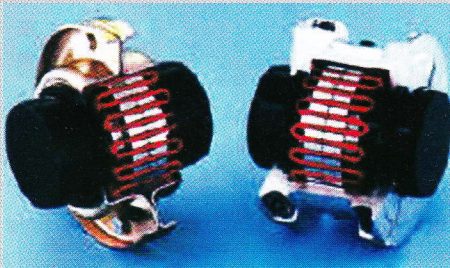




# SBPT GRID FLEXIBLE COUPLING TYPE - BR



SBPT Grid Flexible couplings can accommodate angular, parallel and axial misalignment between driving and driven shafts, whilst absorbing considerable torque overloads and smoothing cyclic variations. This coupling protects against the damaging effects of shock loads, impact loads and vibration.



## SELECTION:

- Check your application against the Service Factor Chart and select Service Factor.
- Use the Following formula to obtain HP per RPM and torque of your application

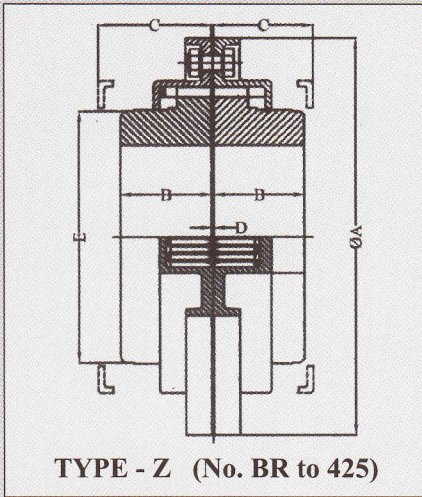
$$\frac{HP \times Service\ Factor}{RPM} = \frac{HP}{RPM} \quad Torque_{Nm} = \frac{HP \times Service\ Factor \times 716.2 \times 9.81}{RPM}$$

- Select BR size and check hub bore.
- Check the allowable speed.

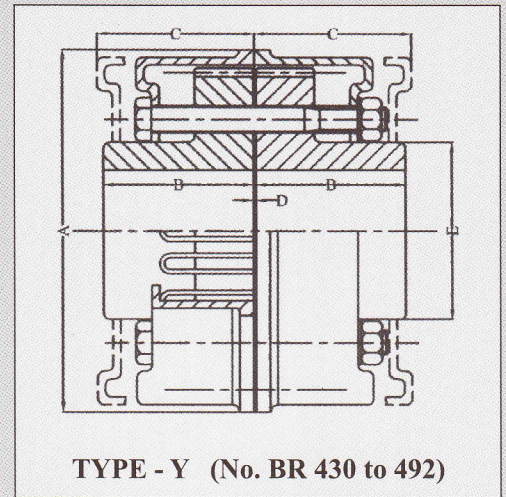
## SERVICE FACTOR

APPLICATION	SERVICE FACTOR	DRIVEN EQUIPMENT	SERVICE FACTOR
<b>Agitators</b> - pure liquid Variable density	1.0 1.5	<b>Blowers</b> - centrifugal lobe/ vane	1.0 1.5
<b>Compressor</b> - centrifugal lobe/vane/screw reciprocating - 1-3 cylinders reciprocating - 4 or more cylinders	1.0 1.5 3.0 2.0	<b>Conveyors</b> - uniform loaded or fed heavy duty — not uniformly fed	1.5 2.5
<b>Cranes and Hoists</b>	2.0	<b>Crushers</b>	3.0
<b>Elevators</b> - bucket Centrifugal discharge escalators freight gravity discharge	2.0 1.5 1.5 2.0 1.5	<b>Steel(coke plant)</b> - cooling bath/wire drawing/ cold mill strip/hot mills strip feed rolls blooming mill/pusher and lorry car traction drive	1.75 2.5 3.0
<b>Extruder</b> - plastic metal	2.0 2.5	<b>Fan</b> - centrifugal/forced or induced draft Mine/cooling	1.5 2.0
<b>Generators</b> - non-welding welding	1.5 3.0	<b>Machine Tools</b> - bending roll/punch press Plate planner / main or auxiliary drive	2.0 1.5
<b>Hammer mills</b>	3.0	<b>kiln</b>	2.0
<b>Metal working</b> - bending / shears press/punching/wire drawing non reserving table conveyor	1.5 2.0 2.5	<b>Mill</b> (Rotary type) - cement kiln/pebble/ rod ball	2.0 3.0
<b>Mixers</b> - concrete / drum type	2.0	<b>Printing presses</b>	1.5
<b>Pullers</b> - barge haul	2.0	<b>Water waste treatment</b> -	1.5
<b>Paper Mill</b> - bleacher/pulpet/calendar/felt- streacher/reel/stock chest/winders Couch/cutters/platers/cylinder/dryer/ felt-wheeper/jordans/log haul/presses/suction roll/	1.5 2.0	<b>Pumps</b> - centrifugal/boiler feed/rotary gear/lobe and vane/slurry dredge/double acting recp./single acting 3 or more cylinder 1-2 cylinder single acting	1.0 1.5 2.0 2.5
<b>Sugar</b> - cane carrier & leveler/cane knife and crusher	2.0	<b>Tobacco &amp; Cigarette machinery</b>	1.75
<b>Rubber</b> - tire & tube press opener Calender/extruder/sheeter/tubers & strainers Rubber mill/tire building m/c Mixer- banbury	1.0 2.0 2.5 3.0	<b>Textile</b> - batches/card me/cloth finishing mc/dryers/dyeing machineries/ spinners/winders/looms/soapers/ Dry can	1.5 2.0

## SPRING GRID COUPLING - TECHNICAL DATA FOR USE ON HORIZONTAL SHAFTS ONLY



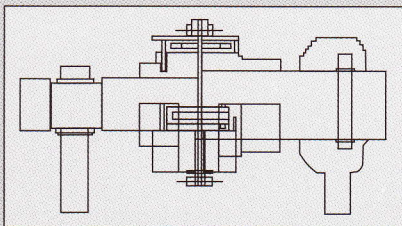
**TYPE - Z (No. BR to 425)**



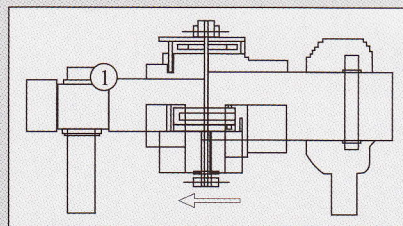
**TYPE - Y (No. BR 430 to 492)**

Coupling Size BR	Coupling Rating Hp / rpm	Coupling Rating Nm	Max. R.P.M.	Bore Min. mm.	Bore Max mm.	A (m.m)	B (m.m)	C (m.m)	D (m.m)	E (m.m)	Weight in kg	WR <sup>2</sup> in kgm <sup>2</sup>
105	0.007	48	6000	10	30	105	40	52	1	44.5	2.8	0.0018
120	0.009	63	5500	15	40	120	40	52	1	58.8	4	0.0041
145	0.02	141	5000	15	42	145	45	60	1	62	5.5	0.007
172	0.03	212	4500	15	60	172	51	60	1	88	9	0.017
192	0.045	316	4000	20	60	192	51	70	1	85	11.5	0.028
197	0.065	457	3875	20	65	197	57	75	1	97	15	0.036
222	0.10	703	3400	25	80	222	64	80	1	119	20	0.066
255	0.13	913	3000	25	95	255	70	81	1	143	26.5	0.119
275	0.19	1335	2700	30	110	275	89	90	1	165	42	0.199
295	0.36	2529	2575	40	110	295	102	120	1.6	165	53	0.360
324	0.46	3232	2300	50	125	324	102	128	1.6	187.5	62	0.552
336	0.66	4637	2250	50	128	336	102	147	1.6	188	72	0.660
375	1.00	7026	2000	50	148	375	114	147	1.6	222	104	1.06
425	1.3	9134	1800	50	170	425	127	148	1.6	254	148	1.86
430	1.8	12647	1750	75	160	430	140	178	3.2	239	175	2.20
431	2.4	16862	1750	75	160	431	140	180	3.2	239	180	2.26
490	2.8	19673	1550	85	180	490	152	180	3.2	266.5	206	2.92
492	3.5	24591	1500	85	180	492	152.5	180	3.2	267	216	3.06

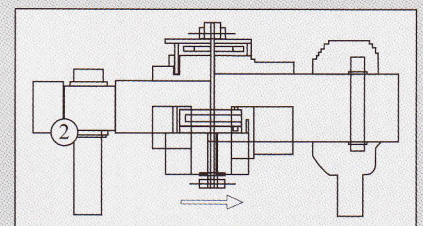
We also manufacture special requirement like Limited End Float, Axially Split Cover, Spacer Coupling, Brake Wheel Coupling etc.



Coupling with driving and driven shafts in central positions.



Coupling and shafts after maximum travel towards motor. This travel is limited by the coupling which prevents contact between the motor shaft shoulder and bearing end at point 1.

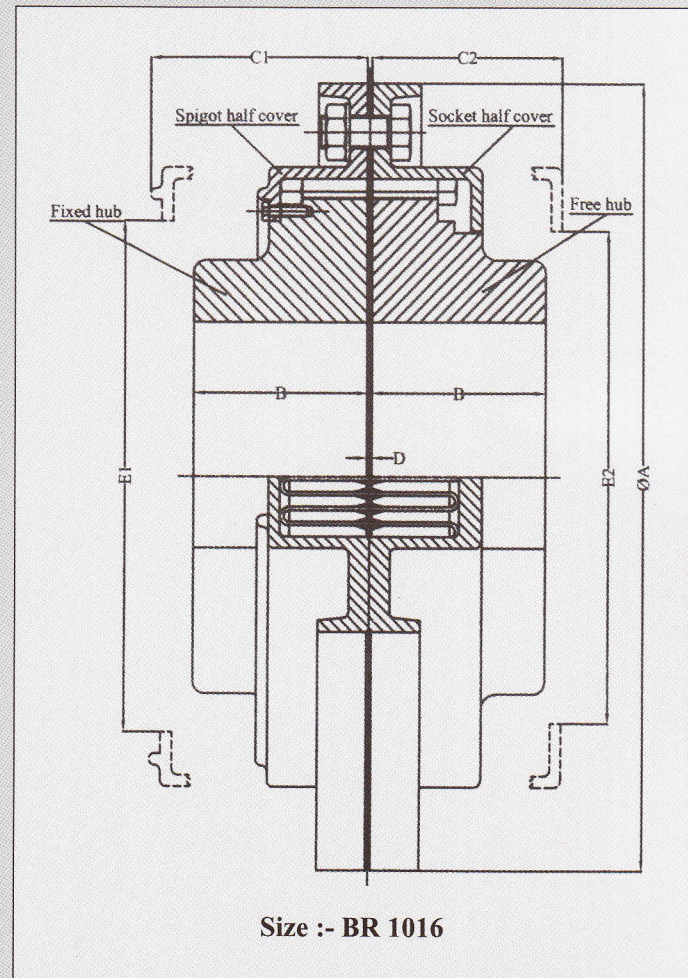
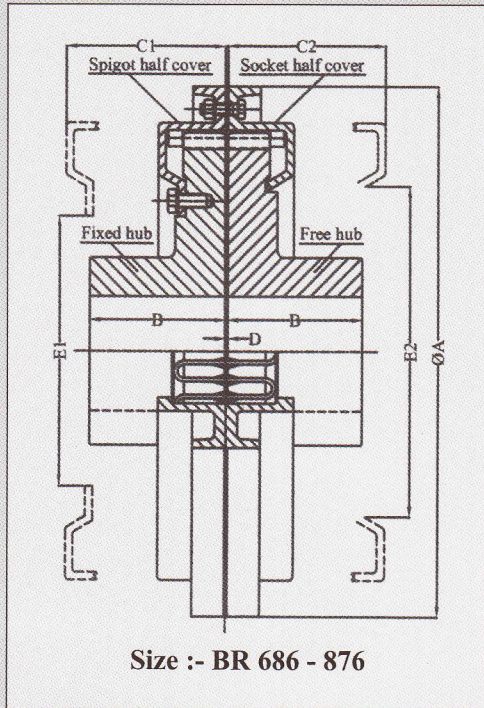


Coupling and shafts after maximum travel away from motor. This travel is similarly limited by the coupling which now prevents contact between the motor shaft shoulder and bearing end at point 2.

# SPRING GRID COUPLING - TECHNICAL DATA

## COUPLINGS FOR GREATER POWERS AND HIGHER SPEEDS

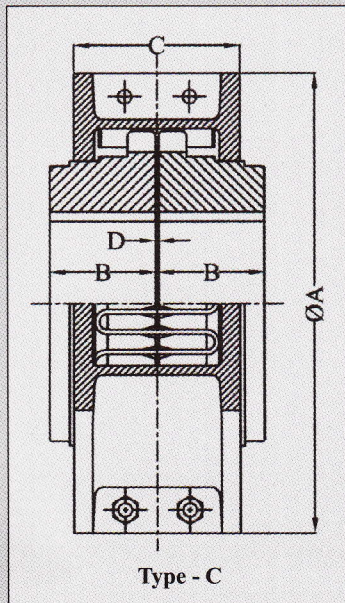
### TYPE - H



Coupling Size BR	Rating H.P. per R.P.M.	Clearance Dia	Boss Length	Gap	Min. Bore	Max. Bore	Cover Bore		Removal Space		Safe Speed
		A (m.m.)	B (m.m.)	D (m.m.)	(m.m.)	(m.m.)	E1 (m.m.)	E2 (m.m.)	C1 (m.m.)	C2 (m.m.)	R.P.M.
686	5.5	686	178	3	110	191	349	427	210	208	1150
781	7.5	781	203	3	110	216	432	511	210	208	1000
876	10.5	876	229	6.5	140	242	482	573	249	250	900
1016	17.5	1016	230	6.5	150	267	660	635	286	251	750

## SPRING GRID COUPLING - TECHNICAL DATA

(WITH AXIALLY SPLIT COVERS)  
FOR USE ON HORIZONTAL SHAFTS ONLY



COUPLINGS FOR GREATER POWERS

Coupling Size BR	Rating H.P. per R.P.M.	Max. Speed	Pilot Bore	Max. Bore	Clear Dia.	Boss Length	Cover Width	Gap	Approx Weight
		R.P.M.	(m.m.)	(m.m.)	A (m.m.)	B (m.m.)	C (m.m.)	D (m.m.)	kg.
104	0.006	4500	10	30	104	38	57	0.80	2.5
121	0.010	4000	10	40	121	38	57	0.80	4.1
127	0.020	3800	15	42	127	45	65	0.80	4.5
159	0.030	3000	15	58	159	51	65	0.80	7.5
178	0.050	2700	15	55	178	51	84	0.80	12.5
190	0.07	2500	15	64	190	58	84	0.80	16.5
221	0.10	2200	25	80	221	64	86	0.80	18.5
244	0.13	2000	25	94	244	70	86	0.80	26.5
267	0.19	1800	25	110	267	89	86	0.90	39.5
276	0.36	1700	40	110	276	101	137	1.6	47
323	0.46	1500	50	125	323	101	157	1.6	68
335	0.66	1400	50	120	335	101	157	1.6	75
380	0.91	1250	50	148	380	114	158	1.6	107
426	1.26	1100	50	168	426	127	160	1.6	148
501	1.8	1000	75	203	501	140	178	3	233
502	2.41	1000	75	203	502	140	178	3	233
552	2.8	900	90	235	552	152	178	3	316
553	3.5	900	90	235	553	153	180	3	317

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