



**Couplings**  
**Flexible**  
**Bi-Parties**  
**PWB (PCB)**  
**Series**



 **Lamiflex**<sup>®</sup>  
Couplings

*An Altra Industrial Motion Company*

## Couplings Blades

The blades Powerflex flexible couplings are designed for reliable transmission of mechanical force of a driver (turbine, electric motor, etc.) to a driven machine.

Powerflex couplings are especially suitable for applications such as centrifugal pumps, compressors, fans, generators, cooling towers, machine tools, paper machines and printing.

Floppy disks are manufactured with stainless steel as well as excellent corrosion resistance and flexibility to allow accommodate angular misalignment up to  $1/2^\circ$ , ensuring that the reaction forces in the bearings of equipment are minimized. The coupling requires no lubrication and is virtually free of periodic maintenance. Properly installed and aligned, couplings blades are designed to provide infinite lifetime.

The units are flexible self-centering devices requiring no special limitation shaft axial float. The units are supplied as a unified set including all blades and attachment parts (screws, nuts etc.), reducing the number of loose parts and simplifying installation and replacement.

Powerflex couplings blades are available in a much larger range of sizes and styles for most applications. On request some special applications can be designed to meet specific requirements.



### Advantages of Powerflex Coupling Blades

- Lubrication free
- High reliability
- Reduced maintenance
- No mechanical wear pieces
- Without looseness?
- Operates at high temperatures
- Flexible units designed for infinite life
- Easy visual inspection
- High level of inherent balancing
- Corrosion protection with phosphate
- High resistance 300 Series flexible units manufactured in stainless steel

## Series PWE

### Acoplamentos with spacer benefits of bi-party

- Replacement of lubricated gear couplings and grade without alteration of the bases of the machines.
- Simplifies maintenance and inspection of the coupling.
- Visual inspection without disassembling the coupling.
- Reduz o tempo de alinhamento.
- Reduces the time alignment
- Balancing Manufactures

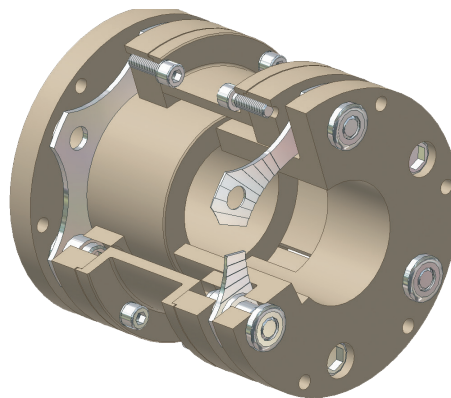
AGMA Class 8

Other options available for dynamic balancing:

- AGMA Class 9;
- ISO G6, 3;
- according to API 610

## Presentation of couplings PWB (PCB)

### Spacer Bi-Party



The PWB is constructed with coupling units flexible blade. This coupling has the spacer with a two-start construction, so that maintenance is possible and inspeçãodo

Coupling is done without the need for removal and misalignment of the driven equipment.

This construction is especially recommended in the equipment which do not have spacing between the shaft ends.

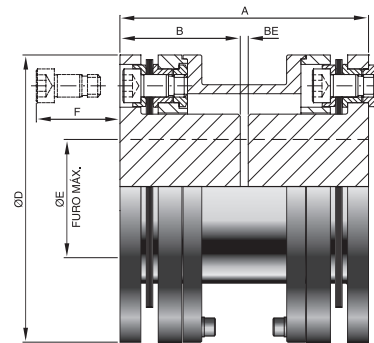
The Bi-Party Spacer is positioned with a safety guide, which increases levels of dynamic balancing.

### Applications:

- Engines
- Reducers
- Fans
- Compressors
- Pumps

## Table Interchangeability (in mm)

Falk* G20 / G10			Powerflex PWB		
Size	Maximum Hole (mm)	Rating HP/ 1000rpm	Size	Maximum Hole (mm)	Rating HP/ 1000rpm
1010G	50	160	PWB 18	28	18
1010G	50	160	PWB 45	35	45
1010G	50	160	PWB 100	45	100
1015G	65	330	PWB 180	61	180
1020G	78	600	PWB 310	76	310
1020G	78	600	PWB 480	83	480
1020G	78	600	PWB 680	95	680
1025G	98	1050	PWB 1000	105	1000
1030G	111	1700	PWB 1200	117	1200
1035G	134	2600	PWB 2000	127	2000
1040G	160	4300	PWB 4000	154	4000
1045G	183	5900	PWB 5500	180	5500
1050G	200	7950	PWB 8000	196	8000
1055G	220	10390	PWB 12000	230	12000
1060G	244	12700	PWB 16000	252	16000
1070G	289	18960	PWB 20000	272	20000



**Notes:**

1. The maximum bore "E" is based on rectangular braces according to DIN 6885.

**Remarks:**

- The unit supply includes: 1 unit of blades and fasteners (screws, bolts and dowels). - For holes and finished keyway consult factory.
- Proper installation and alignment of couplings are essential for a performance of the machines.
- In assembly it's recommended that the initial alignment values not exceeding 10% of the values

## Technical Data and Dimension (in mm)

MODEL	TORQUE	ROTATION	DIMENSIONS (mm)						Misalignment	
	HP/1000 rpm	max. rpm	A	B	BE	D	E	F	Axial (mm)	Radial (mm)
					STD.		Max Hole			
PWB-18	18	7000	85	41	3	106	28	27	1	0.5
PWB-45	45	6500	101	49	3	127	35	33	1	0.6
PWB-100	100	6000	143	70	3	128	45	51	1.5	0.9
PWB-180	180	5400	171	84	3	153	61	54	1.5	1.1
PWB-310	310	5000	191	93	5	180	76	68	2.5	1.2
PWB-480	480	4800	199	97	5	204	83	71	2.5	1.3
PWB-680	680	4500	217	105	7	228	95	75	3.3	1.4
PWB-1000	1000	4200	221	107	7	255	105	98	3.8	1.5
PWB-1200	1200	4000	248	120	8	278	117	101	4.3	1.7
PWB-2000	2000	3800	266	129	8	304	127	109	5	1.8
PWB-4000	4000	3800	330	160	10	350	154	108	4	2.3
PWB-5500	5500	3500	361	175	11	390	180	112	4.4	2.5
PWB-8000	8000	3000	413	200	13	437	196	142	5	2.8
PWB-12000	12000	2900	467	227	13	494	230	152	6	3.2
PWB-16000	16000	2300	541	263	15	548	252	173	6.8	3.7
PWB-20000	20000	2000	539	262	15	581	272	179	7.5	3.6

Maximum shown in the table below.

## Table Factors Service:

Application	Proposed Service Factor
Agitators	1.3
Centrifugal Pumps	1.0
Zone Pumps, Lobe	1.5
Reciprocating Pumps	2.0
Centrifugal Blowers	1.0
Lobe Blowers	1.5
Centrifugal Compressors	1.0
Reciprocating Compressors	2.0
Screw Compressors	1.5
Centrifugal Fans	1.0
Fans for Cooling Towers	1.5
Generators	1.0
Calenders and Roller Presses	2.0
Cylinders Dryers	1.75
Rewinders	2.0
Light Carriers	1.5
Truck Transporters	1.75

## Selection Procedure:

- Determine the service factor suitable for the application using the Table of Factors of Service below.
- Determine the rating HP/1000 rpm using the formula: Power = Hp/1000rpm HP x Service Factor x 1000 RPM
- Select Data Table if the Technical coupling has a rating equal to or greater than that calculated above.
- Check if the maximum bore of the coupling chosen is equal to or greater than the diameters of the axes of the equipment. Otherwise, choose a larger size coupling.
- Check that the total length and outer diameter of the coupling and ensure that it will not interfere with the protective pipes and other equipment rentals.
- Check that the maximum speed capabilities of the selected couples treatment.
- Confirm that the BE (wheelbase) Tech Data Table nicos is compatible with the installed equipment.



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Lamiflex do Brasil Equipamentos Industriais S.A.  
Rua Sasaki, 217  
São Paulo, SP - 04403-000 - Brasil  
t: (11) 5679-6553 • f: (11) 5679-7735