

V-TORK®



VTP Series Pneumatic Actuator



High performance and high reliability

Fully compliant with the latest international standards and regulations

More applicable to a wide range of specifications and higher cost performance

Compact design is better suited for a variety of industrial applications



Design and Structure

Design

VTP series pneumatic actuator applies innovative rack and pinion drive mechanism, integrating the latest pneumatic actuator technology and materials. The series is designed as per extensive field mounting and application experience with following product strengths:

- ☆ High performance and high reliability
- ☆ Fully compliant with the latest international standards and regulations
- ☆ More applicable to a wide range of specifications and higher cost performance
- ☆ Compact design is better suited for a variety of industrial applications

Structure

1. Integrate and compact design utilizes the same body and end caps for the same double acting and spring return actuator models. It also benefits less spare parts inventory and is greatly convenient for customers' field application by adding or removing spring cartridges.

2. Fully compliant with the latest international standards including ISO5211, DIN3337 and VDI/VDE3845, etc. Fully compliant with NUMAR standard and interchangeability, convenient to replace or mount accessories including solenoid valves, limit switches.

3. Apply rack and pinion with double pistons in advantages of compact structure, high cycle life, and swift operation. The piston tooth surface processed by CNC machining center performs with optimized gearing efficiency and transmission precision, as well as stable operation and reliable performance. It is convenient to switch rotation direction only by inverting the pistons for symmetrical mounting position design.

4. Dual independent travel stoppers can be conveniently and precisely implement $\pm 5^\circ$ adjustments externally in two directions, allowing actuators in alignment with valve on both the opening and closing phases of the stroke.

5. The composite bearings and guides on pinion and piston ensure precise operation, low friction and high life cycle, preventing output shaft from fractures.

7. Modularized preload spring cartridges with special coating is applicable to a wide range of scenarios with high security and anti-corrosion.

6. The dedicated sealing ring fitted between body and cylinder avoids the failure caused by suction of rubber plug initially which enhances security, leakproofness and longer service life.

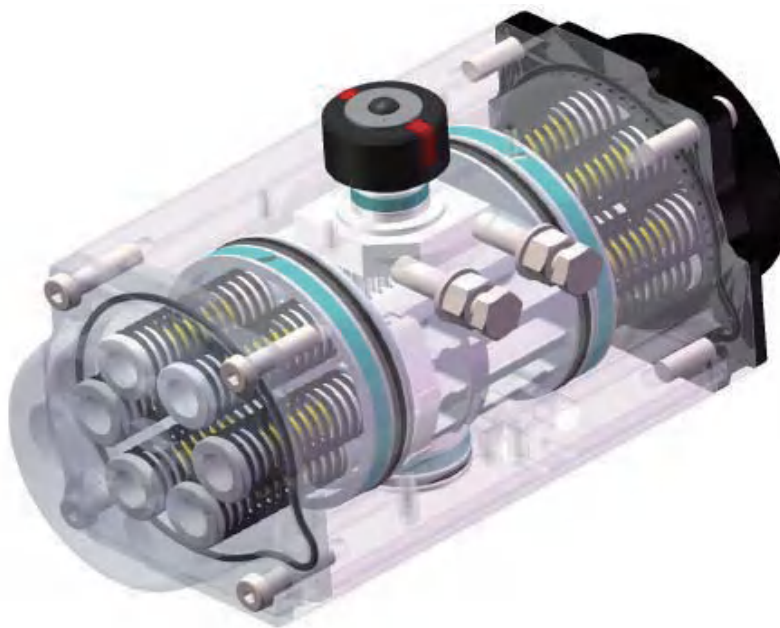
8. High-quality bearings are of reliable sealing, low friction, high cycle life and wide range of application temperature.

9. All of the internal and external fasteners are made in long term corrosion-resistant stainless steel.

10. Multifunctional position indicator with slot in compliance with NAMUR standard offers simplicity and clarity for visual indication. Connection to a variety of standard and common sensors can be easily realized.

11. Under normal operating conditions, the safety factor of 20%-30% increase of valve torque should be considered when selecting double-acting actuators.

12. Under normal operating conditions, the safety factor of 20%-30% increase of valve torque should be considered when selecting single-acting actuators.



Product Selection Range、Accessories and Quality Management

Selection Range:

- A. Actuators in all specifications are supplied with 304 or 316 stainless steel output shafts as requested.
- B. For applications under extremely high and low temperature, all models are supplied with corresponding FPM or silicone rubber O-ring with special lubricant.
- C. Except for the octagon output drive at the bottom, the customized design as per customers' specific requirements is also available. Please contact VTORK for details.

Quality Management:

- VTP series pneumatic actuator production process is fully compliant with ISO9001.
- 100% of all units are factory pressure and leak tested and externally marked with dedicated serial number for traceability.
- 100% of all units are individually boxed with suitable cardboard carton for protection and appropriately labeled in detail for identification.

Accessories Options:

Bracket、Connector、Solenoid Valve、Limit Switch Box、Proximity Sensor、Gear Box(Manual Gear Override)、Positioner、Complete set of square output shaft sleeves in reduced sizes .

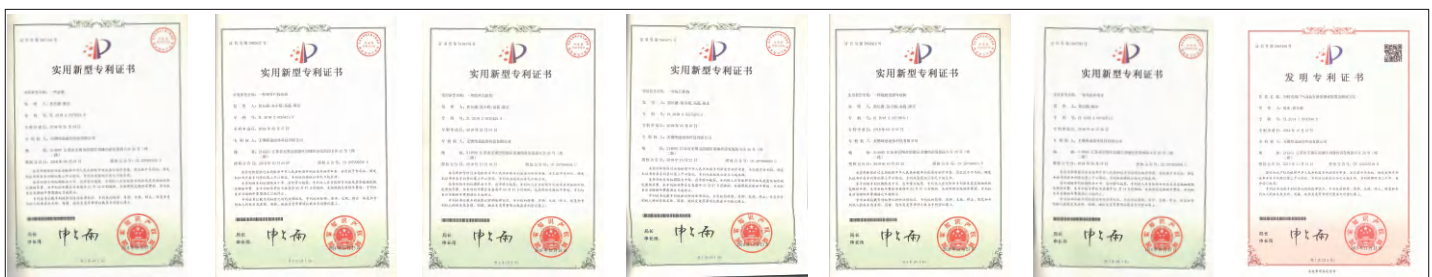
High-Quality Products and Patent Qualification Certificates

Various Qualifications And Certifications Verified By International Authorities

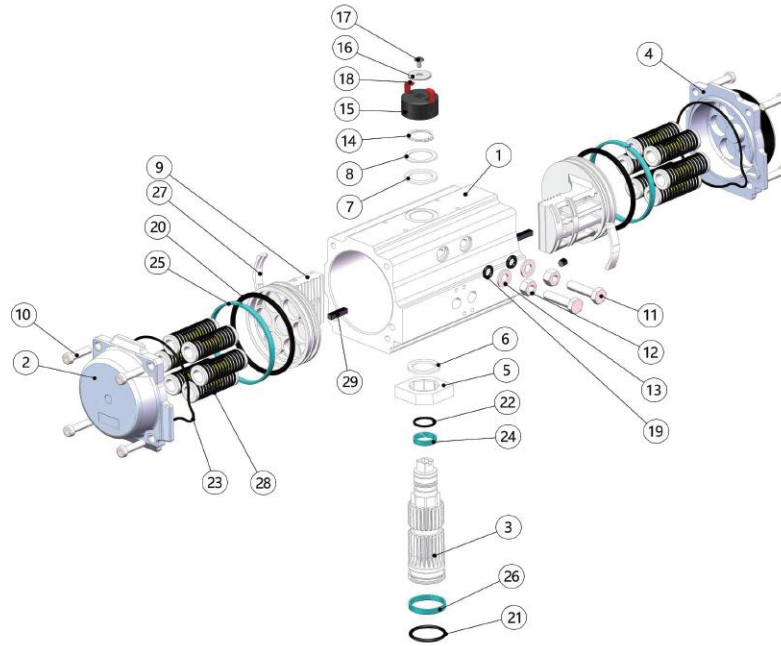
- All VTP products have been professionally designed with optimization.
- 100% of all units are factory pressure and leak tested.
- 100% of all units are externally marked with dedicated serial number for traceability.
- 100% of all units are individually boxed with suitable cardboard carton for protection and appropriately labeled in detail for identification.



Numerous Invention Patent Certifications



Part and Material



Item No.	Description	Materials	Qty.	Item No.	Description	Materials	Qty.	Item No.	Description	Materials	Qty.
1	Body	Aluminum Alloy	1	12	Travel Stop Nut	Stainless Steel	2	23	O-ring (End Cap)	NBR	2
2	Left End Cap	Aluminum Alloy	1	13	Travel Stop Washer	Stainless Steel	2	24	Upper Pinion Bearing	Advanced Polymer	1
3	Pinion	45# Steel	1	14	Retaining Ring	Spring Steel	1	25	Piston Wear Bearing	Advanced Polymer	2
4	Right End Cap	Aluminum Alloy	1	15	Indicator	Advanced Polymer	1	26	Lower Pinion Bearing	Advanced Polymer	1
5	OCTI-CAM	45# Steel	1	16	Indicator Thrust Bearing	Stainless Steel	1	27	Piston Skate	Advanced Polymer	2
6	Upper Pinion Thrust Bearing	Advanced Polymer	1	17	Flat Cross Bolt	Stainless Steel	1	28	Spring	Spring Steel	0-12
7	Thrust Bearing	Advanced Polymer	1	18	Color Code	Advanced Polymer	2	29	Guide Key	Advanced Polymer	2
8	Thrust Washer	Stainless Steel	1	19	O-ring (Travel Stop)	NBR	2				
9	Travel Stop Piston	Aluminum Alloy	2	20	O-ring (Piston)	NBR	2				
10	End Cap Bolt	Stainless Steel	8	21	O-ring (Lower Pinion)	NBR	1				
11	Travel Stop	Stainless Steel	2	22	O-ring (Upper Pinion)	NBR	1				

Technical Data (Metric Unit)

Model	VT050P		VT065P		VT075P		VT085P		VT095P		VT110P		VT125P		VT140P		VT160P		VT190P		VT210P		VT240P		VT270P		VT300P		VT350P		VT400P	
	DN	SN	DN	SN	DN	SN	DN	SN	DN	SN	DN	SN	DN	SN	DN	SN	DN	SN	DN	SN	DN	SN	DN	SN	DN	SN	DN	SN	DN	SN		
Diameter(mm)	50		65		75		85		95		105		125		140		160		190		210		240		270		300		350		400	
Air Volume Opening(L)	0.1		0.22		0.25		0.45		0.95		1.07		1.47		2.13		3.89		6.16		8.22		12.26		15.80		17.35		27.65		42.81	
Air Volume Closing(L)	0.15		0.26		0.41		0.61		0.98		1.24		1.86		3.08		4.7		8.59		10.95		16.01		18.80		24.83		44.10		62.05	
Opening Time(S)	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(S)	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)	1.08	1.2	1.91	2.15	2.41	2.8	3.32	3.95	4.98	5.8	6.53	7.95	10.24	12.1	15.1	15.93	21.3	25.6	29.3	33.81	37.7	48.43	54.2	77.76	82.0	90.6	108	135.6	146.7	188.1	220.5	283.5

Notice: (A) The operation time above are measured in following experimental conditions:

1.For model 50-160

(1)Room temperature

(5) Neutral clean air

(2)Actuator stroke 90°

(6)Air supply pressure 5.5 bar

(3)Solenoid valve with orifice of 4 mm and a flow capacity Qn400L/min

(7)Actuator without external resistance load

(4)Inside pipe diameter 6 mm

2.For model 190-400

(1)Room temperature

(5)Neutral clean air

(2)Actuator stroke 90°

(6)Air supply pressure 5.5 bar

(3)Solenoid valve with orifice of 12 mm and a flow capacity Qn5100L/min

(7)Actuator without external resistance load

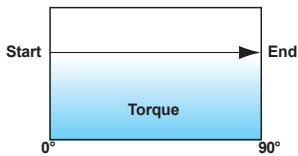
(4)Inside pipe diameter 8 mm

Cautions: obviously on the field applications when one or more parameters are different from above, the operation time will be different. Air consumption rest with air supply, open/switch stroke, air volume and action cycle times. Expressions:

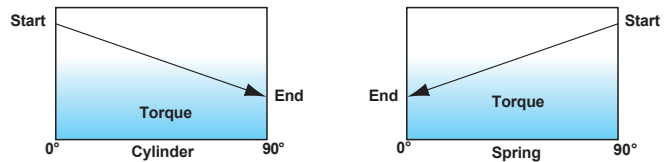
$$L/\text{min} = \text{Air volume}(\text{opening air volume} + \text{closing air volume}) \times \frac{[\text{Air Supply}(\text{Kpa}) + 101.3]}{101.3} \times \text{Action times}(\text{/min})$$

Torque-Metric Torque Output

Double Acting Torque Output Diagram



Spring Return Torque Output Diagram



Double Acting Actuator Torque (N.m)										
Model	Air Supply (Unit: Bar)									
	2.5	3	3.5	4	4.5	5	5.5	6	7	8
VT050DP	9.4	11.3	13.2	15.1	17	18.8	20.7	22.6	26.4	30.2
VT065DP	19.1	22.9	26.7	30.6	34.4	38.2	42	45.9	53.5	61.2
VT075DP	25.2	30.2	35.3	40.3	45.3	50.4	55.4	60.4	70.5	80.6
VT085DP	40.8	49	57.2	65.4	73.5	81.7	89.9	98.1	114.4	130.7
VT095DP	61.2	73.5	85.7	100	110.2	122.5	134.7	147	171.5	196
VT110DP	83.1	99.7	116.4	133	149.6	166.2	182.9	199.5	232.7	266
VT125DP	132.5	159	185.5	212	238.6	265.1	291.6	318.1	371.1	424.1
VT140DP	219.3	263.2	307.1	351	394.9	438.7	482.6	526.4	614.2	702
VT160DP	334.2	401.1	468	534.8	601.7	668.5	735.4	802.2	935.9	1069.6
VT190DP	505	606	707	808	909	1010	1111	1212	1414	1616.1
VT210DP	658	789.7	921.3	1052.9	1184.5	1316.1	1447.8	1579.4	1842.6	2105.8
VT240DP	967	1160.3	1353.7	1547.1	1740.5	1934	2127.3	2320.7	2707.5	3094.3
VT270DP	1468.6	1762.3	2056	2349.7	2643.4	2937.2	3230.9	3524.6	4112	4699.5
VT300DP	1678.6	2029.4	2379.3	2729.2	3079.1	3429	3778.9	4128.8	4828.5	5528.3
VT350DP	2492.5	3011.8	3531.1	4050.4	4569.6	5088.9	5608.2	6127.5	7166	8204.6
VT400DP	3798.1	4589.4	5380.7	6172	6963.3	7754.5	8545.8	9337.1	10919.7	12502.2

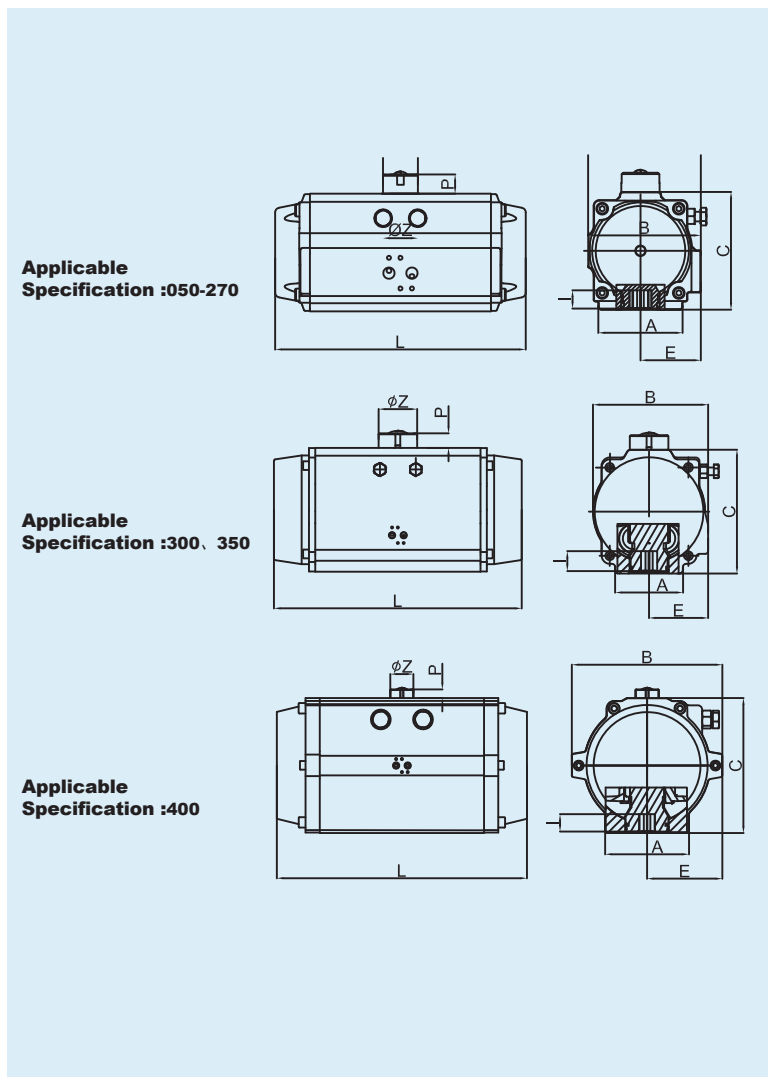
Spring Return Actuator Torque (N.m)																							
Model	Air Supply (Unit: Bar)																				Spring Return		
	2.5		3		3.5		4		4.5		5		5.5		6		7		8				
	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°	
VT050S05P	5.8	3.7	7.7	5.6	9.6	7.5	11.5	9.4	13.4	11.3	15.2	13.1	17.1	15.0	19.0	16.9	22.8	20.7	26.6	24.5	5.7	3.6	
VT050S06P	5.1	2.6	7.0	4.5	8.9	6.4	10.8	8.3	12.7	10.2	14.5	12.0	16.4	13.9	18.3	15.8	22.1	19.6	25.9	23.4	6.8	4.3	
VT050S07P			6.3	1.4	8.2	5.2	10.1	7.1	12.0	9.0	13.8	10.8	15.7	12.7	17.6	14.6	21.4	18.4	25.2	22.2	8.0	5.0	
VT050S08P					7.4	4.1	9.3	6.0	11.2	7.9	13.0	9.7	14.9	11.6	16.8	13.5	20.6	17.3	24.4	21.1	9.1	5.8	
VT050S09P							8.6	4.8	10.5	6.7	12.3	8.5	14.2	10.4	16.1	12.3	19.9	16.1	23.7	19.9	10.3	6.5	
VT050S10P								9.8	5.6	11.6	7.4	13.5	9.3	15.4	11.2	19.2	15.0	23.0	18.8	11.4	7.2		
VT050S11P										10.9	6.3	12.8	8.2	14.7	10.1	18.5	13.9	22.3	17.7	12.5	7.9		
VT050S12P													12.1	7.0	14.0	8.9	17.8	12.7	21.6	16.5	13.7	8.6	
VT065S05P	11.9	7.9	15.7	11.7	19.5	15.5	23.4	19.4	27.2	23.2	31.0	27.0	34.8	30.8	38.7	34.7	46.3	42.3	54.0	50.0	11.2	7.2	
VT065S06P	10.2	5.7	14.3	9.5	18.1	13.3	22.0	17.2	25.8	21.0	29.6	24.8	33.4	28.6	37.3	32.5	44.9	40.1	52.6	47.8	13.4	8.6	
VT065S07P			12.8	7.2	16.6	11.0	20.5	14.9	24.3	18.7	28.1	22.5	31.9	26.3	35.8	30.2	43.4	37.8	51.1	45.5	15.7	10.1	
VT065S08P					15.2	8.8	19.1	12.7	22.9	16.5	26.7	20.3	30.5	24.1	34.4	28.0	42.0	35.6	49.7	43.3	17.9	11.5	
VT065S09P							17.6	10.4	21.4	14.2	25.2	18.0	29.0	21.8	32.9	25.7	40.5	33.3	48.2	41.0	20.2	13.0	
VT065S10P								20.0	12.0	23.8	15.8	27.6	19.6	31.5	23.5	39.1	31.1	46.8	38.8	22.4	14.4		
VT065S11P											22.4	13.6	26.2	17.4	30.1	21.3	37.7	28.9	45.4	36.6	24.6	15.8	
VT065S12P													24.7	15.1	28.6	19.0	36.2	26.6	43.9	34.3	26.9	17.3	
VT075S05P	16.0	9.1	21.0	14.1	26.1	19.2	31.1	24.2	36.1	29.2	41.2	34.3	46.2	39.3	51.2	44.3	61.3	54.4	71.4	64.5	16.1	9.2	
VT075S06P	14.2	5.9	19.2	10.9	24.3	16.0	29.3	21.0	34.3	26.0	39.4	31.1	44.4	36.1	49.4	41.1	59.5	51.2	69.6	61.3	19.3	11.0	
VT075S07P			17.3	7.7	22.4	12.8	27.4	17.8	32.4	22.8	37.5	27.9	42.5	32.9	47.5	37.9	57.6	48.0	67.7	58.1	22.5	12.9	
VT075S08P					20.6	9.5	25.6	14.5	30.6	19.5	35.7	24.6	40.7	29.6	45.7	34.6	55.8	44.7	65.9	54.8	25.8	14.7	
VT075S09P							23.7	11.3	28.7	16.3	33.8	21.4	38.8	26.4	43.8	31.4	53.9	41.5	64.0	51.6	29.0	16.6	
VT075S10P								26.9	13.1	32.0	18.2	37.0	23.2	42.0	28.2	52.1	38.3	62.2	48.4	32.2	18.4		
VT075S11P											30.2	15.0	35.2	20.0	40.2	25.0	50.3	35.1	60.4	45.2	35.4	20.2	
VT075S12P														33.3	16.8	38.3	21.8	48.4	31.9	58.5	42.0	38.6	22.1
VT085S05P	25.8	14.8	34.0	23.0	42.2	31.2	50.4	39.4	58.5	47.5	66.7	55.7	74.9	63.9	83.1	72.1	99.4	88.4	115.7	104.7	26.0	15.0	
VT085S06P	22.8	9.6	31.0	17.8	39.2	26.0	47.4	34.2	55.5	42.3	63.7	50.5	71.9	58.7	80.1	66.9	96.4	83.2	112.7	99.5	31.2	18.0	
VT085S07P			28.0	12.6	36.2	20.8	44.4	29.0	52.5	37.1	60.7	45.3	68.9	53.5	77.1	61.7	93.4	78.0	109.7	94.3	36.4	21.0	
VT085S08P					33.2	15.6	41.4	23.8	49.5	31.9	57.7	40.1	65.9	48.3	74.1	56.5	90.4	72.8	106.7	89.1	41.6	24.0	
VT085S09P							38.4	18.6	46.5	26.7	54.7	34.9	62.9	43.1	71.1	51.3	87.4	67.6	103.7	83.9	46.8	27.0	
VT085S10P									43.5	21.5	51.7	29.7	59.9	37.9	68.1	46.1	84.4	62.4	100.7	78.7	52.0	30.0	
VT085S11P											48.7	24.5	56.9	32.7	65.1	40.9	81.4	57.2	97.7	73.5	57.2	33.0	
VT085S12P														53.9	27.5	62.1	35.7	78.4	52.0	94.7	68.3	62.4	36.0
VT095S05P	36.7	24.5	49.0	36.8	61.2	49.0	75.5	63.3	85.7	73.5	98.0	85.8	110.2	98.0	122.5	110.3	147.0	134.8	171.5	159.3	36.7	24.5	
VT095S06P	31.8	17.2	44.1	29.5	56.3	41.7	70.6	56.0	80.8	66.2	93.1	78.5	105.3	90.7	117.6	103.0	142.1	127.5	166.6	152.0	44.0	29.4	
VT095S07P			39.2	22.1	51.4	34.3	65.7	48.6	75.9	58.8	88.2	71.1	100.4	83.3	112.7	95.6	137.2	120.1	161.7	144.6	51.4	34.3	
VT095S08P					46.5	27.0	60.8	41.3	71.0	51.5	83.3	63.8	95.5	76.0	107.8	88.3	132.3	112.8	156.8	137.3	58.7	39.2	
VT095S09P							55.9	33.9	66.1	44.1	78.4	56.4	90.6	68.6	102.9	80.9	127.4	105.4	151.9	129.9	66.1	44.1	
VT095S10P									61.2	36.8	73.5	49.1	85.7	61.3	98.0	73.6	122.5	98.1	147.0	122.6	73.4	49.0	
VT095S11P											68.6	41.8	80.8	54.0	93.1	66.3	117.6	90.8	142.1	115.3	80.7	53.9	
VT095S12P														75.9	46.6	88.2	58.9	112.7	83.4	137.2	107.9	88.1	58.8
VT110S05P	48.5	28.3	65.1	44.9	81.8	61.6	98.4	78.2	115.0	94.8	131.6	111.4	148.3	128.1	164.9	144.7	198.1	177.9	231.4	211.2	54.8	34.6	
VT110S06P	41.6	17.3	58.2	33.9	74.9	50.6	91.5	67.2	108.1	83.8	124.7	100.4	141.4	117.1	158.0	133.7	191.2	166.9	224.5	200.2	65.8	41.5	
VT110S07P			51.3	23.0	68.0	39.7	84.6	56.3	101.2	72.9	117.8	89.5	134.5	106.2	151.1	122.8	184.3	156.0	217.6	189.3	76.7	48.4	
VT110S08P					61.0	28.7	77.6	45.3	94.2	61.9	110.8	78.5	127.5	95.2	144.1	111.8	177.3	145.0	210.6	178.3	87.7	55.4	
VT110S09P							70.7	34.4	87.3	51.0	103.9	67.6	120.6	84.3	137.2	100.9	170.4	134.1	203.7	167.4	98.6	62.3	
VT110S10P									80.4	40.0	97.0	56.6	113.7	73.3	130.3	89.9	156.6	123.1	196.8	156.4	109.6	69.2	
VT110S11P											90.1	45.6	106.8	62.3	123.4	78.9	156.6	112.1	189.9	145.4	120.6	76.1	
VT110S12P														99.9	51.4	116.5	68.0	149.7	101.2	183.0	134.5	131.5	83.0

Torque-Metric Torque Output

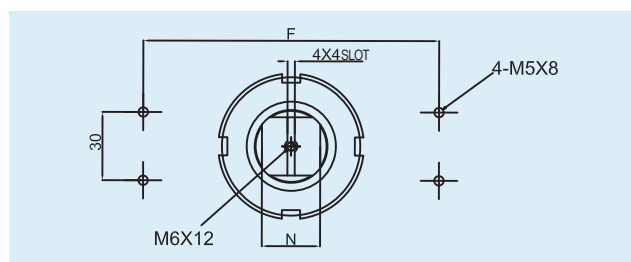
Model	Spring Return Actuator Torque (N.m)																				Spring Return	
	Air Supply (Unit: Bar)																					
	2.5		3		3.5		4		4.5		5		5.5		6		7		8			
0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	
VT125S05P	78.5	53.9	105.0	80.4	131.5	106.9	158.0	133.4	184.6	160.0	211.1	186.5	237.6	213.0	264.1	239.5	317.1	292.5	370.1	345.5	78.6	54.0
VT125S06P	67.7	38.2	94.2	64.7	120.7	91.2	147.2	117.7	173.8	144.3	200.3	170.8	226.8	197.3	253.3	223.8	306.3	276.8	359.3	329.8	94.3	64.8
VT125S07P			83.4	49.0	109.9	75.5	136.4	102.0	163.0	128.6	189.5	155.1	216.0	181.6	242.5	208.1	295.5	261.1	348.5	314.1	110.0	75.6
VT125S08P					99.1	59.7	125.6	86.2	152.2	112.8	178.7	139.3	205.2	165.8	231.7	192.3	284.7	245.3	337.7	298.3	125.8	86.4
VT125S09P							114.8	70.5	141.4	97.1	167.9	123.6	194.4	150.1	220.9	176.6	273.9	229.6	326.9	282.6	141.5	97.2
VT125S10P									130.6	81.4	157.1	107.9	183.6	134.4	210.1	160.9	263.1	213.9	316.1	266.9	157.2	108.0
VT125S11P											146.3	92.2	172.8	118.7	199.3	145.2	252.3	198.2	305.3	251.2	172.9	118.8
VT125S12P													162.0	103.0	188.5	129.5	241.5	182.5	294.5	235.5	188.6	129.6
VT140S05P	133.8	85.4	177.7	129.3	221.6	173.2	265.5	217.1	309.4	261.0	353.2	304.8	397.1	348.7	440.9	392.5	528.7	480.3	616.5	568.1	133.9	85.5
VT140S06P	116.7	58.6	160.6	102.5	204.5	146.4	248.4	190.3	292.3	234.2	336.1	278.0	380.0	321.9	423.8	365.7	511.6	453.5	599.4	541.3	160.7	102.6
VT140S07P			143.5	75.7	187.4	119.6	231.3	163.5	275.2	207.4	319.0	251.2	362.9	395.1	406.7	338.9	494.5	426.7	582.3	514.5	187.5	119.7
VT140S08P					170.3	92.9	214.2	136.8	258.1	180.7	301.9	224.5	345.8	268.4	389.6	312.2	474.4	400.0	565.2	487.8	214.2	136.8
VT140S09P							197.1	110.0	241.0	153.9	284.8	197.7	328.7	241.6	372.5	285.4	460.3	373.2	548.1	461.0	241.0	153.9
VT140S10P									223.9	127.1	267.7	170.9	311.6	214.8	355.4	258.6	443.2	346.4	531.0	434.2	267.8	171.0
VT140S11P											250.6	144.1	294.5	188.0	338.3	231.8	426.1	319.6	513.9	407.4	294.6	188.1
VT140S12P													277.4	161.2	321.2	205.0	409.0	292.8	496.8	380.6	321.4	205.2
VT160S05P	208.7	125.6	275.6	192.5	342.5	259.4	409.3	326.2	476.2	393.1	543.0	459.9	609.9	526.8	676.7	593.6	810.4	727.3	944.1	861.0	208.6	125.5
VT160S06P	183.6	83.9	250.5	150.8	317.4	217.7	384.2	284.5	451.1	351.4	517.9	418.2	584.8	485.1	651.6	551.9	785.3	686.6	919.0	819.3	250.3	150.6
VT160S07P			225.4	109.1	292.3	176.0	359.1	242.8	426.0	309.7	492.8	376.5	559.7	443.4	626.5	510.2	760.2	643.9	893.9	777.6	292.0	175.7
VT160S08P					267.2	134.2	334.0	201.0	400.9	267.9	467.7	334.7	534.6	401.6	601.4	468.4	735.1	602.1	868.8	735.8	333.8	200.8
VT160S09P							308.9	159.3	375.8	226.2	442.6	293.0	509.5	359.9	576.3	426.7	710.0	560.4	843.7	694.1	375.5	225.9
VT160S10P									350.7	184.5	417.5	251.3	484.4	318.2	551.2	385.0	684.9	518.7	818.6	652.4	417.2	251.0
VT160S11P											392.4	209.6	459.3	276.5	526.1	343.3	659.8	477.0	793.5	610.7	458.9	276.1
VT160S12P													434.2	234.8	501.0	301.6	634.7	435.3	768.4	569.0	500.6	301.2
VT190S05P	309.0	195.0	410.0	296.0	511.0	397.0	612.0	498.0	713.0	599.0	814.0	700.0	915.0	801.0	1016.0	902.0	1218.0	1104.0	1420.1	1306.1	310.0	196.0
VT190S06P	269.8	133.0	370.8	234.0	471.8	335.0	572.8	436.0	673.8	537.0	774.0	638.0	875.8	739.0	976.8	840.0	1178.8	1042.0	1380.9	1244.1	372.0	235.2
VT190S07P			331.6	172.0	432.6	273.0	533.6	374.0	634.6	475.0	735.6	576.0	836.6	677.0	937.6	778.0	1139.6	980.0	1341.7	1182.1	434.0	274.4
VT190S08P					393.4	211.0	494.4	312.0	595.4	413.0	696.4	514.0	797.4	615.0	898.4	716.0	1100.4	918.0	1302.5	1120.1	496.0	313.6
VT190S09P					455.2	250.0	552.2	351.0	657.2	452.0	758.2	553.0	859.2	654.0	956.2	750.0	1061.2	856.0	1263.3	1058.1	558.0	352.8
VT190S10P							517.0	289.0	618.0	413.0	719.0	519.0	819.0	619.0	820.0	619.0	1022.0	794.0	1224.1	996.1	620.0	392.0
VT190S11P									578.8	328.0			679.8	429.0	780.8	530.0	982.8	732.0	1184.9	934.1	682.0	431.2
VT190S12P													640.6	367.0	741.6	468.0	943.6	670.0	1145.7	872.1	744.0	470.4
VT210S05P	380.0	278.0	511.7	409.7	643.3	541.3	774.9	672.9	906.5	804.5	1038.1	936.1	1169.8	1067.8	1301.4	1199.4	1564.6	1462.6	1827.8	1725.8	380.0	278.0
VT210S06P	324.4	202.0	456.1	333.7	587.7	465.3	719.3	596.9	850.9	728.5	982.5	860.1	1114.2	991.8	1245.8	1123.4	1509.0	1386.6	1772.2	1649.8	456.0	333.6
VT210S07P			400.5	257.7	532.1	389.3	663.7	520.9	795.3	652.5	926.9	784.1	1058.6	915.8	1190.2	1047.4	1453.4	1310.6	1716.6	1573.8	532.0	389.2
VT210S08P					476.5	313.3	608.1	444.9	739.7	576.5	871.3	708.1	1003.0	839.8	1134.6	971.4	1397.8	1234.6	1661.0	1497.8	608.0	444.8
VT210S09P							552.5	368.9	684.1	500.5	815.7	632.1	947.4	763.8	1079.0	895.4	1342.2	1158.6	1605.4	1421.8	684.0	500.4
VT210S10P									628.5	424.5	760.1	556.1	891.8	687.8	1023.4	819.4	1286.6	1082.6	1549.8	1345.8	760.0	556.0
VT210S11P											704.5	480.1	836.2	611.8	967.8	743.4	1231.0	1006.6	1494.2	1269.8	836.0	611.6
VT210S12P													780.6	535.8	912.2	667.4	1175.4	930.6	1438.6	1193.8	912.0	667.2
VT240S05P	593.0	373.9	786.3	567.2	979.7	760.6	1173.1	954.0	1366.5	1147.4	1560.0	1340.9	1753.3	1534.2	1946.7	1727.6	2333.5	2114.4	2720.3	2501.2	593.1	374.0
VT240S06P	518.2	255.3	711.5	448.6	904.9	642.0	1098.3	835.4	1291.7	1028.8	1485.2	1222.3	1678.5	1415.6	1871.9	1609.0	2258.7	1995.8	2645.5	2382.6	711.1	448.8
VT240S07P			636.7	330.0	830.1	523.4	1023.5	716.8	1216.9	910.2	1410.4	1103.7	1603.7	1297.0	1797.1	1490.4	2183.9	1877.2	2570.7	2264.0	830.3	523.6
VT240S08P					755.3	404.7	948.7	598.1	1142.1	791.5	1335.6	985.0	1528.9	1178.3	1722.3	1371.7	2109.1	1758.5	2495.9	2145.3	949.0	598.4
VT240S09P							873.9	479.5	1067.3	672.9	1260.8	866.4	1454.1	1059.7	1647.5	1253.1	2034.3	1639.9	2421.1	2026.7	1067.6	673.2
VT240S10P									992.5	554.3	1186.0	747.8	1379.3	941.1	1572.7	1134.5	1959.5	1521.3	2346.3	1908.1	1186.2	748.0
VT240S11P											1111.2	629.2	1304.5	822.5	1497.9	1015.9	1884.7	1402.7	2271.5	1789.5	1304.8	822.8
VT240S12P													1229.7	703.9	1423.1	897.3	1809.9	1284.1	2196.7	1670.9	1423.4	897.6
VT270S05P	853.0	615.8	1146.7	909.5	1440.4	1203.2	1734.1	1496.9	2027.8	1790.6	2321.6	2084.4	2615.3	2378.1	2909.0	2671.8	3496.4	3259.2	4083.9	3846.7	852.8	615.6
VT270S06P	729.9	445.2	1023.6	738.9	1317.3	1032.6	1611.0	1326.3	1904.7	1620.0	2198.5	1913.8	2492.2	2207.5	2785.9	2501.2	3373.3	3088.6	3960.8	3676.1	1023.4	738.7
VT270S07P			900.5	568.4	1194.2	862.1	1487.9	1155.8	1781.6	1449.5	2075.4	1743.3	2369.1	2037.0	2662.8	2330.7	3250.2	2918.1	3837.7	3505.6	1193.9	861.8
VT270S08P					1071.0	691.5	1364.7	985.2	1658.4	1278.9	1952.2	1572.7	2245.9	1866.4	2539.6	2160.1	3127.0	2747.5	3714.5	3335.0	1364.5	985.0
VT270S09P							1241.6	814.7	1535.3	1108.4	1829.1	1402.2	2122.8	1695.9	2416.5	1989.6	3003.9	2577.0	3591.4	3164.5	1535.0	1108.1
VT270S10P									1412.2	937.8	1706.0	1231.6	1999.7	1525.3	2293.4	1819.0	2880.8	2406.4	3468.3	2993.9	1705.6	1231.2
VT270S11P											1582.9	1061.0	1876.6	1354.7	2170.3	1648.4	2757.7	2235.8	3325.3	2823.3	1876.2	1354.3
VT270S12P													1753.5	1184.2	2047.2	1477.9	2634.6	2065.3	3222.1	2652.8	2046.7	1477.4
VT300S05P	987.5	646.7	1338.3																			

Installation Information

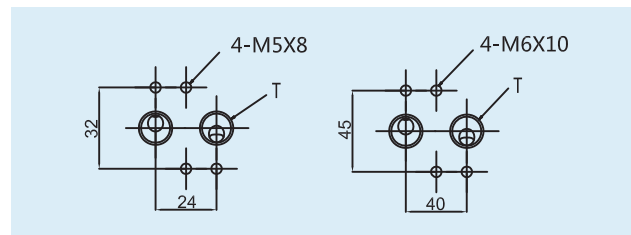
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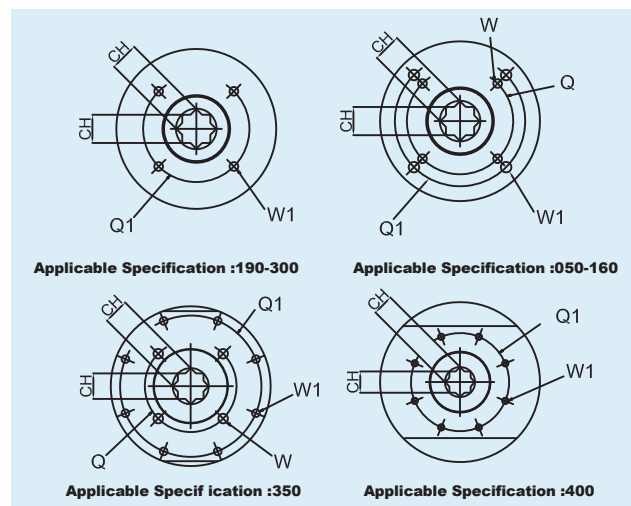
Top View



Air Supply Interface



Bottom View



VTP Series Pneumatic Actuator Dimension Table (Unit: mm)

Model	A	B	C	L	E	F	P	Z	N	I	Flange Type	Q	Q1	W	W1	Ch	T
050	46	71	70	151	41.5	80	20	40	10	12	F03/F05	36	50	M5x7.5	M6x9	11x11	G1/4"
065	64	84.5	89	168	46.5	80	20	40	10	16	F05/F07	50	70	M6x9	M8x12	14x14	G1/4"
075	68	98.8	100	182	55	80	20	40	14	16	F05/F07	50	70	M6x9	M8x12	14x14	G1/4"
085	68	108.5	113	210	59.5	80	20	40	14	19	F05/F07	50	70	M6x9	M8x12	17x17	G1/4"
095	88	117.7	123	261.8	63	80	20	40	14	19	F05/F07	50	70	M6x9	M8x12	17x17	G1/4"
110	93	132	136	285.2	73	80	20	40	14	19	F07/F10	70	102	M8x12	M10x15	17x17	G1/4"
125	96	152	159	320	81	80/130	30	56	22	25	F07/F10	70	102	M8x12	M10x15	22x22	G1/4"
140	110	172	178	401	91	80/130	30	56	22	31	F10/F12	102	125	M10x15	M12x18	27x27	G1/4"
160	112	189	200	459	100	80/130	30	56	22	31	F10/F12	102	125	M10x15	M12x18	27x27	G1/4"
190	136	217	232	495	112	130	30	56	22	41	F10/F14	102	140	M10x15	M16x24	36x36	G1/4"
210	140	236	255	529	122	130	30	80	32.5	40	F14	-	140	-	M16x24	36x36	G1/4"
240	160	268.5	292	618	139	130	30	80	32.5	50	F16	-	165	-	M20x25	46x46	G1/2"
270	160	296	331	737	151	130	30	80	32.5	50	F16	-	165	-	M20x25	46x46	G1/2"
300	180	335	354	784	173	130	30	80	32.5	50	F16	-	165	-	M20x25	46x46	G1/2"
350	270	385	410	845	195	130	30	80	32.5	50	F16/F25	165	254	M20x25	M16x24	46x46	G1/2"
400	290	520	466	956	260	130	30	80	32.5	60	F25	-	254	-	M16x24	55x55	G1/2"

Selection Method

Model	Type	Spring Qty.	Code	Flange Type	Square	Option	Sealing Part
VT050	D=Double Acting S=Spring Return	Dedicated to Spring Return	P	F03/05	11×11	End Cap Color RAL ■ 7046 ■ 9004 ■ 5021 ■ 3020 ■ 6002 ■ 5015	Standard Nitrile Rubber -18°C~+80°C
VT065				F05/07	14×14		
VT075				F05/07	14×14		
VT085		4		F05/07	17×17	Cylinder Type 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	HT Fluororubber (High Temperature) -18°C~+150°C
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		11		F16	46×46	LLT fluorosilicone (Ultra Low Temp) -60°C~+80°C	
VT350				F16/25	46×46		
VT400				F25	55×55		

Remarks:

- The standard rotation of double acting and spring return is clockwise to close.
- Sealing parts come standard with normal temperature ranges of -18°C to 80°C. Corresponding sealing types are available for environment at high or low temperature.
- Please refer to brochure for technical parameter details. VTORK has the capability to provide customized service based on standard products. Please contact VTORK for details.
- Customized service including but not limited to:

- Color combination;
- Flange and square;
- Higher protection grade;

Notice

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Model Selection Example:

Example1: VT095DP F05/07 17 S7046

Description: Actuator model VT095, double acting, ISO flange F05&F07, 17 mm diagonal square with standard indicator as well as standard nitrile rubber sealing, P body, cap color grey(RAL7046).

Example2:VT190S12P F14 36 S5021 HT F0

Description:Actuator model VT190,single acting spring return,12springs, ISO flange F14,36 mm diagonal square, S body, cap color green (RAL5021), fluororubber rubber sealing.