



PEMBRIL VARIABLE SPEED FLUID COUPLINGS

Type SCR 25B Sizes 14 To 41

The type SCR25B fluid couplings, when installed between a constant speed motor and driven machine, can be employed in a variety of ways depending upon the requirements of the particular application.

Scoop control fluid couplings will provide -

- Stepless variable output speed, using a fixed speed motor, over a range of 5:1 for centrifugal pumps and fans. On constant torque drives a 3:1 speed range may be achieved.
- Control of torque during acceleration of high inertia loads; a good example being the starting of belt conveyors.
- Engaging and disengaging of a drive with a continuously running motor. For example, descaling pumps in steel-works.

Supplied with fully supported shafts at input and output, this unit greatly facilitates rapid initial setting up, and caters for subsequent base-plate settlement.

The units are readily adaptable for use with manual, remote or automatic control and can be supplied complete with most types of actuators pneumatic, hydraulic, or electric. In addition, special controls are available for certain applications, for example, belt conveyor drives, fans, crushers etc.

Operation

To vary the output speed of a fluid coupling it is necessary to vary the amount of fluid in the working circuit (i.e. between the runner and

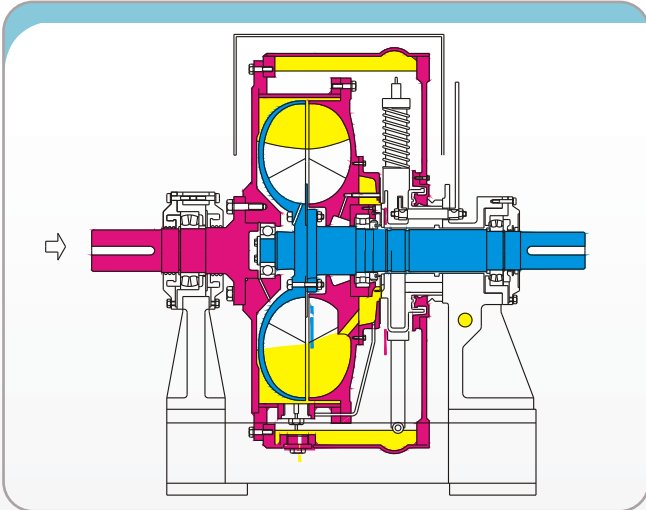
impeller). In operation, oil in the working circuit escapes centrifugally through small leak-off nozzles in the drum of the inner casing assembly and forms a ring inside the rotating reservoir casing.

The tip of the hollow scoop tube picks up oil from this rotating ring and returns it to the working circuit via an external cooler, if needed. The volume of oil retained in the working circuit depends on the radial position of the tip of the scoop tube. An external control lever on the scoop housing bracket enables the position of the scoop tube to be adjusted while the unit is running, thus varying the output speed or the torque transmitted.

Construction

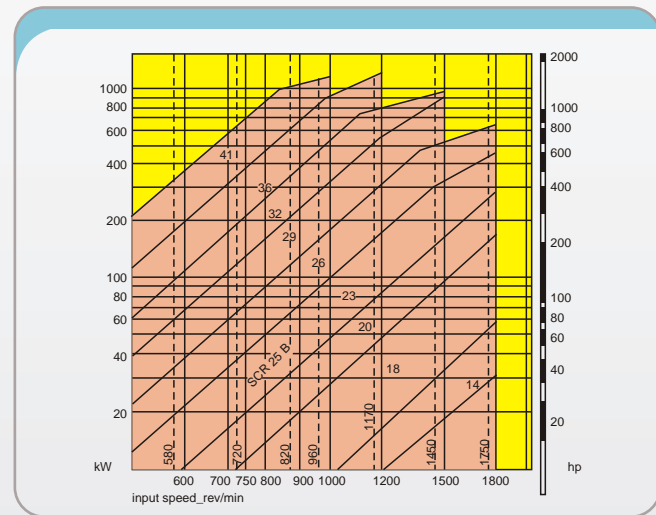
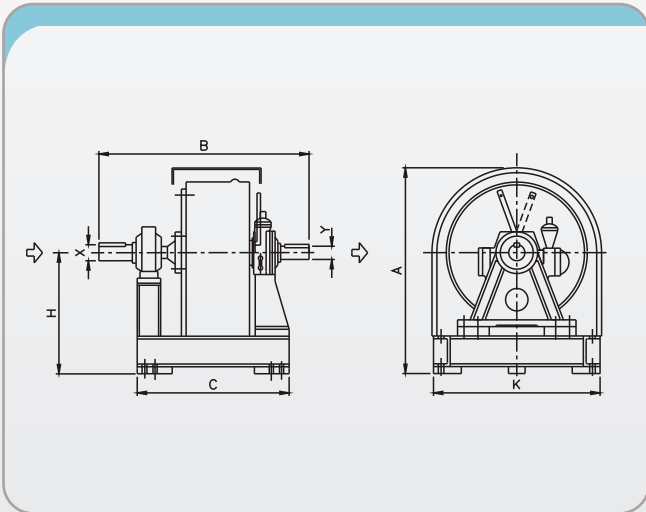
The main rotating casing of the fluid coupling is formed from two steel fabrications which are bolted together on the input end. The impeller and runner, between which oil circulates to transmit power, are aluminium alloy castings. The internal bearing arrangement ensures that no external hydraulic thrust can be created by the fluid coupling. The scoop tube is supported by a stationary cast iron bracket, normally mounted on the bed plate. This design of fluid coupling is provided with semi-flexible input and output mountings, and the weight of the rotating parts is supported by the shafts of the motor and driven machines. Bores and keyways of the input driving boss and output half coupling are finished to suit customers' requirements. Units are available in 9 sizes in ratings up to 1,550 kW.





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ALL DIMENSIONS ARE IN MM							Total Weight (in kgs) without oil	Oil Qty.	K
Size	A	B	C	Y	H	X			
14	735	711	641	48	482	55	267	14	735
18	735	891	648	55	355	70	293	16	745
20	735	891	648	55	355	70	328	21.6	745
23	948	1078	818	70	465	85	501	31.8	930
26	948	1078	818	70	465	85	557	47.5	930
29	1170	1234	900	85	570	110	901	63.5	1100
32	1170	1377	1033	85	570	110	1134	86	1200
36	1321	1576	1205	110	636	150	2147	123	1270
41	1461	1640	1270	110	711	150	2421	184	1470

Pratisaand/04/05

Premium Energy Transmission Limited

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Manufacturing Units : • Unit-I : P. B. No. 5, Chinchwad, Pune - 411 019, India. Tel. : (91-20) 27475141 / 42 / 43 / 44, Fax : (91-20) 27450287, 27476601. • Unit-II : Falta Industrial Growth Centre, Sector-III, Falta, 24 Parganas (South), West Bengal - 743504, India. Tel. : (91-3174) 222231 / 32 / 33 / 37, Fax : (91-3174) 222234. • Unit-III : G-56 / 57, MIDC Industrial Area, Chikalthana, P. B. No. 779, Aurangabad - 431 210, India. Tel. : (91-240) 2485521, 2485856, 2485056, Fax : (91-240) 2485756. • Unit-IV : 31-P, MIDC Industrial Area, Chikalthana, P. B. No. 779, Aurangabad - 431 210, India. Tel. : (91-240) 2482858, 2471298, Fax : (91-240) 2482857.

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