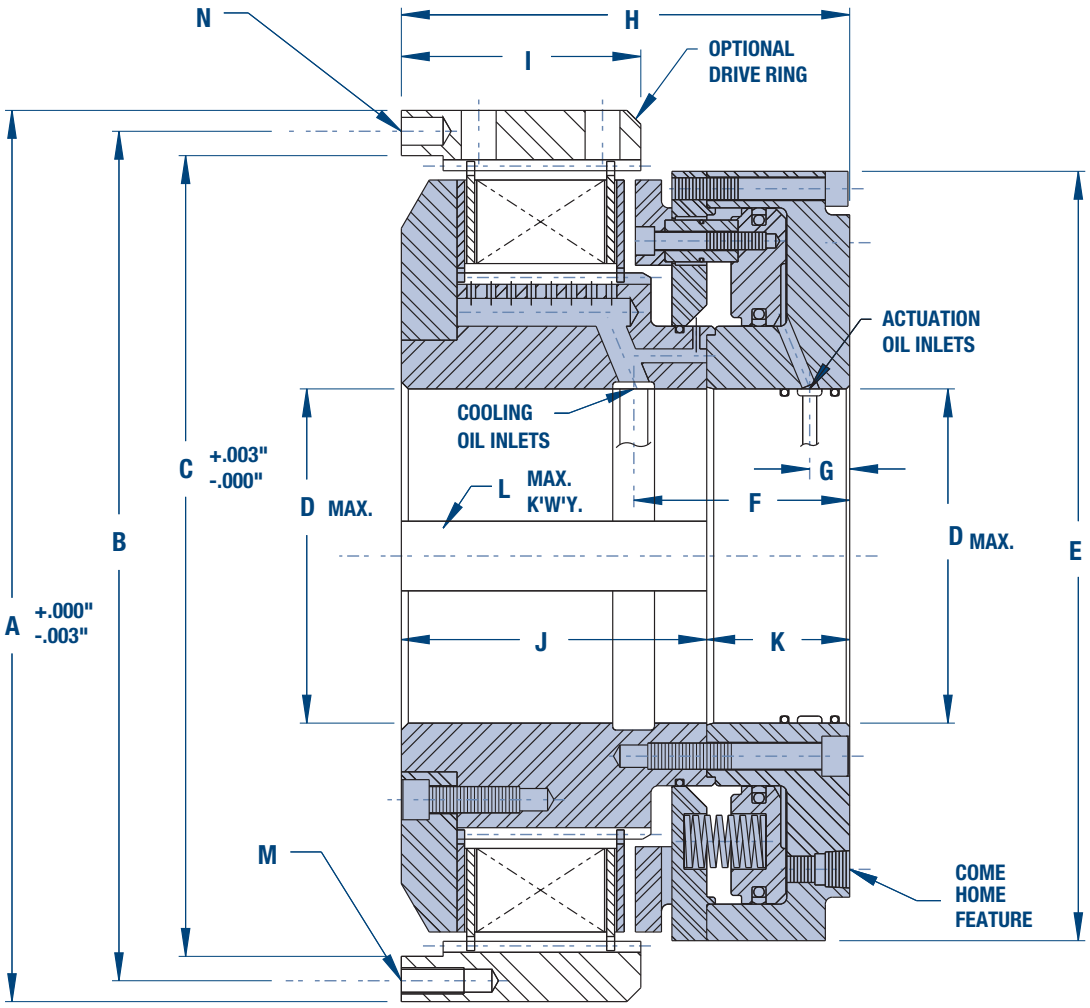
MODEL HC

Air or Hydraulically Actuated Clutches

Model HC



DIMENSIONAL DATA

All dimensions in inches

Clutch Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
HC-8-6	10.124	9.4375	8.750	3.000	8.31	3.50	0.51	6.35	2.68	3.81	2.57	0.75	(12) - M10	(4) - .375
HC-8-8	10.124	9.4375	8.750	3.000	8.31	3.50	0.51	6.95	3.28	4.40	2.57	0.75	(12) - M10	(4) - .375
HC-8-10	10.124	9.4375	8.750	3.000	8.31	3.50	0.51	7.55	3.88	5.00	2.57	0.75	(12) - M10	(4) - .375
HC-10-6	11.749	11.063	10.375	4.000	9.81	3.63	0.56	6.54	2.97	4.24	2.38	1.00	(12) - M10	(4) - .500
HC-10-8	11.749	11.063	10.375	4.000	9.81	3.63	0.56	7.25	3.61	4.88	2.38	1.00	(12) - M10	(4) - .500
HC-10-10	11.749	11.063	10.375	4.000	9.81	3.63	0.56	7.89	4.25	5.52	2.38	1.00	(12) - M10	(4) - .500
HC-13-6	15.998	15.250	14.375	6.000	13.81	4.63	0.72	8.09	3.58	4.77	3.32	1.25	(12) - M12	(4) - .500
HC-13-8	15.998	15.250	14.375	6.000	13.81	4.63	0.72	8.80	4.30	5.48	3.32	1.25	(12) - M12	(4) - .500
HC-13-10	15.998	15.250	14.375	6.000	13.81	4.63	0.72	9.52	5.02	6.20	3.32	1.25	(12) - M12	(4) - .500
HC-15-6	18.373	17.375	16.375	6.500	15.75	4.43	0.78	9.06	4.37	5.74	3.31	1.50	(12) - M16	(4) - .625
HC-15-8	18.373	17.375	16.375	6.500	15.75	4.43	0.78	10.00	5.31	6.68	3.31	1.50	(12) - M16	(4) - .625
HC-15-10	18.373	17.375	16.375	6.500	15.75	4.43	0.78	10.94	6.25	7.62	3.31	1.50	(12) - M16	(4) - .625
HC-16-6	19.998	19.000	18.000	7.500	17.25	5.11	1.38	9.29	4.37	5.75	3.54	1.50	(12) - M16	(4) - .625
HC-16-8	19.998	19.000	18.000	7.500	17.25	5.11	1.38	10.23	5.31	6.69	3.54	1.50	(12) - M16	(4) - .625
HC-16-10	19.998	19.000	18.000	7.500	17.25	5.11	1.38	11.17	6.25	7.63	3.54	1.50	(12) - M16	(4) - .625
HC-18-6	21.998	20.750	19.500	8.000	18.63	5.50	1.50	10.96	5.82	7.13	3.81	1.50	(12) - M20	(4) - .750
HC-18-8	21.998	20.750	19.500	8.000	18.63	5.50	1.50	12.23	7.10	8.41	3.81	1.50	(12) - M20	(4) - .750
HC-18-10	21.998	20.750	19.500	8.000	18.63	5.50	1.50	13.51	8.38	9.69	3.81	1.50	(12) - M20	(4) - .750
HC-20-6	24.998	23.750	22.500	9.000	20.63	6.50	1.75	12.04	6.19	7.66	4.37	1.50	(12) - M20	(4) - .750
HC-20-8	24.998	23.750	22.500	9.000	20.63	6.50	1.75	13.32	7.47	8.94	4.37	1.50	(12) - M20	(4) - .750
HC-20-10	24.998	23.750	22.500	9.000	20.63	6.50	1.75	14.60	8.75	10.22	4.37	1.50	(12) - M20	(4) - .750

NOTES: 1.) Use certified drawing dimensions only for final layouts.
2.) DXF and IGES files available upon request.
3.) Dimensions subject to change without notice.
4.) All threaded fasteners are metric.

OPERATIONAL DATA

Clutch Model	Static Torque (lb.-in.)	Dynamic Torque (lb.-in.)	Act. Vol. ($in.^3$)	Weight Outer (lbs.)	Weight Inner (lbs.)	WR^2 Outer ($lb.-ft.^2$)	WR^2 Inner ($lb.-ft.^2$)	Maximum RPM
HC-8-6	55000	39285	4.37	5.8	60.6	0.54	3.79	2600
HC-8-8	70000	50000	4.37	7.7	65.3	0.72	4.04	2600
HC-8-10	85000	60715	4.37	9.7	70.0	0.90	4.29	2600
HC-10-6	75000	53570	7.3	7.8	83.7	1.03	7.50	2200
HC-10-8	100000	71430	7.3	10.4	90.7	1.38	8.06	2200
HC-10-10	125000	89285	7.3	13.0	97.6	1.72	8.60	2200
HC-13-6	200000	142860	14.0	16.3	195.7	4.3	35.9	1700
HC-13-8	275000	196430	14.0	21.7	212.1	5.8	38.4	1700
HC-13-10	350000	250000	14.0	27.1	227.4	7.2	40.8	1700
HC-15-6	325000	232140	19.0	34.0	291.0	11.0	67.0	1450
HC-15-8	425000	303570	19.0	45.0	316.0	15.0	72.0	1450
HC-15-10	525000	375000	19.0	57.0	341.0	19.0	77.0	1450
HC-16-6	450000	321430	24.0	40.0	357.0	16.0	103.0	1300
HC-16-8	600000	428570	24.0	54.0	387.0	22.0	110.0	1300
HC-16-10	750000	535715	24.0	67.0	417.0	27.0	118.0	1300
HC-18-6	570000	407140	31.0	63.0	494.0	30.0	164.0	1200
HC-18-8	700000	500000	31.0	84.0	544.0	40.0	179.0	1200
HC-18-10	950000	678570	31.0	105.0	594.0	50.0	194.0	1200
HC-20-6	765000	546430	51.0	95.0	671.0	58.0	279.0	1100
HC-20-8	1020000	728570	51.0	127.0	729.0	78.0	300.0	1100
HC-20-10	1275000	910710	51.0	158.0	786.0	97.0	321.0	1100

NOTES: 1.) Operating pressure: 350 PSIG

2.) Torque capacities can be modified. Consult engineering.

3.) Consult factory for service factors required per application.

4.) Consult factory for oil flow requirements per application and shaft oil hole diameters.

5.) For static engagement applications dry lining units are available. Torque ratings are 3 times that shown. Consult Engineering

MODEL HC CLUTCH DESCRIPTION

The Model HC clutches are designed to be used in either an end of shaft or through shaft mounting configuration. Their compact size makes these units ideal for incorporating within a gear housing. Multiple speed transmissions use a variety of these units to effect fixed mesh speed changes or they may be used as a stand alone device for disconnect service.

The **Model** clutches may be provided with an internally splined outer drive ring for bolting to the user's driving or driven member, or **Model HC** clutches may be provided without this drive ring to allow the user to spline the inside diameter of their driving or driven member which conserves radial space and provides for design compactness.

All units incorporate provisions for forced oil cooling allowing high energy engagements to be made without causing thermal distress within the disc pack. Cooling oil is introduced from an external supply through axial holes provided in the shaft.

Actuation pressure may come from either a pneumatic or hydraulic source. This pressure may be introduced through an axial hole provided at the shaft centerline, or, in the case of end of shaft mounts, it may be introduced through a separate manifold.

All torque transmitting members are designed for continuous heavy duty industrial service. Hubs and drive rings are fully hardened and manufactured from high quality alloy steel forgings. Disc pack cores are designed using extra-heavy plate thicknesses to maximize torque and heat capacity.

Friction materials and grooving patterns are designed to provide for high thermal and smooth engagement performance. All of the Model HC clutches contain friction materials which allow for controlled slip operation in those applications requiring this feature. Slip operation is described on following pages.

Marine main propulsion forward/reverse or disconnect service, winch disconnects, conveyor or mill soft-starts, and multi-speed transmissions are but a few of the applications for the Model HC oil immersed clutches.