## **Thomas Miniature Couplings**

## Construction

Hubs and Center Member: Aluminum alloy, anodized Rivets: Brass Washers: Brass Discs: Stainless steel Set screws: 18-8 Stainless steel, Passivated Max. Temperature: 250°F Available with electronically insulated phenolic material.



HUB INSIDE OF CENTER MEMBER

# Style CC

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This coupling has both hubs inverted and is designed to fit shafts normally encountered at a given torque range. Ideal for use where space limitations require close coupling of the shafts.

#### General Dimensions (in)

end-float restricting devices.

Coupling Size	A	В	C	F	т	① Torque Capacity (Ib-in)			
12	0.500	0.250	0.0313	0.531	0.018	1.1			
18	0.750	0.375	0.0625	0.813	0.023	2.2			
25	1.000	0.500	0.0625	1.063	0.025	4.7			
37	1.437	0.688	0.125	1.500	0.035	19.0			
50	1.750	0.938	0.125	2.000	0.045	75.0			
62	2.250	1.063	0.125	2.250	0.060	300			
75	2.500	1.188	0.125	2.500	0.060	440			
100	3.000	1.375	0.250	3.00	0.060	700			
① Torque capacities are based on smooth drives with moderate torque fluctuations. Reduce ratings to 1/3 the value shown									

All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of



HUB OUTSIDE OF





for severe applications such as indexing drives where torque reversals occur.



## Style CA

This design of our miniature coupling has one inverted hub to accept a normal shaft and one extended hub to accommodate oversize shafts. It also accommodates a larger shaft gap than the Style CC.

#### **General Dimensions (in)**

Coupling Size	А	В	C	F	G	т	① Torque Capacity (Ib-in)
12	0.500	0.250	0.234	0.734	0.313	0.018	1.10
18	0.750	0.375	0.375	1.125	0.469	0.023	2.20
25	1.000	0.500	0.469	1.469	0.625	0.025	4.70
37	1.438	0.688	0.688	2.063	0.875	0.035	19.0
50	1.750	0.938	0.906	2.781	1.063	0.045	75.0
62	2.250	1.063	1.000	3.125	1.375	0.060	300
75	2.500	1.188	1.125	3.500	1.625	0.060	440
100	3.000	1.375	1.375	4.125	1.875	0.060	700

Torque capacities are based on smooth drives with moderate torque fluctuations. Reduce ratings to 1/3 the value 1 shown for severe applications such as indexing drives where torque reversals occur.

2 All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

This coupling design has both hubs extended to accept two oversized shafts. Shaft gap is larger than that of the Style CA or CC couplings.

Style CBC is the newest addition to our miniature coupling line. It offers clamping hubs that are an integral part of the coupling. The clamping hubs assure positive fit on the shafts. There are no loose parts to handle during installation. The Style CBC coupling has the same dimensions and torque capacities as the Style CB. Consult Rexnord for additional design and engineering data.



#### **General Dimensions (in)**

Coupling Size	А	В	C	F	G	Torque Capacity (lb-in)
12	0.500	0.250	0.438	0.938	0.313	1.10
18	0.750	0.375	0.688	1.438	0.469	2.20
25	1.000	0.500	0.875	1.875	0.625	4.70
37	1.437	0.688	1.250	2.625	0.875	19.0
50	1.750	0.938	1.688	3.563	1.063	75.0
62	2.250	1.063	1.875	4.000	1.375	300
75	2.500	1.188	2.125	5.000	1.625	440
100	3.000	1.375	2 .500	5.000	1.875	700

#### Styles CC, CA, CB & CBC Ratings and Mass Elastic Data

Coupling Size	Max. RPM	① Approx Weight (oz)	① Approx WR <sup>2</sup> (oz-in <sup>2</sup> )	Torsional Rigidity Kt (Ib-in/radian)	Max. Angular Misalignment Continuous Per Flexing Element	Max. Parallel Misalignment Continuous (in)	Axial Capacity (Ib-in)
12	150,000	0.09	0.00	422	2°	0.015	±0.016
18	100,000	0.29	0.02	688	2°	0.015	±0.016
25	80,000	0.74	0.08	1689	2°	0.028	±0.031
37	55,000	2.02	0.47	11,282	1.5°	0.028	±0.031
50	45,000	4.02	1.42	17,265	1°	0.028	±0.031
62	35,000	9.36	4.99	44,964	0.67°	0.028	±0.031
75	30,000	11.57	8.61	70,225	0.67°	0.028	±0.031
100	25,000	20.00	23.00	94,697	0.50°	0.020	±0.031

1 Weight and  $\mathsf{WR}^2$  at maximum bore.

② All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices. The Style CE coupling consists of two Style CS single flexing couplings that are connected by a tubular shaft. It is designed to span large distances between shafts and is ideal for those applications where a large amount of parallel misalignment is anticipated.

The Style CS is designed for applications where one shaft is fully supported in its own bearings and the other shaft is single-bearing supported. The single flexing design can only accept angular misalignment.





#### General Data ④

							Max. RPM		1	Weight (oz)		Weight Change	
Coupling Size	A	В	N	F	G	L	Style CE	Style CS	Torque Capacity (Ib-in)	② CE	CS	Per Inch of "L" (oz)	
12	0.500	0.250	0.031	0.531	0.313			150,000	1.1	0.45	0.06	0.027	
18	0.750	0.375	0.063	0.813	0.469	]		100,000	2.2	0.97	0.20	0.048	
25	1.000	0.500	0.094	1.094	0.625			80,000	4.7	1.70	0.50	0.059	
37	1.438	0.688	0.109	1.484	0.875	Varies to	Varies to	Consult	55,000	19	4.10	1.40	0.110
50	1.750	0.938	0.141	2.016	1.063	SUIT as	Rexnord	45,000	75	7.80	2.82	0.180	
62	2.250	1.063	0.172	2.297	1.375	Tequireu		35,000	300	14.30	5.85	0.220	
75	2.500	1.188	0.188	2.563	1.625			30,000	440	18.10	6.02	0.380	
100	3.000	1.375	0.225	2.975	1.875			25.000	700	28.60	12.8	0.420	

① Torque capacities are based on smooth drives with moderate torque fluctuations. Reduce ratings to 1/3 the value shown for severe applications such as indexing drives where torque reversals occur.

② Weight calculated at maximum bore and "L" = 12".

③ All Thomas disc couplings meet NEMA frame sleeve bearing motor specifications without modification or the addition of end-float restricting devices.

④ For WR<sup>2</sup>, misalignment capacities and torsional rigidity consult Rexnord.

#### Standard Bore Sizes for Style CC, CA, CB, CBC, CE & CS Miniature Couplings ①

Coupling Size	Bores (	23 (in)		Coupling	Bores @3 (in)		
	Hub Inside Center Member	Hub Outside Center Member		Size	Hub Inside Center Member	Hub Outside Center Member	
12	0.0781, 0.0937 0.1200, 0.1250	0.1200, 0.1250 0.1562, 0.1875		50	0.2505, 0.3130 0.3755, 0.4380 0.5005	0.2505, 0.3130 0.3755, 0.4380 0.5005, 0.6255	
18	0.0937, 0.1200 0.1250, 0.1562 0.1875	0.1250, 0.1562 0.1875, 0.2500		62	0.3755, 0.4380 0.5005, 0.6255	0.4380, 0.5005 0.6255, 0.7505	
25	0.1255, 0.1880 0.2505	0.1255, 0.1880 0.2505, 0.3130 0.3755	-	75	0.4380, 0.5005 0.6255, 0.7505	0.5005, 0.6255 0.7505, 0.8755 1.0005	
37	0.1255, 0.1880 0.2505, 0.3130 0.3755	0.1880, 0.2505 0.3130, 0.3755 0.4380, 0.5005	•	100	0.6255, 0.7505 0.8755, 1.0005	0.7505, 0.8755 1.0005, 1.1255 1.2505	

① Couplings not available with rough bore. Keyway not included in standard bore. Keyways and nonstandard bores also available.

② Tolerances: Sizes 12 and 18, ±0.0003". Larger sizes, ±0.0005".

③ The largest bore shown for each hub is maximum allowable bore. Consult Rexnord if a larger bore is required.