



Design Features Include:

- Splined bores
- Flanged adapters
- Heat-treated alloy steel hubs
- Adapters, spacers and black oxide coating furnished as standard
- Dynamic balancing API 671 compliant
- Factory assembled hub-flex adaptor module meets API 671 component balance requirements
- Hydraulic installation tooling available

Designed for Turbomachinery and High Speed Motor Applications:

- Steam and gas turbines
- Rotary engines and gas expanders
- Centrifugal and rotary compressors
- Generators
- Process and boiler feed pumps
- Special applications such as synchronous motors, large induction motors and engine drives can be accommodated

Consult Rexnord Application Engineers for special materials and designs, hubs, spacers and/or flexing elements which are available to meet unique application requirements.

Thomas High Performance (THP) Disc Coupling

Proven Reliability and Quality

The Thomas disc coupling is unsurpassed in its reputation for quality and long-life reliable performance. The flexible disc packs are engineered for infinite life and Rexnord's experience and dedication to design standards assures maximum reliability on the most critical power train systems. The Thomas disc coupling is manufactured within a certified ISO 9001 quality system and the product is engineered to meet API (American Petroleum Institute) 671 or API 610 (ISO 13409) and can accommodate customer specific specifications.

Designed for Performance

THP couplings are designed for use on high-speed equipment where coupling size and weight must be kept to a minimum. Coupling hubs and spacers are manufactured from high strength, heat-treated alloy steel. The coupling bolts and locknuts are of high strength, aircraft quality alloy steel and contain a twelve-point wrenching pattern. The flexing elements are manufactured from a high strength 300 series stainless steel. This material has been used successfully for many years in Thomas couplings manufactured for helicopter drive shaft applications.

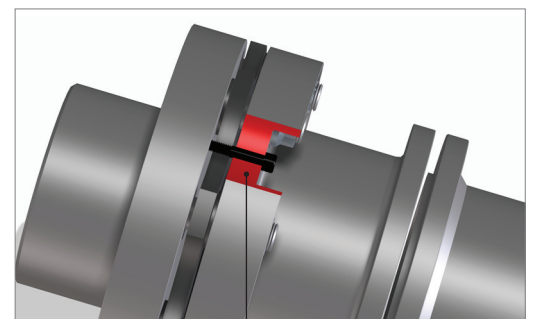
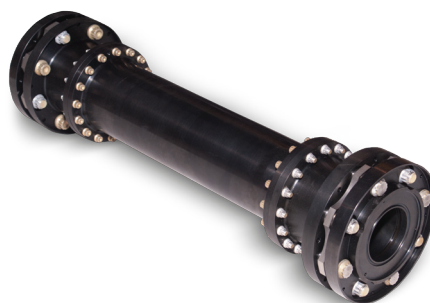
The all-metal construction has no wearing parts, retains original balance and has low restoring forces and high torsional stiffness. The design accommodates axial movement and provides smooth and constant rotational velocity. Temperature ratings span -50°F to 450°F.

Special Design Requirements

Designed to accommodate a broad range of system dynamics, the THP coupling is available to suit extraordinary torque, angular misalignment and axial deflection requirements. All coupling designs are optimized for weight, moment, speed or system torsional requirements. A variety of special coatings and disc materials are available to suit application requirements.

Engineering to Customer Requirements

The three-piece coupling construction is designed with a built-in compression feature for easy assembly and disassembly using standard tools. Designed for optimum serviceability, the flexible disc pack can be easily monitored during operation and the shrouded flange minimizes windage and heat generation.



Compression bolt assembly aide



Size	Spacer Tube Per Inch									
	①	② ③	④	⑤	⑥	⑦	⑧	"K"	Weight	WRR
	Max. Standard Bore Inches (mm)	Max. Cont. Torque Rating in-lbs (Nm)	Max. Speed rpm	Total Weight lbs (kg)	Total WRR lbs-in ² (kgm ²)	Half Coupling C.G. inches (mm)	Torsional Stiffness "K" lb-in/radx 10 ⁵ (Nm/radx 10 ⁶)	"K"	Weight lbs (kg)	WRR lbs-in ² (kgm ²)
442-6	2.0 (50.8)	27,000 (3,050)	28,500	21.3 (9.66)	65.8 (.0193)	1.64 (41.7)	0.782 (.0884)	30.5 (3.45)	.330 (.150)	.743 (.000217)
519-6	2.5 (63.5)	51,000 (5,760)	24,000	35.3 (16.0)	163 (.0477)	2.01 (51.1)	1.60 (.181)	59.6 (6.73)	.412 (.187)	1.45 (.000424)
519-8	2.5 (63.5)	75,000 (8,470)	23,800	36.2 (16.4)	173 (.0506)	2.01 (51.1)	1.84 (.208)	59.6 (6.73)	.412 (.187)	1.45 (.000424)
638-6	3.0 (76.2)	78,000 (8,810)	19,900	54.5 (24.7)	365 (0.107)	2.43 (61.7)	2.85 (.322)	103 (11.6)	.495 (.224)	2.51 (.000734)
638-8	3.0 (76.2)	120,000 (13,600)	19,900	55.4 (25.1)	378 (0.111)	2.44 (62.0)	3.27 (.369)	103 (11.6)	.495 (.224)	2.51 (.000734)
744-6	3.5 (88.9)	124,500 (14,100)	17,200	82.3 (37.3)	730 (0.214)	2.87 (72.9)	5.01 (.566)	208 (23.5)	.727 (.330)	5.07 (.00148)
744-8	3.5 (88.9)	176,250 (19,900)	17,200	83.7 (38.0)	759 (0.222)	2.88 (73.2)	5.81 (.656)	208 (23.5)	.727 (.330)	5.07 (.00148)
850-6	4.0 (101.6)	195,000 (22,000)	15,100	125 (56.7)	1470 (0.430)	3.18 (80.8)	8.12 (.917)	378 (42.7)	1.00 (.454)	9.20 (.00269)
850-8	4.0 (101.6)	294,000 (33,200)	15,100	127 (57.6)	1530 (0.448)	3.19 (81.0)	9.54 (1.08)	378 (42.7)	1.00 (.454)	9.20 (.00269)
948-6	4.5 (114.3)	285,000 (32,200)	13,400	174 (78.9)	2600 (0.761)	3.57 (90.7)	12.8 (1.45)	617 (69.7)	1.31 (.594)	15.0 (.00439)
948-8	4.5 (114.3)	427,500 (48,300)	13,400	178 (80.7)	2730 (0.799)	3.57 (90.7)	15.4 (1.74)	617 (69.7)	1.31 (.594)	15.0 (.00439)
1025-6	5.0 (127.0)	375,000 (42,400)	12,250	235 (107)	4230 (1.24)	4.02 (102)	18.5 (2.09)	954 (108)	1.65 (.748)	23.2 (.00679)
1025-8	5.0 (127.0)	579,000 (65,400)	12,250	240 (109)	4430 (1.30)	4.04 (103)	22.3 (2.52)	954 (108)	1.65 (.748)	23.2 (.00679)

① For larger bores, consult Rexnord.

② Minimum application factor to be applied - 1.5.

③ Max. peak overload torque = 1.33 x max. cont. torque.

④ Information based on standard dimensional data shown.
Consult Rexnord with specific application requirements.