Connected Services

Intelligent Asset Management (iAM) is a cloud-based system for intelligent Rotork actuators and the flow control equipment they operate. Effective asset management and maintenance are essential for maintaining site uptime.



Reliability Services

Reliability Services is a customisable approach to maintenance, with options that provide progressively increased levels of coverage and support. Our tailor-made programmes increase reliability and availability and allow customers to have flexibility about what services are most appropriate for them.



Field Services

Site Support

Benefit from our on-site support, from installation to emergency repairs.

Upgrade Solutions

Make sure your assets are prepared for the future with suitable upgrade options.

Valve Automation

Achieve precise and consistent flow control with automation of existing valves and replacement actuator/valve packages.

Spares

Maximise performance and reliability with genuine OEM spare parts.



Support Services

Technical Training

Our products and solutions are used in mission-critical applications and it is critical that any workforce is highly trained to ensure a safe and efficient plant. We provide advanced technical training from our strategically located facilities around the world.

Technical Support

We provide expert technical support exactly when you need it – trusted by global industries for over 60 years. Our technical experts draw on decades of our experience to provide you with the right answers and solutions.

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