

General Information about the use of polymer and stainless steel pillow block bearings

Technical Information

Plastic pillow block bearings are of great importance today. In order to ensure the safety and durability of components exposed to aggressive media, plastic pillow block bearings will be used with increased frequency in the future.

The development of plastic pillow block bearing housings together with rustproof ball bearings or plain bearings was the result of higher demands from the food, chemical and pharmaceutical industries.

The plastic pillow block bearings listed in this catalogue are self-adjusting, precision components made from thermoplastic polyester with fibreglass reinforcement. The housings are highly resistant to wear and impact, and they resist most lyes, weak acids (pH 4-9) and salt solutions. In contrast to cast iron or steel housings, the construction material of **these housings** prevent the growth of

microorganisms. Thermoplastic polyester is distinguished by a pronounced resistance to many chemical substances such as hydrocarbons, petrol, oils and greases, alcohol-ether solutions, acetone, diluted acids and lyes, cleaning agents and most salt solutions.

This catalogue covers the most frequently required flange and pedestal housings and bearing inserts together with the most important technical data.

The stainless steel and plastic pillow block bearings cover the same applications as standard pillow block bearings from well-known bearing manufacturers and can be exchanged in existing constructions.

The housings are one-piece. The bore in the housing is convex with tolerances that allow the bearing to compensate for shaft misalignment. Alignment

errors of up to $\pm 5^\circ$ can be accommodated. If re-lubrication is required, however, the alignment error must not exceed max. $\pm 2.5^\circ$. The stainless steel grease nipple in each housing permits re-greasing with an appropriate lubricant when necessary.

The mounting holes in the housings are designed for DIN 912 or ISO 4762 screws; the pedestal pillow block bearings are designed for simple mounting on slotted holes. All mounting holes (plastic housings) are reinforced with rustproof metal bushes.

The standard colour of all (plastic) housings is green.

The following uses are particularly appropriate due to the smooth and easily cleaned surfaces:

The entire food processing industry, including:

- Meat processing
- Milk and dairy products

- Breweries
- Bakeries

Also:

- Bottling industry
- Paper processing plants
- Steel processing plants
- Chemical industry
- Pharmaceutical industry
- etc.

Two bearing options are available for all pillow block housings:

- for high demand requirements a stainless steel (1.4112) ball bearing insert, double-sealed by a rubber/stainless steel labyrinth system,
- or with a plastic plain bearing insert.

Load ratings

Bearing type	Size	Dynamic load ratings N	Static load ratings N
Stainless steel ball bearing	201	10900	5300
POM plain bearing	201	2180	1060
Stainless steel ball bearing	202	10900	5300
POM plain bearing	202	2180	1060
Stainless steel ball bearing	204	10900	5300
POM plain bearing	204	2180	1060
Stainless steel ball bearing	205	11900	6300
POM plain bearing	205	2380	1260
Stainless steel ball bearing	206	16700	9050
POM plain bearing	206	3340	1810
Stainless steel ball bearing	207	22000	12300
POM plain bearing	207	4400	2460
Stainless steel ball bearing	208	24900	14300
POM plain bearing	208	4980	2860

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Family No.	Loading direction	Size (N)						
		201	202	204	205	206	207	208
50-20		8800	8800	8800	13700	12650	12750	13100
		7700	7700	7700	10000	10600	10800	11100
		5000	5000	5000	8100	5750	7500	8500
50-21		8210	8210	8210	8540	10370	12150	12230
		6900	6900	6900	7010	6580	8080	9100
		2980	2980	2980	2850	4950	8160	9800
50-22		15950	15950	15950	13000	18000	18500	19100
		10250	10250	10250	12150	17700	18500	19250
		3650	3650	3650	3350	3350	3520	3790

Family No.	Loading direction	Size (N)						
		201	202	204	205	206	207	208
50-23		11750	11750	11750	11375	16450	16900	17350
		11000	11000	11000	13850	13350	13950	14050
		8500	8500	8500	11100	14200	14900	15150

Max. tightening torque

Family No.	Thread							Max. tightening torque (Nm)						
	201	202	204	205	206	207	208	201	202	204	205	206	207	208
50-20	M10	M10	M10	M10	M12	M12	M12	18	18	18	25	30	35	45
50-21	M8	M8	M8	M10	M10	M10	M12	18	18	18	25	30	35	45
50-22	M10	M10	M10	M10	M10	M12	M12	18	18	18	25	30	35	40
50-23	M10	M10	M10	M10	M10	M12	M12	18	18	18	25	30	35	40