



WELLMAN

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## TYRE COUPLINGS

Wellflex Tyre Couplings provide all the desirable features of an ideal flexible coupling. The " Torsionally Elastic " Wellflex Tyre Coupling is available in H type flange version. With the addition of a spacer flange, the coupling can be used to accommodate standard distance between shaft ends and facilitate pump maintenance.

Wellflex Tyre Couplings can accommodate simultaneous maximum misalignment in all planes without imposing undue loads on adjacent bearings and the excellent shock-absorbing properties of the flexible tyre reduce vibrations and torsional oscillations.

Wellflex tyres are available in re-reinforced natural rubber compounds for use in ambient temperatures up to +60°C. Neoprene rubber compounds are available for use in adverse operating conditions e.g. oil or grease contaminations and can be used in temperatures of - 15°C to + 70°C on request.

**TORQUE-BORE RANGE** : The range includes couplings with torque capacity upto 143000 Nm. and bore diameters upto 220 mm.

**MISALIGNMENT** : Handles parallel, angular and axial displacements, either singly or in any combination. They can accommodate parallel misalignment upto 8 mm, angular misalignment upto 6° and end float upto 12 mm.

**TORSIONALLY SOFT** : Cushions against destructive shock loads protecting the complete system, preventing expensive breakdowns and lengthens machine life.

**FREE OF BACKLASH** : Does not create 'snatch' on take up of the drive.

**INSTALLATION** : Requires neither special tools nor skilled labour to assemble. Alignment is quickly checked by placing a straight edge across outside diameter of flanges. The split flexible tyre is then positioned in the flanges and the screws tightened into place.

**DAMPING** : Reduces vibration and torsional oscillations developed in internal combustion engines, the amplitude of which increases greatly at critical points in the speed range. Wellflex Tyre Coupling dampens these destructive vibrations.

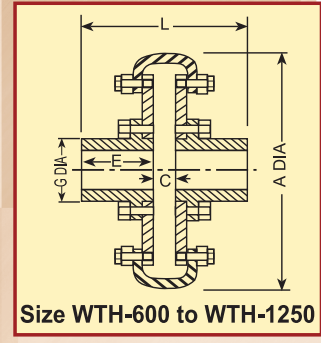
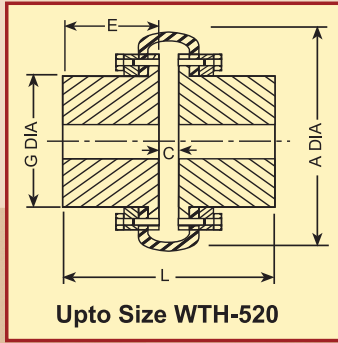
**MAINTENANCE** : Because there are no moving parts, no lubrication is required. Periodic visual inspection of the tyre is all that is necessary.

**EASY ELEMENT REPLACEMENT** : To replace flexible element simply loosen the clamping screws, remove the tyre and replace with a new one. It is not necessary to move either driver or driven machine or coupling flanges.

**TABLE 1 : SERVICE FACTORS**

SPECIAL CASES	TYPE OF DRIVING UNIT					
	Electric Motors, Steam Turbines			Internal Combustion Engines, Steam Engines, Water Turbines		
Type of Driven Machine	Operational Hours Per day					
	10 and under	Over 10 to 16 inclusive	Over 16	10 and under	Over 10 to 16 inclusive	Over 16
For application where substantial shock, vibration and torque fluctuations occur, and for reciprocating machine e.g. internal combustion engines, piston pumps and compressors, refer to undernoted classification :						
TYPE 1 Agitators, Brewing Machinery, Centrifugal Compressors and Pumps, Belt Conveyors, Dynamometers, Lineshafts, Fans up to 7.5 kW, Blowers and Exhausters (except positive displacement), Generators.	0.8	0.9	1.0	1.3	1.4	1.5
TYPE 2 Clay Working Machinery, General Machine Tools, Paper Mill, Beaters and Winders, Rotary Pumps, Rubber Extruders, Rotary Screens, Textile Machinery, Marine Propellers and Fans over 7.5 kW.	1.3	1.4	1.5	1.8	1.9	2.0
TYPE 3 Bucket Elevators, Cooling Tower Fans, Piston Compressors and Pumps, Foundry Machinery, Metal Presses, Paper Mill Calenders, Hammer Mills, Presses and Pulp Grinders, Rubber Calender, Pulverisers and Positive Displacement Blowers.	1.8	1.9	2.0	2.3	2.4	2.5
TYPE 4 Reciprocating Conveyors, Gyrotory Crushers, Mill Ball (pebble and rod), Rubber Machinery (Banbury Mixers and Mills) and Vibratory Screens.	2.3	2.4	2.5	2.8	2.9	3.0





Size	Max Bore	Max Speed	Torque	Rating	Max Torque	Outer Dia	Boss Dia	Hub Length	GAP	Overall Length	Torsional Stiffness	Inertia	Maximum Misalignment			Weight
						A	G	E	C				L	Nm/rad	MR <sup>2</sup> kgm <sup>2</sup>	
	(mm)	(RPM)	(Nm)	(HP/100 RPM)	(Nm)	(mm)	(mm)	(mm)	(mm)	(mm)	Nm/rad	MR <sup>2</sup> kgm <sup>2</sup>	(mm)	(mm)	(deg)	(kg)
WTH-66	25.00	6000	15	0.21	45	66	36	27.50	2	57.40	215	0.00018	1.00	2.00	4.00	0.75
WTH-76	27.00	6000	18	0.25	54	76	39	30.00	6	66.00	255	0.00024	1.00	2.00	4.00	0.84
WTH-86	34.00	6000	29	0.40	87	86	49	35.00	6	76.00	410	0.00055	1.50	2.00	4.00	1.35
WTH-96	36.00	5500	36	0.50	108	96	51	35.00	6	76.00	510	0.00086	1.50	2.00	4.00	1.50
WTH-106	38.00	5500	45	0.60	135	106	54	35.00	6	76.00	618	0.00135	1.50	2.50	4.00	1.90
WTH-116	42.00	5500	55	0.75	165	116	60	40.00	8	88.00	765	0.00230	1.50	2.50	4.00	2.75
WTH-126	48.00	5500	90	1.25	270	126	68	40.00	8	88.00	1275	0.00350	2.00	2.50	4.00	3.50
WTH-140	50.00	5500	125	1.75	375	140	72	46.00	8	100.00	1815	0.00600	2.00	2.50	4.00	4.75
WTH-160	50.00	5000	165	2.25	495	160	82	50.00	8	108.00	2350	0.01120	2.00	2.50	4.00	6.00
WTH-178	60.00	4500	220	3.00	660	178	100	60.00	8	128.00	3140	0.02300	2.50	2.50	4.00	11.00
WTH-190	65.00	4000	285	4.00	855	190	105	70.00	6	146.00	4170	0.03400	2.50	2.50	4.00	14.00
WTH-218	75.00	3500	430	6.00	1290	218	124	75.00	10	160.00	6380	0.06500	2.50	3.00	4.00	21.00
WTH-250	80.00	3000	610	8.50	1830	250	145	90.00	12	192.00	9075	0.12300	3.00	3.50	4.00	32.00
WTH-272S	75.00	2750	740	10.50	2220	272	125	80.00	13	173.00	10800	0.13100	3.00	3.50	4.00	28.00
WTH-272H	100.00	2750	740	10.50	2220	272	163	96.00	13	205.00	10800	0.18900	3.00	3.50	4.00	38.00
WTH-292S	80.00	2600	1070	15.00	3210	292	130	80.00	15	175.00	16200	0.17800	3.50	4.00	4.00	30.00
WTH-292H	105.00	2600	1070	15.00	3210	292	168	105.00	18	228.00	16200	0.24300	3.50	4.00	4.00	44.00
WTH-316S	90.00	2500	1320	18.50	3960	316	150	90.00	15	195.00	18800	0.27000	3.50	4.00	4.00	40.00
WTH-316H	115.00	2500	1320	18.50	3960	316	190	115.00	15	245.00	18800	0.39500	3.50	4.00	4.00	60.00
WTH-342S	90.00	2250	1870	26.00	5610	342	150	90.00	15	195.00	26700	0.36000	4.00	4.50	4.00	45.00
WTH-342H	120.00	2250	1870	26.00	5610	342	198	120.00	15	255.00	26700	0.52000	4.00	4.50	4.00	71.00
WTH-390S	100.00	2000	2850	40.00	8550	390	165	100.00	18	218.00	40700	0.71700	4.00	5.00	4.00	70.00
WTH-390H	140.00	2000	2850	40.00	8550	390	230	140.00	18	298.00	40700	1.10000	4.00	5.00	4.00	115.00
WTH-450S	130.00	1600	5000	70.00	15000	450	216	120.00	30	270.00	71400	1.36000	4.50	6.00	4.00	110.00
WTH-450H	175.00	1600	5000	70.00	15000	450	286	170.00	20	360.00	71400	2.42000	4.50	6.00	4.00	190.00
WTH-520S	150.00	1480	7150	100.00	21450	520	250	135.00	24	294.00	102000	2.60000	5.00	6.00	4.00	170.00
WTH-520H	220.00	1480	7150	100.00	21450	520	324	180.00	24	384.00	102000	5.45000	5.50	6.00	4.00	300.00
WTH-600	ON REQUEST	1300	12850	180.00	38550	600					184000		6.00	8.00	4.00	
WTH-672	ON REQUEST	1100	19230	270.00	57690	672					275000		6.50	8.00	4.00	
WTH-725	ON REQUEST	1000	28500	400.00	85500	725					407000		6.50	8.00	4.00	
WTH-812	ON REQUEST	850	42740	600.00	128220	812					612000		7.00	8.00	4.00	
WTH-1000	ON REQUEST	750	64100	900.00	192300	1000					918000		8.00	8.00	5.00	
WTH-1100	ON REQUEST	650	85500	1200.00	256500	1100					1216000		8.00	8.00	5.00	
WTH-1175	ON REQUEST	550	107000	1500.00	321000	1175					1530000		8.00	10.00	6.00	
WTH-1250	ON REQUEST	500	143000	2000.00	429000	1250					2040000		8.00	12.00	6.00	



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