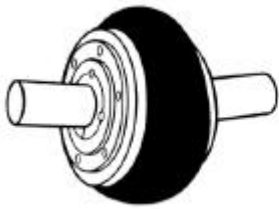


PNEUMABLOC® ELASTIC COUPLINGS

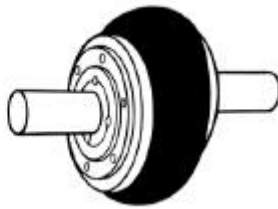
GENERAL CHARACTERISTICS

TECHNICAL DATA SHEET
84001 - 1/2 - 08/97

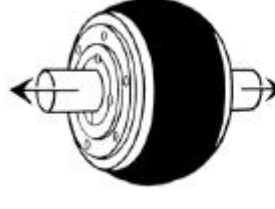
Applications : The PNEUMABLOC® couplings are used to solve :



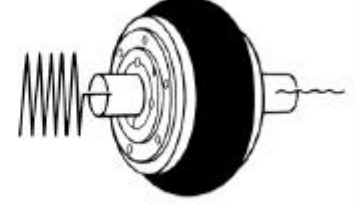
Angular misalignment
4° max



Radial misalignment
3 mm max



Axial displacement
8 mm max



Dampens vibrations

General characteristics

- The flexible element can be changed without disturbing the flanges
- The standard flexible part is made of natural rubber → Use temperature range : - 42 °C to + 82 °C
- Instead of the standard element, a neoprene element can be supplied → Use temperature range : - 40 °C to + 100 °C
- Upto size 120, the mechanical parts are made of steel coating with zinc and bichromate
- From size 140, the mechanical parts are made of FGL 250 cast iron painted black
- PV type : VECOBLOC® removal bush - PP type : prebored bush - PVP type : combination possibility of PP and PV type

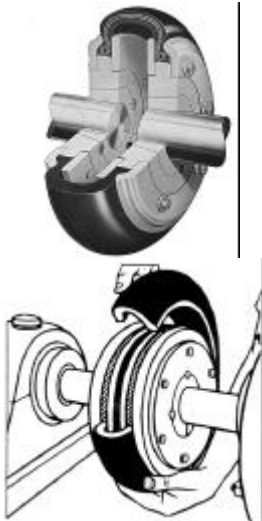
Apparatus selection :

- Calculation of the power at 100 rpm (under 100 rpm, the determination is based on the nominal torque)
- Calculation of the service factor using the table below

Load type	Driven machines	1,0	1,5	2,0
Light duty	Agitators - Conveyors - Centrifugal compressors - Dynamometers - Air filter - Generators - Shafts lines - Centrifugal pumps - Centrifugal fans	1,0	1,5	2,0
Medium duty	Agitators - Lifting material - Overshot elevator - Textile machinery - Machine tools - Wood working machinery - Mixers - Gyrotory pumps - Printing presses - Hoist - Mining fans	1,5	2,0	2,5
High duty	Lifting material - Hammer mills - Crushers - Rotative compressors - Dredgers - Calenders - Gyrotory furnaces - Brick machinery - Cutting presses	2,0	2,5	3,0
High inertia Shocks Torque inversion Rotation inversion	Gyrotory crushers - Alternative conveyors - Vibrating screens - Alternative compressors - Rubber calenders - Mills - Alternative pumps	2,5	3,0	3,5

- Apparatus selection taking account of the technical characteristics (see table below)
- **Example :** Coupling between a diesel engine 4 cyl. 45 kW 1500 rpm ($\varnothing_{\text{shaft}}60$) and a centrifugal fan ($\varnothing_{\text{shaft}}55$)
 - 1) power at 100 rpm : $45 \times 100 / 1500 = 3 \text{ kW}$
 - 2) service factor : 1,5
 - 3) selection of a size 90 (transferable power for a 1,5 service factor : 3,38 kW - max. speed : 2800 rpm - max. bore : $\varnothing 65$ for PV type $\varnothing 70$ for PP type)

Technical characteristics :



Size	Nominal torque Nm	Max. speed rpm	Transferable power (kW at 100tr/mn) according to the service factor						Static torsion rigidity coefficient* Nm°	Inertia moment J kgm²	Weight** kg	
			Service factor								Tyre	PV Flange
			1	1,5	2	2,5	3	3,5				
40	30	4500	0.31	0.21	0.16	0.13	0.10	0.088	6	0.0016	0.1	0.65
50	104	4500	1.05	0.70	0.525	0.42	0.35	0.30	25.7	0.0037	0.25	1
60	180	4000	1.82	1.22	0.91	0.73	0.61	0.52	47.6	0.011	0.45	1.65
70	253	3600	2.56	1.71	1.28	1.03	0.85	0.73	62.5	0.0156	0.59	2.36
80	414	3100	4.19	2.80	2.10	1.68	1.40	1.20	100	0.038	0.77	3.31
90	500	2800	5.07	3.38	2.53	2.02	1.69	1.45	125	0.0675	0.91	4.63
100	650	2600	6.58	4.39	3.29	2.63	2.19	1.88	176	0.114	0.91	6.76
110	891	2300	9.02	6.02	4.51	3.61	3.00	2.58	278	0.193	1.36	9.75
120	1442	2100	14.60	9.74	7.30	5.84	4.87	4.17	465	0.343	1.73	13.07
140	2880	1840	29.15	19.43	14.57	11.66	9.72	8.33	954	0.97	2.04	20.03
160	4347	1560	44.11	29.41	22.05	17.64	14.70	12.60	1380	1.75	3.95	44.91
200	9487	1300	96.00	64.00	48.00	38.40	32.00	27.43	3330	5.25	8.16	78.92
240	17390	1080	176.5	117.54	88.23	70.58	58.82	50.42	5520	12.01	12.25	128.8

- ★ Values approximate by $\pm 20\%$. For dynamic torsion rigidity, multiply these values by 1,2.
- ★★ To obtain the total weight, add the weight of two plates and one tyre
- ★★★ To obtain the maximal torque, multiply by 2,5 the nominal torque

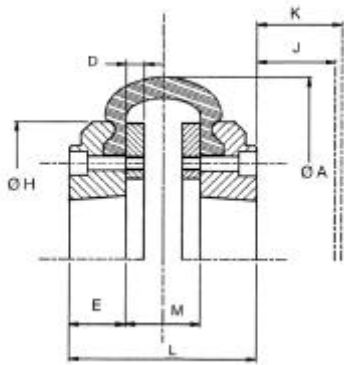
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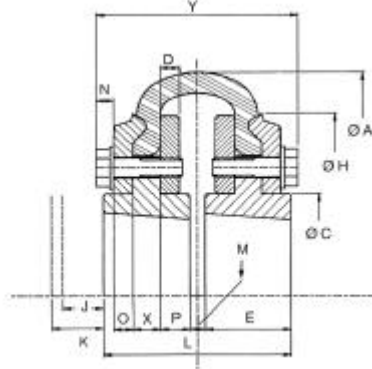
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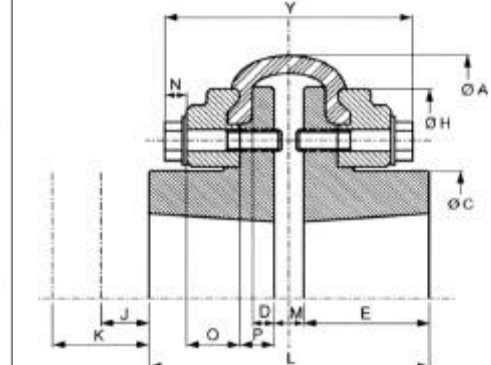
Dimensional features of the PV type PNEUMABLOC® couplings



PV 40 to PV 60
(FF type)*



PV 70 to PV 120
(HF type)*



PV 140 to PV 240
(HH type)*

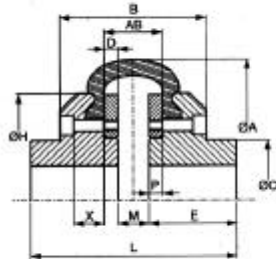
* PNEUMABLOC® couplings size PV 40 to PV 240 can be supplied according to the three FF, HF or HH assembly types (state when ordering).
From size PV70 to PV120, the symmetrical flanges allow the three different assembly types from the same parts.

Size	bush	VECO.	Ø A	Ø C	Ø H	J	K	E	O	D	M	P	L	N	Y	X
PV 40	1108	28.20	105	-	82	25	29	20	8	-	22,1	-	62,1	-	-	-
PV 50	1210	30.25	133	-	100	35	38	25	8	-	25,1	-	75,1	-	-	-
PV 60	1610	40.25	165	-	124,5	35	38	25	8	-	33,1	-	83,1	-	-	-
PV 70	1610	40.25	187	81	145	21	27	25	8	8	24,3	6,9	74,3	7	90,5	11,2
PV 80	2012	50.30	213	99,2	168	24	35	30	8	8	21,5	8,3	81,5	7	94,9	13,4
PV 90	2517	65.45	235	105,75	191	26	42	45	10	10	8,1	15,4	98,1	9	105,3	14,2
PV100	2517	65.45	254	126,3	217	26	42	45	10	10	12,6	15,5	102,6	9	109,6	14
PV110	2517	65.45	279	140	234	26	42	45	12	12	11,9	13,9	101,9	9	115,9	17,1
PV120	3020	75.50	315	155	264	30	53	50	16	12	12,25	16,1	112,25	10,5	125,05	17,8
PV140	3535	90.90	359	190	310,5	34	69	90	38	16	20,4	25	200,4	13	172,4	-
PV160	4040	100.100	422	219	358	42	86	100	45	19	30,26	30,9	230,26	13	208,06	-
PV200	4545	115.115	508	260	428,6	50	103	115	54	25,5	33,14	43,2	263,14	13	253,54	-
PV240	5050	125.125	613	292	527	59	123	125	54	25,5	48,2	44,95	298,2	16	278,1	-

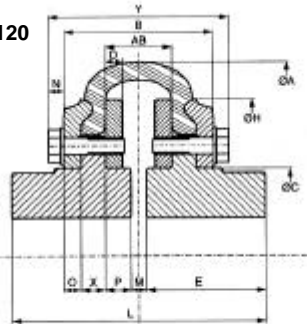
The normal distance between shafts equals the M dimension. This can be reduced, but in no case should the shafts touch each other when in use.
The J dimension is the necessary distance to tighten the taper bush screws with a short key.
The K dimension is the necessary distance to loosen the taper bush.

Dimensional features of the P.P. type PNEUMABLOC® couplings

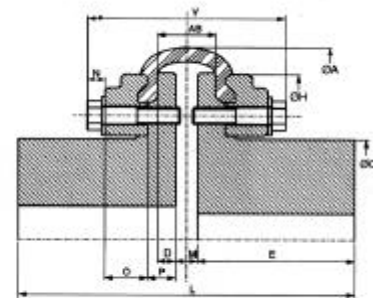
Size 40 to 60



Size 70 to 120



Size 140 to 240



Size	Max bore	Ø A	B	Ø C	E	Ø H	L	M	N	O	P	D	X	Y	AB
40	0 to 30	105	62,1	70	38	82	86,1	10,1	-	8	6	8	10	-	22,1
50	0 to 38	133	75,1	79	40	100	93,1	13,1	-	8	6	8	15	-	25,1
60	0 to 45	165	83,1	70	50	124,5	117,1	17,1	-	8	8	8	17	-	33,1
70	15 to 50	187	76,5	81	56	145	134,3	24,3	7	8	6,9	8	11,2	90,5	38,1
80	15 to 60	213	80,9	99,2	65	168	151,5	21,5	7	8	8,3	8	13,4	94,9	38,1
90	20 to 70	235	87,3	105,75	70	191	148,1	8,1	9	10	15,4	10	14,2	105,3	38,9
100	25 to 80	254	91,6	126,3	85	217	182,6	12,6	9	10	15,5	10	14	109,6	43,6
110	25 to 90	279	97,9	140	100	234	211,9	11,9	9	12	13,9	12	17,1	115,9	40
120	25 to 100	315	104,05	155	110	264	232,25	12,25	10,5	16	16,1	12	17,8	125,05	44,45
140	35 to 120	359	-	190	140	310,5	300,4	20,4	13	38	25	16	-	172,4	52,4
160	40 to 130	422	-	219	190	358	410,26	30,26	13	45	30,9	19	-	208,06	68,26
200	65 to 175	508	-	260	230	429,6	493,14	33,14	13	54	43,2	25,5	-	253,54	84,14
240	65 to 225	613	-	292	250	597	548,2	48,2	16	54	44,95	25,5	-	278,1	99,2

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