

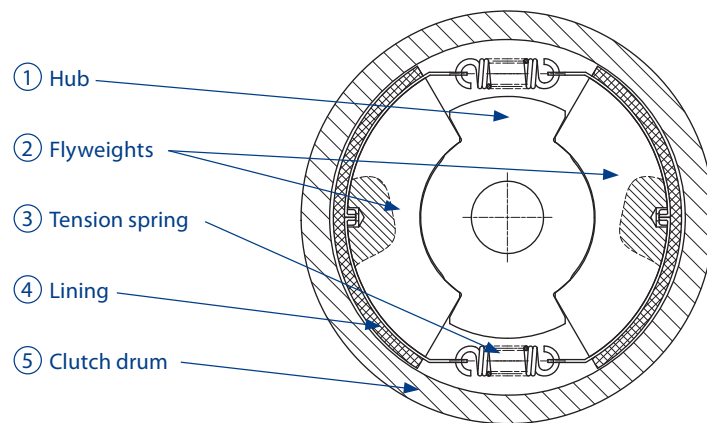
F-Type

Self-increasing clutch

Construction and mode of operation

The flyweights (2) are seated on the profiled hub (1) and are held against it by tension springs (3), which are hooked into the linings (4). Discs locate the flyweights axially. Each lining has a crimping on its inner surface to locate it on the flyweight. This prevents the linings from moving sideways.

As the profiled hub rotates, the centrifugal force acting on the flyweights overcomes the spring force. When the speed is high enough, the linings contact the clutch drum (5), and friction between the linings and the drum allows torque to be transmitted between the two.

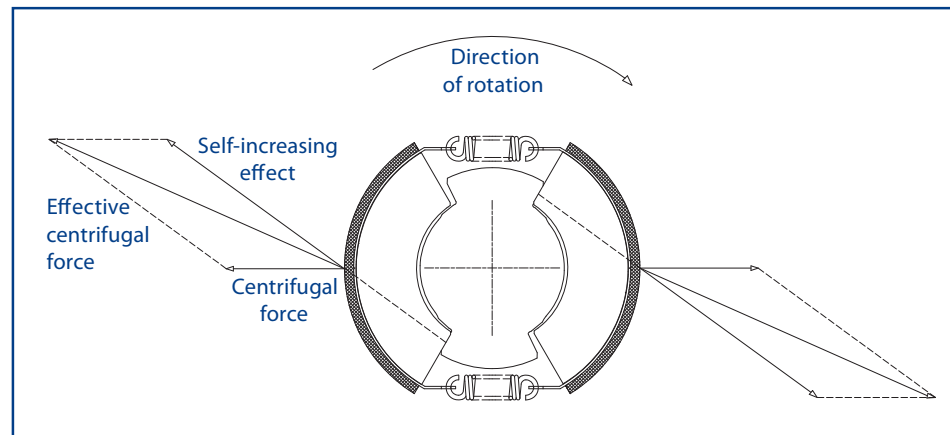


Advantages

The compact design and self-increasing effect allow this clutch to transmit remarkably high torques while needing very little space, resulting in a performance factor of ca. 2.5.

Because the tension springs are easily accessible and the linings removable, the parts subject to wear are easy to replace. Because the linings are not secured to the flyweights, some noise is possible in service, but normally not sufficient to cause a nuisance.

Self-increasing effect: the profiled hub has a special form which causes a wedging effect between the profile and the flyweights when torque is applied to the clutch. This results in an additional force on the linings and allows a higher torque to be transmitted.

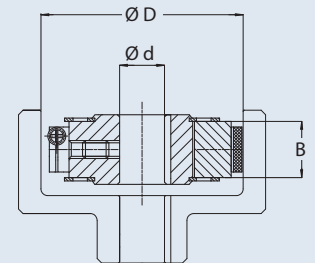


Performance data and dimensions:

Size	D [mm]	B [mm] ¹⁾	d max. [mm]	Standard bore diameter d [mm] (inch) ²⁾	Md at nE 750 and nB 1500 [Nm]	Recommended motor power ³⁾ [kW]	Md at nE 1250 and nB 2500 [Nm]	Recommended motor power ³⁾ [kW]	Md at nE 1500 and nB 3000 [Nm]	Recommended motor power ³⁾ [kW]
01	50	10	14	12			1.3	0.17	2	0.3
02	60	15	18	15 (5/8)			4	0.5	5	0.8
03	70	15	22	15; 20 (7/8)			7	0.9	10	1.6
04	80	15	28	14 - 25 (3/4; 7/8)	4	0.3	11	1.4	16	2.5
05	90	20	35	18; 20; 25 (3/4; 1)	10	0.8	26	3.4	40	6.3
06	100	20	35	20; 24; 28 (3/4; 1)	16	1.3	42	5.5	60	9.4
07	110	20	40	28; 35; 40 (1)	25	2.0	70	9.0	100	15.7
08	125	20	50	25; 38; 49; (3/4; 1)	40	3.2	120	15.7	180	28.3
09	138	25	55	30; 38; 48 (1)	90	7.0	240	31.0	320	50.0
10	150	25	60	38; 48; 49	125	10.0	340	44.5	470	74.0
11	165	30	65	42; 50; 55 (1 7/16)	220	17.2	620	81.0	870	136.0
12	180	40	75	50; 60 (2 3/8)	460	36.0	1200	157.0	1700	267.0
13	200	30	75	35; 55; 65 (2 3/8)	520	41.0	1300	170.0	1850	290.0

- 1) The transmitted power increases as the width B is increased.
- 2) Tapered bores and special dimensions can be manufactured on request.
- 3) Motor power is calculated using a safety factor of 2.
Final selection of the clutch should be carried out by SUCO!

d max.= max. bore dia.
Md = torque
nE = engagement speed
nB = operating speed



d = bore dia.
D = inside dia. of drum
B = flyweight width

Exploded view of F-Type

