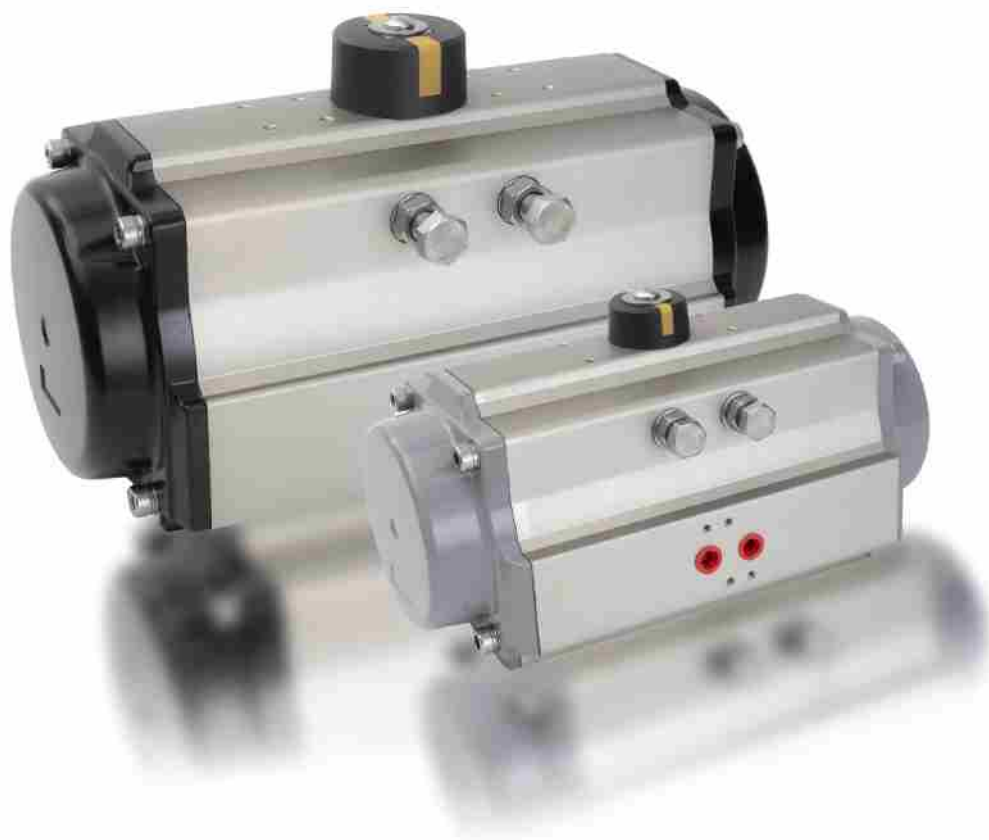


V-TORK®



VTORK New 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

VT new 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.

7. Rack and pinion tooth in high precision is designed in outstanding tooth profile ratio to realize less clearance, accurate drive and high output power.

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

8. Extruded aluminum body is processed with corrosion resistance internally and externally. Fine ground cylinder surface lead to low friction coefficient and high cycle life.

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.

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

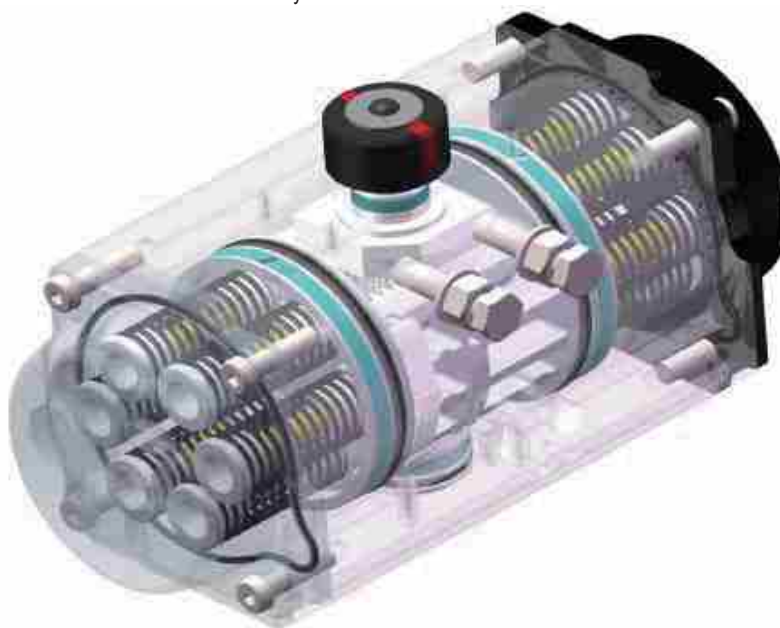
10. High-quality bearings are of reliable sealing, low friction, high cycle life and wide range of application temperature.

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

12. 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.

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

14. 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:

- VT new 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 .

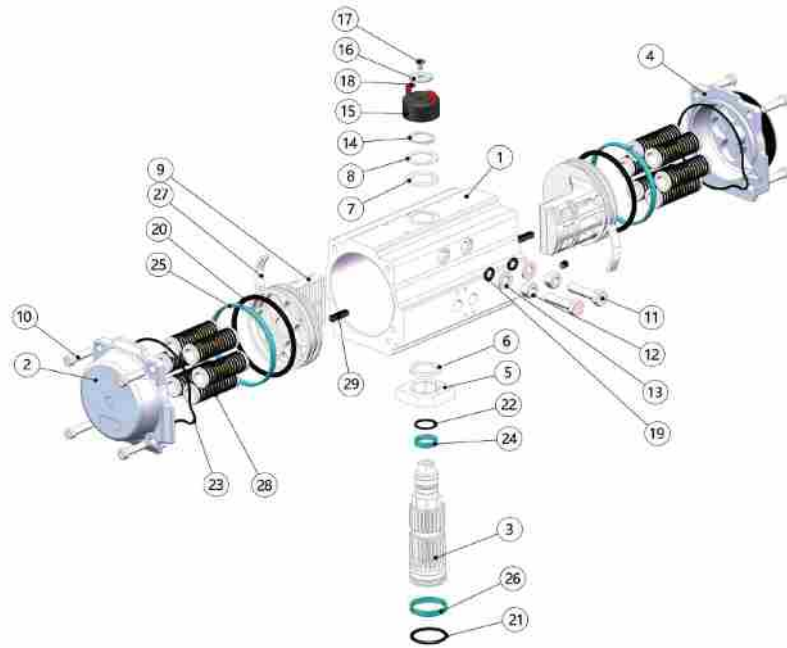
Various Qualifications And Certifications Verified By International Authorities

- All VTORK (VT) 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





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	VT032		VT050		VT065		VT075		VT085		VT095		VT110		VT125		VT140		VT160		VT190		VT210		VT240		VT270		VT300		VT350		VT400		
	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	DN	SN			
Diameter(mm)	32		50		65		75		85		95		105		125		140		160		190		210		240		270		300		350		400		
Air Volume Opening(L)	0.03		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)	0.04		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		0.3	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	1	4.4	5.0	5.0	6.0	6.2	7.4	7.5	9.6
Closing Time(S)	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)	0.47	0.59	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 32-160

(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

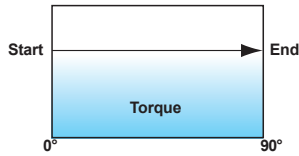
Cautions: obviously on the field applications when one or more parameters are different from above, the operation time will be different. Air consumption rest with air supply, open/switch stroke, air volume and action cycle times. Expressions:

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

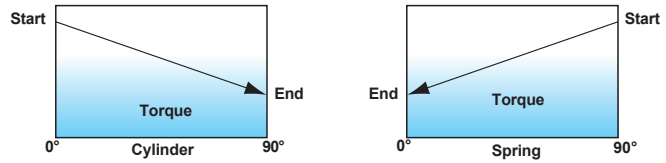
Torque-Metric Torque Output



Double Acting Torque Output Diagram



Spring Return Torque Output Diagram



Double Acting Actuator Torque (N.m)											±8%
Model	Air Supply (Unit: Bar)										
	2.5	3	3.5	4	4.5	5	5.5	6	7	8	
VT032DN	2.9	3.4	4	4.6	5.3	5.9	6.5	7.1	8.3	9.5	
VT040DN	5.7	6.9	8.1	9.4	10.6	11.8	13	14.3	16.7	19.2	
VT050DN	9.4	11.3	13.2	15.1	17	18.8	20.7	22.6	26.4	30.2	
VT065DN	19.1	22.9	26.7	30.6	34.4	38.2	42	45.9	53.5	61.2	
VT075DN	25.2	30.2	35.3	40.3	45.3	50.4	55.4	60.4	70.5	80.6	
VT085DN	40.8	49	57.2	65.4	73.5	81.7	89.9	98.1	114.4	130.7	
VT095DN	61.2	73.5	85.7	100	110.2	122.5	134.7	147	171.5	196	
VT110DN	83.1	99.7	116.4	133	149.6	166.2	182.9	199.5	232.7	266	
VT125DN	132.5	159	185.5	212	238.6	265.1	291.6	318.1	371.1	424.1	
VT140DN	219.3	263.2	307.1	351	394.9	438.7	482.6	526.4	614.2	702	
VT160DN	334.2	401.1	468	534.8	601.7	668.5	735.4	802.2	935.9	1069.6	
VT190DN	505	606	707	808	909	1010	1111	1212	1414	1616.1	
VT210DN	658	789.7	921.3	1052.9	1184.5	1316.1	1447.8	1579.4	1842.6	2105.8	
VT240DN	967	1160.3	1353.7	1547.1	1740.5	1934	2127.3	2320.7	2707.5	3094.3	
VT270DN	1468.6	1762.3	2056	2349.7	2643.4	2937.2	3230.9	3524.6	4112	4699.5	
VT300 DN	1678.6	2029.4	2379.3	2729.2	3079.1	3429	3778.9	4128.8	4828.5	5528.3	
VT350 DN	2492.5	3011.8	3531.1	4050.4	4569.6	5088.9	5608.2	6127.5	7166	8204.6	
VT400 DN	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)																							±8%
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°	
VT050S05N	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	
VT050S06N	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	
VT050S07N			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	
VT050S08N					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	
VT050S09N							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	
VT050S10N								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		
VT050S11N										10.9	6.3	12.8	8.2	14.7	10.1	18.5	13.9	22.3	17.7	12.5	7.9		
VT050S12N													12.1	7.0	14.0	8.9	17.8	12.7	21.6	16.5	13.7	8.6	
VT065S05N	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	
VT065S06N	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	
VT065S07N			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	
VT065S08N					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	
VT065S09N							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	
VT065S10N								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		
VT065S11N											22.4	13.6	26.2	17.4	30.1	21.3	37.7	28.9	45.4	36.6	24.6	15.8	
VT065S12N													24.7	15.1	28.6	19.0	36.2	26.6	43.9	34.3	26.9	17.3	
VT075S05N	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	
VT075S06N	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	
VT075S07N			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	
VT075S08N					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	
VT075S09N							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	
VT075S10N								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		
VT075S11N										30.2	15.0	35.2	20.0	40.2	25.0	50.3	35.1	60.4	45.2	35.4	20.2		
VT075S12N													33.3	16.8	38.3	21.8	48.4	31.9	58.5	42.0	38.6	22.1	
VT085S05N	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	
VT085S06N	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	
VT085S07N			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	
VT085S08N					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	
VT085S09N							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	
VT085S10N								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		
VT085S11N									48.7	24.5	56.9	32.7	65.1	40.9	81.4	57.2	97.7	73.5	97.5	73.5	57.2	33.0	
VT085S12N													53.9	27.5	62.1	35.7	78.4	52.0	94.7	68.3	62.4	36.0	
VT095S05N	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	
VT095S06N	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	
VT095S07N			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	
VT095S08N					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	
VT095S09N							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	
VT095S10N								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		
VT095S11N									68.6	41.8	80.8	54.0	93.1	66.3	117.6	90.8	142.1	115.3	80.7	53.9			
VT095S12N													75.9	46.6	88.2	58.9	112.7	83.4	137.2	107.9	88.1	58.8	
VT110S05N	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	
VT110S06N	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	
VT110S07N			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	
VT110S08N					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	
VT110S09N							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	
VT110S10N								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		
VT110S11N									90.1	45.6	106.8	62.3	123.4	78.9	156.6	112.1	189.9	145.4	120.6	76.1			
VT110S12N													99.9	51.4	116.5	68.0	149.7	101.2	183.0	134.5	131.5	83.0	

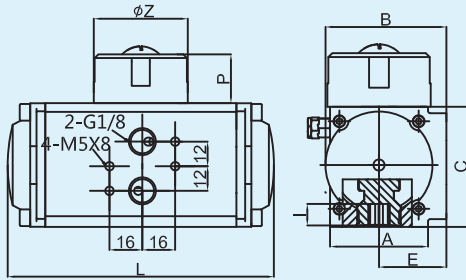
Torque-Metric Torque Output



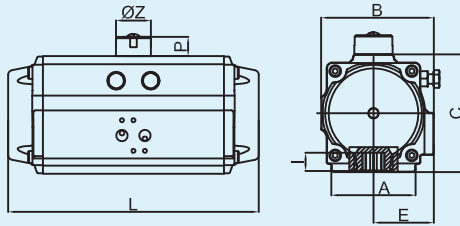
Spring Return Actuator Torque (N.m)																						
Model	AirSupply (Unit: Bar)																		Spring Return			
	2.5		3		3.5		4		4.5		5		5.5		6		7				8	
	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°		
VT125S05N	78.5	53.9	105.0	80.4	131.5	106.9	158.0	133.4	184.6	160.0	211.1	186.5	237.6	213.0	264.1	239.5	317.1	292.5	370.1	345.5	78.6	54.0
VT125S06N	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
VT125S07N			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
VT125S08N					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
VT125S09N							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
VT125S10N									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
VT125S11N											146.3	92.2	172.8	118.7	199.3	145.2	252.3	198.2	305.3	251.2	172.9	118.8
VT125S12N													162.0	103.0	188.5	129.5	241.5	182.5	294.5	235.5	188.6	129.6
VT140S05N	133.8	96.4	177.7	140.3	221.6	184.2	265.5	228.1	309.4	272.0	353.2	315.8	397.1	359.7	440.9	403.5	528.7	491.3	616.5	579.1	122.9	85.5
VT140S06N	116.7	71.8	160.6	115.7	204.5	159.6	248.4	203.5	292.3	247.4	336.1	291.2	380.0	335.1	423.8	378.9	511.6	466.7	599.4	554.5	147.5	102.6
VT140S07N			143.5	91.1	187.4	135.0	231.3	178.9	275.2	222.8	319.0	266.6	362.9	310.5	406.7	354.3	494.5	442.1	582.3	529.9	172.1	119.7
VT140S08N					170.3	110.5	214.2	154.4	258.1	198.3	301.9	242.1	345.8	286.0	389.6	329.8	477.4	417.6	565.2	505.4	196.6	136.8
VT140S09N							197.1	129.8	241.0	173.7	284.8	217.5	328.7	261.4	372.5	305.2	460.3	393.0	548.1	480.8	221.2	153.9
VT140S10N									223.9	149.1	267.7	192.9	311.6	236.8	355.4	280.6	443.2	368.4	531.0	456.2	245.8	171.0
VT140S11N											250.6	168.3	294.5	212.2	338.3	256.0	426.1	343.8	513.9	431.6	270.4	188.1
VT140S12N													277.4	187.6	321.2	231.4	409.0	319.2	496.8	407.0	295.0	205.2
VT160S05N	189.9	114.6	256.8	181.5	323.7	248.4	390.5	315.2	457.4	382.1	524.2	448.9	591.1	515.8	657.9	582.6	791.6	716.3	925.3	850.0	219.6	144.3
VT160S06N	161.0	70.7	227.9	137.6	294.8	204.5	361.6	271.3	428.5	338.2	495.3	405.0	562.2	471.9	629.0	538.7	762.7	672.4	896.4	806.1	263.5	173.2
VT160S07N			199.1	93.7	266.0	160.6	332.8	227.4	399.7	294.3	466.5	361.1	533.4	428.0	600.2	494.8	733.9	628.5	867.6	762.2	307.4	202.0
VT160S08N					237.1	116.6	303.9	183.4	370.8	250.3	437.6	317.1	504.5	384.0	571.3	450.8	705.0	584.5	838.7	718.2	351.4	230.9
VT160S09N							275.1	139.5	342.0	206.4	408.8	273.2	475.7	340.1	542.5	406.9	676.2	540.6	809.9	674.3	395.3	259.7
VT160S10N									313.1	162.5	379.9	229.3	446.8	296.2	513.6	363.0	647.3	496.7	781.0	630.4	439.2	288.6
VT160S11N											351.0	185.4	417.9	252.3	484.7	319.1	618.4	452.8	752.1	586.5	483.1	317.5
VT160S12N													389.1	208.4	455.9	275.2	589.6	408.9	723.3	542.6	527.0	346.3
VT190S05N	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
VT190S06N	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
VT190S07N			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
VT190S08N					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
VT190S09N							455.2	250.0	556.2	351.0	657.2	452.0	758.2	553.0	859.2	654.0	1061.2	856.0	1263.3	1058.1	558.0	352.8
VT190S10N									517.0	289.0	618.0	390.0	719.0	491.0	820.0	592.0	1022.0	794.0	1224.1	996.1	620.0	392.0
VT190S11N											578.8	328.0	679.8	429.0	780.8	530.0	982.8	732.0	1184.9	934.1	682.0	431.2
VT190S12N													640.6	367.0	741.6	468.0	943.6	670.0	1145.7	872.1	744.0	470.4
VT210S05N	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
VT210S06N	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
VT210S07N			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
VT210S08N					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
VT210S09N							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
VT210S10N									628.5	424.5	760.1	556.1	897.8	687.8	1023.4	819.4	1286.6	1082.6	1549.8	1345.8	760.0	556.0
VT210S11N											704.5	480.1	836.2	611.8	967.8	743.4	1231.0	1006.6	1494.2	1269.8	836.0	611.6
VT210S12N													780.6	535.8	912.2	667.4	1175.4	930.6	1438.6	1193.8	912.0	667.2
VT240S05N	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
VT240S06N	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	2257.8	1995.8	2645.5	2382.6	711.7	448.8
VT240S07N			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
VT240S08N					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
VT240S09N							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
VT240S10N									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
VT240S11N											1111.2	629.2	1304.5	822.5	1497.9	1015.9	1884.7	1402.7	2271.5	1789.5	1304.8	822.8
VT240S12N													1229.7	703.9	1423.1	897.3	1809.7	1284.1	2196.7	1670.9	1423.4	897.6
VT270S05N	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
VT270S06N	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
VT270S07N			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
VT270S08N					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
VT270S09N							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
VT270S10N									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
VT270S11N											1582.9	1061.0	1876.6	1354.7	2170.3	1648.4	2757.7	2235.8	3345.2	2823.3	1876.2	1354.3
VT270S12N													1753.5	1184.2	2047.2	1477.9	2634.6	2065.3	3222.1	2652.8	2046.7	1477.4
VT300S05N	987.5	646.7	1338.3	997.5	1688.2	1347.4	2038.1	1														

Sample Reference

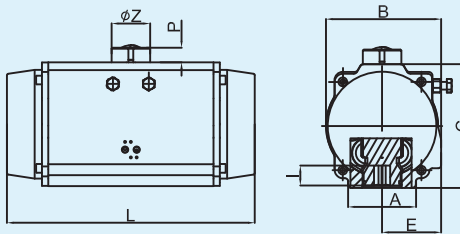
Applicable Specification :032



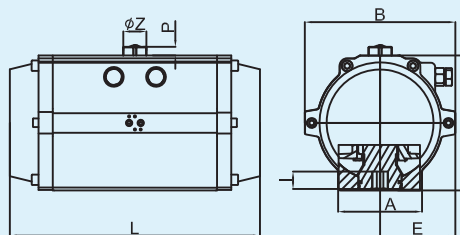
Applicable Specification :050-270



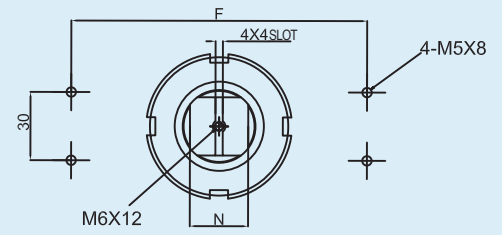
Applicable Specification :300, 350



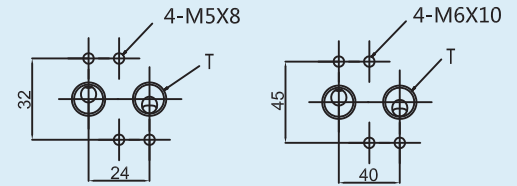
Applicable Specification :400



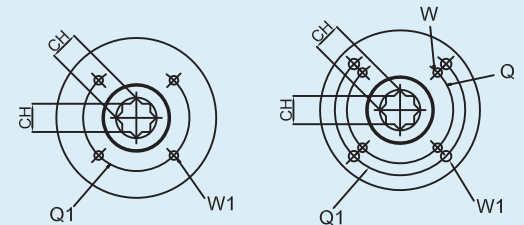
Top View



Air Supply Interface

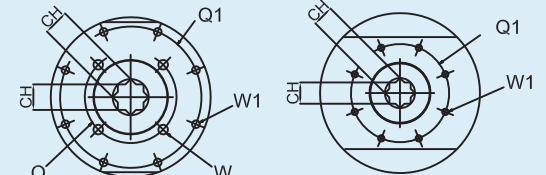


Bottom View



Applicable Specification :032/190-300

Applicable Specification :050-160



Applicable Specification :350

Applicable Specification :400

VT New 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
032	37	47	50	110	27	50	20	40	10	10	F03	-	36	-	M5x8	9x9	G1/8"
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"

Model	Type	Spring Qty.	Code	Flange Type	Square	Option	Sealing Part
VT032	D=Double Acting S=Spring Return	–	N	F03	9×9	End Cap Color RAL ■ 7046 ■ 9004 ■ 5021 ■ 3020 ■ 6002 ■ 5015 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	Standard Nitrile Rubber -18°C~+80°C HT Fluororubber (High Temperature) -18°C~+150°C LT Silastic (Low Temperature) -40°C~+80°C LLT fluorosilicone (Ultra Low Temp) -60°C~+80°C
VT050		F03/05		11×11			
VT065		Dedicated to Spring Return		F05/07	14×14		
VT075		F05/07		14×14			
VT085		F05/07		17×17			
VT095		4		F05/07	17×17		
VT110		5		F07/10	17×17		
VT125		6		F07/10	22×22		
VT140		7		F10/12	27×27		
VT160		8		F10/12	27×27		
VT190		9		F10/14	36×36		
VT210		10		F14	36×36		
VT240		11		F16	46×46		
VT270		12		F16	46×46		
VT300		F16		46×46			
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

Pressure-temperature ratings and other performance data published in this catalog have been developed from our design calculation, in-house testing, field reports provided by our customers and/or published official standards or specifications. They are good only to cover typical applications as a general guideline to users of VTORK products introduced in this catalog. For any specific application, users are kindly requested to contact VTORK for technical advice, or to carry out their own study and evaluation for proving suitability of these products to such an application. Failure to follow this request could result in property damage and/or personal injury, for which we shall not be liable. While this catalog has been compiled with the utmost care, we assume no responsibility for errors, impropriety or inadequacy. Any information provided in this catalog is subject to from-time-to-time change without notice for error rectification, product discontinuation, design modification, new product introduction or any other cause that VTORK considers necessary. This edition cancels all previous issues.

The final interpretation right of this sample belongs to VTORK Technology(Wuxi) Co.,Ltd.

Model Selection Example:

Example1: VT095DN F05/07 17 P7046

Description: Actuator model VT095N, 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:VT190S12N F14 36 S5021 HT F0

Description:Actuator model VT190N,single acting spring return,12springs, ISO flange F14,36 mm diagonal square, S body, cap color green (RAL5021), fluororubber rubber sealing.