

Electromechanical products

Poulibloc 2000

General



Poulibloc 2000 geared motors with parallel gears are used to adapt the speed of the electric motor to that of the driven machine. Their size is therefore determined by the motor power (P) expressed in kilowatts (kW) and by the output rotation speed of the gearbox output (n_s) in revolutions per minute (min^{-1}). The main characteristic of the speed reducers is the rated output torque (M_{nS}) expressed in Newton-metres (N.m)

$$M_{nS} = \frac{P \times 9550}{n_s} \times \text{efficiency}^1$$

1. η gearbox η belt-pulley.

- A range of eight sizes for the Pb 2000 series : 20, 21, 22, 23, 24, 25, 26, 27. Rated output torque : from 100 N.m to 13 000 N.m. Power ratings : from 0.25 to 55 kW. Reduction ratios : from 3 to 25. From one to two reduction stages. High efficiency : 96 % to 98 %.
- Reversible.
- A range of three sizes for the Pb 3000 series : 30, 31, 32, lubricated with grease. Nominal output torque up to 820 N.m.
- A range of three sizes for the Pb 3000 series : 31, 32, 33, lubricated with oil. Nominal output torque up to 1100 N.m.

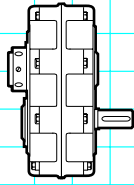
Construction

Description of Poulibloc (Pb) gearboxes

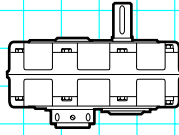
Component	Material	Remarks
Housing	Cast iron	- use of FGL cast iron (flake graphite : 150 MPa on breaking) single component perlite to ensure unit is fully sealed - monobloc ribbed with internal reinforcements to absorb vibration and noise, and increase its rigidity - they are compact and meet industrial requirements
Gears	Steel and C 45	- cut by the gear hob, they are heat treated and then undergo final machining. The quality and precision of the gear cutting allow maximum torque with minimum noise
Shaft	Steel	- grinding of sealing surfaces - cylindrical hole with key in accordance with DIN 6883 (high version) for Pb 2000 version or with taper bush and tightening key - tolerance of diameters in accordance with IEC 72 - 1 (DIN 748)
Lipseals	Acrylonitrile	-antidust lipseals in accordance with DIN 3760 form AS
Torque bracket	Steel	- can be turned in three positions when fixing the belt tension arm - delivered with Poulibloc 2000
Lubrication	Oil Grease	- in accordance with ISO 6743 / 6 - For Pb 2000 : delivered without oil, fill in accordance with the operating position. It is fitted with drain, level and vent plugs - For Pbh 31 to Pbh 33 delivered without oil, fill in accordance with the operating position. It is fitted with drain, level and vent plugs - For Pb 30 to Pb 32 delivered lubricated for 10,000 operating hours.
Mounting		- AP : gearbox with input shaft - AP with seat : geared motor with foot mounted motor on a motor seat for Pb 2000
Standard motor		LS : multi-voltage 220/380 V - 230/400 V - 240/415 V - IP 55 standard protection
Cast iron motors		FLS : induction motor with cast iron body IP 55 protection
Other motors		MS-MF : DC motor IP 23 - IP 55 from 0.06 to 18.5 kW LSK : DC motor, power rating from 1.2 to 55 kW MV : induction motor optimized for speed modulation
Finish	Paint	Shade : RAL 6000 (green), system I (1 polyurethane vinyl layer of 25/30 μm)

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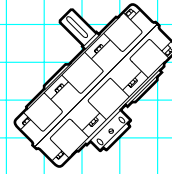
Mounting positions



Horizontal shaft

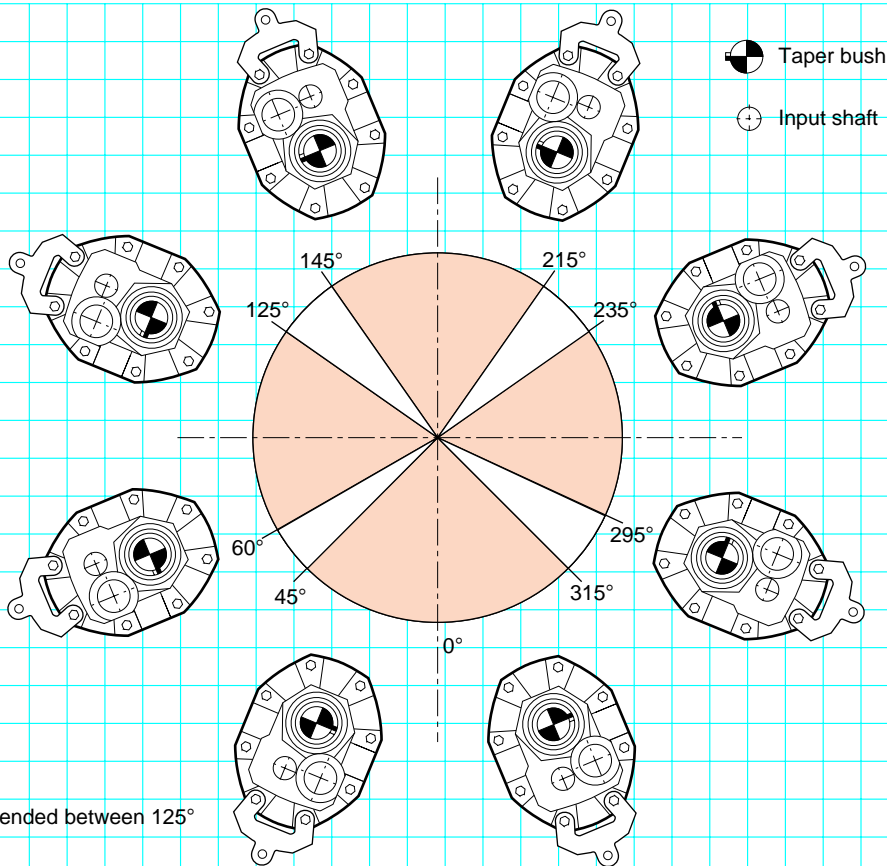


Vertical shaft



Other positions : see below

Limits to mounting arrangements

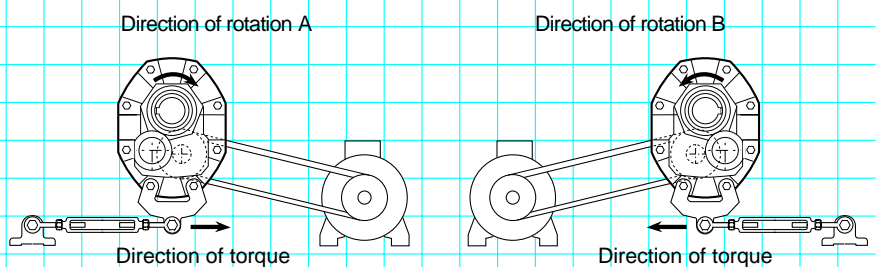
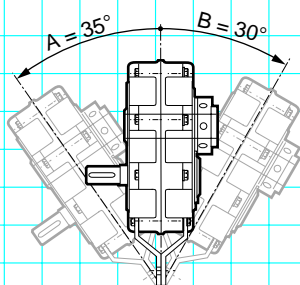


Backstop not recommended between 125° and 235°

To ensure correct operation and full lubrication, mount the mechanism within the limits of the coloured zones.

Limits to mounting arrangements

Torque arm positions



When the gearbox is in position 0°,
the maximum permissible inclination is :
A = 35° and B = 30°

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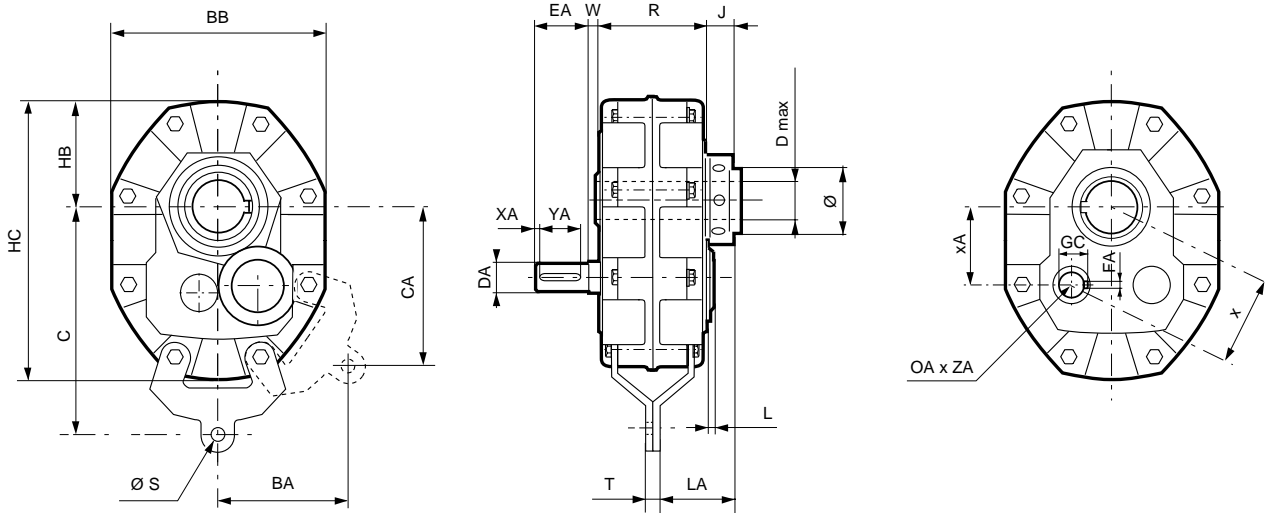
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Dimensions

Dimensions of Poulibloc (Pb) gearboxes, Pb 2005 to Pb 2625

Dimensions in millimetres

- With mounting bracket and B taper bush



Type	Gearboxes															Weight kg	
	BA	BB	C	CA	D	HB	HC	J	L	LA	R	S	T	x	xA		Ø
Pb 26--	247	410	439	307	100	191	522	59	23	155	238	17	20	192	172	135	158
Pb 25--	212	357	378	264	85	165	452	50	24	135	210	17	16	164	148	108	106
Pb 24--	191	315	332	233	75	146	395	38	26	123	170	16	10	145	132	97	68
Pb 23--	156	284	290	204	60	133	361	36	21	106	147	16	10	126	112	80	52
Pb 22--	139	252	260	177	55	118	320	36	25	99	131	16	10	107	96	68	32
Pb 21--	130	214	227	157	50	100	269	36	17	91	120	16	10	92	84	64	24
Pb 20--	112	198	210	140	40	90	245	30	12	84	109	16	10	85	77	52	19

Type	Input shaft								
	DA	EA	FA	GC	XA	YA	OA	ZA	W
Pb 2612 to 2625	55	120	16	59	5	105	M16	36	6
Pb 2605	48	120	14	51.5	3	112	M16	36	6
Pb 2512 to 2525	50	110	14	53.5	5	100	M16	36	13
Pb 2505	38	80	10	41	5	70	M12	26	13
Pb 24--	50	110	14	53.5	5	100	M16	36	8.5
Pb 23--	35	80	10	38	3	72	M12	26	4
Pb 22--	32	80	10	35	4	72	M10	22	9
Pb 21--	28	60	8	31	6	48	M10	22	3
Pb 20--	24	60	8	27.5	6	48	M8	19	4

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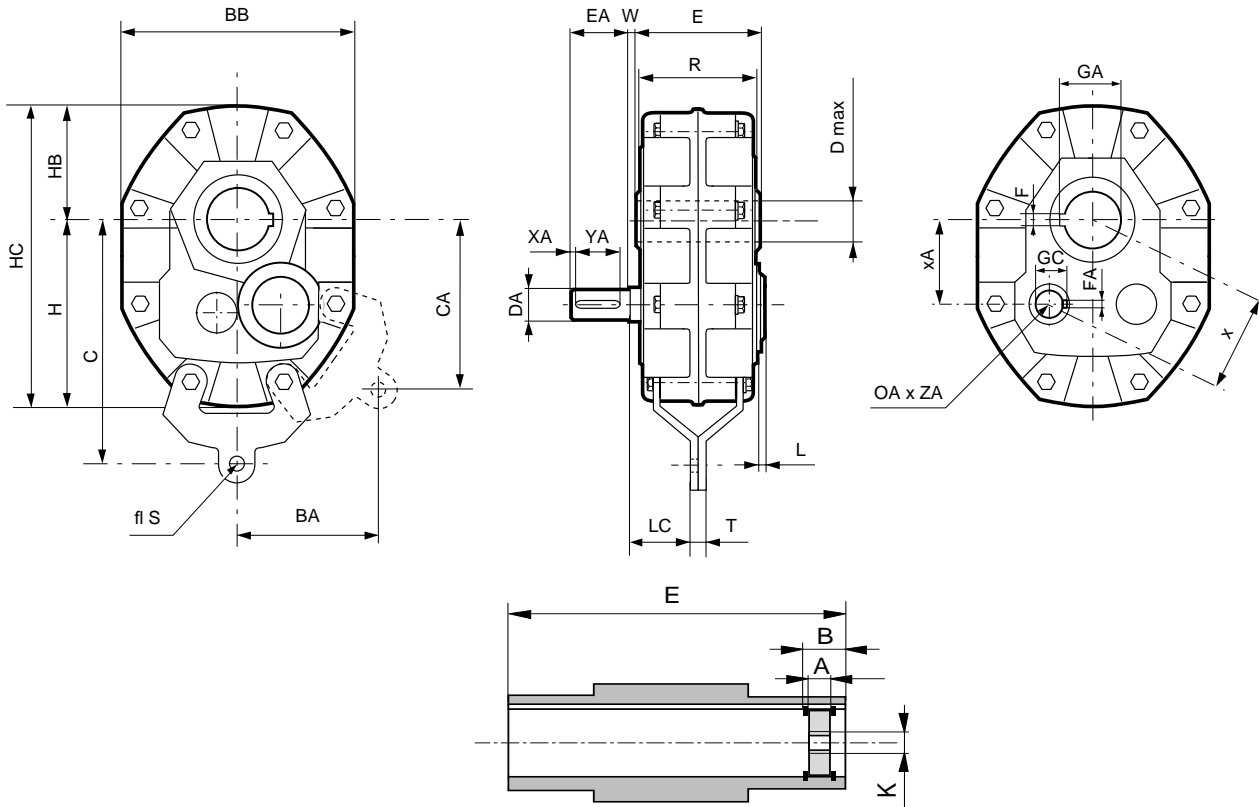
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Dimensions

Dimensions of Poulibloc (Pb) gearboxes, Pb 2005 to Pb 2625

Dimensions in millimetres

- With mounting bracket and hollow cylindrical shaft



Type	Gearboxes														Weight kg
	BA	BB	C	CA	H	HB	HC	L	LC	R	S	T	x	xA	
Pb 26--	245	410	439	306	331	191	522	23	130	238	17	20	192	172	158
Pb 25--	212	357	378	264	287	165	452	24	115	210	17	16	164	148	106
Pb 24--	191	315	332	233	249	146	395	26	83	170	16	12	145	132	68
Pb 23--	156	284	290	204	228	133	361	21	71	147	16	10	126	112	52
Pb 22--	139	252	260	177	202	118	320	25	69	131	16	10	107	96	32
Pb 21--	123	214	227	153	169	100	269	17	62	120	16	10	92	84	24
Pb 20--	112	198	210	140	155	90	245	12	52	109	16	10	85	77	19

Type	Input shaft								
	DA	EA	FA	GC	XA	YA	OA	ZA	W
Pb 2612 to 2625	55	110	16	59	5	105	M16	36	4
Pb 2605	48	110	14	51.5	3	112	M16	36	4
Pb 2512 to 2525	50	110	14	53.5	5	100	M16	36	2
Pb 2505	38	80	10	41	5	70	M12	26	2
Pb 24--	50	110	14	53.5	5	100	M16	36	6.5
Pb 23--	35	80	10	38	3	72	M12	26	1.5
Pb 22--	32	80	10	35	4	72	M10	22	5.5
Pb 21--	28	60	8	31	6	48	M10	22	5,5
Pb 20--	24	60	8	275	6	48	M8	19	1,5

Type	Hollow output shaft						
	DH7	E	F	GA	A	B	K
Pb 26--	100	268	28	106	24	41	M30
Pb 25--	85	217	22	90	19	33	M30
Pb 24--	70	175	20	75	15	26	M30
Pb 23--	60	152	18	64	15	24	M24
Pb 22--	55	136	16	59	13	22	M24
Pb 21--	45	125	14	49	12	21	M20
Pb 20--	38	114	10	41	10	18	M16

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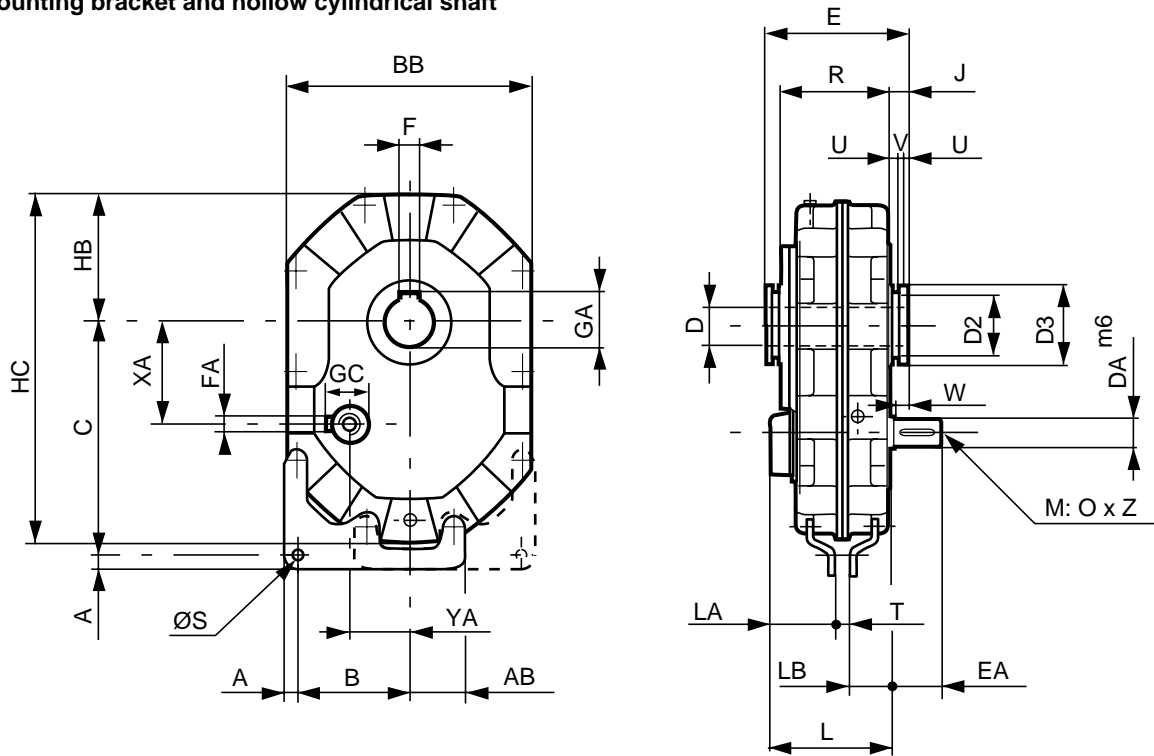
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Dimensions

Dimensions of Poulibloc (Pb) gearboxes,
Pb 2712 to Pb 2720

Dimensions in millimetres

- With mounting bracket and hollow cylindrical shaft



Type	Gearboxes																			Weight			
	A	AB	B	BB	C	D2	D3	E	HB	HC	J	L	LA	LB	R	S	T	U	V	W	XA	YA	kg
Pb 27--	40	122	253	550	521	160	180	314	280	765	29	288	146	104	256	32	38	12	5	23	253	139	285

Hollow output shaft				Minimum length of driven shaft		Input shaft				
D	E	F	GA			DA	EA	FA	GC	O x Z
100	314	28	106.4	260		65	130	18	69	M20 x 40
120	314	32	127.4	260						

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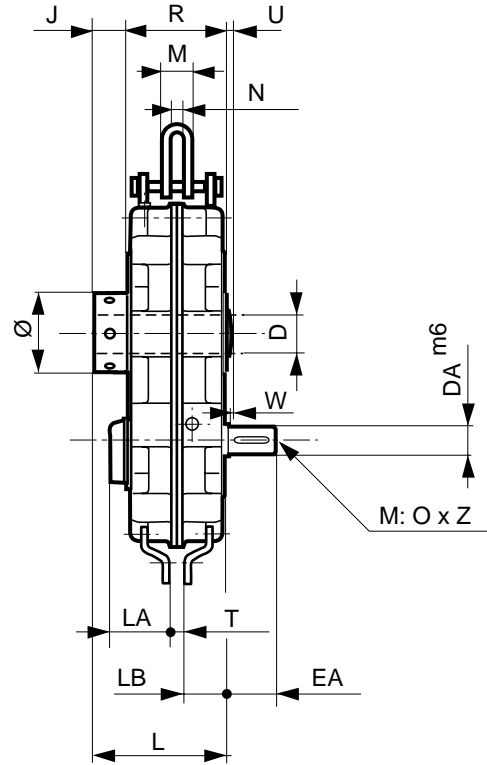
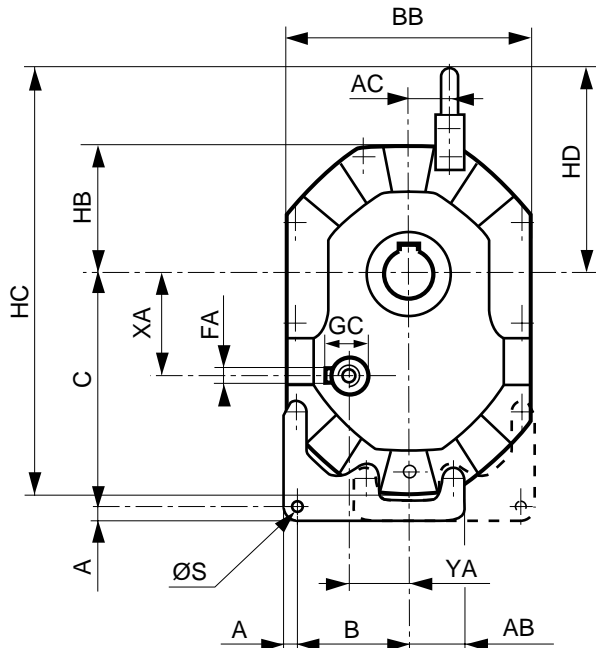
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Dimensions

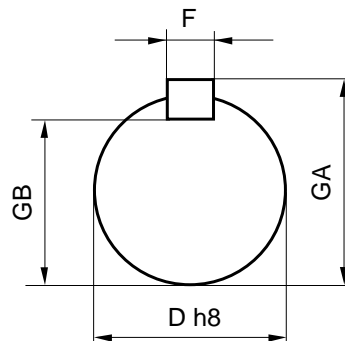
Dimensions of Poulibloc (Pb) gearboxes, Pb 2712 to Pb 2720

Dimensions in millimetres

- With mounting bracket and B taper bush



Type	Gearboxes																		Weight					
	A	AB	AC	B	BB	C	Ø	HB	HC	HD	J	L	LA	LB	M	N	R	S	T	U	W	XA	YA	kg
Pb 27--	40	122	102	253	550	521	280	280	890	405	80	310	146	104	80	40	230	32	38	14	8	253	139	295



Hollow output shaft				Minimum length of driven shaft	Input shaft				
D	F	GA	GB		DA	EA	FA	GC	O x Z
100	28	106	90	260					
110	28	116	100	260	65	130	18	69	M20 x 40
120	32	127	109	260					