



**PREMIUM**



**TYPE FP Sizes 8 to 20**

# PEMBRIL

CONSTANT FILLING FLUID COUPLINGS



## type PFC sizes 8 to 41

The type PFC fluid coupling when used in conjunction with a fixed-speed motor will give the motor a light-load start, provide 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 will allow the motor to run quickly up to speed, where its overload capacity may be used for starting the machine.

Starting or stalling torque may be determined precisely by selection of the initial Oil filling. Further adjustment, to suit drive requirements, may easily be made at site. The type PFC fluid coupling is a compact, rugged unit, the major components being aluminium alloy castings. It comprises the basic fluid coupling, diaphragm input mounting and multidisc, semi-flexible coupling on the output side. Bores and keyways may be finished to suit customer's requirements.

Fusible plugs are fitted to all but the smaller fluid couplings to provide protection against excess temperature rise should the motor overload trip fail to operate during stall or overload conditions. Vertical applications can be catered for in most sizes.

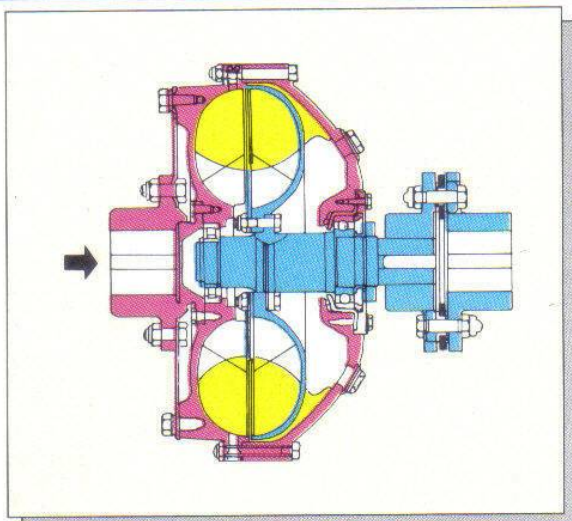
Units are available in sixteen sizes, covering ratings from 0.1 kW to 1000kW. See selection chart overleaf.

Some of typical applications include:-

- ✓ belt conveyors
- ✓ chain conveyors
- ✓ mixers and agitators
- ✓ crushers
- ✓ haulages
- ✓ ball mills
- ✓ cranes
- ✓ barking drums
- ✓ hammer mills
- ✓ rotary dryers
- ✓ centrifuges
- ✓ reciprocating pumps
- ✓ marine transmission
- ✓ winches

# PEMBRIL

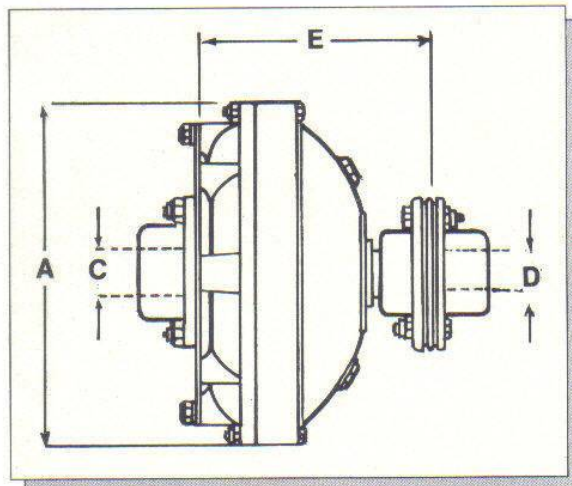
## CONSTANT FILLING FLUID COUPLINGS



**TYPE PFC SELECTION TABLE**

Size	Max. operating kW rating at various motor speeds.			
	580	720	960	1450
8		0.29	0.69	2.36
10.5	0.59	1.13	2.68	9.21
11.5	0.96	1.83	4.35	14.01
12.75	1.64	3.13	7.53	26.10
14.5	3.0	5.67	13.42	46.20
16.25	5.44	10.44	24.76	75.00
17.75	8.13	15.51	37.29	120.00
20	15.73	30.13	75.00	151.00
23	30.00	56.70	130.00	275.00
26	58.20	112.00	210.00	
29	101.00	187.00	340.00	
32	155.00	271.00	420.00	
36	273.00	345.00	725.00	
41	410.00	634.00	1000.00	

The above chart may be used for selecting a type PFC fluid coupling. It shows maximum operating power ratings for approved applications with direct-on started squirrel cage motors, and will allow 200% full load torque for starting. Selections may be different from those shown, for drives having frequent cyclic duty, very high inertia starting, or diesel engine drive, such cases should be referred to Greaves Ltd. Regional Branch / Overseas office or representative who will prepare specific proposals. These rating are also generally suitable for drives employing slip-ring motors; for drives using DC motors consult Greaves Ltd. Allow for 3% to 5% slip in fluid coupling - low to high loadings.



**PFC Dimensions in mm**

Size	PFC Dimensions in mm				Weight	
	A	C	D	E	kg	GD <sup>2</sup>
8	237	42	35	165	13.2	0.246
10.5	308	48	48	210	22.2	0.54
11.5	333	60	60	232	35	0.75
12.75	368	60	60	262	41	1.38
14.5	419	80	70	287	57.6	2.53
16.25	454	80	70	335	74	4.2
17.75	505	85	83	354	106	6.4
20	578	85	83	390	142	11.5
23	660	110	100	457	207	23
26	749	110	100	492	272	38
29	838	130	125	552	358	65
32	914	130	125	587	520	95
36	1032	150	150	626	678	182
41	1162	150	150	660	948	316

Marketed by : **GREAVES LIMITED (Business Group - II Power Transmission)**

Manufactured by

**WESTERN REGION & BRANCHES**  
1, Dr. V.E. Gandhi Marg  
P.B. No. 91,  
Mumbai 400 001

**EASTERN REGION & BRANCHES**  
Thapar House,  
25, Brabourne Road,  
P.B. No. 702,  
Calcutta 700 001.

**NORTHERN REGION & BRANCHES**  
Express Building Annexe,  
9-10 Bahadur Shah Zafar  
Marg, P.B. No. 7024  
New Delhi 110 002

**SOUTHERN REGION & BRANCHES**  
13, Second Line Beach,  
P.B. No. 207,  
Madras 600 001

**OVERSEAS OFFICES:**  
**GREAVES LTD.,**  
101, Cecil Street, 14-10, Tong Eng Building,  
**SINGAPORE 0106**  
Phone : 0065 226 1632, 226 2476  
Fax : 0065 - 2261631  
Tlx : RS 40068 GRVS

**PEMBRIL ENGINEERING PVT. LTD.**  
G 56-57, MIDC Industrial Area, Chikalthana, Aurangabad 431 210  
Phone : 0240 485521  
Tlx : 0745 - 228 PEPL IN  
011 - 85295 PEPL IN  
Fax : (91 - 0240) 485756  
(91-022) 2677765  
Grams : PEMBRIL

Phone : 2671524 / 2674913  
Tlx : 011-85148 GRVS IN  
Fax : 022 - 2652853 / 2652809

Phone : 2421459 / 2423805  
Tlx : 021 - 5055 / 5130  
Fax : 033 - 2424325

Phone : 3317660 (8 lines)  
Tlx : 031 - 632278 GRVS IN  
Fax : 011 - 3317593

Phone : 5231120  
Tlx : 041 - 7003 / 6770  
Fax : 044 - 5224557

**JAMES GREAVES & COMPANY**  
G.P. Box 406, Brazennose House,  
Brazennose Street, Manchester M60 2JA  
**UNITED KINGDOM**  
Phone : 0161 - 834 - 0991 Tlx : 669589 JG CO G  
Fax : 061 - 832 - 0753

- AHMEDABAD
- BHOPAL
- GOA
- NAGPUR

- BHUBANESHWAR
- GUWAHATI
- JAMSHEDPUR
- RANCHI

- CHANDIGARH
- JAIPUR
- LUCKNOW

- BANGALORE
- COCHIN
- COIMBATORE
- HYDERABAD

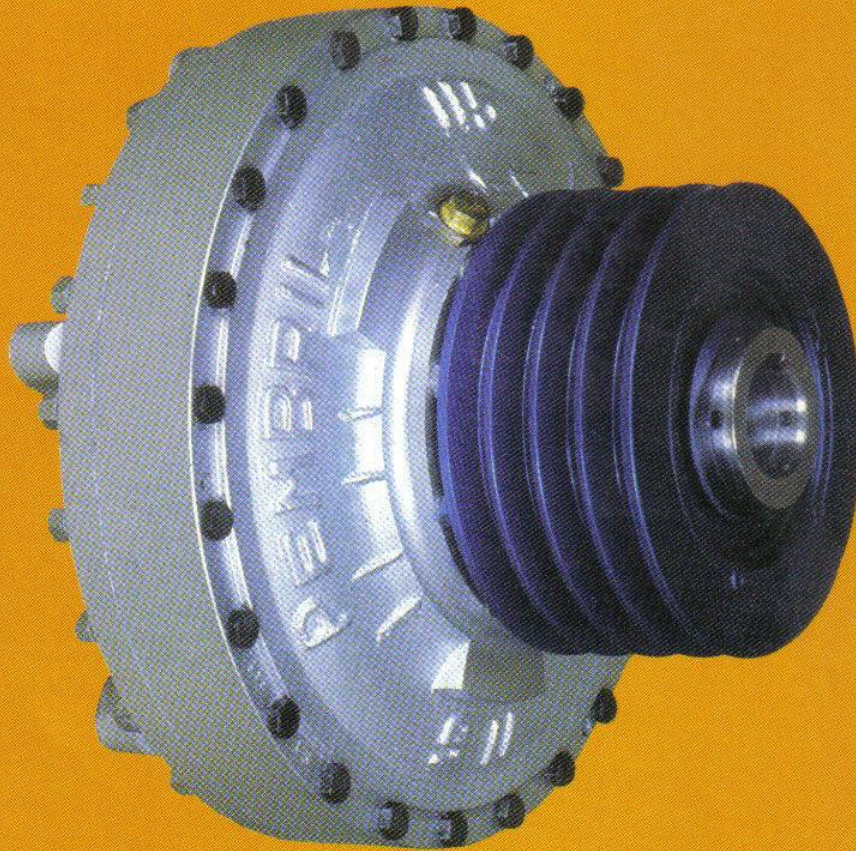


For latest development, please contact works or distributor. Due to continuous development and product improvement, specifications / details are subject to change without notice.



# PEMBRIL

## CONSTANT FILLING FLUID COUPLINGS



## type FP sizes 7 to 17

The type FP fluid coupling is combined with a V-belt pulley which replaces the pulley usually mounted on a motor shaft in a V-belt drive and can be fitted simply and quickly on new or existing drives. It will give a light-load start to a motor, provide smooth controlled acceleration and ensure overload protection for the motor and driven machine.

Using a type FP fluid coupling in place of the standard pulley means it is frequently possible to use a smaller motor, because the fluid coupling allows the motor to run quickly up to speed, where its overload torque may be used to start the driven machine.

Starting or stalling torque may be determined precisely by selection of the initial oil filling. Further adjustment to suit drive requirements may easily be made at site.

Fusible plug are fitted to all but the smallest sizes to provide protection against excess temperature rise should the motor overload trip fail to operate during stalled or overload conditions.

The type FP fluid coupling can be supplied without

the pulley sheave (except sizes 7 and 8) thus allowing the customer to fit his own pulley sheave (or chain sprocket) if required.

Arrangements for vertical shaft mountings are available.

An important feature of the type FP fluid coupling is that there is no need to dismantle the unit before fitting it to the motor shaft; installation is a simple operation, the only lining up necessary is of the V-belts.

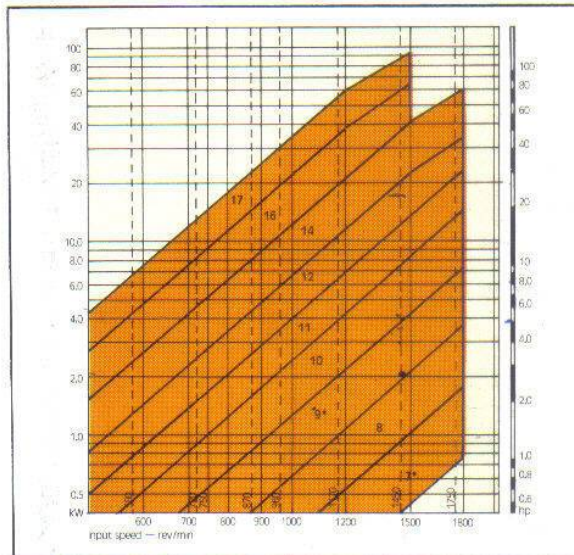
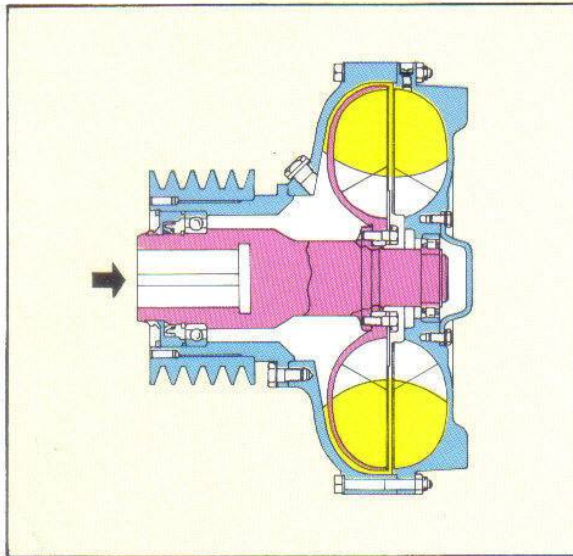
Units are available in nine sizes from 0.1 kW to 93 kW. See selection chart overleaf.

Some typical applications include:—

- belt conveyors
- chain conveyors
- mixers and agitators
- crushers
- haulages
- ball mills
- barking drums
- hammer mills
- centrifuges

# PEMBRIL

## CONSTANT FILLING FLUID COUPLINGS

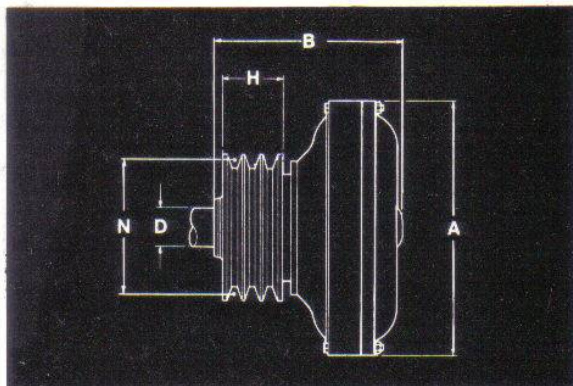


The above chart may be used for selecting a type FP fluid coupling. It shows maximum operating power ratings for approved applications with direct-on started squirrel cage motors, and will allow 200% full load torque for starting. Selections may be different from those shown for drives having frequent cyclic duty, very high inertia starting, or diesel engine drives; such cases should be referred to our representative who will prepare

\*These models are not manufactured at present specific proposals.

These ratings are also generally suitable for drives employing slip-ring motors; for drives using DC motors consult our representative. Allow for 3% to 5% slip in the fluid coupling — low to high loadings.

Couplings to work at higher powers or speeds than those indicated can be supplied.



FP Size	FP Dimensions in mm					Weight kg	No. of Grooves & Section
	A	B	D	H	N		
FP. 7*	211	176	30	36	140	9.5	2-A
FP. 8	237	178	30	36	140	11.3	2-A
FP. 9*	268	192	35	48	152	15.9	2-B
FP.10	308	217	40	67	165	22.7	3-B
FP.11	333	246	48	82	170	31	4-B
FP.12	368	281	60	82	200	44	4-B
FP.14	419	326	60	101	200	59	5-B
FP.16	454	402	80	162	250	92	6-C
FP.17	502	404	80	162	250	108	6-C

\*These models are not manufactured at present

Marketed by : **GREAVES LIMITED** ( Business Group - II Power Transmission )

Manufactured by :

### WESTERN REGION & BRANCHES

1, Dr. V.B. Gandhi Marg,  
P.B. No. 91,  
Bombay - 400 023.

Phone : 271524 / 274913  
Tlx : 011 85148 GRVS IN  
Fax: 022-2652853/2652809

- AHMEDABAD
- BHOPAL
- GOA
- NAGPUR

### EASTERN REGION & BRANCHES

Thapar House,  
25, Brabourne Road,  
P.B. No. 702,  
Calcutta 700 001.

Phone : 2421459/2423805  
Tlx : 021 - 5055 / 5130  
Fax : 033 - 2424325

- BHUBANESHWAR
- GUWAHATI
- JAMSHEDPUR
- RANCHI

### NORTHERN REGION & BRANCHES

Express Building Annexe,  
9-10 Bahadur Shah Zafar  
Marg, P.B. No. 7024  
New Delhi - 110 002

Phone : 3317660 ( 8 lines )  
Tlx : 031-82278 GRVS IN  
Fax : 011-3317593

- CHANDIGARH
- JAIPUR
- LUCKNOW

### SOUTHERN REGION & BRANCHES

13, Second Line Beach,  
P.B. NO.207,  
Madras 600 001.

Phone : 510751  
Tlx : 041-7003 / 6770  
Fax : 044-5224557

- BANGALORE
- COCHIN
- COIMBATORE
- HYDERABAD

### OVERSEAS OFFICES:

**GREAVES LTD.,**  
101, Cecil Street, 14-10, Tong Eng Building,  
SINGAPORE 0106

Phone: 0065 226 1632, 226 2476

Fax : 0065-2261631

Tlx : RS 40068 GRVS

**GREAVES LTD.,**

(Nairobi Representative Office)  
P.O. Box 18307

Nairobi  
KENYA

**JAMES GREAVES & COMPANY**

G.P.Box 406, Brazennose House,  
Brazennose Street, Manchester M60 2JA

UNITED KINGDOM

Phone : 061-834-0991 Tlx : 669589 JG CO G

Fax : 061-832-0755

### PEMBRIL ENGINEERING

**PVT. LTD.**

G 56-57, MIDC Industrial  
Area, Chikalthana,  
Aurangabad 431 210

Phone : 02432 82521

Tlx: 0745-228 PEPL IN

011-85295 PEPL IN

Fax: (91-02432) 82756

(91-022) 277765

Grams: PEMBRIL



For latest development, please contact works or distributor.  
Due to continuous development and product improvement,  
specifications / details are subject to change without notice.

