

VTN Series Rack & Pinion Actuator



- High Performance and Reliability
- Compliant with International Standards
- Wide range of torque outputs
- Compact Design reduces space requirements











Design and Construction



Design

VTN series pneumatic actuators utilize an innovative rack and pinion drive mechanism, integrating the latest pneumatic actuator technology and materials. Designed with extensive customer feedback providing these benefits:

- ☆ High performance and reliability
- ☆ Compliant with latest international standards
- Applicable to wide range of specifications and torque ranges
- ☆ Compact design reduces space requirements

Structure

- 1. Integrated and compact design utilizes same body and end caps for double acting and spring return models. Requires fewer spare parts and easy to modify in the field.
- 2. Compliant with latest international standards including ISO5211, DIN3337 and VDI/ VDE3845. Meets NAMUR standard for easy mounting of control accessories.
- 3. CNC-machined piston teeth optimize gearing efficiency and force transmission precision. Easy to change rotation direction by inverting pistons for symmetrical mounting position design.

- 4. Dual independent travel stops easily externally adjustable with ±5°- adjustments in both directions.
- 5. Composite bearings and guides on pinion and piston ensure precise operation, low friction and high life cycle, preventing output shaft fatigue.
- 6. Dedicated sealing ring between body and cylinder enhances safety and reliability.
- 7. Extruded aluminum body is treated with corrosion-resistant coating for longer life.
- 8. Modular preloaded spring cartridges permit wide variety of torque ranges for each model.
- 9. Precision bearings provide excellent sealing for long cycle life.
- 10. All internal and external fasteners are stainless steel.11. Multifunction NAMUR position indicator offers visual indication and connection to a variety of standard control accessories.



Options and Quality Management

Options

- Actuators supplied with 304 or 316 stainless steel output shafts
- High and low temperature options available
- Custom output drive configurations are available.

Quality Management

- VTN series rack and pinion actuator manufacturing process is compliant with ISO9001.
- 100% of all actuators are factory pressure and leak tested and externally marked with unique serial numbers.
- 100% of all actuators are individually boxed and appropriately labeled.

Quality Certifications and Patent Certificates

Quality Certifications















Patent Certificates























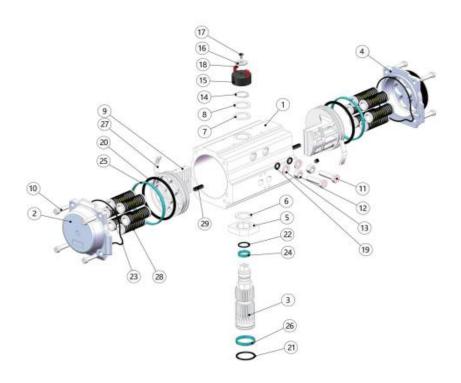






Construction, Part and Material





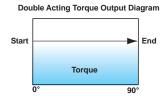
Item No.	Description	Materials	Qty.	Item No.	Description	Materiale	Qty.	Item No.	Description	Materials	Qty.
1	Body	Aluminum Alloy	1	12	Travel Stop Nut	Stainless Steel	2	23	O-ring (End Cap)	NBR	2
2	Left End Cap	Aluminum Alloy	1	13	Travel Stop Washer	Stainless Steel	2	24	Upper Pinion Bearing	Advanced Polymer	1
3	Pinion	Carbon Steel	1	14	Retaining Ring	Stainless Steel	1	25	Pinion 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	Carbon 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				

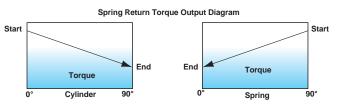
Technical Data

MODEL	VT	32	VTO	050	VT	065	VTC	075	VT	085	VT	095	VT	110	VT	125	VT	140	VT	160	VT	190	VT	210	VT	240	VT2	270	VT	300	VT	350	VT	400
MODEL	DN	/	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(inch)	1.	26	1.5	97	2.	56	2.	95	3.	35	3.	74	4.	13	4	92	5.	51	6	.3	7.	48	8.	27	9.	.45	10.	.63	11.	81	13.	.78	15	.75
Air Volume Opening(In ³)	1.8	33	6.:	10	13	.43	15.	26	27.	.46	57.	.97	65	.30	89	.71	129	9.98	237	7.38	375	5.91	501	.62	748	3.15	964	.18	1058	3.76	1687	7.31	2612	2.43
Air Volume Closing(In ³)	2.4	14	9.:	15	15	.87	25.	02	37.	.22	59	.80	75	.67	113	3.50	187	7.95	286	5.81	524	1.19	668	.21	976	5.99	1147	7.25	1515	5.22	2693	1.15	3786	ô.53
Opening Time(S)	0.3	/	0.3	0.9	0.4	0.9	0.4	0.9	0.9	1	0.9	1.4	0.9	1.4	1.3	2.4	1.3	2.8	2	4.8	2.2	2.4	2.9	3.4	3.2	3.81	4.4	5	5	6	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	1.4	1	1.6	1.4	2.4	1.4	3	2.4	4.9	2.6	3	3.8	4.1	3.7	4	4.9	5.5	6	6.8	7.2	8.4	8.5	10.6
Weight(Lbs)	1.04	/	2.38	2.65	4.21	4.74	5.31	6.17	7.32	8.71	10.98	12.79	14.4	17.53	22.58	26.68	33.29	35.12	46.96	56.44	64.6	74.54	83.12	106.77	119.5	171.4	180.78	199.8	238.1	230	323.4	414.7	486.2	625.1

Actuator Torque Double-Acting (in-lbs)







		D	OUBLE ACTIN	IG TORQUE R	ATING IN-LE	BS		
MODEL				SUPPLY PRE	SSURE PSIG			
MODEL	40	50	60	70	80	90	100	115
VT032DN	28	35	42	50	58	65	72	83
VT050DN	91	114	136	160	182	205	228	261
VT065DN	185	230	277	323	369	416	462	531
VT075DN	246	308	369	430	492	553	615	707
VT085DN	395	493	592	691	789	888	987	1135
VT095DN	592	739	888	1036	1183	1331	1480	1702
VT110DN	804	1004	1205	1406	1607	1807	2008	2309
VT125DN	1281	1601	1921	2241	2561	2882	3202	3682
VT140DN	2074	2593	3112	3630	4148	4667	5186	5955
VT160DN	3161	3951	4742	5532	6322	7112	7902	9087
VT190DN	5094	6367	7641	8912	10188	11462	12736	14646
VT210DN	7001	8751	10501	12253	14002	15753	17503	20129
VT240DN	9144	11430	13717	16003	18288	20574	22861	26290
VT270DN	13888	17360	20832	24304	27776	31248	34720	39928
VT300DN	16392	20745	24985	29299	33546	37798	42099	48501
VT350DN	24339	30787	37080	43482	49786	56096	62479	71981
VT400DN	37089	46913	56503	66258	75864	85478	95206	109685

						SP	RING RE	TURN TOR	QUE RATI	NG IN-LI	BS							
							SL	JPPLY PR	ESSURE P	SIG							SDD	ING
MODEL		40		50	(50		70		30		70	_	00		15	SFK	TNG
	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
VT050S05N	59	40	82	64	105	86	128	109	150	132	173	155	196	177	230	211	50	32
VT050S06N	53	30	76	54	98	76	122	99	144	121	167	145	189	167	223	201	61	38
VT050S07N			70	44	92	66	115	89	137	111	160	134	183	157	217	191	71	45
VT050S08N			63	34	85	56	109	79	131	101	154	124	177	147	210	181	81	51
VT050S09N			57	23	79	46	102	69	125	91	148	114	170	137	204	171	91	57
VT050S10N					73	36	96	59	118	81	141	104	164	127	198	161	101	64
VT050S11N							90	49	112	71	135	94	157	117	191	150	111	70
VT050S12N									106	61	129	84	151	106	185	140	121	76
VT065S05N	121	85	166	131	214	178	259	224	306	270	352	317	398	363	467	432	99	64
VT065S06N	108	66	154	112	201	159	247	204	293	251	340	297	386	344	455	412	119	76
VT065S07N			141	91	188	138	234	184	280	230	326	277	373	323	441	392	139	89
VT065S08N	-		128	72	176	119	221	165	268	211	314	257	360	304	429	372	158	102
VT065S09N	-		115	51	162	99	208	144	254	191	301	237	347	283	416	352	179	115
VT065S10N	-	-			150	1722	196	125	242	171	288	217	335	264	403	333	198	127
VT065S11N							183	105	229	152	276	198	322	244	391	313	218	140
VT065S12N									216	131	263	178	309	224	378	293	238	153
VT075S05N	165	104	226	165	288	226	348	287	410	349	472	410	533	472	626	565	142	81
VT075S06N	149	75	210	137	272	198	332	259	394	321	456	382	517	444	610	536	171	97
VT075S07N			194	109	255	170	316	231	378	293	439	354	501	416	593	508	199	114
VT075S08N			178	79	239	141	300	201	362	263	423	325	485	386	577	479	228	130
VT075S09N			161	51	222	112	283	173	345	235	406	296	468	358	560	450	257	147
VT075S10N					206	84	267	145	329	207	390	268	452	330	544	422	285	163
VT075S11N							251	117	313	179	374	240	436	301	528	394	313	179
VT075S12N									296	150	357	211	419	273	512	366	342	196
VT085S05N	262	164	361	263	460	362	558	461	656	559	755	658	854	757	1003	905	230	133
VT085S06N	235	118	334	217	433	316	532	415	630	513	729	612	828	711	976	859	276	159
VT085S07N			308	171	406	270	505	369	603	487	702	566	801	665	949	813	322	186
VT085S08N			281	125	380	224	479	323	577	440	676	520	775	619	923	767	368	212
VT085S09N			255	79	353	178	452	277	550	394	649	474	748	573	896	721	414	239
VT085S10N					327	132	426	231	524	348	623	428	721	527	870	675	460	265
VT085S11N				_			399	185	497	302	596	382	695	481	843	629	506	292
VT085S12N		0.1=				= / 0	0.10		471	256	569	336	668	435	817	583	552	319
VT095S05N	375	267	523	415	671	563	819	711	967	859	1114	1006	1263	1155	1485	1377	325	217
VT095S06N	332	202	479	350	628	499	775	646	923	794	1071	942	1219	1090	1442	1313	389	260
VT095S07N			436	284	584	433	732	581	880	728	1028	876	1176	1025	1398	1247	455	304
VT095S08N			392	220	541	369	689	516	836	664	984	812	1133	960	1355	1183	519	347
VT095S09N			349	154	498	303	645	451	793	598	941	746	1089	895	1312	1117	585	390
VT095S10N					454	238	602	386	750	534	897	682	1046	830	1268	1052	650	434
VT095S11N							559	321	706	469	854	617	1003	765	1225	988	714	477
VT095S12N	540	2.12	740	550	040	750	1100	051	663	404	811	551	959	700	1182	922	780	520
VT110S05N	518	349	719	550	919	750	1120	951	1321	1152	1521	1352	1722	1553	2023	1854	455	286
VT110S06N	460	258	661	458	861	659	1062	860	1263	1061	1464	1261	1665	1462	1966	1763	546	343
VT110S07N	-		604	367	805	568	1006	768	1207	970	1407	1170	1608	1371	1909	1672	637	400
VT110S08N	-	-	547	277	747	477	948	678	1149	879	1350	1080	1550	1281	1852	1582	727	458
VT110S09N			490	186	691	386	891	587	1093	788	1293	989	1494	1189	1795	1491	819	514
VT110S10N	-	1			633	295	834	496	1035	697	1235	897	1436	1098	1737	1399	910	572
VT110S11N	-	1					776	405	978	606	1178	806	1379	1007	1680	1308	1001	629
VT110S12N						1			921	515	1121	715	1322	916	1623	1217	1092	686

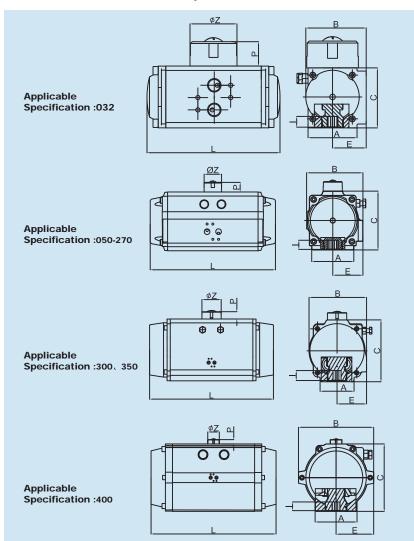
Actuator Torque Spring-Return (in-lbs)



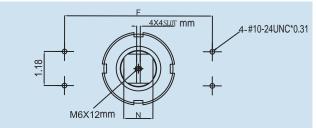
						SP			QUE RATI		IS						r	
MODEL		10	1 :	50		50		PPLY PRE	ESSURE PS	51G 50	9	70	1 1	00	1	15	SPR	ING
	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
VT125S05N	803	586	1123	905	1443	1225	1763	1546	2083	1866	2404	2186	2724	2506	3204	2987	696	478
/T125S06N		447	1027	766	1347	1086	1668	1407	1988	1727	2308	2047	2628	2367	3109	2848	835	573
/T125S07N			932	627	1252	947	1572	1268	1892	1588	2213	1908	2533	2228	3013	2709	973	669
VT125S08N VT125S09N			836 741	487 349	1156 1060	807 668	1477 1381	1128 989	1796 1701	1448 1309	2117	1769 1630	2437	2088 1949	2918 2822	2569 2430	1113 1252	765 860
VT125807N			/	347	965	530	1285	850	1605	1170	1926	1491	2246	1810	2726	2291	1391	956
VT125S11N							1190	711	1510	1031	1831	1352	2150	1671	2631	2152	1530	1051
VT125S12N									1414	892	1735	1213	2055	1533	2535	2013	1669	1147
VT140S05N		889	1836	1408	2355	1927	2873	2445	3392	2963	3910	3482	4429	4001	5199	4770	1185	757
VT140S06N		652	1685	1171	2204	1690	2722	2208	3240	2726	3759	3245	4278	3764	5047	4533	1422	908
VT140S07N VT140S08N			1534 1382	934 697	2052 1901	1452 1216	2570 2419	1970 1734	3089 2938	2489 2253	3608 3456	3008 2771	4127 3975	3527 3290	4896 4745	4296 4060	1659 1896	1059
VT140S06N VT140S09N			1231	460	1750	979	2268	1497	2786	2016	3305	2534	3824	3053	4593	3823	2133	1362
VT140S10N			1201	100	1598	742	2116	1260	2635	1778	3154	2297	3673	2816	4442	3585	2370	1513
VT140S11N							1965	1023	2484	1541	3002	2060	3521	2579	4291	3348	2607	1665
VT140S12N									2332	1304	2851	1823	3370	2342	4139	3111	2844	1816
VT160S05N		1315	2841	2105	3632	2896	4421	3686	5211	4476	6002	5266	6791	5266	7977	7241	1846	1111
VT160S06N		946	2619	1736	3409	2527	4199	3317	4989	4106	5780	4897	6569	4897	7755	6872	2215	1333
VT160S07N VT160S08N			2396 2174	1367 997	3187 2965	2158 1788	3977 3755	2948 2578	4767 4545	3737 3368	5557 5335	4528 4158	6347	4528 4158	7532 7310	6503	2584 2954	1555 1777
VT160S08N VT160S09N			1952	628	2743	1419	3533	2209	4322	2999	5113	3789	5903	3789	7088	5764	3323	1999
VT160S10N			,,,,		2521	1050	3310	1840	4100	2629	4891	3420	5681	3420	6866	5395	3692	2221
VT160S11N							3088	1471	3878	2260	4669	3051	5458	3051	6644	5026	4061	2443
VT160S12N									3656	1891	4447	2682	5236	2682	6422	4657	4430	2665
VT190S05N		2351	4633	3624	5907	4898	7177	6168	8454	7445	9727	8718	11001	9992	12912	11903	2743	1735
VT190S06N		1802	4286	3075	5560	4349	6830	5620	8107	6896	9380	8170	10654	9443	12565	11354	3292	2081
VT190S07N VT190S08N			3939 3592	2527 1978	5213 4866	3801 3252	6483 6137	5071 4522	7760 7413	6348 5799	9033 8686	7621 7072	10307 9960	8895 8346	12218 11871	10805 10257	3841 4389	2428 2775
VT190308N VT190S09N			3245	1429	4519	2703	5790	3974	7066	5250	8340	6524	9613	7797	11524	9708	4938	3122
VT190S10N					4172	2155	5443	3425	6719	4702	7993	5975	9266	7249	11177	9159	5487	3469
VT190S11N							5096	2876	6373	4153	7646	5426	8920	6700	10830	8611	6035	3816
VT190S12N									6026	3604	7299	4878	8573	6151	10483	8062	6584	4163
VT210S05N		3638	6291	5388	8041	7139	9792	8890	11542	10639	13292	12390	15043	14140	17668	16766	3363	2460
VT210S06N VT210S07N		2965	5799 5307	4716 4043	7549 7057	6466 5793	9300 8808	8217 7545	11050 10558	9967 9294	12800 12308	11717	14551	13468 12795	17176 16684	16093 15421	4035 4708	2952 3444
VT210S07N VT210S08N			4815	3371	6565	5121	8316	6872	10066	8622	11816	10372	13567	12122	16192	14748	5381	3936
VT210506N	_		4323	2698	6073	4448	7824	6200	9574	7949	11324	9699	13075	11450	15700	14075	6053	4428
VT210S10N					5581	3776	7332	5527	9082	7277	10832	9027	12583	10777	15208	13403	6726	4920
VT210S11N							6840	4854	8590	6604	10340	8354	12091	10105	14716	12730	7398	5412
VT210S12N									8098	5931	9848	7682	11599	9432	14224	12058	8071	5904
VT240S05N VT240S06N		3895 2846	8121 7459	6182 5132	10407 9745	7418	12693 12031	10754 9705	14978 14316	13039	17265 16603	15326 14276	19551 18889	17612 16562	22980	21041 19992	5249 6298	3310 3972
VT240S06N VT240S07N	3172	2646	6797	4083	9083	6369	11369	8655	13654	10940	15941	13227	18227	15513	21656	18942	7348	4634
VT240S07N			6135	3032	8421	5318	10707	7605	12993	9890	15279	12176	17565	14462	20994	17892	8398	5296
VT240S09N			5473	1983	7759	4269	10045	6555	12331	8840	14617	11127	16903	13413	20332	16842	9448	5958
VT240S10N					7097	3219	9383	5505	11669	7791	13955	10077	16241	12363	19671	15793	10497	6619
VT240S11N							8721	4456	11007	6741	13293	9027	15579	11314	19009	14743	11547	7281
VT240S12N		(0.11	11010	0010	45004	10005	10057	4/757	10345	5692	12631	7978	14917	10264	18347	13694	12596	7943
VT270S05N VT270S06N		6341 4831	11912 10823	9813 8303	15384 14294	13285 11775	18856 17767	16757 15247	22328	20229 18720	25800 24711	23701	29272 28183	27173 25663	34480 33391	32381 30871	7547 9057	5448 6537
VT270S06N VT270S07N		-1001	9733	6794	13205	10266	16677	13738	20150	17211	23621	20682	27093	24154	32301	29363	10565	7627
VT270S08N			8643	5285	12115	8756	15587	12228	19059	15701	22531	19173	26003	22645	31211	27853	12075	8717
VT270S09N			7554	3776	11025	7247	14497	10720	17970	14192	21442	17664	24914	21136	30122	26344	13584	9806
VT270S10N					9936	5738	13408	9210	16881	12682	20352	16154	23824	19626	29032	24834	15094	10896
VT270S11N							12319	7700	15791	11173	19263	14644	22735	18116	27943	23324	16604	11985
VT270S12N VT300S05N		7260	14629	11613	18869	15853	23183	20167	14702 27430	9664 24415	18173 31682	13135 28666	21646 35983	16608 32967	26854 42385	21816 39369	9132	13074 6116
VT300S05N	_	5433	13406	9786	17646	14027	21960	18340	26207	22588	30459	26840	34760	31140	41162	37543	10958	7339
VT300S07N	_	L	12183	19464	16423	23705	20737	28018	24984	32266	29236	36517	33537	40818	39939	47221	1281	8562
				/404	45400	10374	19513	14688	23761	18936	28012	23187	32313	27488	38715	33891	14611	9786
VT300S08N	•		10959	6134	15199	10374	170.0						1 04000	25661	37492	32064	16437	11009
VT300S09N			9736	4307	13976	8548	18290	12862	22538	17109	26789	21361	31090		_			_
VT300S09N VT300S10N			+				18290 17067	11035	21315	15283	25566	19534	29867	23835	36269	30238	18264	12232
VT300S09N VT300S10N VT300S11N			+		13976	8548	18290		21315 20092	15283 13456	25566 24343	19534 17708	29867 28644	23835 22008	36269 35046	30238 28411	18264 20090	12232 13455
VT300S09N VT300S10N VT300S11N VT300S12N		11282	9736	4307	13976 12753	8548 6721	18290 17067 15844	11035 9208	21315 20092 18869	15283 13456 11630	25566 24343 23120	19534 17708 15881	29867 28644 27421	23835 22008 20182	36269 35046 33823	30238 28411 26584	18264 20090 21917	12232 13455 14678
VT300S09N VT300S10N VT300S11N VT300S12N VT350S05N	15540	11282	+		13976	8548	18290 17067	11035	21315 20092	15283 13456	25566 24343	19534 17708	29867 28644	23835 22008	36269 35046	30238 28411	18264 20090	12232 13455
VT300S09N VT300S10N VT300S11N VT300S12N VT350S05N VT350S06N	15540	11282	9736 21988	4307 17729	13976 12753 28281	8548 6721 24023	18290 17067 15844 34682	11035 9208 30424	21315 20092 18869 40987	15283 13456 11630 36728	25566 24343 23120 47296	19534 17708 15881 43038	29867 28644 27421 53680	23835 22008 20182 49421	36269 35046 33823 63182	30238 28411 26584 58924	18264 20090 21917 13058	12232 13455 14678 8799
VT300S09N VT300S10N VT300S11N VT300S12N VT350S05N VT350S06N VT350S07N VT350S08N	15540	11282	9736 21988 20228 18468 16708	17729 15119 12507 9896	13976 12753 28281 26521 24762 23001	24023 21412 18801 16189	18290 17067 15844 34682 32922 31163 29403	11035 9208 30424 27813 25202 22590	21315 20092 18869 40987 39226 37467 35707	15283 13456 11630 36728 34118 31506 28895	25566 24343 23120 47296 45536 43777 42017	19534 17708 15881 43038 40427 37816 35204	29867 28644 27421 53680 51919 50160 48400	23835 22008 20182 49421 46811 44199 41588	36269 35046 33823 63182 61422 59663 57902	30238 28411 26584 58924 56313 53702 51090	18264 20090 21917 13058 15668 18280 20891	12232 13455 14678 8799 10559 12319 14079
VT300S09N VT300S10N VT300S11N VT300S12N VT350S05N VT350S06N VT350S07N VT350S09N VT350S09N	15540	11282	9736 21988 20228 18468 16708 14949	17729 15119 12507 9896 7284	13976 12753 28281 26521 24762 23001 21242	24023 21412 18801 16189 13578	18290 17067 15844 34682 32922 31163 29403 27644	11035 9208 30424 27813 25202 22590 19979	21315 20092 18869 40987 39226 37467 35707 33948	15283 13456 11630 36728 34118 31506 28895 26283	25566 24343 23120 47296 45536 43777 42017 40257	19534 17708 15881 43038 40427 37816 35204 32593	29867 28644 27421 53680 51919 50160 48400 46641	23835 22008 20182 49421 46811 44199 41588 38976	36269 35046 33823 63182 61422 59663 57902 56143	30238 28411 26584 58924 56313 53702 51090 48479	18264 20090 21917 13058 15668 18280 20891 23503	12232 13455 14678 8799 10559 12319 14079 15838
VT300S09N VT300S10N VT300S11N VT300S12N VT350S05N VT350S06N VT350S07N VT350S08N VT350S09N VT350S10N	15540	11282	9736 21988 20228 18468 16708 14949 13189	17729 15119 12507 9896 7284 4673	13976 12753 28281 26521 24762 23001 21242 19482	24023 21412 18801 16189 13578 10966	18290 17067 15844 34682 32922 31163 29403 27644 25883	30424 27813 25202 22590 19979 17367	21315 20092 18869 40987 39226 37467 35707 33948 32187	15283 13456 11630 36728 34118 31506 28895 26283 23672	25566 24343 23120 47296 45536 43777 42017 40257 38497	19534 17708 15881 43038 40427 37816 35204 32593 29981	29867 28644 27421 53680 51919 50160 48400 46641 44881	23835 22008 20182 49421 46811 44199 41588 38976 36365	36269 35046 33823 63182 61422 59663 57902 56143 54383	30238 28411 26584 58924 56313 53702 51090 48479 45867	18264 20090 21917 13058 15668 18280 20891 23503 26114	12232 13455 14678 8799 10559 12319 14079 15838 17598
VT300S09N VT300S10N VT300S11N VT300S12N VT350S05N VT350S06N VT350S07N VT350S09N VT350S09N VT350S11N	15540	11282	9736 21988 20228 18468 16708 14949	17729 15119 12507 9896 7284	13976 12753 28281 26521 24762 23001 21242 19482 17722	24023 21412 18801 16189 13578 10966 8355	18290 17067 15844 34682 32922 31163 29403 27644 25883 24123	11035 9208 30424 27813 25202 22590 19979 17367 14756	21315 20092 18869 40987 39226 37467 35707 33948 32187 30427	15283 13456 11630 36728 34118 31506 28895 26283 23672 21060	25566 24343 23120 47296 45536 43777 42017 40257 38497 36737	19534 17708 15881 43038 40427 37816 35204 32593 29981 27370	29867 28644 27421 53680 51919 50160 48400 46641 44881 43120	23835 22008 20182 49421 46811 44199 41588 38976 36365 33753	36269 35046 33823 63182 61422 59663 57902 56143 54383 52623	30238 28411 26584 58924 56313 53702 51090 48479 45867 43255	18264 20090 21917 13058 15668 18280 20891 23503 26114 28726	12232 13455 14678 8799 10559 12319 14079 15838 17598 19358
VT300S09N VT300S10N VT300S11N VT300S12N VT350S05N VT350S06N VT350S07N VT350S09N VT350S10N VT350S11N VT350S12N	15540		9736 21988 20228 18468 16708 14949 13189 11428	17729 15119 12507 9896 7284 4673 2061	13976 12753 28281 26521 24762 23001 21242 19482 17722 15963	8548 6721 24023 21412 18801 16189 13578 10966 8355 5743	18290 17067 15844 34682 32922 31163 29403 27644 25883 24123 22364	11035 9208 30424 27813 25202 22590 19979 17367 14756 12144	21315 20092 18869 40987 39226 37467 35707 33948 32187 30427 28668	15283 13456 11630 36728 34118 31506 28895 26283 23672 21060 18449	25566 24343 23120 47296 45536 43777 42017 40257 38497 36737 34978	19534 17708 15881 43038 40427 37816 35204 32593 29981 27370 24758	29867 28644 27421 53680 51919 50160 48400 46641 44881 43120 41361	23835 22008 20182 49421 46811 44199 41588 38976 36365 33753 31142	36269 35046 33823 63182 61422 59663 57902 56143 54383 52623 50863	30238 28411 26584 58924 56313 53702 51090 48479 45867 43255 40644	18264 20090 21917 13058 15668 18280 20891 23503 26114 28726 31337	12232 13455 14678 8799 10559 12319 14079 15838 17598 19358 21118
VT300S09N VT300S10N VT300S11N VT300S12N VT350S05N VT350S06N VT350S08N VT350S09N VT350S10N VT350S11N VT350S12N VT400S05N	15540	11282	9736 21988 20228 18468 16708 14949 13189	17729 15119 12507 9896 7284 4673	13976 12753 28281 26521 24762 23001 21242 19482 17722	24023 21412 18801 16189 13578 10966 8355	18290 17067 15844 34682 32922 31163 29403 27644 25883 24123	11035 9208 30424 27813 25202 22590 19979 17367 14756	21315 20092 18869 40987 39226 37467 35707 33948 32187 30427	15283 13456 11630 36728 34118 31506 28895 26283 23672 21060	25566 24343 23120 47296 45536 43777 42017 40257 38497 36737	19534 17708 15881 43038 40427 37816 35204 32593 29981 27370	29867 28644 27421 53680 51919 50160 48400 46641 44881 43120	23835 22008 20182 49421 46811 44199 41588 38976 36365 33753	36269 35046 33823 63182 61422 59663 57902 56143 54383 52623	30238 28411 26584 58924 56313 53702 51090 48479 45867 43255	18264 20090 21917 13058 15668 18280 20891 23503 26114 28726	12232 13455 14678 8799 10559 12319 14079 15838 17598 19358
VT300S09N VT300S10N VT300S11N VT300S12N VT350S05N VT350S06N VT350S08N VT350S09N VT350S10N VT350S11N VT350S12N VT400S05N VT400S06N	15540		9736 21988 20228 18468 16708 14949 13189 11428 32966	17729 15119 12507 9896 7284 4673 2061	13976 12753 28281 26521 24762 23001 21242 19482 17722 15963 42556	8548 6721 24023 21412 18801 16189 13578 10966 8355 5743 36140	18290 17067 15844 34682 32922 31163 29403 27644 25883 24123 22364 52311	11035 9208 30424 27813 25202 22590 19979 17367 14756 12144 45895	21315 20092 18869 40987 39226 37467 35707 33948 32187 30427 28668 61917	15283 13456 11630 36728 34118 31506 28895 26283 23672 21060 18449 55501	25566 24343 23120 47296 45536 43777 42017 40257 38497 36737 34978 71532	19534 17708 15881 43038 40427 37816 35204 32593 29981 27370 24758 65116	29867 28644 27421 53680 51919 50160 48400 46641 44881 43120 41361 81260	23835 22008 20182 49421 46811 44199 41588 38976 36365 33753 31142 74844	36269 35046 33823 63182 61422 59663 57902 56143 54383 52623 50863 95738	30238 28411 26584 58924 56313 53702 51090 48479 45867 43255 40644 89322 85252 81181	18264 20090 21917 13058 15668 18280 20891 23503 26114 28726 31337 20363	12232 13455 14678 8799 10559 12319 14079 15838 17598 19358 21118 13947
VT300S09N VT300S10N VT300S11N VT300S12N VT350S05N VT350S06N VT350S08N VT350S09N VT350S11N VT350S11N VT350S12N VT400S05N VT400S06N VT400S06N VT400S08N	15540		9736 21988 20228 18468 16708 14949 13189 11428 32966 30179 27391 24595	17729 15119 12507 9896 7284 4673 2061 26550 22479 18409 14329	13976 12753 28281 26521 24762 23001 21242 17722 15963 42556 39768 36981 34184	8548 6721 24023 21412 18801 16189 13578 13578 5743 36140 32069 27998 23919	18290 17067 15844 34682 32922 31163 29403 27644 25883 24123 22364 52311 49523 46735 43939	11035 9208 30424 27813 25202 22590 19979 17367 14756 12144 45895 41824 37753 33673	21315 20092 18869 40987 39226 37467 35707 33948 32187 30427 28668 61917 59129 56341 53545	15283 13456 11630 36728 34118 31506 28895 26283 23672 21060 18449 55501 51430 47359 43280	25566 24343 23120 47296 45536 43777 42017 40257 38497 71532 68744 65956 63160	19534 17708 15881 43038 40427 37816 35204 32593 29981 27370 24758 65116 61045 56974 52894	29867 28644 27421 53680 51919 50160 48400 46641 44881 43120 41361 81260 78472 75684 72888	23835 22008 20182 49421 46811 44199 41588 38976 33753 31142 74844 70773 66702 62622	36269 35046 33823 63182 61422 59663 57902 56143 54383 52623 50863 95738 92951 90163 87367	30238 28411 26584 58924 56313 53702 51090 48479 45867 40644 89322 85252 81181 77101	18264 20090 21917 13058 15668 18280 20891 23503 26114 28726 31337 20363 24434 28504 32584	12232 13455 14678 8799 10559 12319 14079 15838 17598 21118 13947 16735 19522 22319
VT300S09N VT300S10N VT300S11N VT300S12N VT350S05N VT350S05N VT350S09N VT350S09N VT350S11N VT350S11N VT350S12N VT400S05N VT400S06N VT400S06N VT400S08N VT400S08N	15540		9736 21988 20228 18468 16708 14949 13189 11428 32966 30179 27391 24595 21807	17729 15119 12507 9896 7284 4673 2061 26550 22479 18409 14329 10258	13976 12753 28281 26521 24762 23001 21242 19482 17722 15963 42556 39768 36981 34184 31397	8548 6721 24023 21412 18801 16189 13578 10966 8355 5743 36140 32069 27998 23919 19848	18290 17067 15844 34682 32922 31163 29403 27644 25883 24123 22364 52311 49523 46735 43939 41151	11035 9208 30424 27813 25202 22590 19979 17367 14756 12144 45895 41824 37753 33673 29603	21315 20092 18869 40987 39226 37467 35707 33948 32187 30427 28668 61917 59129 56341 53545 50757	15283 13456 11630 36728 34118 31506 28895 26283 23672 21060 18449 55501 51430 47359 43280 39209	25566 24343 23120 47296 45536 43777 42017 40257 38497 36737 34978 71532 68744 65956 63160 60372	19534 17708 15881 43038 40427 37816 35204 32593 29981 27370 24758 65116 61045 56974 52894 48824	29867 28644 27421 53680 51919 50160 48400 46641 44881 43120 41361 81260 78472 75684 72888 70100	23835 22008 20182 49421 46811 44199 41588 38976 36365 33753 31142 74844 70773 66702 62622 58552	36269 35046 33823 63182 61422 59663 57902 56143 54383 52623 50863 95738 92951 90163 87367 84579	30238 28411 26584 58924 56313 53702 51090 48479 45867 43255 40644 89322 85252 81181 77101 73030	18264 20090 21917 13058 15668 18280 20891 23503 26114 28726 31337 20363 24434 28504 32584 36655	12232 13455 14678 8799 10559 12319 14079 15838 17598 19358 21118 13947 16735 19522 22319 25106
VT300S09N VT300S10N VT300S11N VT300S12N VT350S05N VT350S06N VT350S08N VT350S09N VT350S10N VT350S11N VT350S12N VT400S05N VT400S06N VT400S06N	15540		9736 21988 20228 18468 16708 14949 13189 11428 32966 30179 27391 24595	17729 15119 12507 9896 7284 4673 2061 26550 22479 18409 14329	13976 12753 28281 26521 24762 23001 21242 17722 15963 42556 39768 36981 34184	8548 6721 24023 21412 18801 16189 13578 13578 5743 36140 32069 27998 23919	18290 17067 15844 34682 32922 31163 29403 27644 25883 24123 22364 52311 49523 46735 43939	11035 9208 30424 27813 25202 22590 19979 17367 14756 12144 45895 41824 37753 33673	21315 20092 18869 40987 39226 37467 35707 33948 32187 30427 28668 61917 59129 56341 53545	15283 13456 11630 36728 34118 31506 28895 26283 23672 21060 18449 55501 51430 47359 43280	25566 24343 23120 47296 45536 43777 42017 40257 38497 71532 68744 65956 63160	19534 17708 15881 43038 40427 37816 35204 32593 29981 27370 24758 65116 61045 56974 52894	29867 28644 27421 53680 51919 50160 48400 46641 44881 43120 41361 81260 78472 75684 72888	23835 22008 20182 49421 46811 44199 41588 38976 33753 31142 74844 70773 66702 62622	36269 35046 33823 63182 61422 59663 57902 56143 54383 52623 50863 95738 92951 90163 87367	30238 28411 26584 58924 56313 53702 51090 48479 45867 40644 89322 85252 81181 77101	18264 20090 21917 13058 15668 18280 20891 23503 26114 28726 31337 20363 24434 28504 32584	12232 13455 14678 8799 10559 12319 14079 15838 17598 21118 13947 16735 19522 22319



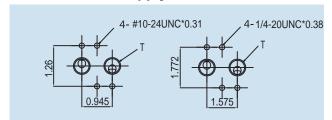
Sample Reference



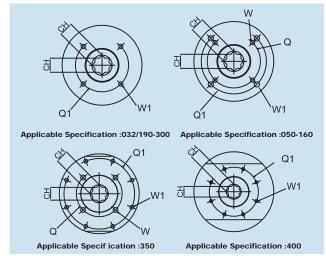
Top View



Air Supply Interface



Bottom View



	Dimensions (inches)																
MODEL	A	В	С	L	Е	F	Р	Z	N	1	ISO	Q	Q1	W	W1	Ch	Т
VT032	1. 46	1. 85	1. 97	4. 33	1. 06	3. 15	0. 79	1. 57	0. 39	0. 39	F03	/	1. 42	/	#10-24UNC*0. 29	0. 35	NPT1/8"
VT050	1. 81	2. 80	2. 76	5. 94	1. 63	3. 15	0. 79	1. 57	0. 39	0. 47	F03/F05	1. 42	1. 97	#10-24UNC*0. 29	1/4-20UNC*0. 35	0. 43	NPT1/4"
VT065	2. 52	3. 33	3. 50	6. 61	1. 83	3. 15	0. 79	1. 57	0. 39	0. 63	F05/F07	1. 97	2. 76	1/4-20UNC*0. 35	5/16-18UNC*0. 47	0. 55	NPT1/4"
VT075	2. 68	3. 89	3. 94	7. 17	2. 17	3. 15	0. 79	1. 57	0. 55	0. 63	F05/F07	1. 97	2. 76	1/4-20UNC*0. 35	5/16-18UNC*0. 47	0. 55	NPT1/4"
VT085	2. 68	4. 27	4. 45	8. 27	2. 34	3. 15	0. 79	1. 57	0. 55	0. 75	F05/F07	1. 97	2. 76	1/4-20UNC*0. 35	5/16-18UNC*0. 47	0. 67	NPT1/4"
VT095	3. 46	4. 63	4. 84	10. 31	2. 48	3. 15	0. 79	1. 57	0. 55	0. 75	F05/F07	1. 97	2. 76	1/4-20UNC*0. 35	5/16-18UNC*0. 47	0. 67	NPT1/4"
VT110	3. 66	5. 20	5. 35	11. 23	2. 87	3. 15	0. 79	1. 57	0. 55	0. 75	F07/F10	2. 76	4. 02	5/16-18UNC*0. 47	3/8-16UNC*0.59	0. 67	NPT1/4"
VT125	3. 78	5. 98	6. 26	12. 60	3. 19	5. 12	1. 18	2. 20	0. 87	0. 98	F07/F10	2. 76	4. 02	5/16-18UNC*0. 47	3/8-16UNC*0.59	0. 87	NPT1/4"
VT140	4. 33	6. 77	7. 01	15. 79	3. 58	5. 12	1. 18	2. 20	0. 87	1. 22	F10/F12	4. 02	4. 92	3/8-16UNC*0.59	1/2-13UNC*0. 71	1. 06	NPT1/4"
VT160	4. 41	7. 44	7. 87	18. 07	3. 94	5. 12	1. 18	2. 20	0. 87	1. 22	F10/F12	4. 02	4. 92	3/8-16UNC*0.59	1/2-13UNC*0.71	1. 06	NPT1/4"
VT190	5. 35	8. 54	9. 13	19. 49	4. 41	5. 12	1. 18	2. 20	0. 87	1. 61	F10/F14	4. 02	5. 51	3/8-16UNC*0.59	5/8-11UNC*0.94	1. 42	NPT1/4"
VT210	5. 51	9. 29	10. 04	20. 83	4. 80	5. 12	1. 18	2. 20	1. 28	1. 57	F14	/	5. 51	/	5/8-11UNC*0.94	1. 42	NPT1/4"
VT240	6. 30	10. 57	11. 50	24. 33	5. 47	5. 12	1. 18	2. 20	1. 28	1. 97	F16	/	6. 50	/	3/4-10UNC*0. 98	1. 81	NPT1/2"
VT270	6. 30	11. 65	13. 03	29. 02	5. 94	5. 12	1. 18	2. 20	1. 28	1. 97	F16	/	6. 50	/	3/4-10UNC*0. 98	1. 81	NPT1/2"
VT300	7. 09	13. 19	13. 94	30. 87	6. 81	5. 12	1. 18	2. 20	1. 28	1. 97	F16	/	6. 50	/	3/4-10UNC*0. 98	1. 81	NPT1/2"
VT350	10. 63	15. 16	16. 14	33. 27	7. 68	5. 12	1. 18	2. 20	1. 28	1. 97	F16/F25	6. 50	10.00	3/4-10UNC*0. 98	5/8-11UNC*0.94	1. 81	NPT1/2"
VT400	11. 42	20. 47	18. 35	37. 64	10. 24	5. 12	1. 18	2. 20	1. 28	2. 36	F25	/	10.00	/	5/8-11UNC*0. 94	2. 17	NPT1/2"

Model	Туре	Spring Qty.	Code	Flange Type	Square	Options	Temp. Range
VT032		_		F03	9×9		
VT050				F03/05	11×11		
VT065		Dedicated to		F05/07	14×14	Cylinder Type	Standard Nitrile Rubber
VT075		Spring Return		F05/07	14×14	P Smooth Surface& Hard Anodized	-18°C~+80°C
VT085				F05/07	17×17	S Sandblasted	
VT095		4		F05/07	17×17	Surface&Hard Anodized	HT Fluororubber (High Temperature)
VT110		5		F07/10	17×17	(Color:Grey)	-18°C~+150°C
VT125	D=Double	6		F07/10	22×22	H Sandblasted Surface&Hard	
VT140	Acting	7		F10/12	27×27	Anodized	<u>LT</u> Silastic (Low Temperature)
VT160	S=Spring	-	N	F10/12	27×27	(Color:Dark Grey) F Sandblasted	-40°C~+80°C
VT190	Return	8		F10/14	36×36	Surface&Hard	
VT210		9		F14	36×36	Anodized&PTFE Coated	
VT240		10		F16	46×46		
VT270		11		F16	46×46		
VT300		12		F16	46×46		
VT350				F16/25	46×46		
VT400				F25	55×55		

Remarks:

- 1. The standard rotation of double acting and spring return is clockwise to close.
- 2.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.
- 3.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. 4.Customized service including but not limited to:
- Color combination;
- Flange and square;
- Higher protection grade;

▲ Notice

Model Selection Example:

Example1: VT095DN F05/07 17

Description: Actuator model VT095N, double acting, ISO flange F05&F07, 17 mm diagonal square with standard indicator with standard nitrile rubber sealing,

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



3670 Westchase Drive

Houston, Texas 77042

Phone: 346-571-8210

Email: info@vtorkusa.net

Website: vtorkusa.net