



## PEMBRIL SUPER SOFT START FLUID COUPLING

Type PSS Sizes 320 to 1040

The Premium Pembril PSS Fluid Coupling is an advanced design of Constant Filling Fluid Coupling when used in conjunction with a fixed speed motor will give the motor a very light load start, provides smooth acceleration and ensure overload protection for the motor and driven machine. Using a Fluid Coupling in the drive line often makes it possible to employ a smaller motor because the Fluid Coupling allow the Motor to run quickly upto the speed, where its overload capacity may be used for starting the machine.

Pembril PSS Fluid Couplings are installed between coaxial shaft. Normally PSS Fluid Coupling is mounted between the motor and machine shaft and connected by flexible couplings, which absorb the small assembly misalignments. During starting condition PSS Fluid Coupling Chamber withdraws almost 30-40 % quantity of oil from main circuit to reduce transmitted torque.

After motor reaches the full speed, this retained oil flows back into main circuit which can be controlled as required by means of nozzles externally.

The PSS Fluid Coupling is rugged unit. The major components being made from high tensile Aluminium Alloy Casting, it comprises basic Fluid Coupling, with the added advantage of Delayed Chamber and Flexible Coupling. Flexible coupling and hollow shaft bore and keyways may be finished to suit the customer requirement. Filling and Fusible plugs are fitted on the casing wall and the periphery of the coupling.

The main features of Pembril 'PSS' Fluid Coupling are -

1. Can be engineered at site to meet the desired acceleration time / oil flow rate requirement by replacing the oil filling nozzles without opening the unit.
2. Torque transmission by the Fluid Coupling during Motor start-up can be reduced to approximately 50 to 60% of the rated torque.
3. Progressively increases the torque applied to the machine.
3. Design to achieve good heat-dissipation as compared to other Fluid Coupling.
5. Hollow Shaft design for compactness.
6. Manufactured in high tensile aluminum alloy for lighter weight.
7. Very high efficiency due to low slip at rated duty.

#### OPTIONAL ACCESSORIES :

1. Fusible Trip device Assembly.
2. Brake drum.
3. Oversize Half Coupling to accommodate larger shaft dia.
4. Solid shaft Couplings can be supplied on request.

#### TYPICAL APPLICATIONS :

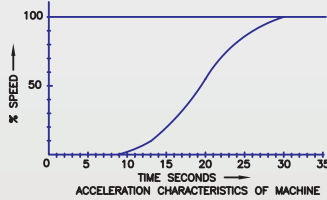
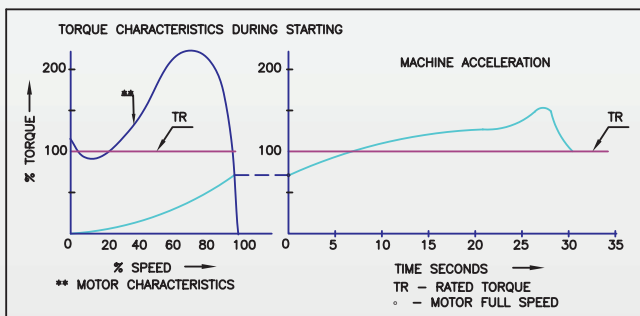
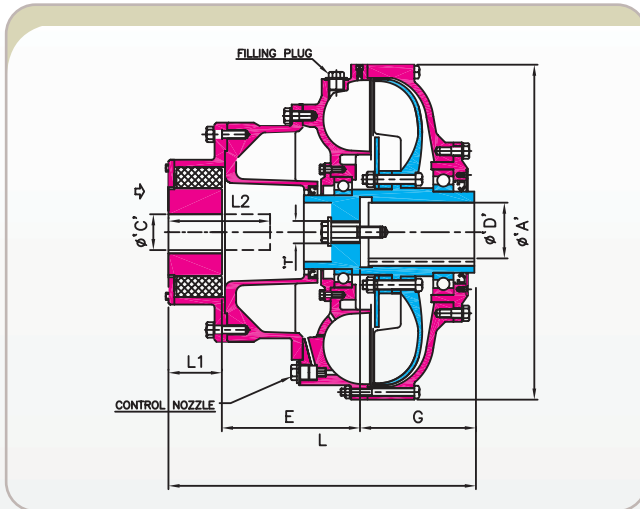
Conveyors, Crushers, Ball mills, Ring granulators, Centrifuges,





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Selection Data						
Max. Transmission Capacity in kW at various speeds - RPM						
Size	720	870	960	1450	1750	2950
320	4.0	7.0	10.0	34.0	56.0	85.0
370	5.92	11.20	15.83	56.0	100.0	140.0
410	10.87	19.18	26.00	89.0	140.0	275.0
450	16.67	29.52	39.73	134.0	185.0	450.0
500	30.90	55.5	74.1	175.0	275.0	--
580	59.80	105.2	143.0	346.0	500.0	--
660	105.3	187.0	255.0	600.0	700.0	--
740	199.5	337.0	388.0	783.0	--	--
810	290.0	490.0	600.0	1150	--	--
910	532.0	760.0	860.0	--	--	--
1040	870.0	1150	1252	--	--	--

The chart may be used for selecting PSS Fluid Coupling. It shows maximum operating power ratings for approved applications with direct on started squirrel cage motors, allow for 2 to 4% slip in fluid coupling - low to high loadings.

- C & D - Maximum standard bores with standard keyways.
- E - Shaft to Shaft end distance.
- L2 - Maximum Shaft insertion length.
- W - Approx. total weight of unit without oil-kgs.
- W1 - Approx. total weight of unit with oil-kgs.
- Z1 - Moment of inertia of fluid Cplg & Flex. Cplg kgm<sup>2</sup>
- Z2 - Moment of inertia of Shaft and Runner of Cplg - Kgm<sup>2</sup>
- Q - Approximate max. oil quantity - Litres.

### ALL DIMENSIONS ARE IN MM

CPLG.	A	C	D	E	G	L	L1	L2	T	W	W1	Z1	Z2	Q
320	380	55	60	129	115	295	51	105	M30X3.5	41	47.5	1.68	0.374	7.2
370	434	70	60	161.5	140	355.5	54	140	M30X3.5	63.6	73	3.12	0.627	10.8
410	454	75	80	186	155	401	60	160	M30X3.5	85	99.2	5.15	0.876	15.8
450	521	85	80	218	170	455	67	197	M30X3.5	116	134.5	7.4	1.770	25
500	595	95	90	218	170	474	86	210	M30X3.5	145	172.7	13.8	2.530	30.8
580	660	115	110	258	176	529	95	243	M30X3.5	200	242.3	32.5	5.560	47
660	749	115	110	320	180	595	95	285	M30X3.5	275	336	43	8.535	68
740	838	115	145	334	240	669	95	279	M30X3.5	325	405.1	72	17.85	89
810	914	115	145	439	210	763	114	323	M30X3.5	330	438	112	27.25	120
910	1032	140	190	351	300	765	114	275	48X8T	740	878.6	215	38.15	154
1040	1162	170	190	380	315	822	127	335	48X8T	990	1186	308	66.50	218

Pratisaad/07/05

## Premium Energy Transmission Limited

**Head Office :** P. B. No. 5, Chinchwad, Pune - 411 019, India. Tel. : (91-20) 27475141 / 42 / 43 / 44, Fax : (91-20) 27450287, 27476601.

**Manufacturing Units :** • **Unit-I** : Chinchwad, Pune. Tel. : (91-20) 27475141 / 42 / 43 / 44, Fax : (91-20) 27450287, 27476601. • **Unit-II** : West Bengal. Tel.: (91-3174) 222231 / 32 / 33 / 37, Fax : (91-3174) 222234. • **Unit-III** : Chikalthana, Aurangabad. Tel.: (91-240) 2485521, 2485856, 2485056, Fax : (91-240) 2485756. • **Unit-IV** : Chikalthana, Aurangabad. Tel.: (91-240) 2482858, 2471298, Fax : (91-240) 2482857.

**Regional Offices :** • **Mumbai** : Tel.: (91-22) 24223747, 24365510, Fax : (91-22) 24367785, 24379555. • **New Delhi** : Tel. : (91-11) 23730554 (8 Lines), Fax : (91-11) 23359782 / 23357739. • **Kolkata** : Tel.: (91-33) 22424316, 22423780, 22423805, 22424317 / 20 / 21, 22438815, 22420817, Fax : (91-33) 22424325. • **Chennai** : Tel.: (91-44) 25255200, (91-44) 25224557.

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**Representative Offices :** **Surat** : Tel.: (91-261) 22683330, Mob.: 09825404016. **Indore** : Tel.: (91-731) 2421135, Mob.: 09826041910. **Lucknow** : Tel.: (91-522) 3954033, 2344962, Mob.: 09415086044. **Ludhiana** : Mob.: 09814640863. **Coimbatore** : Mob.: (91-422) 3220388. **Rourkela** : Mob.: 09437248230.



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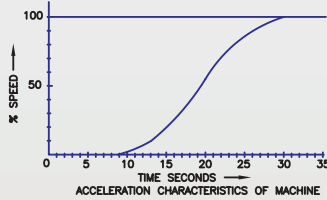
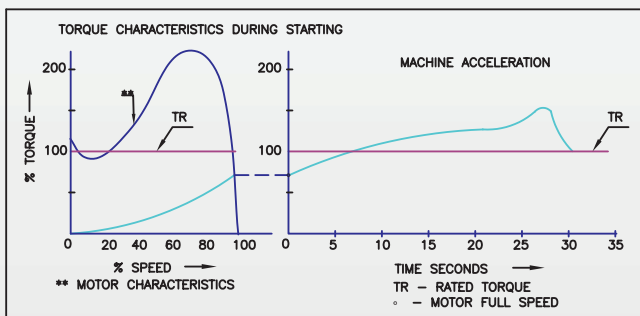
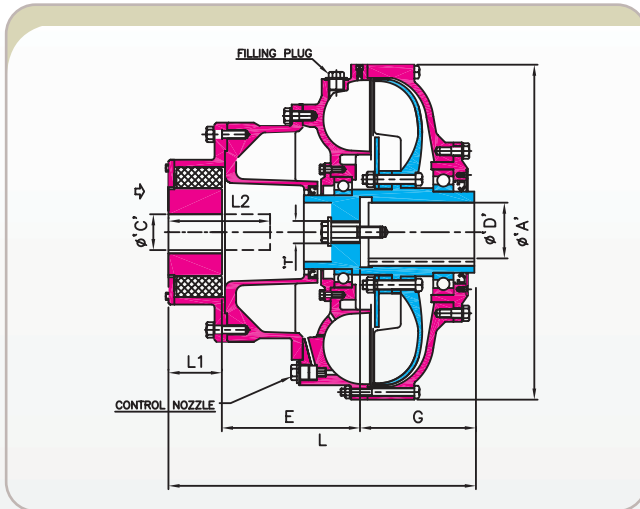
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