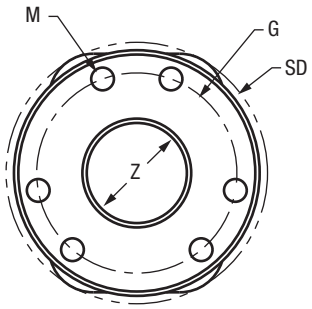
Schmidt 5-D Couplings - L500 Series

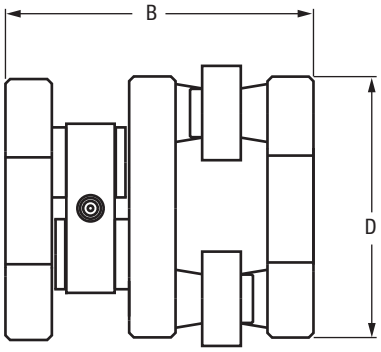
Schmidt 5-D Couplings were developed to fill a gap in the family of torque-rigid couplings. Most couplings in the Schmidt Coupling line are designed to accommodate either axial, angular, or parallel shaft displacements only. For some applications, however, the operational conditions require all possible shaft misalignments. If these shaft misalignments exceed the limit of the selected coupling capacity, excess sideloads are introduced into the equipment which can cause vibrations, life reduction or failure of vital machine components such as bearings, motors, etc.

The 5-D Couplings are a modification of the Schmidt Inline Coupling, designed to accommodate 5 degrees of angular shaft misalignment. This coupling allows easy adjustment to any possible misaligned shaft position without imposing heavy sideloads on shafts, bearings or other machine equipment. Schmidt 5-D Couplings offer large shaft misalignment capabilities and constant angular velocity. The acting forces within the coupling can be precisely calculated, assuring a sound coupling design which is especially important for heavy-duty applications. To select a 5-D Coupling, follow the same procedure as the Inline on the preceding page.

End View



Side View



Dimensions and Performance Data of 5-D Couplings

Coupling Designation*			L5xxS Series*									
			L536S**	L558S**	L564S	L585S	L582S	L511S	L514S	L517S	L519S	L526S
Performance Capacity	HP/100 rpm		4.44	9.52	20.3	31.4	46.5	71.8	136	211	373	793
	Torque (In - Lb)		2,800	6,000	12,800	19,800	29,300	45,300	86,000	133,000	235,000	500,000
	Displacement	Parallel (In)	3/16	3/16	1/4	1/4	3/8	3/8	7/16	7/16	1	1-1/2
		Angular (°)	±5	±5	±5	±5	±5	±5	±5	±5	±5	±5
Coupling Dimensions (In.)	Disc Diameter	D	3.38	5.63	6.25	8.38	8.00	10.75	13.25	16.38	19.25	25.13
	Swing Diameter	SD	3.60	5.82	6.36	8.55	8.21	11.03	13.52	16.52	19.88	26.28
	Coupling Length	B	4.18	4.18	5.38	5.38	7.23	7.23	8.70	12.75	13.75	15.00
	Center Bore Dia	Z	1.375	3.25	3.25	2.44	3.50	4.38	7.00	6.75	7.25	10.00
	Bolt Circle	G	2.75	4.38	4.38	4.63	6.63	6.50	10.00	13.50	16.88	21.75
	No. of Bolts and Size	M	6 5/16"-18	6 5/16"-18	6 5/16"-18	6 7/16"-14	5 5/8"-11	6 5/8"-11	6 3/4"-10	12 3/4"-10	12 7/8"-9	12 1"-8
Net Weight (Lb)			6	10	21	38	52	86	139	345	577	1,205
Inertia Wk^2 (Lb-In^2)			7	26	77	281	331	1,050	2,290	8,615	22,000	70,350

*Other sizes available for special applications.
**Sealed bearings not available
Note: Data applies to shaft speeds under 1,000 RPM. For higher RPM, please consult factory

Consult Factory