10. MATERIALS AND MACHINING TOLERANCES

Plummer Block Housings are cast and produced in accordance with ISO/R113-1994 standard. (B.S. 1642: 969 standard, JIS B 1551 - 1968 standard) The following tables show materials and relative machining tolerance covering the housings and its accessories.

10.1 HOUSING

MATERIAL	JIS		TENSILE STRENGTH kgf/mm^2
	SYMBOL	SYMBOL	
GREY CAST IRON	FC 200	G 5501	20

10.2 ACCESSORIES

NAME	PART NO.	MATERIALS
FELT STRIP	FS	60%-80% WOOL,20%RAYON,DENSITY 0.25g/cm2
LOCATING RING	SR	MILD STEEL STRIP AISI 1010/ALUMINUM
HEXAGON BOLT	M	MILD STEEL AISI 1010
ZF SEAL	ZF	NBR
END COVER	500NA	NBR & MILD STEEL PLATE
END PLATE	P	MILD STEEL PLATE
END COVER	TSA	CAST IRON
END PLUG	EPR	NBR & MILD STEEL

Different types of sealins arrangements can be supplied on request.

10.3 MACHINING TOLERANCE:

10.3.1 HOUSINGS BORE. (0.001mm)

BORE mm	G7	H7	H8	J7
10 - 18	+ 24 + 6	+ 18 - 0	+ 27 - 0	+ 10 - 8
18 - 30	+ 28 + 7	+ 21 - 0	+ 33 - 0	+ 12 - 9
30 - 50	+ 34 + 9	+ 25 - 0	+ 39 - 0	+ 14 - 11
50 - 80	+ 40 + 10	+ 30 - 0	+ 46 - 0	+ 18 - 12
80 - 120	+ 42 + 12	+ 35 - 0	+ 54 - 0	+ 22 - 13
120 - 180	+ 54 + 14	+ 40 - 0	+ 63 - 0	+ 26 - 14
180 - 250	+ 61 + 15	+ 46 - 0	+ 72 - 0	+ 30 - 16
250 - 315	+ 69 + 17	+ 52 - 0	+ 82 - 0	+ 36 - 16
315 - 400	+ 75 + 18	+ 57 - 0	+ 89 - 0	+ 39 - 18
400 - 500	+ 83 + 20	+ 63 - 0	+ 97 - 0	+ 43 - 20
500 - 620	+ 92 + 23	+ 69 - 0	+ 104 - 0	+ 46 - 23

10.3.2 EXCEPT HOUSINGS BORE (0.001mm)

DIMENSION mm	H10	H11	H12	H13	h13
10 - 18	+ 70 - 0	+ 110 - 0	+ 180 - 0	+ 270 - 0	+ 0 - 270
18 - 30	+ 84 - 0	+ 130 - 0	+ 210 - 0	+ 330 - 0	+ 0 - 330
30 - 50	+ 100 - 0	+ 160 - 0	+ 250 - 0	+ 390 - 0	+ 0 - 390
50 - 80	+ 120 - 0	+ 190 - 0	+ 300 - 0	+ 460 - 0	+ 0 - 460
80 - 120	+ 140 - 0	+ 220 - 0	+ 350 - 0	+ 540 - 0	+ 0 - 540
120 - 180	+ 160 - 0	+ 250 - 0	+ 400 - 0	+ 630 - 0	+ 0 - 630
180 - 250	+ 185 - 0	+ 290 - 0	+ 460 - 0	+ 720 - 0	+ 0 - 720
250 - 315	+ 210 - 0	+ 320 - 0	+ 520 - 0	+ 810 - 0	+ 0 - 810
315 - 400	+ 230 - 0	+ 360 - 0	+ 570 - 0	+ 890 - 0	+ 0 - 890

10.4 SELECTION OF BEARING HOUSING TOLERANCES

Conditions		Examples	Tolerance symbol according to JIS
Indeterminate load direction	Normal and light loads, Axial displacement of the outer ring desirable	Electrical motors, Pumps Crankshaft main bearings	J7
	Shock loads, Temporary complete unloading	Journal boxes for rail vehicles	
Fixed outer ring load	All loads	Bearing applications in general, Journal boxes for rail vehicles	H7
	Normal and light loads, Load under	Line shaftings	H8
	Heat suppplide through the shaft	Dryer cylinders	G7