

PINOFLEX - NP



GENERALITIES

The PINOFLEX elastic couplings are usually “two shaft ends” assembly, but may be used cube/flange type for direct application on the steering-wheels of internal combustion engines. Its flexibility allows the absorption of inevitable radial, axial, and angular misalignments in the assembly between the steering-wheel and the axle. The maximum admissible misalignment values are mentioned in table on page 3.

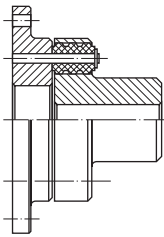
absorb shocks and vibrations from driving and driven machines, protecting them from charge peaks.

Due to its constructive characteristics and moderate torsional elasticity, they are especially indicated for utilization in operate pumps, compressors, and generating groups set by internal combustion engines.

PINOFLEX, with its “torsional elasticity”, is capable to partially

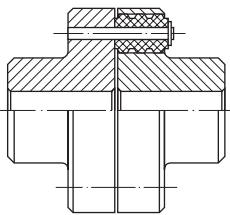
Designs

Design 01



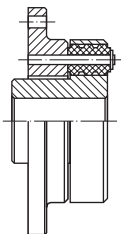
Basic design, constituted by a flange according to SAE J620d Norm for connection to the engine's driver, a cube for connection to the motor axle and elastic elements in synthetic rubber resistant to oils, grease and operating temperatures up to 90oC.

Design 02



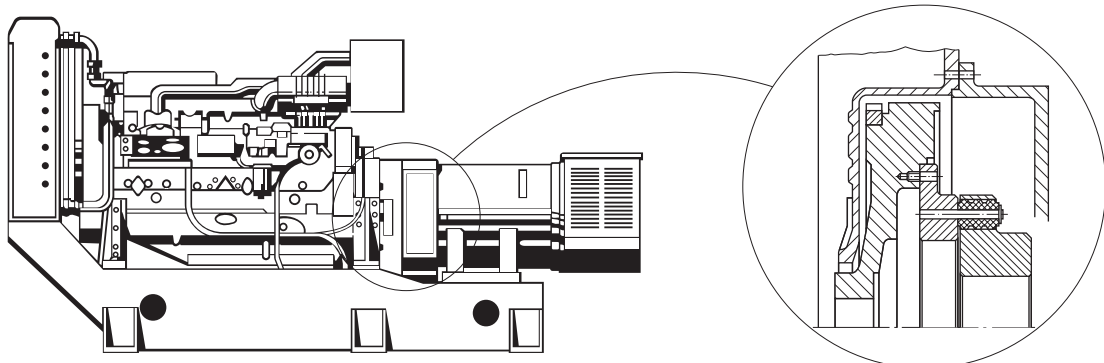
Design constituted by two cubes for axle / axle connection and elastic elements in synthetic rubber resistant to oils, grease and operating temperatures up to 90oC.

Design 03



Design derivative from the basic form 01, with the cube assembled in the inverted way, which allows reducing the axial space in the assembly.

EXAMPLE OF ASSEMBLY IN THE GENERATING GROUP



ADVANTAGES

- Constructive simplicity
- Reliability
- Available in 7 different sizes
- Facility to change the elements

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SELECTION PROCEDURE

To select the correct coupling it is necessary to take into account the torque of the driving machine and the irregularity degree of the system, as well as the magnitude of the masses to be

accelerated. To determine the appropriate size it is necessary to multiply the service factors below by the nominal torque of the driving machine, which will appoint the equivalent torque (Meq). The

nominal torque (Mnom) of the selected coupling shall be higher or equal to the equivalent torque.

$$Meq = \frac{C \times N \times Fs}{n}$$

Meq = equivalent torque (Nm)
 N = power of the driving machine (kW/ HP)
 n = coupling working speed (rpm)
 Fs = F1 x F2 x F3 x F4 = service factor
 Mnom = coupling nominal torque (Nm)
 C = constant: $\begin{cases} 9550 \text{ for power in kW} \\ 7030 \text{ for power in HP} \end{cases}$

FOR SELECTING A COUPLING: $Mnom \geq Meq$

DRIVING MACHINE:					Combustion engines with 1-3 cylinders							
					Combustion engines with 4 or more cylinders							
DRIVEN MACHINES					Service Factor - "F1"							
a) Regular operation and small masses that have to be accelerated: - Centrifugal pumps for liquid goods, generators, fans $N/n \leq 0,05$, gear reducer units, shaffing					1.5	1.8	2.1					
b) Regular operation and smaller masses that have to be accelerated: - Plate bending machines, elevators, exhausters, belt conveyors for buk materials,stimers, liquid goods, light textile machines, turboblowers and compressors fans $N/n= 05,05$ to $0,1$, machine tools with rotating motion					1.6	2.0	2.3					
c) Irregular operation and medium masses that have to be accelerated: - Surface planing and thickening machines, rotaty pistons blowers, rotary furnaces, printing and dying machines, belt conveyors for piece goods, hauling drums, generators, coilers, wood working machines, centrifugal pumps for semi-liquid goods, coolin drums, freight elevators, mixers, shredders, ring straightening machines, stirrers for semi-liquid goods, grinding machines, shahing screens, fans, $N/n \leq 0,1$, winches					1.7	2.2	2.5					
d)Irregular operation and medium masses that have to be accelerated and additionnal impact loads: - concrete mixers, threshing machines, drop hammers, mine fans, planing machines for metal, hollanders, endless chain transporters, kneading machines, reciprocating pumps and compressors with degree of irregularity 1:100 to 1:200, cranes, ball mills, milling courses, mills, passenger elevators, ateel plate conveyors, press, axial-flow pumps, pipemills, tumbling barrels, light roller tables, shafts, centrifugal mills, cable winches, drying drums and drying kilns, cylinder mills, washing machines, looms, centrifugal machines.					1.9	2.5	2.8					
e) Irregular operation and large masses that have to be accelerated and especially strong additional impact loads: - Escavators, lead rolling mills, wire pulls, rubber rolling machines, swing-hammer mills, hammers, pulp grinders, calendars, reciprocating pums with light					2.1	2.8	3.1					
f) Irregular operation and very large masses that have to be accelerated and especially strong additional impact loads: - Horizontal saw frames, piston compressors and reciprocating pumps without fy wheel, heavy roller tables, welding generators, stone breakers, multiple blade frame saws, rolling mills for metal, brick molding presses					2.4	3.0	3.5					
g) Other equipments					Upon inquiry							
DAILY SERVICE LIFE (hours)	over till	-	8	16	STARTINGS PER HOUR	01	11	21	41	81	over	
		8	16	24		10	20	40	80	160	160	
FACTOR - "F2"		1.0	1.07	1.10	MODE OF OPERATION ACC. TO A.M. TABLE FOR FACTORS F1	FACTOR - "F4"						
						a)	1	1.10	1.20	1.25	1.40	1.50
						b)	1	1.10	1.15	1.20	1.35	1.40
						c)	1	1.07	1.15	1.20	1.30	1.40
						d)	1	1.07	1.12	1.15	1.20	1.30
						e)	1	1.05	1.12	1.15	1.20	1.30
						f)	1	1.05	1.10	1.12	1.12	1.12
FACTOR - "F3"		1.0	1.2	*	g)	Upon inquiry						
AMBIENT TEMPERATURE (°C)		over till	-	75	85							
		75	85	-								

* Upon Inquiry

We reserve the right to perform technical changes without prior notice.

Remarks:

PINOFLEX

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