

Feature

- Anodized aluminum body, nickel plated steel pinion
- ISO 5211 connection
- Flange, end caps and pistons in die cast aluminum
- Steel coated springs with technopolymer cartridge
- High-cycle shaft bearings
- High visibility position indicator
- Torque range (at 80 psi air supply):
 - Up to 23500 in-lbs for Double Acting model
 - Up to 10361 in-lbs for Spring Return model
- Allow opening/closing $\pm 10^\circ$ travel regulation

- NAMUR VDI/VDE 3845 upper connection for Limit Switch box HOVER-LSB-MS45-0
- NAMUR VDI/VDE 3845 connection for solenoid valve HOVER-SV-120-0
- 1/4" NPT connection for supply fluid
- Allowable supply fluid pressures from 40 psi to 120 psi
- Operating media: Air

Water, nitrogen & compatible hydraulic fluids may also be used to power the actuator

Working conditions: -4°F to $+176^\circ\text{F}$.



HOVER-LSB-MS45-0



HOVER-SV-120-0

Technical data

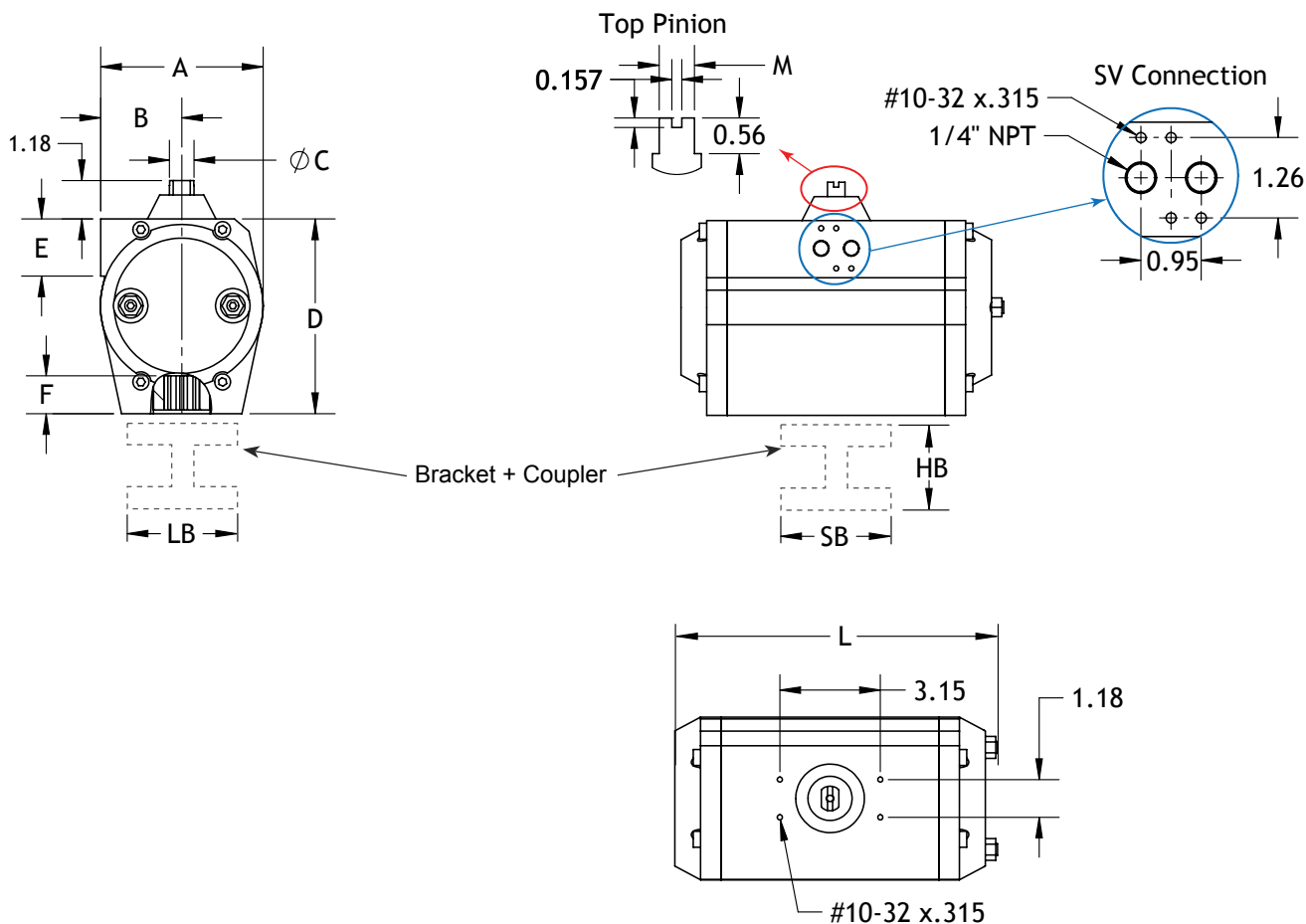
Item	Model	Torque [in-lb] *	# Springs	Air consumption [cu-in] **
HOVER-02-DA-0	Double Acting	275	none	25.6
HOVER-04-DA-0	Double Acting	500	none	44.4
HOVER-05-DA-0	Double Acting	1000	none	88.9
HOVER-08-DA-0	Double Acting	2000	none	191
HOVER-10-DA-0	Double Acting	4500	none	425
HOVER-12-DA-0	Double Acting	6000	none	566
HOVER-16-DA-0	Double Acting	9100	none	881
HOVER-18-DA-0	Double Acting	12000	none	1038
HOVER-20-DA-0	Double Acting	23500	none	1694
HOVER-02-SR-0	Spring Return	245	4+4	18.1
HOVER-03-SR-0	Spring Return	343	4+4	30.0
HOVER-04-SR-0	Spring Return	745	4+4	75.0
HOVER-05-SR-0	Spring Return	1287	4+4	116
HOVER-08-SR-0	Spring Return	2199	4+4	181
HOVER-10-SR-0	Spring Return	4765	4+4	344
HOVER-12-SR-0	Spring Return	6181	4+4	444
HOVER-14-SR-0	Spring Return	10361	6+6	600
HOVER-16-SR-0	Spring Return	10361	6+6	600

* Indicated torques valid for 80psi air supply (see torque section for details)
 ** Indicated air consumption valid for complete opening/closing cycle

Dimension

Item	Actuator ISO5211 Flange	Connection \square [mm]	L [in]	A [in]	B [in]	C [in]	D [in]	E [in]	F [in]	M [in]	Wt ¹ [lb]	LB [in]	HB [in]	SB [in]	Coupler DD [in]	Coupler DD [in]	Wt ² [lb]
HOVER-02-DA-0	F05/F07	14	6.50	3.19	1.85	0.47	3.19	1.75	0.75	0.39	3.52	2.72	1.97	2.72	0.50	0.39	1.30
HOVER-04-DA-0	F05/F07	17	6.70	3.78	2.13	0.55	3.86	1.77	0.75	0.39	5.17	2.72	1.97	2.72	0.62	0.47	1.50
HOVER-05-DA-0	F05/F07	17	9.06	4.49	2.44	0.77	4.61	1.73	0.91	0.55	9.13	3.80	2.95	3.80	0.74	0.55	2.50
HOVER-08-DA-0	F07/F10	22	11.4	5.16	2.60	0.77	6.06	1.77	1.18	0.55	17.2	3.80	2.95	3.80	0.87	0.67	4.50
HOVER-10-DA-0	F10/F12	27	14.2	7.13	3.58	1.10	7.95	1.73	1.57	0.79	35.3	3.80	2.95	3.80	1.12	0.87	4.80
HOVER-12-DA-0	F10/F12	27	16.5	7.13	3.58	1.10	7.95	1.73	1.57	0.79	44.1	6.00	3.15	5.00	1.24	0.95	6.10
HOVER-16-DA-0	F10/F14	36	17.5	9.13	4.49	1.10	10.1	1.77	1.97	0.79	61.5	8.00	3.95	6.75	1.31	1.06	16.0
HOVER-18-DA-0	F10/F14	36	19.8	9.13	4.49	1.10	10.1	1.77	1.97	0.79	84.5	8.00	3.95	6.75	1.50	1.06	16.0
HOVER-02-SR-0	F05/F07	17	6.70	3.78	2.13	0.55	3.86	1.77	0.75	0.39	6.00	2.72	1.97	2.72	0.50	0.39	1.40
HOVER-03-SR-0	F05/F07	17	9.41	3.78	2.13	0.55	3.86	1.77	0.75	0.39	8.30	2.72	1.97	2.72	0.50	0.39	1.40
HOVER-04-SR-0	F07/F10	22	9.69	5.16	2.60	0.77	6.06	1.77	1.18	0.55	17.8	3.80	2.95	3.80	0.62	0.47	3.50
HOVER-05-SR-0	F07/F10	22	13.8	5.71	2.87	1.10	6.63	1.77	1.18	0.79	29.9	3.80	2.95	3.80	0.74	0.55	3.50
HOVER-08-SR-0	F10/F12	27	14.2	7.13	3.58	1.10	7.95	1.73	1.57	0.79	42.0	3.80	2.95	3.80	0.87	0.67	4.80
HOVER-10-SR-0	F10/F14	36	17.5	9.13	4.49	1.10	10.1	1.77	1.97	0.79	83.1	4.90	3.15	4.90	1.12	0.87	9.40
HOVER-12-SR-0	F10/F14	36	19.8	9.13	4.49	1.10	10.1	1.77	1.97	0.79	106	6.75	3.95	5.50	1.24	0.95	11.0

1 Actuator
2 Bracket + DD Coupler

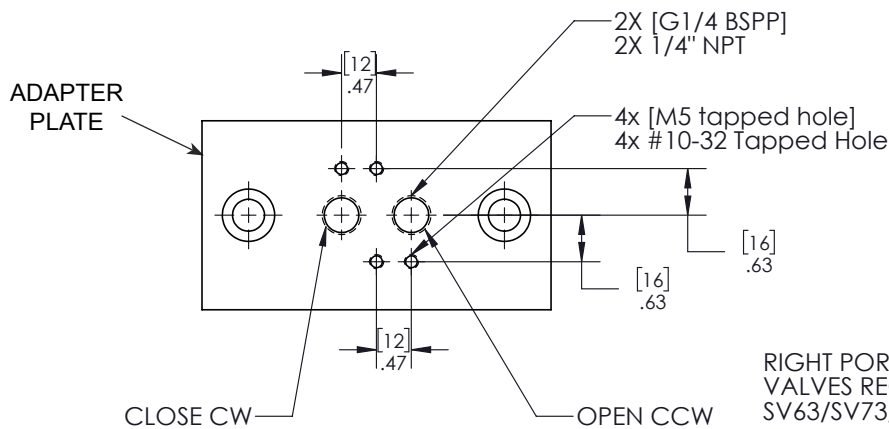
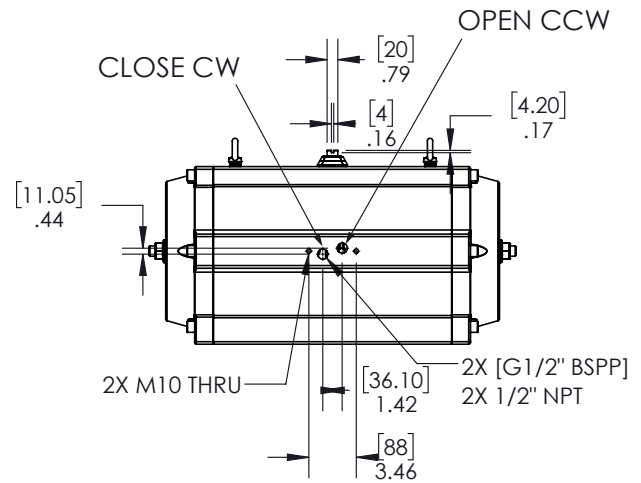
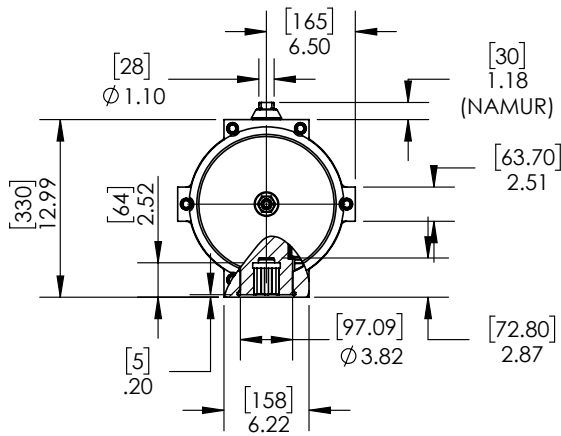
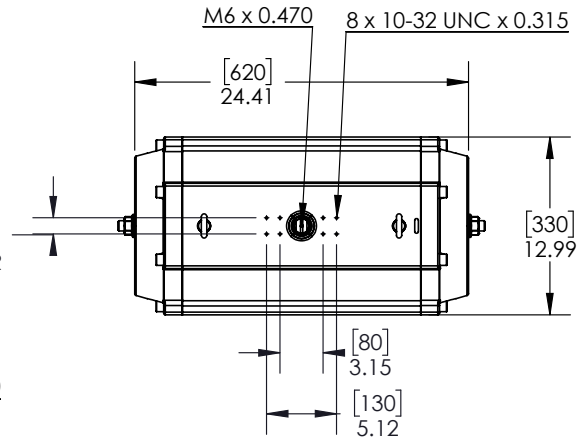
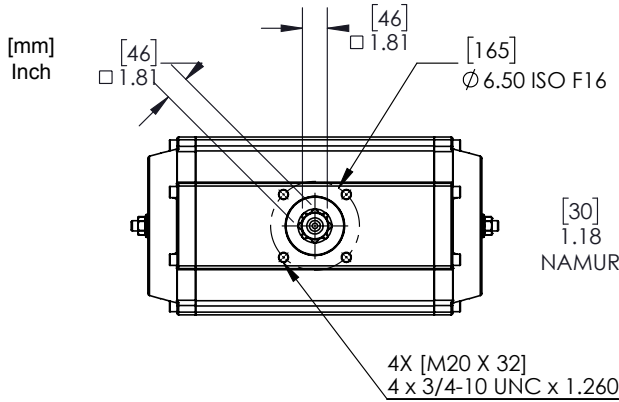


Dimension (cont.)

Item	Actuator ISO5211 Flange	Connection □ [mm]	L [in]	A [in]	B [in]	C [in]	D [in]	E [in]	F [in]	M [in]	Wt ¹ [lb]	LB [in]	HB [in]	SB [in]	Coupler DD [in]	Coupler DD [in]	Wt ² [lb]
HOVER-20-DA-0 *	F16	□46	24.4	13.0	6.50	1.10	13.0	2.51	2.52	--	147	8.00	3.95	6.75	1.62	1.26	16.5
HOVER-14-SR-0 *	F16	□46	24.4	13.0	6.50	1.10	13.0	2.51	2.52	--	183	8.00	3.95	6.25	1.24	0.95	16.0
HOVER-16-SR-0 *	F16	□46	24.4	13.0	6.50	1.10	13.0	2.51	2.52	--	183	8.00	3.95	6.75	1.31	1.06	16.5

1 Actuator
2 Bracket + DD Coupler

* See specific images below as reference and for details

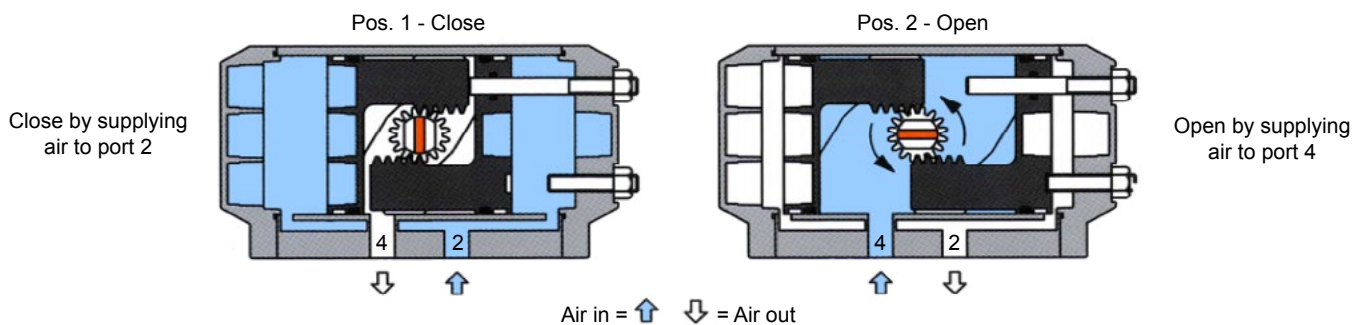


RIGHT PORTED SOLENOID VALVES REQUIRED: SV63/SV73/SV93

Torque

Double Acting

Item	Torque 40psi [in-lb]	Torque 60psi [in-lb]	Torque 80psi [in-lb]	Torque 100psi [in-lb]	Torque 120psi [in-lb]
HOVER-02-DA-0	137	206	275	344	412
HOVER-04-DA-0	250	375	500	625	750
HOVER-05-DA-0	500	750	1000	1250	1500
HOVER-08-DA-0	1000	1500	2000	2500	3000
HOVER-10-DA-0	2250	3375	4500	5625	6750
HOVER-12-DA-0	3000	4500	6000	7500	9000
HOVER-16-DA-0	4550	6825	9100	11375	13650
HOVER-18-DA-0	6000	9000	12000	15000	18000
HOVER-20-DA-0	11750	17625	23500	29375	32250



Torque (cont.)

Spring Return

Item	Spring Config	# of Springs	Spring		40 psi		60 psi		80 psi		100 psi		120 psi	
			Start	End	Start	End	Start	End	Start	End	Start	End	Start	End
HOVER-02-SR-0	2+2	4	122	92	152	122	274	244	398	368	518	488	640	610
	3+3	6	184	138	106	60	228	182	352	306	472	426	594	548
	4+4 **	8	245	184	///	///	182	121	306	245	426	365	548	487
	5+5	10	306	230	///	///	136	60	260	184	380	304	502	426
	7+5	12	368	276	///	///	///	///	214	122	334	242	456	364
HOVER-03-SR-0	2+2	4	196	124	245	173	429	357	611	539	797	726	982	910
	3+3	6	294	185	184	75	368	259	549	441	736	628	921	812
	4+4 **	8	391	247	///	///	306	162	488	343	674	530	859	714
	5+5	10	489	309	///	///	244	63	426	245	613	432	797	616
	7+5	12	587	371	///	///	///	///	364	148	551	335	735	519
HOVER-04-SR-0	2+2	4	412	306	480	374	873	767	1262	1156	1659	1554	2052	1947
	3+3	6	617	460	326	169	719	562	1108	951	1505	1349	1898	1742
	4+4 **	8	823	613	///	///	566	356	955	745	1352	1143	1745	1536
	5+5	10	1028	766	///	///	413	151	801	539	1199	937	1592	1330
	7+5	12	1235	920	///	///	///	///	647	333	1045	731	1438	1124
HOVER-05-SR-0	2+2	4	889	558	977	647	1744	1414	2506	2176	3280	2950	4047	3717
	3+3	6	1333	838	697	202	1465	970	2226	1732	3000	2505	3768	3273
	4+4 **	8	1777	1117	///	///	1186	526	1948	1287	2721	2061	3489	2829
	5+5	10	2221	1397	///	///	906	81	1668	843	2442	1617	3209	2384
	7+5	12	2666	1675	///	///	628	-363	1389	399	2163	1172	2930	1940
HOVER-08-SR-0	2+2	4	1148	831	1446	1129	2568	2245	3694	3370	4846	4523	6002	5685
	3+3	6	1722	1247	1030	555	2144	1660	3269	2785	4422	3937	5586	5110
	4+4 **	8	2297	1663	///	///	1720	1074	2845	2199	3998	3352	5170	4536
	5+5	10	2870	2079	///	///	1296	489	2421	1614	3574	2766	4754	3962
	7+5	12	3444	2494	///	///	///	///	1997	1028	3150	2180	4339	3388
HOVER-10-SR-0	2+2	4	2351	1757	3061	2467	5417	4806	7797	7185	10233	9622	12695	12101
	3+3	6	2938	2196	2622	1880	4512	3595	6891	5975	9330	8413	12256	11513
	4+4 **	8	4701	3513	1305	117	3607	2385	5987	4765	8425	7202	10938	9750
	5+5	10	5876	4392	///	///	2703	1175	5082	3554	7520	5992	10059	8576
	7+5	12	7051	5271	///	///	1955	175	4177	2343	6616	4782	9180	7401
HOVER-12-SR-0	2+2	4	2806	2082	3815	3090	6764	6039	9712	8987	12665	11936	15609	14884
	3+3	6	4210	3122	2775	1687	5723	4635	8671	7584	11620	10532	14568	13481
	4+4 **	8	5613	4164	1733	284	4681	3233	7630	6181	10578	9129	13527	12078
	5+5	10	7016	5205	///	///	3641	1829	6589	4777	9537	7726	12486	10674
	7+5	12	8422	6245	///	///	2601	424	5549	3372	8498	6320	11446	9269
HOVER-14&16-SR-0	2+2	4	4239	3062	8483	7306	14255	13078	20025	18848	25800	24623	31572	30395
	3+3	6	6363	4593	6952	5182	12724	10954	18494	16724	24269	22499	30041	28271
	4+4	8	8478	6124	5420	3066	11193	8839	16963	14609	22738	20383	28510	26155
	5+5	10	10602	7664	3881	942	9653	6715	15423	12485	21198	18259	26970	24031
	6+6 **	12	12726	9195	///	///	8122	4591	13892	10361	19667	16135	25439	21907
	7+7	14	14841	10726	///	///	6591	2476	12361	8246	18136	14020	23908	19792
	8+8	16	16965	12257	///	///	5060	352	10829	6121	16604	11896	22376	17668

** Standard spring configuration for the item. Request for other spring configurations must be specified

