

Multi-Disc Clutches

Series 52H



Series 52H Pressure Applied Multi-Disc Clutches

Stationary Cylinder for Operation in Oil

Series 52H pressure-applied stationary cylinder multi-disc clutches are designed for use in oil. Pressure supply feeds into the cylinder via a flexible tube. The piston and cylinder subassembly mount on a needle cage bearing, and needle thrust bearings accommodate the axial loads. Positive disengagement is achieved by use of release springs between the inner plates.

Standard drive rings available as optional extras.

Features

- Clutch requires no adjustment
- Torques can be varied by regulating supply pressure
- Engagement speed controlled by varying pressure supply flow rate
- Large friction area gives extended plate life
- Individual plate separation ensures low drag torque
- Multi-disc design results in compact high torque clutch
- No axial thrusts transmitted to adjacent components

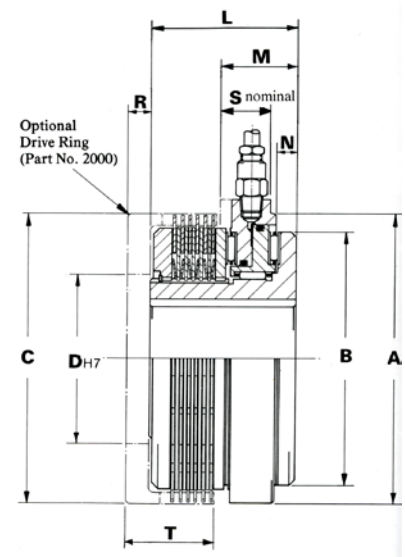
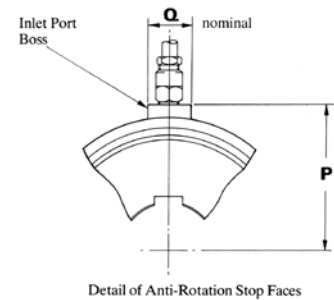
Typical Applications

- Printing
- Machine Tool – for speed variation at the work spindle and feed engagement
- Building Machines – for traveling and combined gears
- Agricultural Machines – in the main drive and auxiliary drives (PTO) of harvesters
- Printing Presses
- Marine Gearboxes

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MODEL			52H30	52H50	52H70
Performance Data					
Rated Static Torque	Nm	at 20 bar	240	1320	3450
		at 10 bar	115	620	1620
	ft-lbs	at 300 psi	180	1000	2640
Rated Dynamic Torque	Nm	at 20 bar	160	880	2300
		at 10 bar	76	410	1080
	ft-lbs	at 300 psi	120	670	1760
Pressure to Overcome Release Springs	bar		0.8	1.1	1.1
		psi	12	15	16
	Nm		0.5	1.7	5
Drag Torque	ft-lbs		0.37	1.25	3.70
	Maximum Speed	revs/min	3500	2300	1600
Inertia (kgm²) = Table Value x 10⁻³					
Clutch Less Drive Ring and Outer Plates			0.71	6.45	32.1
Set of Outer Plates			0.26	1.86	13.1
Drive Ring			0.37	5.29	24
Weight (kg)					
Clutch Less Drive Ring			1.9	6.7	15.1
Drive Ring			0.4	1.4	3.2
Dimensional Data (all dimensions in mm)					
Standard Bores (H7)			30	50	75
Keyways to I.S.O. 773			8 x 3.3	14 x 3.8	20 x 4.9
B.S. 4235:1972 Pt. 1					
D.I.N. 6885:1968 Pt. 1; NFE22-175			25	45	65
(Bores other than standard can be obtained by special order)			8 x 3.3	14 x 3.8	18 x 4.4
Minimum Bore			18.8	31.5	34.7
Diameters (all dimensions in mm)					
A			86	142	195
B			78	120	170
Lengths					
L			60	78	96
M Maximum Engaged			34	41.3	50.8
N Disengaged			8.5	11.5	14.0
P			54	80	110
Q Nominal			20	25	30
S Nominal			25	28	35
Drive Ring					
C			86	142	196
D (H7)			50	80	110
R			8	11	15
T			33	46	59



- More models available