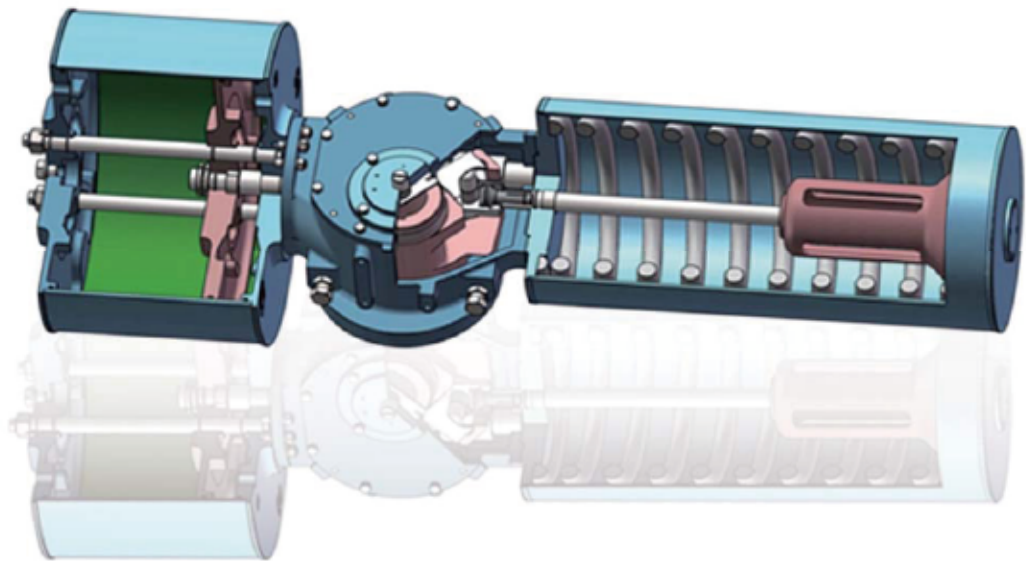# V-TORK®

VTS-Series Scotch Yoke Actuator

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

Features

● **Waterproof Protection**

O-Rings are fitted between the body and cover as well as on the modular connections which ensure weatherproof protection.

● **Application**

Pneumatic Operating Press. : 3~6Barr ;
Operating Temperauture :
Standard : -20℃~80℃ ;
High temperature : -20℃~150℃ ;
Low temperature : -40℃~80℃.

● **Corrosion Resistant**

VTS actuator is sprayed with multiple layers of protective coating to meet the environmental requirements of all kinds of working conditions. A Teflon coating on the inner wall of the cylinder increases the corrosion resistance and the lubrication performance.
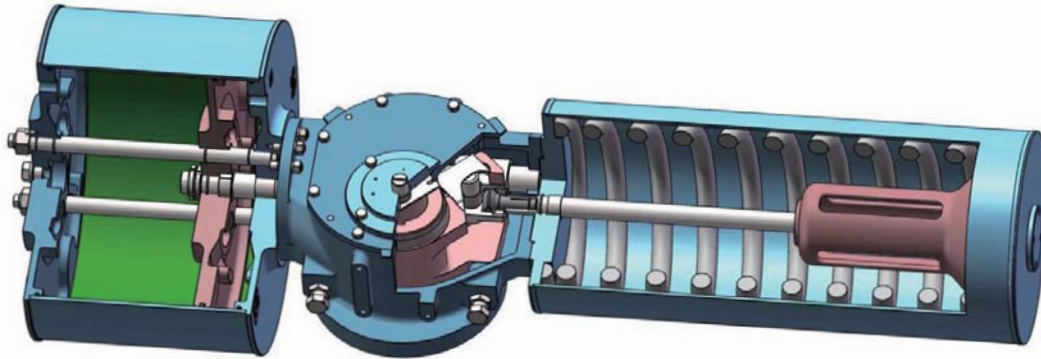
● **Wear Resistant**

Self-lubricating bearings are used on piston rod, guide bar and other moving parts, which reduces resistance and extends the life of all moving parts.

● **Modular Design**

VTS actuator uses a modular design, each body module can have different cylinder modules and spring modules to meet the various torque requiments. Our modular design makes assembly easier, which is conducive to on-site maintenance.

● **Cylinder With Internal Tie-Rod**

The air cylinder is designed with internal tie rods to reduce the size of the cylinder. This design provides the function of supporting and guiding the piston to prevent the eccentric wear of the cylinder as well as to offer the most stable ,and long lasting service.

Modular
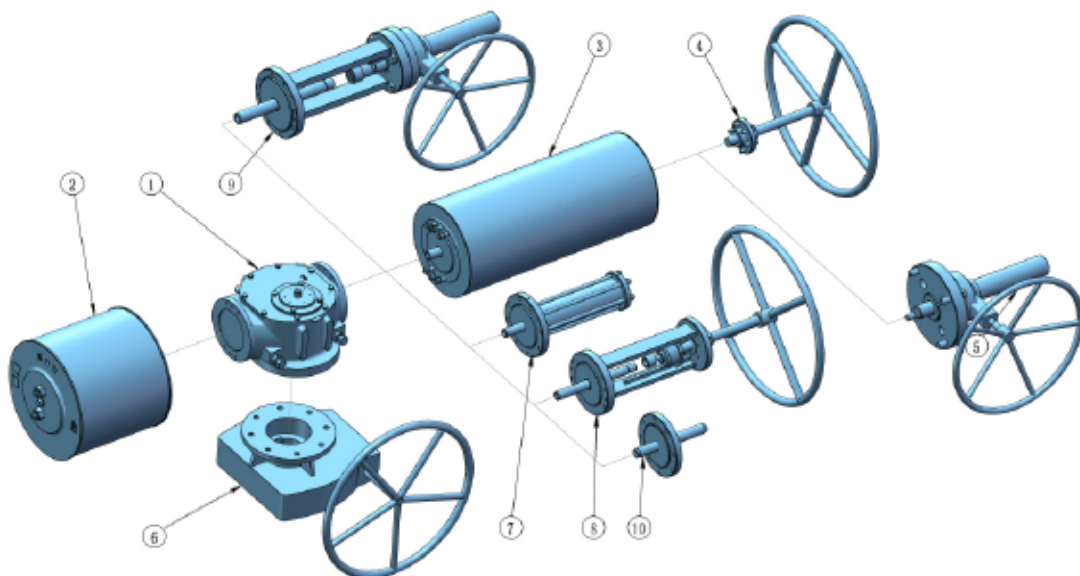
1. Drive module	3. Spring module	5. Bevel gear manual module	7. Hydraulic manual module	9. Double-acting bevel gear manual module
2. Cylinder module	4. Screw manual module	6. Clutch manual module	8. Double-acting screw manual module	10. Limit module

Assembly Drawing
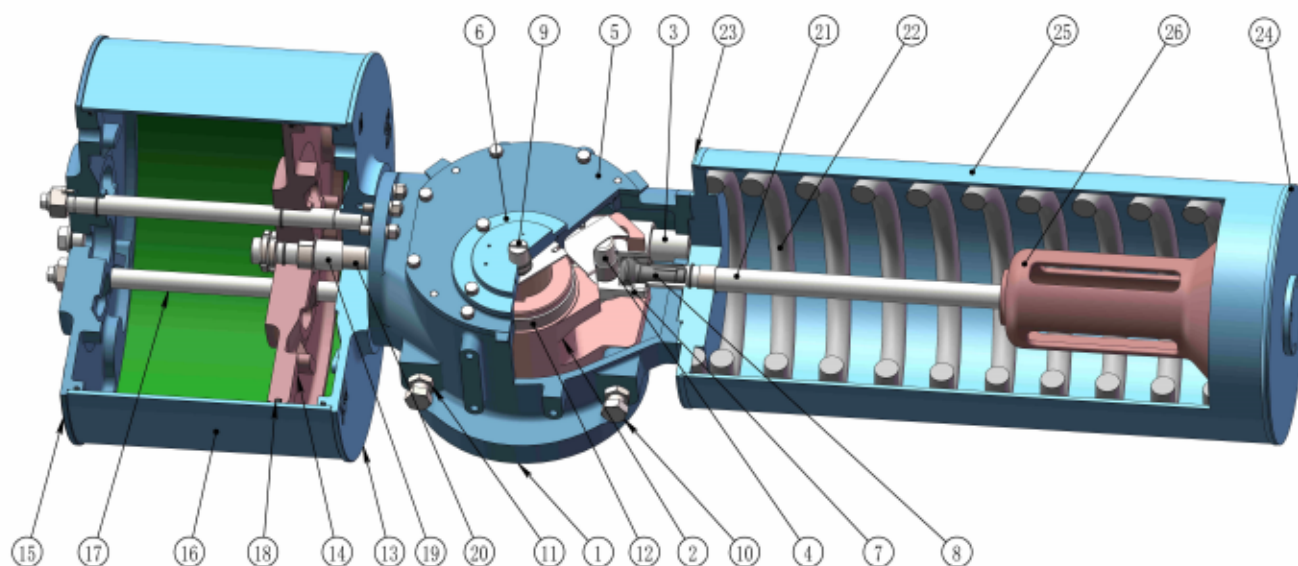
No.	Name	Material
1	Body	Ductile Iron
2	Yoke	Ductile Iron
3	Guide Bar	Alloy Steel
4	Pin	Alloy Steel
5	Body Cover	Ductile Iron
6	Cover	Carbon Steel
7	Guide Block	Ductile Iron
8	Connectors	Alloy Steel
9	Drive Shaft	Stainless Steel

No.	Name	Material
10	Adjust Bolt	Stainless Steel
11	Nut	Stainless Steel
12	Yoke Bearing	DU Bearing
13	Cylinder Cover	Ductile Iron
14	Piston	Ductile Iron
15	Cylinder Cover	Ductile Iron
16	Cylinder	Carbon Steel
17	Cylinder Tie Rod	Alloy Steel
18	Sealing Ring	NBR

No.	Name	Material
19	Piston Rod	Alloy Steel
20	Piston Rod Bearing	DU Bearing
21	Tension Rod	Alloy Steel
22	Spring	Alloy Steel
23	Spring Cover	Carbon Steel
24	Spring Cover	Carbon Steel
25	Spring Cylinder	Carbon Steel
26	Spring Seat	Ductile Iron

Cylinder Volume

Model	Cylinder Effective Volume (L)												
	200	250	300	350	400	500	600	700	700 D	800	800 D	900	1000
VTS1	6.8	10.6	15.4	18.2									
VTS2		10.6	15.4	18.2	21.3								
VTS3			18.4	21.7	27.5	43							
VTS4				26.6	33.7	53	76						
VTS5						69	100	145		189			
VTS6							124	180	360	234		296	
VTS7								214		275	550	353	430

Torque Sheet

Double Acting
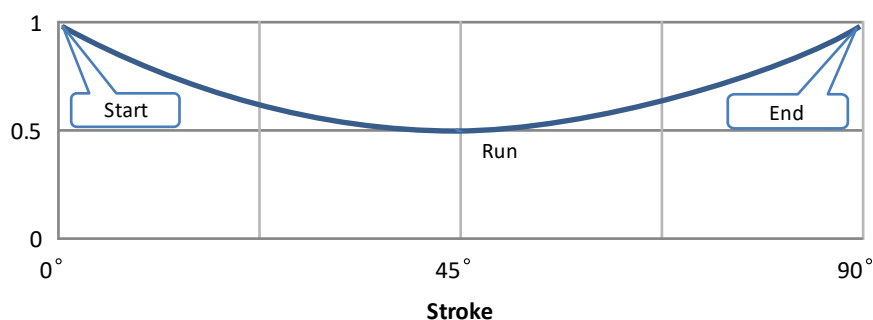
Double Acting

Model		Output Torque (Nm)							
		3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar
VTS1-200	Start/End	1066	1244	1421	1777	1954	2132	2472	2825
	Run	563	656	750	938	1031	1125	1305	1491
VTS1-250	Start/End	1701	1985	2269	2836	3119	3403		
	Run	898	1048	1197	1497	1646	1796		
VTS1-300	Start/End	2459	2869	3278					
	Run	1298	1514	1730					
VTS1-350	Start/End	2948	3440						
	Run	1556	1815						
VTS2-250	Start/End	2098	2448	2797	3497	3847	4197	4896	5596
	Run	1107	1292	1477	1845	2030	2216	2584	2953
VTS2-300	Start/End	3033	3538	4043	5054	5560	6065		
	Run	1600	1867	2134	2667	2934	3201		
VTS2-350	Start/End	3636	4242	4848	6060	6666			
	Run	1919	2239	2559	3198	3518			
VTS2-400	Start/End	4799	5598	6398					
	Run	2533	2955	3377					
VTS3-300	Start/End	3647	4255	4863	6079	6687	7294	8510	9726
	Run	1925	2246	2567	3208	3529	3850	4491	5133
VTS3-350	Start/End	4373	5102	5831	7289	8017	8746	10204	11662
	Run	2308	2693	3077	3847	4231	4616	5385	6155
VTS3-400	Start/End	5771	6733	7695	9619	10581	11543		
	Run	3046	3554	4061	5077	5584	6092		
VTS3-500	Start/End	9128	10650	12171					
	Run	4818	5621	6424					
VTS4-350	Start/End	5307	6191	7076	8845	9729	10613	12382	14151
	Run	2801	3268	3734	4668	5135	5602	6535	7469
VTS4-400	Start/End	7003	8171	9338	11672	12840	14007	16341	18676
	Run	3696	4312	4928	6160	6776	7392	8625	9857
VTS4-500	Start/End	11077	12923	14769	18462	20308	22154		
	Run	5846	6821	7795	9744	10718	11692		
VTS4-600	Start/End	16031	18703	21375					
	Run	8461	9871	11281					
Model		3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar

Double Acting

Model		Output Torque (Nm)							
		3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar
VTS5–500	Start/End	14359	16752	19146	23932	26325	28718	33505	38291
	Run	7578	8842	10105	12631	13894	15157	17683	20209
VTS5–600	Start/End	20781	24245	27708	34635	38099	41563		
	Run	10968	12796	14624	18280	20108	21936		
VTS5–700	Start/End	29889	34870	39852					
	Run	15775	18404	21033					
VTS5–800	Start/End	38750	45208						
	Run	20451	23860						
VTS6–600	Start/End	25383	29613	33844	42305	46535	50766	59227	67688
	Run	13397	15629	17862	22328	24560	26793	31259	35724
VTS6–700	Start/End	36507	42591	48676	60845	66929	73014		
	Run	19267	22479	25690	32112	35324	38535		
VTS6–800	Start/End	47330	55218	63107	78884				
	Run	24980	29143	33306	41633				
VTS6–900	Start/End	60792	70924	81057					
	Run	32085	37432	42780					
VTS7–700	Start/End	43339	50562	57785	72231	79454	86677	101123	115569
	Run	22873	26685	30497	38122	41934	45746	53371	60995
VTS7–800	Start/End	56187	65552	74916	93645	103010	112374		
	Run	29654	34597	39539	49424	54366	59309		
VTS7–900	Start/End	72169	84197	96225	120281				
	Run	38089	44437	50785	63482				
VTS7–1000	Start/End	87581	102178	116775					
	Run	46224	53927	61631					
Model		3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar

Spring Return Torque Curve
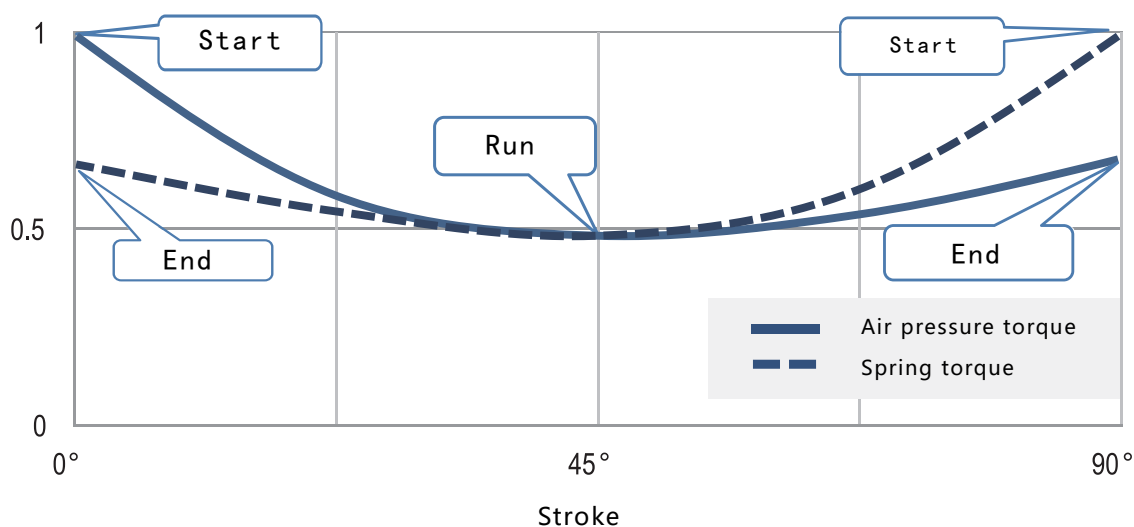
Spring Return Acting

Model	Spring Torque (Nm)		Output Torque (Nm)							
			3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar
VTS1-200-SR4	Start	718		558	735	1088	1264	1441	1790	2143
	Run	353		266	359	546	639	732	916	1102
	End	619		450	627	980	1156	1333	1683	2035
VTS1-200-SR3	Start	1313					699	875	1228	1580
	Run	645					317	410	596	782
	End	1132					501	678	1030	1382
VTS1-250-SR3	Start	1313		746	1030	1597	1880	2164	2731	3298
	Run	645		341	491	790	940	1090	1389	1688
	End	1132		548	832	1399	1682	1966	2533	3100
VTS1-300-SR3	Start	1313	1220	1630	2039	2859	3269			
	Run	645	592	808	1024	1457	1673			
	End	1132	1022	1432	1842	2661	3071			
VTS1-350-SR3	Start	1313	1709	2201	2692					
	Run	645	850	1109	1369					
	End	1132	1511	2003	2494					
VTS1-200-SR2	Start	1529						705	1057	1410
	Run	743						303	489	674
	End	1288						441	794	1146
VTS1-250-SR2	Start	1529		576	859	1426	1710	1993	2561	3128
	Run	743		235	384	683	833	982	1282	1581
	End	1288		312	595	1163	1446	1730	2297	2864
VTS1-300-SR2	Start	1529	1049	1459	1869	2689	3098			
	Run	743	484	701	917	1349	1566			
	End	1288	786	1196	1605	2425	2835			
VTS1-350-SR2	Start	1529	1539	2030	2522					
	Run	743	743	1002	1261					
	End	1288	1275	1766	2258					
VTS1-200-SR1	Start	1743							864	1216
	Run	847							376	562
	End	1465							560	912
VTS1-250-SR1	Start	1743			665	1232	1516	1800	2367	2934
	Run	847			271	570	720	870	1169	1468
	End	1465			361	928	1212	1496	2063	2630
VTS1-300-SR1	Start	1743	856	1265	1675	2495	2905	3314		
	Run	847	371	588	804	1236	1453	1669		
	End	1465	552	961	1371	2191	2601	3010		
VTS1-350-SR1	Start	1743	1345	1836	2328	3310				
	Run	847	630	889	1148	1667				
	End	1465	1041	1532	2024	3006				
VTS2-250-SR3	Start	2537				1370	1720	2070	2769	3469
	Run	1182				552	737	921	1290	1659
	End	1944				722	1071	1421	2120	2820
Model	Spring Torque(Nm)		3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar

Spring Return Acting

Model	Spring Torque (Nm)		Output Torque (Nm)							
			3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar
VTS2-300-SR3	Start	2537		1411	1916	2927	3432	3938	4949	5960
	Run	1182		574	840	1374	1640	1907	2441	2974
	End	1944		762	1268	2278	2784	3289	4300	5311
VTS2-350-SR3	Start	2537	1509	2115	2721	3933	4539	5145	6357	
	Run	1182	625	945	1265	1905	2224	2544	3184	
	End	1944	860	1466	2072	3284	3890	4496	5708	
VTS2-400-SR3	Start	2537	2671	3471	4271	5871				
	Run	1182	1239	1661	2083	2927				
	End	1944	2023	2822	3622	5222				
VTS2-250-SR2	Start	2851					1393	1742	2442	3141
	Run	1344					559	744	1113	1482
	End	2243					728	1077	1777	2476
VTS2-300-SR2	Start	2851			1589	2600	3105	3611	4621	5632
	Run	1344			663	1197	1463	1730	2264	2797
	End	2243			924	1935	2440	2946	3956	4967
VTS2-350-SR2	Start	2851		1787	2394	3606	4212	4818	6030	
	Run	1344		768	1088	1727	2047	2367	3007	
	End	2243		1123	1729	2941	3547	4153	5365	
VTS2-400-SR2	Start	2851	2344	3144	3944	5543	6343			
	Run	1344	1062	1475	1906	2750	3172			
	End	2243	1679	2479	3279	4878	5678			
VTS2-250-SR1	Start	3614							1856	2556
	Run	1687							738	1108
	End	2778							942	1641
VTS2-300-SR1	Start	3614				2014	3021	3025	4036	5047
	Run	1687				822	1233	1355	1889	2422
	End	2778				1100	1650	2111	3121	4132
VTS2-350-SR1	Start	3614			1808	3020	3626	4232	5444	
	Run	1687			713	1353	1673	1992	2632	
	End	2778			894	2106	2712	3318	4530	
VTS2-400-SR1	Start	3614	1759	2559	3358	4958	5758			
	Run	1687	687	1109	1531	2375	2797			
	End	2778	844	1644	2444	4043	4843			
VTS3-300-SR3	Start	4194				2561	3169	3777	4992	6208
	Run	1955				1069	1390	1710	2352	2994
	End	3215				1489	2097	2705	3921	5137
VTS3-350-SR3	Start	4194			2313	3771	4500	5228	6686	8144
	Run	1955			938	1707	2092	2477	3246	4015
	End	3215			1242	2699	3428	4157	5615	7072
VTS3-400-SR3	Start	4194	2253	3216	4177	6101	7063	8025	9948	11872
	Run	1955	907	1414	1922	2937	3445	3953	4968	5983
	End	3215	1182	2144	3106	5030	5991	6953	8877	10801
Model	Spring Torque(Nm)		3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar

Spring Return Acting

Model	Spring Torque (Nm)		Output Torque (Nm)							
			3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar
VTS3-500-SR3	Start	4194	5610	7132	8653	11696				
	Run	1955	2678	3481	4284	5890				
	End	3215	4539	6061	7582	10625				
VTS3-300-SR2	Start	4795					2665	3273	4488	5704
	Run	2235					1083	1404	2046	2687
	End	3675					1440	2047	3263	4479
VTS3-350-SR2	Start	4795				3267	3996	4725	6182	7640
	Run	2235				1401	1786	2170	2940	3709
	End	3675				2042	2770	3499	4957	6415
VTS3-400-SR2	Start	4795		2712	3673	5597	6559	7521	9445	11368
	Run	2235		1108	1615	2631	3138	3646	4661	5677
	End	3675		1486	2448	4372	5334	6296	8219	10143
VTS3-500-SR2	Start	4795	5107	6628	8149	11192				
	Run	2235	2372	3175	3978	5584				
	End	3675	3881	5403	6924	9967				
VTS3-300-SR1	Start	6219							3294	4510
	Run	2899							1319	1961
	End	4767							1704	2920
VTS3-350-SR1	Start	6219					2801	3530	4988	6445
	Run	2899					1059	1444	2213	2982
	End	4767					1212	1941	3398	4856
VTS3-400-SR1	Start	6219			2479	4402	5364	6326	8250	10174
	Run	2899			889	1904	2412	2919	3935	4950
	End	4767			889	2813	3775	4737	6661	8584
VTS3-500-SR1	Start	6219	3912	5433	6955	9997	11519			
	Run	2899	1645	2448	3251	4857	5660			
	End	4767	2323	3844	5365	8408	9930			
VTS4-350-SR4	Start	7842						4433	6202	7971
	Run	3560						1706	2640	3573
	End	5648						2032	3801	5570
VTS4-400-SR4	Start	7842				5492	6659	7826	10161	12495
	Run	3560				2265	2881	3497	4729	5961
	End	5648				3091	4258	5425	7760	10094
VTS4-500-SR4	Start	7842	4897	6742	8589	12281	14128	15974	19666	
	Run	3560	1951	2925	3899	5848	6823	7797	9746	
	End	5648	2495	4341	6188	9880	11726	13572	17265	
VTS4-600-SR4	Start	7842	9851	12523	15195	20539	23210			
	Run	3560	4565	5976	7386	10206	11616			
	End	5648	7450	10122	12793	18137	20809			
VTS4-350-SR3	Start	9336							5156	6925
	Run	4206							1932	2866
	End	6603							2167	3935
Model	Spring Torque(Nm)		3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar

VTS-Series Scotch Yoke Actuator

Spring Return Acting

Model	Spring Torque (Nm)		Output Torque (Nm)							
			3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar
VTS4-400-SR3	Start	9336					5613	6781	9115	11450
	Run	4206					2174	2790	4022	5254
	End	6603					2624	3791	6125	8460
VTS4-500-SR3	Start	9336		5698	7543	11236	13082	14928	18620	22313
	Run	4206		2218	3192	5141	6115	7090	9038	10987
	End	6603		2708	4554	8246	10092	11938	15631	19323
VTS4-600-SR3	Start	9336	8805	11477	14149	19493	22165			
	Run	4206	3858	5268	6679	9499	10909			
	End	6603	5815	8487	11159	16503	19175			
VTS4-400-SR2	Start	11174							7714	10048
	Run	5029							3121	4353
	End	7884							4114	6448
VTS4-500-SR2	Start	11174			6142	9834	11681	13527	17219	20911
	Run	5029			2292	4240	5215	6189	8138	10087
	End	7884			2542	6234	8081	9927	13619	17312
VTS4-600-SR2	Start	11174	7404	10076	12748	18091	20763			
	Run	5029	2958	4368	5778	8598	10008			
	End	7884	3804	6476	9148	14492	17163			
VTS4-400-SR1	Start	12586							6286	8620
	Run	5746							2337	3569
	End	9189							2568	4903
VTS4-500-SR1	Start	12586				8406	10253	12099	15791	19484
	Run	5746				3456	4430	5404	7353	9302
	End	9189				4689	6535	8381	12074	15766
VTS4-600-SR1	Start	12586		8648	11320	16663	19335	22007		
	Run	5746		3583	4993	7814	9224	10634		
	End	9189		4930	7602	12946	15618	18290		
VTS5-500-SR4	Start	17538					14179	16572	21359	26145
	Run	7557					5624	6887	9413	11940
	End	11100					7134	9527	14313	19100
VTS5-600-SR4	Start	17538		12099	15562	22489	25953	29416	36344	43271
	Run	7557		4526	6354	10010	11838	13666	17322	20978
	End	11100		5053	8517	15444	18908	22371	29298	36225
VTS5-700-SR4	Start	17538	17742	22723	27705	37668	42650			
	Run	7557	7505	10134	12763	18021	20650			
	End	11100	10697	15679	20660	30623	35604			
VTS5-800-SR4	Start	17538	26604	33062	39520					
	Run	7557	12182	15590	18999					
	End	11100	19558	26017	32475					
VTS5-500-SR3	Start	21048						14357	19144	23930
	Run	9017						5289	7815	10342
	End	13124						5686	10473	15259
Model	Spring Torque(Nm)		3 Bar	3 5 Bar	4 Bar	5 Bar	5. 5 Bar	6 Bar	7 Bar	8 Bar

VTS-Series Scotch Yoke Actuator

Spring Return Acting

Model	Spring Torque (Nm)		3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar
					Output Torque (Nm)					
VTS5-600-SR3	Start	21048			13347	20274	23738	27202	34129	41056
	Run	9017			4756	8412	10240	12068	15724	19380
	End	13124			4676	11603	15067	18530	25458	32385
VTS5-700-SR3	Start	21048	15528	20509	25491	35453	40435			
	Run	9017	5907	8536	11165	16423	19052			
	End	13124	6857	11838	16819	26782	31764			
VTS5-800-SR3	Start	21048	24389	30847	37305					
	Run	9017	10584	13992	17401					
	End	13124	15718	22176	28634					
VTS5-500-SR2	Start	25892							16641	21427
	Run	10899							5756	8282
	End	15411							5172	9959
VTS5-600-SR2	Start	25892				17772	21235	24699	31626	38553
	Run	10899				6353	8181	10009	13665	17321
	End	15411				6303	9766	13230	20157	27084
VTS5-700-SR2	Start	25892		18006	22988	32951	37932	42913		
	Run	10899		6477	9106	14364	16993	19622		
	End	15411		6538	11519	21482	26463	31445		
VTS5-800-SR2	Start	25892	21886	28344	34803					
	Run	10899	8524	11933	15342					
	End	15411	10417	16876	23334					
VTS5-500-SR1	Start	28823								18410
	Run	12400								6640
	End	18168								6751
VTS5-600-SR1	Start	28823					18218	21681	28609	35536
	Run	12400					6538	8366	12022	15678
	End	18168					6559	10022	16949	23877
VTS5-700-SR1	Start	28823			19970	29933	34915	39896		
	Run	12400			7463	12721	15350	17980		
	End	18168			8311	18274	23256	28237		
VTS5-800-SR1	Start	28823	18869	25327	31785	44702				
	Run	12400	6882	10290	13699	20516				
	End	18168	7210	13668	20126	33043				
VTS6-600-SR4	Start	34600						27413	35874	44335
	Run	14762						10639	15105	19570
	End	21341						12904	21365	29826
VTS6-700-SR4	Start	34600			25323	37492	43577	49661	61830	73999
	Run	14762			9536	15959	19170	22381	28804	35226
	End	21341			10814	22983	29067	35152	47321	59489
VTS6-800-SR4	Start	34600	23978	31866	39754	55531	63419	71308		
	Run	14762	8826	12989	17153	25479	29642	33806		
	End	21341	9468	17356	25245	41021	48910	56798		
Model	Spring Torque(Nm)		3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar

VTS-Series Scotch Yoke Actuator

Spring Return Acting

Model	Spring Torque (Nm)		Output Torque (Nm)							
			3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar
VTS6–900–SR4	Start	34600	37440	47572	57704	77968				
	Run	14762	15931	21278	26626	37321				
	End	21341	22930	33063	43194	63459				
VTS6–600–SR3	Start	41067							31802	40263
	Run	17451							12163	16628
	End	25062							14288	22749
VTS6–700–SR3	Start	41067				33420	39504	45589	57758	69927
	Run	17451				13016	16228	19439	25861	32284
	End	25062				15906	21990	28075	40244	52413
VTS6–800–SR3	Start	41067		27793	35682	51459	59347	67236		
	Run	17451		10047	14210	22537	26700	30864		
	End	25062		10279	18168	33945	41833	49721		
VTS6–900–SR3	Start	41067	33368	43500	53632	73896				
	Run	17451	12989	18336	23684	34379				
	End	25062	15853	25986	36118	56382				
VTS6–700–SR2	Start	49840						40065	52234	64403
	Run	21098						15448	21871	28293
	End	30110						18475	30644	42813
VTS6–800–SR2	Start	49840				45935	53823	61712	77488	
	Run	21098				18546	22709	26873	35199	
	End	30110				24345	32234	40122	55899	
VTS6–900–SR2	Start	49840		37976	48108	68372	78504			
	Run	21098		14345	19693	30388	35735			
	End	30110		16386	26518	46782	56914			
VTS6–700 D–SR2	Start	49840	40065	52234	64403					
	Run	21098	15448	21871	28293					
	End	30110	18475	30644	42813					
VTS6–700–SR1	Start	56307						35993	48162	60330
	Run	23787						12506	18928	25351
	End	33832						11398	23567	35736
VTS6–800–SR1	Start	56307				41863	49751	57639	73416	
	Run	23787				15604	19767	23931	32257	
	End	33832				17268	25157	33045	48822	
VTS6–900–SR1	Start	56307			44036	64300	74432			
	Run	23787			16751	27446	32793			
	End	33832			19441	39705	49837			
VTS6–700 D–SR1	Start	56307	35993	48162	60330					
	Run	23787	12506	18928	25351					
	End	33832	11398	23567	35736					
VTS7–700–SR3	Start	57016					34894	42117	56563	71009
	Run	25792					13711	17523	25147	32772
	End	40721					17063	24286	38732	53178
Model	Spring Torque(Nm)		3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar

Spring Return Acting

Model		Spring Torque (Nm)	Output Torque (Nm)							
			3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar
VTS7-800-SR3	Start	57016			30356	49085	58450	67814	86543	105272
	Run	25792			11316	21201	26143	31086	40970	50855
	End	40721			12525	31254	40619	49984	68713	87442
VTS7-900-SR3	Start	57016		39637	51665	75721	87749	99777	123834	
	Run	25792		16215	22562	35259	41607	47955	60651	
	End	40721		21806	33834	57890	69918	81947	106003	
VTS7-1000-SR3	Start	57016	43021	57619	72215	101409	116006	130603		
	Run	25792	18000	25704	33408	48816	56520	64224		
	End	40721	25191	39787	54384	83578	98175	112772		
VTS7-700-SR2	Start	67109						34306	48752	63198
	Run	30339						12547	20172	27796
	End	47859						13242	27688	42134
VTS7-800-SR2	Start	67109				41274	50639	60003	78732	97462
	Run	30339				16225	21167	26110	35995	45879
	End	47859				20210	29575	38939	57668	76397
VTS7-900-SR2	Start	67109		31826	43854	67910	79938	91966	116023	
	Run	30339		11238	17587	30283	36631	42979	55676	
	End	47859		10761	22790	46846	58874	70902	94959	
VTS7-1000-SR2	Start	67109	35210	49807	64404	93598	108195	122792		
	Run	30339	13025	20728	28433	43840	51544	59248		
	End	47859	14146	28743	43340	72534	87131	101728		
VTS7-800 D-SR2	Start	67109	60003	78732	97462					
	Run	30339	26110	35995	45879					
	End	47859	38939	57668	76397					
VTS7-800-SR1	Start	83319						50656	69385	88114
	Run	36871						18962	28847	38732
	End	56401						21200	39929	58658
VTS7-900-SR1	Start	83319				58563	70591	82619	106676	
	Run	36871				23135	29483	35832	48528	
	End	56401				29107	41135	53163	77220	
VTS7-1000-SR1	Start	83319			55057	84251	98848	113445		
	Run	36871			21285	36693	44397	52101		
	End	56401			25601	54795	69392	83989		
VTS7-800 D-SR1	Start	83319	50656	69385	88114	125573				
	Run	36871	18962	28847	38732	58501				
	End	56401	21200	39929	58658	96117				
Model		Spring Torque(Nm)	3 Bar	3.5 Bar	4 Bar	5 Bar	5.5 Bar	6 Bar	7 Bar	8 Bar

Dimension Drawing
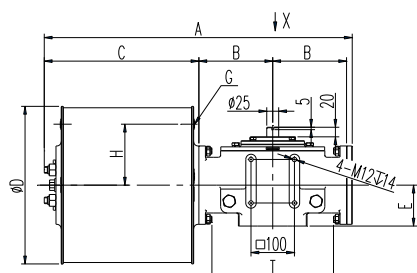
Double acting
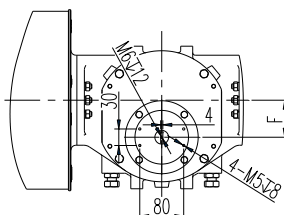
View X
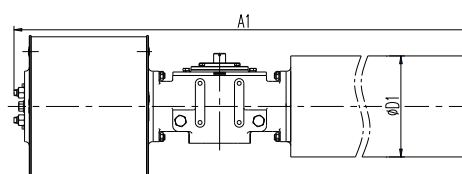
Spring return acting

Dimension Sheet

Model	Spring return (mm)										
	Double acting(mm)										
	A	B	C	ΦD	E	F	G	H	T	A1	ΦD1
VTS1−200	658	145	356	223	88	60	RC 3/8	80	235	1370	220
VTS1−250	658	145	356	280	88	60	RC 1/2	110	235	1370	220
VTS1−300	658	145	356	332	88	60	RC 1/2	124	235	1370	220
VTS1−350	658	145	356	362	88	60	RC 1/2	132	235	1370	220
VTS2−250	709	170	356	280	94	74	RC 1/2	110	285	1440	274
VTS2−300	709	170	356	332	94	74	RC 1/2	124	285	1440	274
VTS2−350	709	170	356	362	94	74	RC 1/2	132	285	1440	274
VTS2−400	725	170	372	413	94	74	RC 3/4	158	285	1456	274
VTS3−300	828	195	423	332	98	89	RC 1/2	124	320	1600	327
VTS3−350	828	195	423	362	98	89	RC 1/2	132	320	1600	327
VTS3−400	828	195	423	413	98	89	RC 3/4	158	320	1600	327
VTS3−500	828	195	423	514	98	89	RC 3/4	202	320	1600	327
VTS4−350	982	238	492	362	115	108	RC 1/2	132	396	1932	408
VTS4−400	982	238	492	413	115	108	RC 3/4	158	396	1932	408
VTS4−500	982	238	492	514	115	108	RC 3/4	202	396	1932	408
VTS4−600	982	238	492	616	115	108	RC 3/4	244	396	1932	408
VTS5−500	1217	298	606	514	163	140	RC 3/4	202	505	2275	508
VTS5−600	1217	298	606	616	163	140	RC 3/4	244	505	2275	508
VTS5−700	1217	298	606	739	163	140	RC 1	305	505	2275	508
VTS5−800	1217	298	606	839	163	140	RC 1−1/2	355	505	2275	508
VTS6−600	1536	370	766	616	203	171	RC 3/4	244	620	2702	682
VTS6−700	1536	370	766	739	203	171	RC 1	305	620	2702	682
VTS6−800	1536	370	766	839	203	171	RC 1−1/2	355	620	2702	682
VTS6−900	1536	370	766	947	203	171	RC 1−1/2	402	620	2702	682
VTS6−700 D	−	370	1500	739	203	171	RC 1	305	620	3436	682
VTS7−700	1760	425	880	739	214	203	RC 1	305	690	3590	682
VTS7−800	1760	425	880	839	214	203	RC 1−1/2	355	690	3590	682
VTS7−900	1760	425	880	947	214	203	RC 1−1/2	402	690	3590	682
VTS7−1000	1760	425	880	1048	214	203	RC 2	456	690	3590	682
VTS7−800 D	−	425	1725	839	214	203	RC 1−1/2	355	690	4435	682

Mounting Dimensions

VTS1~2

VTS3~7

View Y
(The actuator moves clockwise)
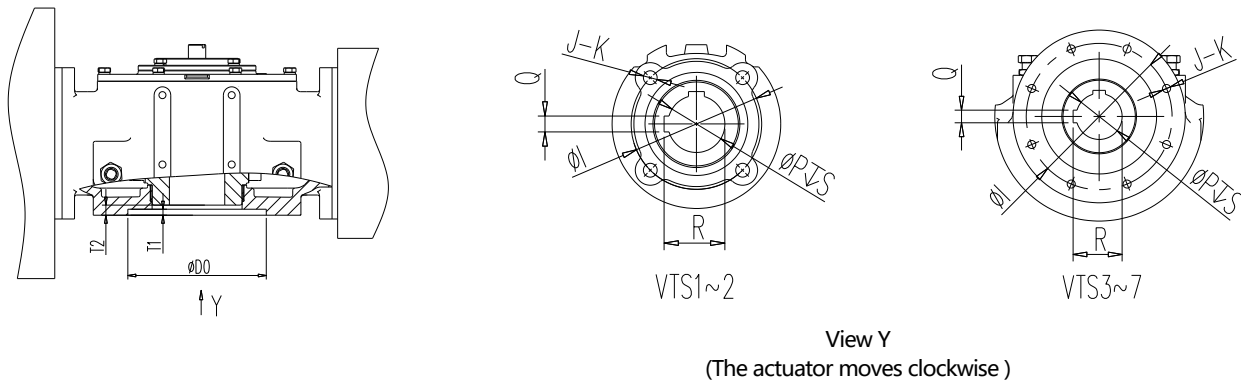
Connection dimension sheet

Model	Dimension (mm)								
	ΦI	J–K	ΦP	S	Q	R	ΦD0	T1	T2
VTS1	140	4–M16	60	145	18	64. 4	100	10	14
VTS2	165	4–M20	72	155	20	76. 9	130	10	15
VTS3	254	8–M16	80	175	22	85. 4	200	6	7
VTS4	298	8–M20	100	200	28	106. 4	230	10	12
VTS5	356	8–M30	160	295	40	169. 4	260	10	15
VTS6	406	8–M36	180	360	45	190. 4	300	10	21
VTS7	483	12–M36	220	380	50	231. 4	370	10	20

Manual modular

Model		Standard		Optional	
		Manual form	Installation location	Manual form	Installation location
Double Acting	VTS1–xxx	MW (Worm gear manual)	Between actuator and valve	MSD(Screw manual)	Side of the cabinet
	VTS2–xxx	MW (Worm gear manual)	Between actuator and valve	MSD(Screw manual)	Side of the cabinet
	VTS3–xxx	MW (Worm gear manual)	Between actuator and valve	MSD(Screw manual)	Side of the cabinet
	VTS4–xxx	MHD (Hydraulic manual)	Side of the cabinet	MGD(Bevel gear manual)	Side of the cabinet
	VTS5–xxx	MHD (Hydraulic manual)	Side of the cabinet	MGD(Bevel gear manual)	Side of the cabinet
	VTS6–xxx	MHD (Hydraulic manual)	Side of the cabinet		
	VTS7–xxx	MHD (Hydraulic manual)	Side of the cabinet		
Spring Return Acting	VTS1–xxx–SR	MS (Screw manual)	Outside of the spring tube		
	VTS2–xxx–SR	MS (Screw manual)	Outside of the spring tube		
	VTS3–xxx–SR	MS (Screw manual)	Outside of the spring tube	MG(Bevel gear manual)	Outside of the spring
	VTS4–xxx–SR	MG(Bevel gear manual)	Outside of the spring tube		
	VTS5–xxx–SR	MG(Bevel gear manual)	Outside of the spring tube	MH (Hydraulic manual)	Inside the outer end of the spring barrel
	VTS6–xxx–SR	MH (Hydraulic manual)	Outside of the spring tube		
	VTS7–xxx–SR	MH (Hydraulic manual)	Outside of the spring tube		

Model Designation

Pneumatic Yoke Type Actuator	VTS	X	–	XXX	–	XX	X	XX	–	XX	–	X
Drive Housing	Connection flange F14	1										
	Connection flange F16	2										
	Connection flange F25	3										
	Connection flangeF30	4										
	Connection flangeF35	5										
	Connection flangeF40	6										
	Connection flangeF48	7										
Cylinder Size	Select the cylinder according to the torque sheet	200~1000										
Actuator Type	Spring return type			SR								
	Double acting type			/								
Spring No.	Select the spring according to the torque sheet					1~4						
	Double acting type					/						
Fail Position	Fail to close							FC				
	Fail to open							FO				
	Double acting							/				
Manual Mode $^{\alpha}$	Jack screw manual override									MS/MSD$^{\alpha}$		
	Gearbox manual override									MG/MGD$^{\alpha}$		
	Worm gear manual override									MW		
	Hydraulic manual override									MH/MHD$^{\alpha}$		
	Without manual override									/		
Temperature Range	Standard temperature -20℃~+80℃											/
	High temperature -20℃~+150℃											H
	Low temperature type -40℃~+80℃											L

Note α：MS、MG、MH for spring return acting,MSD、MGD、MHD for double acting.

⚠ Notice.

Pressure-temperature ratings and other performance data published in this catalog have been developed from our design calcula-tion,In-house tasting, 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 V-TORK products introduced in this catalog.

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