



Formsprag Clutch

Stieber

TB Wood's

Couplings and Accessories for Cooling Tower Applications





MODEL HSB BACKSTOPPING CLUTCH

Formsprag

HSB (High Speed Backstop) clutches are used on cooling tower fan drives to prevent rotation in the opposite direction from the normal driving direction. When the fan drive is off, wind pressure from other fans or ambient breezes can apply sufficient force to rotate fan blades in the opposite direction.

FORM-FLEX® FLEXIBLE DISC COUPLING

TB Wood's

The **Form-Flex**® exclusive design reduces stress levels in our flex discs and increases misalignment capabilities to ensure longer life in cooling tower installations.

TB Wood's couplings are industry proven and used throughout the world. Form-Flex® disc type couplings attached to any of our TrueTube™ composite tubes, creates a superior designed cooling tower coupling. As an option, for applications 50HP and under, the HD4CS cooling tower coupling is an excellent high misalignment all-composite cooling tower coupling.

Our Form-Flex all metal disc type couplings allow you the option of close coupled or spacer type applications with many options for corrosion resistance. The **Dura-Flex**® coupling is a patented design with an improved shoe-to-element bond and exceptional hydrolytic resisting properties extending its working life. An industry leader in elastomeric type couplings, the **Sure-Flex Plus**® is a no maintenance, dependable coupling not affected by abrasives, dirt or moisture.

- Close couple, spacer and floating shaft designs
- Torque capacity to 3175HP@100RPM
- Reduced maintenance time



TB Wood's has been a proven leader in couplings for the cooling tower industry.



MODEL RSCI BACKSTOPPING CLUTCH

Stieber

Type RSCI is a centrifugal lift off sprag type freewheel with the inner race rotating. Only the inner race is designed for freewheeling. Primarily designed as a backstop, it can be also used as an overrunning clutch in crawl drives.

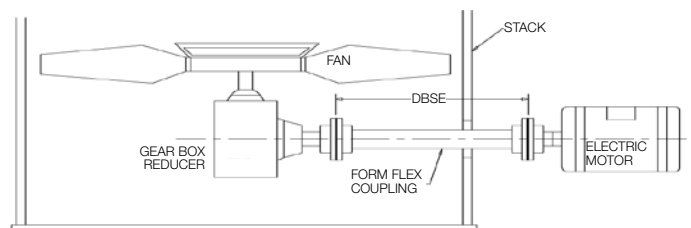


HIGH STRENGTH STAINLESS STEEL FLEX DISC

- High torsional stiffness
- No lubrication required
- No moving parts
- Zero backlash
- Wide Temperature Range

INDUCED DRAFT COOLING TOWERS

Induced draft cooling tower drive systems are usually designed with a motor, gearbox, and fan located at the top of the cooling tower. The atmosphere inside the tower is hot and humid. Placing a motor inside the tower under these conditions can quickly deteriorate its performance. Using a TB Wood's floating shaft coupling, the motor is located on the outside of the stack and away from the corrosive airflow. It spans the gap between the motor and gearbox reducer shaft through various coupling designs to meet your cooling tower application.



TRUE TUBE™

TrueTube composites are high-strength, lightweight torque tubes for long span drive shafts. These tubes are filament wound carbon or glass fiber construction which are oven-cured under precision controlled conditions for consistent quality. All TrueTube composites include our exclusive barrier layer wound into the structure of each tube providing UV protection and giving the TrueTube its unique, smooth appearance, plus protection for the working structure of the tube from damage during handling and installation.

Longer Spans

- Composite couplings span up to 6 meters.
- No high maintenance center support bearings.
- High stiffness-to-weight ratio increasing critical speed.

Lighter Weight

- TrueTube™ drive shafts weigh up to 80% less than comparable steel driveshafts.

Design Flexibility

- May be custom designed to meet your requirements for torsional stiffness, critical speed or torque capacity.
- Can tune torsional or lateral critical speeds out of a machine system.

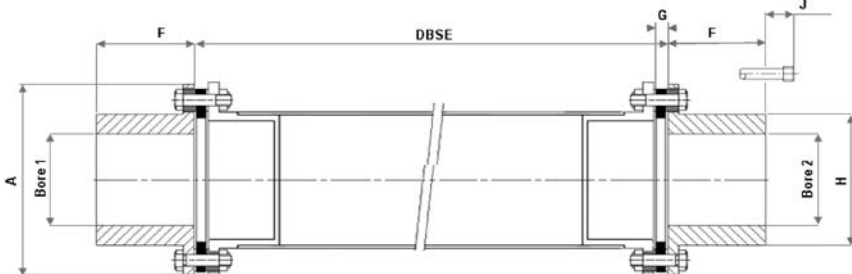
Quick Selection Guide for Cooling Tower Applications

1800 RPM				Coupling Model	1500 RPM			
DBSE mm	DBSE in	Max Power Kw	Max Power HP		Max Power Kw	Max Power HP	DBSE mm	DBSE in
1828	72	23	31	A5C20_2G	20	26	2004	79
1802	71	40	54	A5C25_2G	34	45	1980	78
2133*	84*	23	31	A5C20_2R	20	26	2133*	84*
2108*	83*	40	54	A5C25_2R	34	45	2108*	83*
2723	107	74	99	A5C30_3R	62	82	2985	117
3101	122	74	99	A5C30_3B	62	82	3302*	130*
3130	123	121	161	A5C35_4R	100	134	3431	135
3129	123	194	260	A5C40_4R	162	217	3431	135
3564	140	121	161	A5C35_4B	100	134	3734*	147*
3563	140	194	260	A5C40_4B	162	217	3734*	147*
3799	149	121	161	A5C35_6R	100	134	3862*	152*
3807	149	362	485	B5C58_6R	302	404	3854	151
4327	170	121	161	A5C35_6B	100	134	4597*	181*
4337	170	362	485	B5C58_6B	302	404	4592*	181*
-	-	121	161	A5C35_6BL	100	134	4746	187
-	-	362	485	B5C58_6BL	302	404	4754	187
4423	174	362	485	B5C58_6X	302	404	4849	190
4671	184	121	161	A5C35_8R	100	134	4975*	196*
4682	184	362	485	B5C58_8R	302	404	5004*	197*
4975*	196*	121	161	A5C35_8B	100	134	4975	196
4974	196	362	485	B5C58_8B	302	404	5004*	197*
-	-	121	161	A5C35_8BL	100	134	5459	215
-	-	362	485	B5C58_8BL	302	404	5456	215
5414	213	362	485	B5C58_10B	302	404	6020*	237*
6020*	237*	362	485	B5C58_12B	302	404	6020*	237*

All sections use a 2.0 service factor

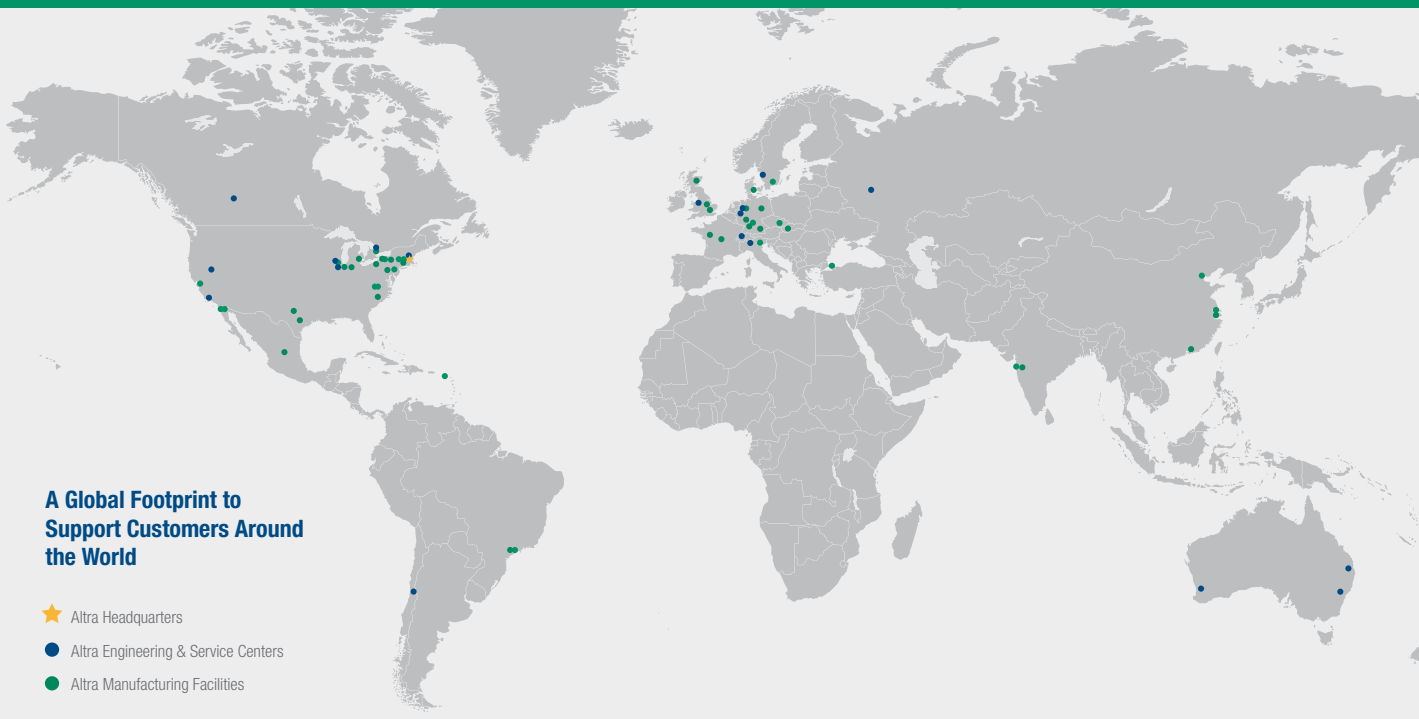
* Length is restricted by available mandrels for winding composite tubes. Consult factory for longer lengths.

** Tube diameter is larger than coupling "A" diameter. Consult factory for coupling drawing.



Form-Flex® Coupling for Cooling Tower Applications

Coupling Model	Max DBSE mm at				KW/100 RPM	Max Bore mm		Dimensions mm					Max Rated Torque kNm	Peak Torque kNm
	1800 rpm in	1800 rpm mm	1500 rpm in	1500 rpm mm		Std Hub	Large Hub	A	F	G	H	J		
A5C20_2G	72	1828	79	2004	2.6	45	57	104	34	9	61	58	0.25	0.47
A5C20_2R	84	2133	84	2133	2.6	45	57	104	34	9	61	58	0.25	0.47
A5C25_2G	71	1802	78	1980	4.5	52	68	126	41	11	71	58	0.43	0.86
A5C25_2R	83	2108	83	2108	4.5	52	68	126	41	11	71	58	0.43	0.86
A5C30_3R	107	2723	117	2985	8.2	61	78	143	48	12	84	83	0.78	1.57
A5C30_3B	122	3101	130	3302	8.2	61	78	143	48	12	84	83	0.78	1.57
A5C35_4R	123	3130	135	3431	13.4	80	100	168	57	14	105	108	1.28	2.56
A5C35_4B	140	3564	147	3734	13.4	80	100	168	57	14	105	108	1.28	2.56
A5C35_6R	149	3799	152	3862	13.4	80	100	168	57	14	105	108	1.28	2.56
A5C35_6B	170	4327	181	4597	13.4	80	100	168	57	14	105	108	1.28	2.56
A5C35_6BL	-	-	187	4746	13.4	80	100	168	57	14	105	108	1.28	2.56
A5C35_8R	184	4671	196	4975	13.4	80	100	168	57	14	105	108	1.28	2.56
A5C35_8B	196	4975	196	4975	13.4	80	100	168	57	14	105	108	1.28	2.56
A5C35_8BL	-	-	215	5459	13.4	80	100	168	57	14	105	108	1.28	2.56
A5C40_4R	123	3129	135	3431	21.6	88	113	194	64	15	118	108	2.06	4.13
A5C40_4B	140	3563	147	3734	21.6	88	113	194	64	15	118	108	2.06	4.13
B5C58_6R	149	3807	151	3854	40.3	110	143	228	70	14	138	160	3.84	7.68
B5C58_6B	170	4337	181	4592	40.3	110	143	228	70	14	138	160	3.84	7.68
B5C58_6BL	-	-	187	4752	40.3	110	143	228	70	14	138	160	3.84	7.68
B5C58_6X	174	4423	190	4849	40.3	110	143	228	70	14	138	160	3.84	7.68
B5C58_8R	184	4682	197	5004	40.3	110	143	228	70	14	138	211	3.84	7.68
B5C58_8B	196	4974	197	5004	40.3	110	143	228	70	14	138	211	3.84	7.68
B5C58_8BL	-	-	215	5456	40.3	110	143	228	70	14	138	211	3.84	7.68
B5C58_10B	213	5414	237	6020	40.3	110	143	228	70	14	138	262	3.84	7.68
B5C58_12B	237	6020	237	6020	40.3	102	143	228	70	14	138	262	3.84	7.68



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