

Tooth Clutches

Series 5H and 55H-P



Series 5H and 55H-P Pressure Applied Tooth Clutch

Stationary Cylinder for Dry Operation or in Oil

Series 5H pressure-applied stationary cylinder tooth clutches can be used dry or in oil. Pressure supply feeds into cylinder via a flexible tube. Piston and cylinder sub-assembly mounts on shielded ball bearings. Positive disengagement achieved by use of release springs separating two toothed components. Drive flange is supported on hub by a shielded ball bearing.

Series 55H-P clutches developed from the Series 5H, incorporate a pilot mount. Pilot mount is supported on an extended hub by a rigid shielded double bearing assembly. Pulleys, sprockets and other drive components can fit directly to pilot mount, which has a toleranced spigot diameter for location and tapped fixing holes.

Features

- Tooth clutch gives positive drive with no slip
- Shielded bearings need no lubrication in service
- Stationary cylinder allows simple supply connection
- Spring disengagement results in no drag torque other than the rolling resistance of the drive flange/hub bearing
- Standard fixing holes provided in the drive flange
- No axial thrusts transmitted to adjacent components

Series 55H-P Advantages

- All concentricities are controlled within the clutch simplifying installation
- Pilot mount can be used to attach pulleys, sprockets and other drive components simplifying assembly

Typical Applications

- Machine Tool
- Printing
- Tire Making Machines
- Auxiliary and Back-up Drives
- Steel Production, Processing and Machining
- Dynamometers

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MODEL		5H30	5H35	5H40	5H45	5H50	5H60	5H70	5H80	—
		55H30P	55H35P	55H40P	55H45P	55H50P	55H60P	55H70P	55H80P	55H90P
Performance Data										
Rated Static Torque at 5.5 bar/80 psi	Nm	160	260	380	550	750	1300	2070	3800	5800
	ft-lbs	115	185	275	395	545	945	1500	2800	4300
Pressure to Overcome Release Springs	bar	1.4	1.4	1.0	0.9	0.8	0.6	0.8	0.6	0.8
	psi	20	20	14	13	12	9	12	9	12
Maximum Speed	revs/min	6000	5040	4800	4000	3840	3200	2720	2560	1920
Performance Data										
A		115	127	134	153	167	193	216	240	280
B		35	45	45	60	65	75	85	100	120
Lengths										
L		79	82	85	93	95	108	123	139	—
M		77	81	83	92	94	106	122	138	—
N		93	98	101	112	113	129	146	165	185
P Engaged		20	21	20	20	21	25	26	27	30
P Disengaged		17	18	17	18	18	22	23	24	28
Q Engaged		38	39	39	40	45	53	58	59	66
5H Drive Flange										
R		111	124	137	150	162	194	213	242	—
S (J6)		62	75	75	95	100	115	130	150	—
T		3.3	2.7	3.0	3.0	3.3	3.0	7.1	6.7	—
U		13	14	14	14	18	18	21	25	—
Fixing Holes	Number of holes	3	3	3	6	6	6	6	6	—
	Size	M6	M6	M6	M6	M8	M8	M10	M10	—
	P.C.D.	90	110	120	130	140	170	190	220	—
55H-P Pilot Mount										
V		99	115	124	137	153	178	209	240	270
W (h8)		72	88	88	102	112	132	145	179	210
X		19	20	20	23	22	23	32	41	57
Fixing Holes	Number of holes	3	3	3	6	6	6	6	8	6
	Size	M6	M6	M6	M6	M8	M8	M10	M10	M12
	Depth	11.1	12.7	12.7	15.9	15.9	22.2	22.2	18	20
	P.C.D.	88	102	108	120	135	155	180	200	250
Driving Teeth										
Number of Teeth		91	106	122	137	152	183	214	300	270

