EMI TOP

V-SERIES
Pneumatic Actuactor

Higher performance and reliability

Fully compliance with all the latest international standards

Wide range options in technical specification and highly cost-effective

Compact housing design, suitable for any application and working environment

EAC

SGS CE
MD 2006/42/EC

ATEX 94/9/EC

DESIGN AND CONSTRUCTION

DESIGN

EMITOP series pneumatic actuators have introduced improvement design for rack and pinion. It is always **EMITOP** mission to offer initiative products by combining the long field experiences in products application and the latest production and materials technology available in the market today. The benefit of new design has long been verified in practice. With new technical features equipped, **EMITOP** series pneumatic actuators have advantageous characteristic in:

- Reliability
- High performance
- Fully compliance with all the latest international standards
- Extensive products range allows best versatility at lower price
- Innovations and patented solutions for a universal drive shaft
- Multifunction position indicator
- Compact and light

CONSTRUCTION

1. A single compact design utilizing identical body and end caps for both double acting and spring return models. This feature reduces inventory and allows field conversion, by adding or removing modular spring cartridges.

2. Full conformance to following latest specifications: ISO 5211, DIN 3337 and VDI/VDE 3845 for product interchangeability and easy mounting of solenoids, limit switches and other accessories.

3. **EMITOP** piston rack and pinion design for compact construction, symmetric mounting position, high-cycle life and fast operation. Reverse rotation can be accomplished in the field by simply inverting the pistons.

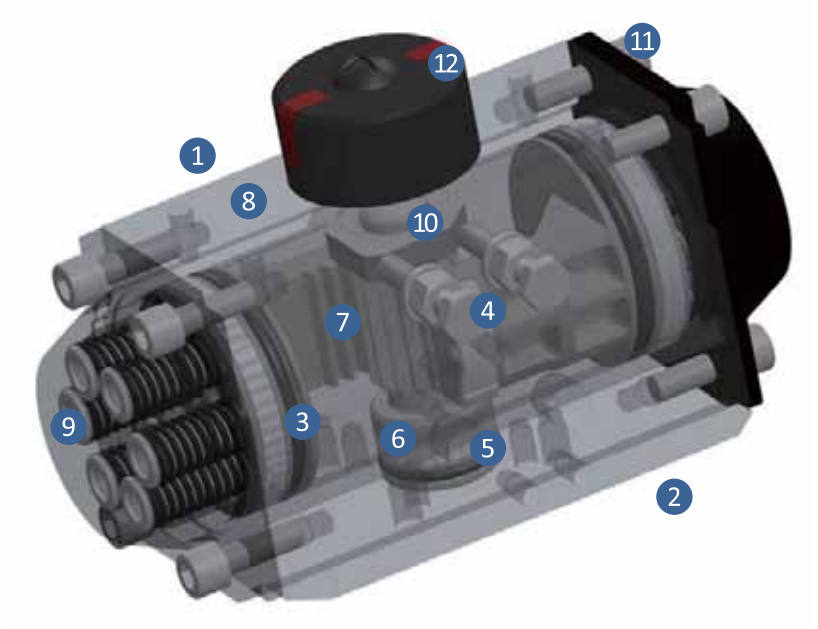
4. Two independent external travel stop adjustments permit easy and precise adjustment of +/- 5° in both directions. This adjustment may be made in either the open or closed position and provides for accurate valve alignment.

5. Multiple bearings and guides on pistons and racks for precise operation, low friction, high cycle life and a blowout proof pinion shaft.

6. Electroless nickel-plated blowout resistant, bearing guided, one-piece pinion shaft for improved safety and maximum cycle life.

7. High precision teeth on piston racks and pinion shaft for accurate positioning, low backlash, and maximum engagement resulting in overall efficient operation.

8. Extruded aluminum body with both internal and external corrosion protections having a honed cylinder surface for longer life and a lower coefficient of friction.



9. Modular preloaded spring cartridges designed with coated springs for simple range versatility, greater safety and corrosion resistance.

10. Selected high quality bearings and seals that provide a wide operating temperature range, low friction, and high cycle life.

11. Internal and external stainless steel fasteners for long term corrosion resistance.

12. Multifunctional position indicator for visual position indication, and a direct, easy, economical way to mount popular sensors.

RANGE OF OPTIONS, QUALITY MANUFACTURING, AND ACCESSORIES

RANGE OF OPTIONS

A. Stainless steel 304 or 316 drive shafts are available on request for all sizes no matter the type of corrosion protection selected.
B. For extremely high or low temperature applications, all models may be equipped with FPM or Silicon O rings along with an Vtork tested and certified suitable lubricant.
C. Other than the standard double square bottom drive shaft connection, we can supply a keyed drive connection, a flat head connection or a special personalized drive connection.

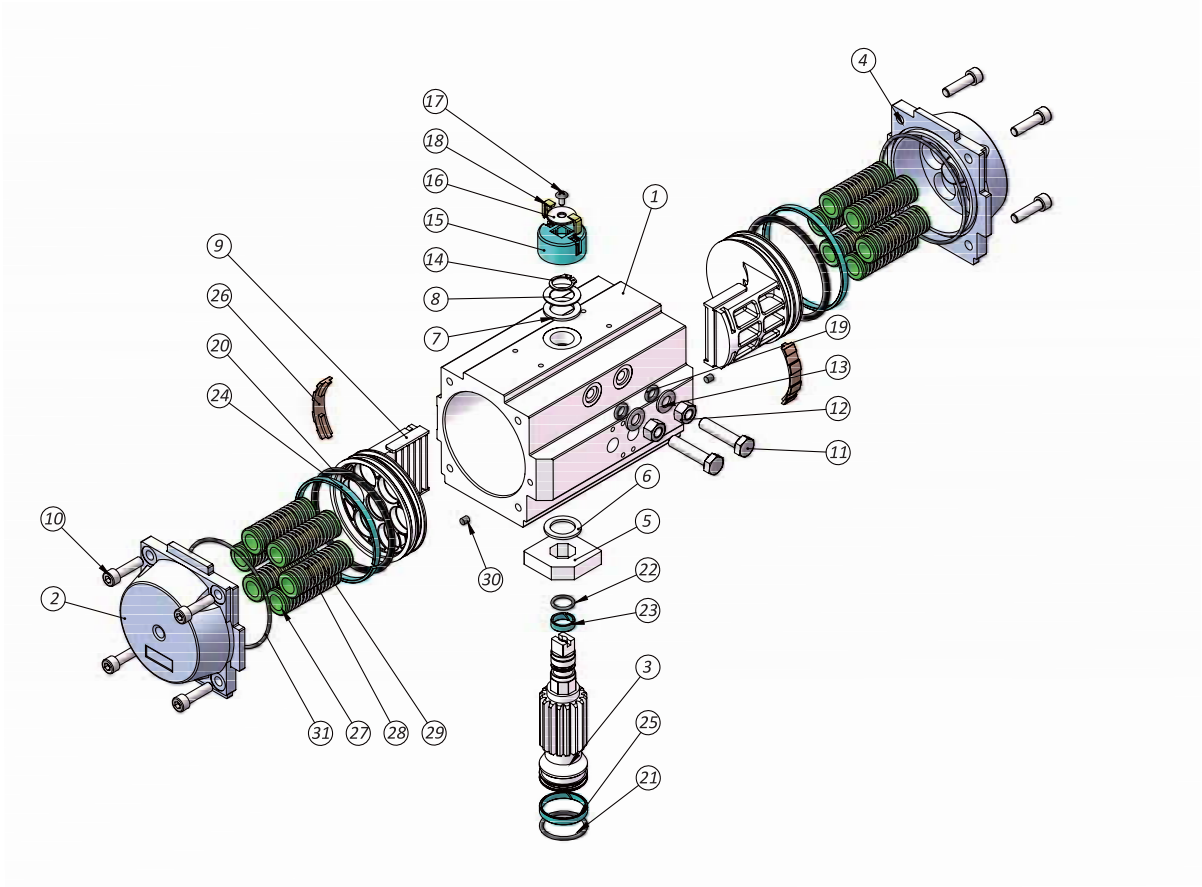
QUALITY MANAGEMENT

- Production conforms to ISO9001.
- Each individual actuator has been factory inspected and tested and given a serial number for full traceability.
- Each individual actuator is individually packed in a special cardboard carton for protection,with a product description label for easy identification and includes installation,operation and maintenance instructions .

ACCESSORIES AVAILABLE

- Different Square reductions suitable for drive shaft
- Centering rings for all sizes
- Brackets
- Couplings
- Solenoid valves
- Switch boxes
- Proximity switches
- Gear boxes
- Positioners

Parts And Materials



Item Number	Part Description	Material Quality	QTY	Item Number	Part Description	Material Quality	QTY	Item Number	Part Description	Material Quality	QTY
1	Body	Aluminum PTFE coated	1	12	Nut(stop screw)	Stainless steel	2	23	Bearing(pinion top)	POM+PTFE	1
2	Left End cap	Aluminum PTFE coated	1	13	Washer (stop screw)	Stainless steel	2	24	Bearing(pinion head)	POM+PTFE	2
3	Drive shaft	Alloy Steel	1	14	Spring clip	Spring steel	1	25	Bearing(pinion bottom)	POM+PTFE	1
4	Right end cap	Aluminum PTFE coated	1	15	Position indicator	Nylon	1	26	Wear band	Nylon	2
5	OCTI-CAM	Alloy Steel	1	16	Indicator thrust bearing	Stainless steel	1	27	Spring seat	Nylon	24
6	Thrust bearing (pinion top)	POM+PTFE	1	17	Cap screw	Stainless steel	1	28	Spring	Stainless steel	12
7	Thrust bearing	POM+PTFE	1	18	Color code	Nylon	2	29	Straining beam	Copper pipe	12
8	Thrust washer	Stainless steel	1	19	"o" ring(stop screw)	NBR	2	30	Plug	NBR	2
9	Piston	Aluminium alloy	2	20	"o" ring(piston)	NBR	2	31	"o" ring(end cap)	NBR	2
10	Cap screw (end cap)	Stainless steel	8	21	"o" ring(pinion bottom)	NBR	1				
11	Stop top screw	Stainless steel	2	22	"o" ring(pinion top)	NBR	1				

TECHNICAL DATA(METRIC UNIT)

Model TypeA	VT032		VT050		VT065		VT075		VT085		VT095		VT110		VT125		VT140		VT160		VT190		VT210		VT240		VT270		VT300		VT350		VT400	
	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S	D	S
Diameter (mm)	32		50		65		75		85		95		110		125		140		160		190		210		240		270		300		350		400	
Air Volume Opening(L)	0.03		0.09		0.19		0.30		0.44		0.88		0.83		1.41		1.76		2.85		4.75		6.60		11.40		15.80		19.09		27.65		42.81	
Air Volume Closing(L)	0.04		0.15		0.32		0.50		0.66		1.17		1.27		2.13		2.72		4.08		7.20		10.29		15.10		18.80		28.23		44.10		62.05	
Opening Time (sec)	0.3		0.3	0.9	0.4	0.9	0.4	0.9	0.9	1.0	0.9	1.4	0.9	1.4	1.3	2.4	1.3	2.8	2.0	4.8	2.2	2.4	2.9	3.4	3.2	3.8	4.4	5.0	5.0	6.0	6.2	7.4	7.5	9.6
closing Time (sec)	0.4		0.4	0.7	0.4	0.8	0.4	0.9	0.9	1.2	1.0	1.4	1.0	1.6	1.4	2.4	1.4	3.0	2.4	4.9	2.6	3.0	3.8	4.1	3.7	4.0	4.9	5.5	6.0	6.8	7.2	8.4	8.5	10.6
Weight (Kg)hai	0.47	0.59	1.13	1.25	1.97	2.21	2.93	3.29	3.78	4.26	5.14	5.86	6.09	7.17	10.86	12.54	13.77	15.93	20.15	23.75	28.41	33.81	40.03	48.43	52.6	77.76	73.64	90.6	108	135.6	146.7	188.1	220.5	283.5

1.For model 32-160
(1)Room temperature (2)Actuator stroke 90° (3)Solenoid valve with orifice of 4 mm and a flow capacity Qn400L/min (4)Inside pipe diameter 6 mm (5)Medium clean air
(6)Air supply pressure 5.5 bar (7)Actuator without external resistance load

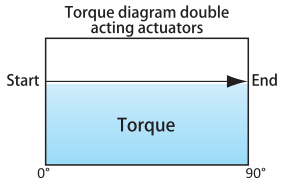
2.For model 190-400
(1)Room temperature (2)Actuator stroke 90° (3)Solenoid valve with orifice of 12 mm and a flow capacity Qn5100L/min (4)Inside pipe diameter 8 mm (5)Medium clean air
(6)Air supply pressure 5.5 bar (7)Actuator without external resistance load

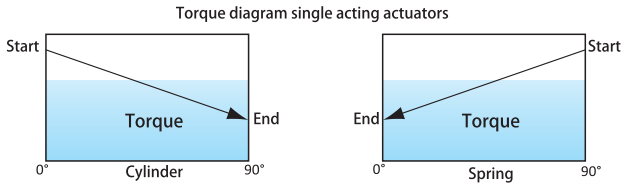
Cautions: obviously on the field applications when one or more of the above parameter are different, the moving time will be different

Air consumption rest with air supply, air volume and action cycle times. Expressions:

$$L/min=\text{Air volume(opening air volume+closing air volume)}X[\frac{\text{Air Supply(Kpa)}+101.3}{101.3}]X\text{Action times(/min)}$$

METRIC TORQUE RATINGS





DOUBLE ACTING TORQUE RATINGS IN Nm

Model	Supply Pressure (Unit:bar)									
	2.5	**3**	**3.5**	**4**	**4.5**	**5**	**5.5**	**6**	**7**	**8**
VT032	2.9	3.4	4.0	4.6	5.3	5.9	6.5	7.1	8.3	9.5
VT050	8.6	10.4	12.3	14.2	16.0	17.9	19.8	21.6	25.4	29.1
VT065	17.4	21.2	25.0	28.7	32.5	36.3	40.1	43.9	51.4	59.0
VT075	27.0	32.9	38.8	44.7	50.5	56.4	62.3	68.2	79.9	91.7
VT085	39.7	48.3	56.9	65.6	74.2	82.8	91.4	100.1	117.3	134.6
VT095	55.7	67.9	80.0	92.1	104.2	116.4	128.5	140.6	164.8	189.1
VT110	72.0	89.3	105.0	120.6	136.3	152.0	167.6	183.3	214.6	245.9
VT125	128.7	159.5	187.5	215.4	243.4	271.4	299.4	327.4	383.3	439.3
VT140	196	237	278	319	360	401	442	483	565	647
VT160	263.5	326.6	383.9	441.2	498.5	555.8	613.1	670.4	785.0	899.7
VT190	428.5	518.0	607.3	696.6	785.9	875.3	964.6	1053.9	1232.5	1411.1
VT210	598.2	723.2	847.9	972.6	1097.3	1222.0	1346.6	1471.3	1720.7	1970.1
VT240	928.3	1122.0	1315.0	1508.0	1702.0	1895.0	2089.0	2282.0	2669.0	3056.0
VT270	1305.0	1577.0	1849.0	2121.0	2393.0	2665.0	2937.0	3209.0	3753.0	4297.0
VT300	1678.6	2029.4	2379.3	2729.2	3079.1	3429.0	3778.9	4128.8	4828.5	5528.3
VT350	2492.5	3011.8	3531.1	4050.4	4569.6	5088.9	5608.2	6127.5	7166.0	8204.6
VT400	3798.1	4589.4	5380.7	6172.0	6963.3	7754.5	8545.8	9337.1	10919.7	12502.2

SINGLE ACTING TORQUE RATINGS IN Nm

Model	Supply Pressure (Unit:bar)																				Spring st roke	
	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°**
VT050 S05	**5.1**	**3.4**	6.9	5.3	8.8	7.2	10.7	9.0	12.5	10.9	14.4	12.8	16.3	14.6	18.1	16.5	21.9	20.2	25.6	23.9	**5.2**	**3.5**
VT050 S06	4.4	2.4	**6.2**	**4.3**	8.1	6.1	10.0	8.0	11.8	9.9	13.7	11.7	15.6	13.6	17.4	15.5	21.2	19.2	24.9	22.9	**6.2**	**4.2**
VT050 S07			5.5	3.2	**7.4**	**5.1**	9.3	7.0	11.1	8.8	13.0	10.7	14.9	12.6	16.7	14.4	20.5	18.2	24.2	21.9	**7.2**	**4.9**
VT050 S08					6.7	4.1	**8.6**	**5.9**	10.4	7.8	12.3	9.7	14.2	11.5	16.0	13.4	19.8	17.1	23.5	20.9	**8.2**	**5.6**
VT050 S09							7.9	4.9	**9.7**	**6.8**	11.6	8.6	13.5	10.5	15.3	12.4	19.1	16.1	22.8	19.8	**9.3**	**6.3**
VT050 S10									9.0	5.7	**10.9**	**7.6**	12.8	9.5	14.6	11.3	18.4	15.1	22.1	18.8	**10.3**	**7.0**
VT050 S11											10.2	6.6	**12.1**	**8.4**	13.9	10.3	17.7	14.0	21.4	17.8	**11.3**	**7.7**
VT050 S12													11.4	7.4	**13.2**	**9.3**	17.0	13.0	20.7	16.7	**12.4**	**8.4**
VT065 S05	**8.7**	**4.3**	12.5	8.1	16.3	11.9	20.0	15.6	23.8	19.4	27.6	23.2	31.4	27.0	35.2	30.8	42.7	38.3	50.3	45.9	**13.1**	**8.7**
VT065 S06	7.0	1.7	**10.7**	**5.5**	14.5	9.2	18.3	13.0	22.1	16.8	25.9	20.6	29.7	24.4	33.4	28.2	41.0	35.7	48.6	43.3	**15.7**	**10.4**
VT065 S07			9.0	2.8	**12.8**	**6.6**	16.6	10.4	20.4	14.2	24.1	18.0	27.9	21.8	31.7	25.5	39.3	33.1	46.8	40.7	**18.3**	**12.2**
VT065 S08					11.0	4.0	**14.8**	**7.8**	18.6	11.6	22.4	15.4	26.2	19.1	30.0	22.9	37.5	30.5	45.1	38.1	**21.0**	**13.9**
VT065 S09							13.1	5.2	**16.9**	**9.0**	20.7	12.7	24.4	16.5	28.2	20.3	35.8	27.9	43.4	35.4	**23.6**	**15.7**
VT065 S10									15.1	6.3	**18.9**	**10.1**	22.7	13.9	26.5	17.7	34.0	25.2	41.6	32.8	**26.2**	**17.4**
VT065 S11											17.2	7.5	**21.0**	**11.3**	24.7	15.1	32.3	22.6	39.9	30.2	**28.8**	**19.1**
VT065 S12													19.2	8.7	**23.0**	**12.4**	30.6	20.0	38.1	27.6	**31.4**	**20.9**
VT075 S05	**16.3**	**10.2**	22.2	16.0	28.1	21.9	34.0	27.8	39.8	33.7	45.7	39.6	51.6	45.4	57.5	51.3	69.2	63.1	81.0	74.8	**16.9**	**10.7**
VT075 S06	14.2	6.8	**20.1**	**12.7**	25.9	18.6	31.8	24.4	37.7	30.3	43.6	36.2	49.4	42.1	55.3	47.9	67.1	59.7	78.8	71.4	**20.2**	**12.8**
VT075 S07			17.9	9.3	**23.8**	**15.2**	29.7	21.1	35.6	26.9	41.4	32.8	47.3	38.7	53.2	44.6	64.9	56.3	76.7	68.1	**23.6**	**15.0**
VT075 S08					21.7	11.8	**27.5**	**17.7**	33.4	23.6	39.3	29.4	45.2	35.3	51.0	41.2	62.8	53.0	74.5	64.7	**27.0**	**17.1**
VT075 S09							25.4	14.3	**31.3**	**20.2**	37.1	26.1	43.0	32.0	48.9	37.8	60.7	49.6	72.4	61.3	**30.3**	**19.3**
VT075 S10									29.1	16.8	**35.0**	**22.7**	40.9	28.6	46.8	34.5	58.5	46.2	70.3	58.0	**33.7**	**21.4**
VT075 S11											32.9	19.3	**38.7**	**25.2**	44.6	31.1	56.4	42.8	68.1	54.6	**37.1**	**23.5**
VT075 S12													36.6	21.8	**42.5**	**27.7**	54.2	39.5	66.0	51.2	**40.4**	**25.7**
VT085 S05	**23.2**	**13.7**	31.8	22.3	40.4	30.9	49.0	39.5	57.6	48.1	66.3	56.8	74.9	65.4	83.5	74.0	100.8	91.3	118.0	108.5	**26.1**	**16.6**
VT085 S06	19.8	8.4	**28.4**	**17.0**	37.1	25.7	45.7	34.3	54.3	42.9	62.9	51.5	71.6	60.2	80.2	68.8	97.4	86.0	114.7	103.3	**31.3**	**19.9**
VT085 S07			25.1	11.8	**33.8**	**20.5**	42.4	29.1	51.0	37.7	59.6	46.3	68.3	55.0	76.9	63.6	94.1	80.8	111.4	98.1	**36.5**	**23.2**
VT085 S08					30.4	15.2	**39.1**	**23.9**	47.7	32.5	56.3	41.1	64.9	49.7	73.6	58.4	90.8	75.6	108.1	92.9	**41.7**	**26.5**
VT085 S09							35.8	18.7	**44.4**	**27.3**	53.0	35.9	61.6	44.5	70.3	53.2	87.5	70.4	104.8	87.7	**46.9**	**29.8**
VT085 S10									41.1	22.1	**49.7**	**30.7**	58.3	39.3	67.0	48.0	84.2	65.2	101.5	82.5	**52.1**	**33.1**
VT085 S11											46.4	25.5	**55.0**	**34.1**	63.6	42.7	80.9	60.0	98.1	77.2	**57.3**	**36.4**
VT085 S12													51.7	28.9	**60.3**	**37.5**	77.6	54.8	94.8	72.0	**62.5**	**39.7**
VT095 S05	**33.6**	**20.9**	45.8	33.0	57.9	45.1	70.0	57.3	82.1	69.4	94.3	81.5	106.4	93.6	118.5	105.8	142.7	130.0	167.0	154.2	**34.9**	**22.1**
VT095 S06	29.2	13.9	**41.4**	**26.1**	53.5	38.2	65.6	50.3	77.7	62.4	89.8	74.5	102.0	86.7	114.1	98.8	138.3	123.0	162.6	147.3	**41.8**	**26.5**
VT095 S07			36.9	19.1	**49.1**	**31.2**	61.2	43.3	73.3	55.4	85.4	67.6	97.5	79.7	109.7	91.8	133.9	116.1	158.1	140.3	**48.8**	**30.9**
VT095 S08					44.6	24.2	**56.8**	**36.4**	68.9	48.5	81.0	60.6	93.1	72.7	105.2	84.8	129.5	109.1	153.7	133.3	**55.8**	**35.4**
VT095 S09							52.3	29.4	**64.5**	**41.5**	76.6	53.6	88.7	65.8	100.8	77.9	125.1	102.1	149.3	126.4	**62.7**	**39.8**
VT095 S10									60.0	34.5	**72.2**	**46.7**	84.3	58.8	96.4	70.9	120.6	95.1	144.9	119.4	**69.7**	**44.2**
VT095 S11											67.7	39.7	**79.9**	**51.8**	92.0	63.9	116.2	88.2	140.5	112.4	**76.7**	**48.6**
VT095 S12													75.4	44.8	**87.6**	**57.0**	111.8	81.2	136.0	105.4	**83.6**	**53.0**

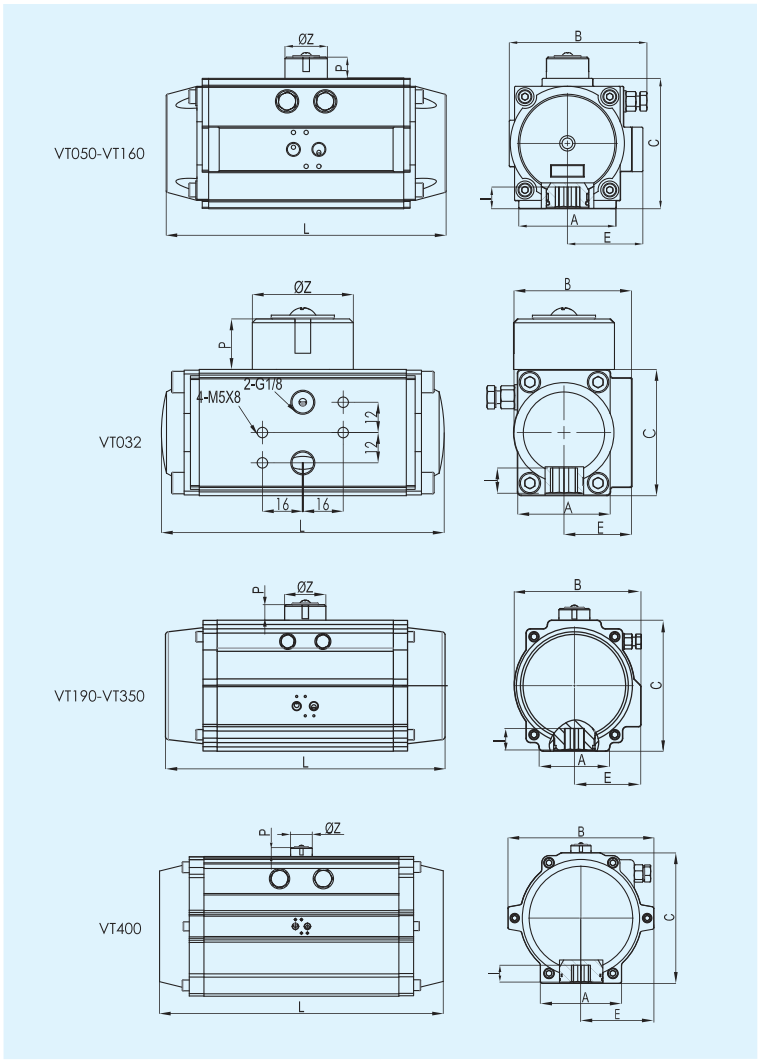
METRIC TORQUE RATINGS

SINGLE ACTING TORQUE RATINGS IN Nm

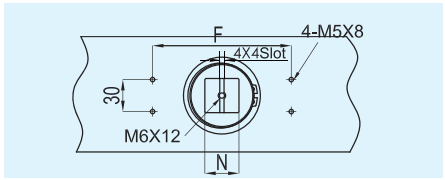
Model	Supply Pressure (Unit:bar)																				Spring stroke	
	2.5		3		3.5		4		4.5		5		5.5		6		7		8			
	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
VT110 S05	**43.4**	**26.2**	60.7	43.4	76.4	59.1	92.0	74.8	107.7	90.4	123.4	106.1	139.0	121.8	154.7	137.4	186.0	168.8	217.3	200.1	**45.9**	**28.6**
VT110 S06	37.7	17.0	**55.0**	**34.3**	70.6	49.9	86.3	65.6	102.0	81.3	117.6	96.9	133.3	112.6	149.0	128.3	180.3	159.6	211.6	190.9	**55.0**	**34.3**
VT110 S07			49.3	25.1	**64.9**	**40.8**	80.6	56.4	96.2	72.1	111.9	87.8	127.6	103.4	143.2	119.1	174.6	150.4	205.9	181.8	**64.2**	**40.0**
VT110 S08					59.2	31.6	**74.9**	**47.3**	90.5	62.9	106.2	78.6	121.9	94.3	137.5	109.9	168.9	141.3	200.2	172.6	**73.4**	**45.8**
VT110 S09							69.1	38.1	**84.8**	**53.8**	100.5	69.4	116.1	85.1	131.8	100.8	163.1	132.1	194.5	163.4	**82.5**	**51.5**
VT110 S10									79.1	44.6	**94.8**	**60.3**	110.4	75.9	126.1	91.6	157.4	122.9	188.7	154.2	**91.7**	**57.2**
VT110 S11											89.0	51.1	**104.7**	**66.7**	120.4	82.4	151.7	113.7	183.0	145.1	**100.9**	**62.9**
VT110 S12													99.0	57.6	**114.6**	**73.2**	146.0	104.6	177.3	135.9	**110.0**	**68.6**
VT125 S05	**77.7**	**48.2**	108.5	78.9	136.5	106.9	164.4	134.9	192.4	162.9	220.4	190.9	248.4	218.8	276.4	246.8	332.3	302.8	388.3	358.7	**80.6**	**51.0**
VT125 S06	67.5	32.0	**98.3**	**62.8**	126.3	90.8	154.2	118.8	182.2	146.8	210.2	174.7	238.2	202.7	266.2	230.7	322.1	286.7	378.1	342.6	**96.7**	**61.2**
VT125 S07			88.1	46.7	**116.1**	**74.7**	144.0	102.7	172.0	130.7	200.0	158.6	228.0	186.6	256.0	214.6	311.9	270.6	367.9	326.5	**112.8**	**71.4**
VT125 S08					105.9	58.6	**133.8**	**86.6**	161.8	114.5	189.8	142.5	217.8	170.5	245.8	198.5	301.7	254.4	357.7	310.4	**128.9**	**81.6**
VT125 S09							123.6	70.5	**151.6**	**98.4**	179.6	126.4	207.6	154.4	235.6	182.4	291.5	238.3	347.5	294.3	**145.0**	**91.8**
VT125 S10									141.4	82.3	**169.4**	**110.3**	197.4	138.3	225.4	166.3	281.3	222.2	337.3	278.2	**161.1**	**102.0**
VT125 S11											159.2	94.2	**187.2**	**122.2**	215.2	150.2	271.1	206.1	327.1	262.1	**177.2**	**112.2**
VT125 S12													177.0	106.1	**205.0**	**134.0**	260.9	190.0	316.9	246.0	**193.3**	**122.4**
VT140 S05	**114.2**	**74.1**	155.1	115	196.1	156	237.0	196.9	277.9	237.8	318.8	278.7									**122.4**	**82.3**
VT140 S06	97.7	49.6	**138.7**	**90.6**	179.6	131.5	220.5	172.4	261.5	213.3	302.4	254.3	343.3	295.2							**146.8**	**98.7**
VT140 S07			122.2	66.1	**163.2**	**107.0**	204.1	147.9	245.0	188.9	285.9	229.8	326.9	270.7	367.8	311.6					**171.3**	**115.2**
VT140 S08					146.7	82.5	**187.6**	**123.5**	228.6	164.4	269.5	205.3	310.4	246.2	351.3	287.2	433.2	369.0			**195.8**	**131.6**
VT140 S09							171.2	99.0	**212.1**	**139.9**	253.0	180.9	294.0	221.8	334.9	262.7	416.7	344.6	498.6	426.4	**220.2**	**148.1**
VT140 S10									195.7	115.5	**236.6**	**156.4**	277.5	197.3	318.4	238.2	400.3	320.1	482.1	401.9	**244.7**	**164.5**
VT140 S11											220.1	131.9	**261.1**	**172.8**	302.0	213.8	383.8	295.6	465.7	377.5	**269.2**	**181.0**
VT140 S12													244.6	148.4	**285.5**	**189.3**	367.4	271.1	449.2	353.0	**293.6**	**197.4**
VT160 S05	**153.5**	**101.3**	216.6	164.4	273.9	221.7	331.2	279.0	388.5	336.3	445.8	393.6	503.1	450.9	560.4	508.2	675.0	622.8	789.7	737.4	**162.3**	**110.0**
VT160 S06	131.5	68.8	**194.6**	**131.9**	251.9	189.2	309.2	246.5	366.5	303.8	423.8	361.1	481.1	418.4	538.4	475.7	653.0	590.3	767.7	705.0	**194.7**	**132.0**
VT160 S07			172.6	99.5	**229.9**	**156.8**	287.2	214.1	344.5	271.4	401.8	328.7	459.1	386.0	516.4	443.3	631.0	557.9	745.7	672.5	**227.2**	**154.0**
VT160 S08					207.9	124.3	**265.2**	**181.6**	322.5	238.9	379.8	296.2	437.1	353.5	494.4	410.8	609.0	525.4	723.7	640.1	**259.6**	**176.0**
VT160 S09							243.2	149.2	**300.5**	**206.5**	357.8	263.8	415.1	321.1	472.4	378.4	587.0	493.0	701.7	607.6	**292.1**	**198.0**
VT160 S10									278.5	174.0	**335.8**	**231.3**	393.1	288.6	450.4	345.9	565.0	460.5	679.7	575.2	**324.5**	**220.0**
VT160 S11											313.8	198.9	**371.1**	**256.2**	428.4	313.5	543.0	428.1	657.7	542.7	**357.0**	**242.0**
VT160 S12													349.1	223.7	**406.4**	**281.0**	521.0	395.6	635.7	510.3	**389.4**	**264.0**
VT190 S05	**246.8**	**167.4**	336.3	256.9	425.6	346.2	514.9	435.5	604.2	524.8	693.5	614.1									**261.2**	**181.8**
VT190 S06	210.4	115.1	**299.9**	**204.6**	389.2	293.9	478.5	383.3	567.8	472.6	657.2	561.9	746.5	651.2							**313.4**	**218.1**
VT190 S07			263.6	152.4	**352.9**	**241.7**	442.2	331.0	531.5	420.3	620.8	509.6	710.1	599.0	799.4	688.3					**365.6**	**254.5**
VT190 S08					316.5	189.5	**405.8**	**278.7**	495.1	368.1	584.5	457.4	673.8	546.7	779.5	636.0	941.7	814.7			**417.8**	**290.8**
VT190 S09							369.5	226.6	**458.8**	**315.9**	548.1	405.2	637.4	494.5	745.2	583.8	905.3	762.4	1084.0	941.1	**470.1**	**327.2**
VT190 S10									422.4	263.6	**511.8**	**353.0**	601.1	442.3	710.9	531.6	869.0	710.2	1047.6	888.8	**522.3**	**363.5**
VT190 S11											475.4	300.7	**564.7**	**390.0**	676.6	479.3	832.6	658.0	1011.3	836.6	**574.5**	**399.9**
VT190 S12													528.4	337.8	**642.3**	**427.1**	796.3	605.7	974.9	784.4	**628.8**	**436.8**
VT210 S05	**352.8**	**239.1**	477.8	364.1	602.5	488.8	727.2	613.5	851.9	738.2	976.6	862.9	1101.2	987.5	1225.9	1112.2	1475.3	1361.6	1724.7	1611.0	**359.1**	**245.4**
VT210 S06	303.7	167.3	**428.7**	**292.3**	553.4	417.0	678.1	541.7	802.8	666.4	927.5	791.0	1052.2	915.7	1176.9	1040.4	1426.2	1289.8	1675.6	1539.2	**430.9**	**294.5**
VT210 S07			379.6	220.5	**504.3**	**345.2**	629.0	469.8	753.7	594.5	878.4	719.2	1003.1	843.9	1127.8	968.6	1377.2	1218.0	1626.5	1467.4	**502.7**	**343.6**
VT210 S08					455.3	273.3	**579.9**	**398.0**	704.6	522.7	829.3	647.4	954.0	772.1	1078.7	896.8	1328.1	1146.2	1577.5	1395.5	**574.6**	**392.6**
VT210 S09							530.9	326.2	**655.6**	**450.9**	780.2	575.6	904.9	700.3	1029.6	825.0	1279.0	1074.3	1528.4	1323.7	**646.4**	**441.7**
VT210 S10									606.5	379.1	**731.2**	**503.8**	855.8	628.4	980.5	753.1	1229.9	1002.5	1479.3	1251.9	**718.2**	**490.8**
VT210 S11											682.1	431.9	**806.8**	**556.6**	931.5	681.3	1180.8	930.7	1430.2	1180.1	**790.0**	**539.9**
VT210 S12													757.7	484.8	**882.4**	**609.5**	1131.8	858.9	1381.1	1108.3	**861.8**	**589.0**
VT240 S05	**517.8**	**374.3**	711.2	567.7	904.6	761.1	1098.0	954.5	1291.4	1147.9	1484.8	1341.3									**554.0**	**410.5**
VT240 S06	435.7	263.5	**629.1**	**456.9**	822.5	650.3	1015.9	843.7	1209.3	1037.1	1402.7	1230.5	1596.1	1423.9							**664.8**	**492.6**
VT240 S07			547.0	346.1	**740.4**	**539.5**	933.8	732.9	1127.2	926.3	1320.6	1119.7	1514.0	1313.1	1707.4	1506.5					**775.6**	**574.7**
VT240 S08					658.3	428.7	**851.7**	**622.1**	1045.1	815.5	1238.5	1008.9	1431.9	1202.3	1625.3	1395.7	2012.1	1782.5			**886.4**	**656.8**
VT240 S09							769.6	511.3	**963.0**	**704.7**	1156.4	898.1	1349.8	1091.5	1543.2	1284.9	1930.0	1671.7	2316.8	2058.5	**997.2**	**738.9**
VT240 S10									880.9	593.9	**1074.3**	**787.3**	1267.7	980.7	1461.1	1174.1	1847.9	1560.9	2234.7	1947.7	**1108.0**	**821.0**
VT240 S11											992.2	676.5	**1185.6**	**869.9**	1379.0	1063.3	1765.8	1450.1	2152.6	1836.9	**1218.8**	**903.1**
VT240 S12													1103.5	759.1	**1296.9**	**952.5**	1683.7	1339.3	2070.5	1726.1	**1329.6**	**985.2**
VT270 S05	**745.9**	**519.4**	1017.9	791.4	1289.9	1063.4	1561.8	1335.3	1833.8	1607.3	2105.7	1879.2									**786.0**	**559.5**
VT270 S06	634.0	362.2	**906.0**	**634.2**	1178.0	906.2	1449.9	1178.1	1721.9	1450.1	1993.8	1722.0	2265.8	1994.0							**943.2**	**671.4**
VT270 S07			794.1	477.0	**1166.1**	**749.0**	1338.0	1020.9	1610.0	1292.9	1881.9	1564.8	2153.9	1836.8	2425.9	2108.8					**1100.4**	**783.3**
VT270 S08					954.2	591.8	**1226.1**	**863.7**	1498.1	1135.7	1770.0	1407.6	2042.0	1679.6	2314.0	1951.6	2857.9	2495.5			**1257.6**	**895.2**
VT270 S09							1114.2	706.5	**1386.2**	**978.5**	1658.1	1250.4	1930.1	1522.4	2202.1	1794.4	2746.0	2338.3	3289.9	2882.2	**1414.8**	**1007.1**
VT270 S10									1274.3	821.3	**1546.2**	**1093.2**	1818.2	1365.2	2090.2	1637.2	2634.1	2181.1	3178.0	2725.0	**1572.0**	**1119.0**
VT270 S11											1434.3	936.0	**1706.3**	**1208.0**	1978.3	1480.0	2522.2	2023.9	3066.1	2567.8	**1729.2**	**1230.9**
VT270 S12													1594.4	1050.8	**1866.4**	**1322.8**	2410.3	1866.7	2954.2	2410.6	**1886.4**	**1342.8**
VT300 S05	**987.5**	**646.7**	1338.3	997.5	1688.2	1347.4	2038.1	1697.3	2388.0	2047.2	2737.9	2397.1	3087.8	2747.0	3437.7	3096.9	4137.4	3796.6	4837.2	4496.4	**1031.9**	**691.1**
VT300 S06	849.3	440.3	**1200.1**	**791.1**	1550.0	1141.0	1899.9	1490.9	2249.8	1840.8	2599.6	2190.7	2949.5	2540.6	3299.4	2890.5	3999.2	3590.3	4699.0	4290.1	**1238.3**	**829.3**
VT300 S07			1061.9	584.7	**1411.7**	**934.6**	1761.6	1284.5	2111.5	1634.4	2461.4	1984.3	2811.3	2334.2	3161.2	2684.1	3861.0	3383.9	4560.8	4083.7	**1444.7**	**967.5**
VT300 S08					1273.5	728.2	**1623.4**	**1078.1**	1973.3	1428.0	2323.2	1777.9	2673.1	2127.8	3023.0	2477.7	3722.8	3177.5	4422.6	3877.3	**1651.0**	**1105.8**
VT300 S09							1485.2	871.8	**1835.1**	**1221.7**	2185.0	1571.5	2534.9	1921.4	2884.8	2271.3	3584.6	2971.1	4284.4	3670.9	**1857.4**	**1244.0**
VT300 S10									1696.9	1015.3	**2046.8**	**1365.2**	2396.7	1715.1	2746.6	2065.0	3446.3	2764.7	4146.1	3464.5	**2063.8**	**1382.2**
VT300 S11											1908.5	1158.8	**2258.4**	**1508.7**	2608.3	1858.6	3308.1	2558.4	4007.9	3258.2	**2270.2**	**1520.4**
VT300 S12													2120.2	1302.3	**2470.1**	**1652.2**	3169.9	2352.0	3869.7	3051.8	**2476.6**	**1658.6**
VT350 S05	**1498.2**	**1017.1**	2017.5	1536.4	2536.8	2055.6	3056.1	2574.9	3575.3	3094.2	4094.6	3613.5	4613.9	4132.7	5133.2	4652.0	6171.7	5690.6	7210.3	6729.1	**1475.5**	**994.3**
VT350 S06			**1818.6**	**1241.3**	2337.9	1760.5	2857.2	2279.8	3376.5	2799.1	3895.8	3318.4	4415.0	3837.7	4934.3	4356.9	5972.9	5395.5	7011.4	6434.0	**1770.5**	**1193.2**
VT350 S07			1619.8	946.2	**2139.1**	**1465.5**	2658.3	1984.7	3177.6	2504.0	3696.9	3023.3	4216.2	3542.6	4735.5	4061.8	5774.0	5100.4	6812.6	6139.0	**2065.6**	**1392.0**
VT350 S08					1940.2	1170.4	**2459.5**	**1689.6**	2978.8	2208.9	3498.0	2728.2	4017.3	3247.5	4536.6	3766.8	5575.1	4805.3	6613.7	5843.9	**2360.7**	**1590.9**
VT350 S09					1741.3	875.3	2260.6	1394.6	**2779.9**	**1913.8**	3299.2	2433.1	3818.5	2952.4	4337.7	3471.7	5376.3	4510.2	6414.8	5548.8	**2655.8**	**1789.7**
VT350 S10							2061.8	1099.5	2581.0	1618.7	**3100.3**	**2138.0**	3619.6	2657.3	4138.9	3176.6	5177.4	4215.1	6216.0	5253.7	**2950.9**	**1988.6**
VT350 S11							1862.9	804.4	2382.2	1323.7	2901.5	1842.9	**3420.7**	**2362.2**	3940.0	2881.5	4978.6	3920.0	6017.1	4958.6	**3246.0**	**2187.5**
VT350 S12									2183.3	1028.6	2702.6	1547.8	3221.9	2067.1	**3741.2**	**2586.4**	4779.7	3624.9	5818.3	4663.5	**3541.1**	**2386.3**
VT400 S05	**2222.0**	**1497.0**	3013.0	2288.0	3805.0	3080.0	4596.0	3871.0	5387.0	4662.0	6179.0	5454.0									**2301.0**	**1576.0**
VT400 S06			**2698.0**	**1828.0**	3490.0	2620.0	4281.0	3411.0	5072.0	4202.0	5863.0	4993.0	6655.0	5785.0							**2761.0**	**1891.0**
VT400 S07			2383.0	1368.0	**3174.0**	**2195.0**	3966.0	2951.0	4757.0	3742.0	5548.0	4533.0	6339.0	5324.0	7131.0	6116.0					**3221.0**	**2206.0**
VT400 S08					2859.0	1699.0	**3650.0**	**2490.0**	4442.0	3282.0	5233.0	4073.0	6024.0	4864.0	6816.0	5656.0	8398.0	7238.0			**3682.0**	**2522.0**
VT400 S09					2544.0	1239.0	3335.0	2030.0	**4126.0**	**2821.0**	4918.0	3613.0	5709.0	4404.0	6500.0	5195.0	8083.0	6778.0	9665.0	8360.0	**4142.0**	**2837.0**
VT400 S10							3020.0	1570.0	3811.0	2361.0	**4603.0**	**3153.0**	5394.0	3944.0	6185.0	4735.0	7768.0	6318.0	9350.0	7900.0	**4602.0**	**3152.0**
VT400 S11							2705.0	1110.0	3496.0	1901.0	4287.0	2692.0	**5079.0**	**3484.0**	5870.0	4275.0	7452.0	5857.0	9035.0	7440.0	**5062.0**	**3467.0**
VT400 S12									3181.0	1441.0	3972.0	2232.0	4763.0	2023.0	**5555.0**	**3815.0**	7137.0	5397.0	8720.0	6980.0	**5522.0**	**3782.0**

INSTALATION

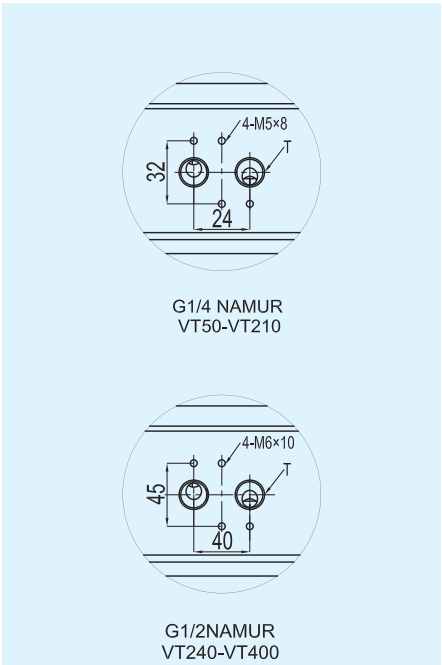
SIDE VIEW



TOP



AIR CONNECTION

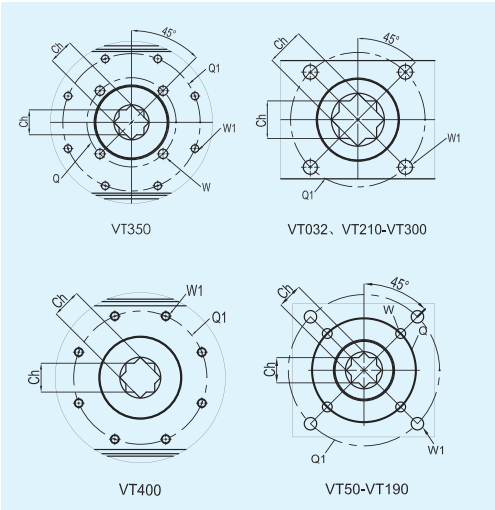


MODEL	A	B	C	L	E	F	P	ØZ	N	I	FLANGE	Q	Q1	W	W1	Ch	T
VT032	37	47	50	110	27	50	20	40	10	10	F03	–	36	–	M5×9	9×9	G1/8"
VT050	45	70.5	70	154	41.5	80	20	40	10	12	F03/05	36	50	M5×7.5	M6×9	11×11	G1/4"
VT065	62	89.5	89	189	51.5	80	20	40	10	16	F05/07	50	70	M6×9	M8×12	14×14	G1/4"
VT075	68	102.5	100	210	59	80	20	40	14	16	F05/07	50	70	M6×9	M8×12	14×14	G1/4"
VT085	68	112.5	113	229	63.5	80	20	40	14	19	F05/07	50	70	M6×9	M8×12	17×17	G1/4"
VT095	92	126	123	264	71	80	20	40	14	19	F05/07	50	70	M6×9	M8×12	17×17	G1/4"
VT110	93	138.5	136	266	76.5	80	20	40	14	19	F07/10	70	102	M8×12	M10×15	17×17	G1/4"
VT125	96	157	161	337	85	80	30	56	22	25	F07/10	70	102	M8×12	M10×15	22×22	G1/4"
VT140	110	178	178	377	97	80	30	56	22	31	F10/12	102	125	M10×15	M12×18	27×27	G1/4"
VT160	112	196	200	412	106	130	30	56	22	31	F10/12	102	125	M10×15	M12×18	27×27	G1/4"
VT190	136	216.5	232	488	112	130	30	56	22	41	F10/14	102	140	M10×15	M16×24	36×36	G1/4"
VT210	140	235.5	255	550	120	130	30	80	32	40	F14	–	140	–	M16×24	36×36	G1/4"
VT240	159	262	292	602	131	130	30	80	32	50	F16	–	165	–	M20×28	46×46	G1/2"
VT270	159	295	331	672	147.5	130	30	80	32	50	F16	–	165	–	M20×28	46×46	G1/2"
VT300	180	335	354	784	173	130	30	80	32	50	F16	–	165	–	M20×28	46×46	G1/2"
VT350	270	385	410	845	195	130	30	80	32	50	F16/F25	165	254	M20×28	M16×30	46×46	G1/2"
VT400	290	520	466	956	260	130	30	80	32	60	F25	–	254	–	M16×30	55×55	G1/2"

MODEL SELECTION

MODEL	TYPE	SPRING QTY	FLANGE	SQURE	OPTION	SEALING PART
VT032	D=DOUBLE ACTING S=SPRING RETURN		F03	9×9	CAP COLOR RAL 7046 9004 5021 3020 6002 5015 TYPE OF BODY P Smooth Surface + hard Anodized S Sandblasted Surface + hard Anodized (Color: Grey) H Sandblasted Surface + hard Anodized (Color: Dark Grey) F Sandblasted Surface + hard Anodized + PTFE Coated	STANDARD NITRILE RUBBER -15℃-+80℃ HT FLUORORUBBER (FOR HIGH TEMPERATURE) -15℃-+150℃ LT SILASTIC (FOR LOW TEMPERATURE) -40℃-+80℃
VT050		ONLY FOR SPRING REST 4 5 6 7 8 9 10 11 12	F03/05	11×11		
VT065			F05/07	14×14		
VT075			F05/07	14×14		
VT085			F05/07	17×17		
VT095			F05/07	17×17		
VT110			F07/10	17×17		
VT125			F07/10	22×22		
VT140			F10/12	27×27		
VT160			F10/12	27×27		
VT190			F10/14	36×36		
VT210			F14	36×36		
VT240			F16	46×46		
VT270			F16	46×46		
VT300			F16	46×46		
VT350			F16/25	46×46		
VT400			F25	55×55		

BOTTOM



Note:

1.The standard rotation of double acting and spring return is clockwise to close(for double acting when port 4 is pressurised)
2.The standard temperature of sealing part is -15℃to 80℃,if high temperature or low temperature required,relevant sealing parts can be used.
3.All technical parameters of products please refer to this catalog.Customization for special requirement is available. Please contact the sales.
4.Customization including but not limited to the items below:
1)Color combination.
2)Flange and Square custom made.
3)Higher protection level.

Model Selection Example:

Example1:VT095D F07/10 17 P7046
Description:Actuator model VT095,double acting ,ISO flange F07&F10,17 mm bottom square with standard indicator,P body, cap color grey(RAL7046),nitrile rubber sealing.
Example2:VT190S12 F10/14 36 S5021HT
Description:Actuator model VT190,single acting spring return,with 12 springs ,ISO flange F10&F14,36 mm bottom square ,S body,cap color green(RAL5021), fluororubber sealing.

ACCESSORIES

Rotay pneumatic valve positioner

Box 4-20mA feedback for rotary actuators

Double-acting smart positioner for rotary actuators

Box limit switches for rotary actuators

I/P converter for field mounting

Valve proximity sensors

Proportional pressure controller valve/ Ep regulator

PID or On-Off controller

Solenoid valve

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