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Rolling bearings — Cast and pressed housings for insert bearings

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Reference number
ISO 3228:1993(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 3228 was prepared by Technical Committee ISO/TC 4, *Rolling bearings*, Sub-Committee SC 6, *Insert bearings and accessories*.

This third edition cancels and replaces the second edition (ISO 3228:1977), which has been technically revised.

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Rolling bearings — Cast and pressed housings for insert bearings

1 Scope

This International Standard specifies boundary dimensions and tolerances for cast and pressed housings for insert bearings for which boundary dimensions are given in ISO 9628.

It applies to plummer block housings, flanged housings and take-up housings.

The inclusion of relubrication features is optional, but when provided they should intersect the zone specified in ISO 9628 in such a way that lubricant will satisfactorily feed from the housing through this zone. The exact design of the relubrication features is not otherwise covered by this International Standard.

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2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 5593:1984, *Rolling bearings — Vocabulary*.

ISO 9628:1992, *Rolling bearings — Insert bearings and eccentric locking collars*.

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 5593 apply.

4 Symbols

NOTE 1 The symbols (except those for tolerances) shown in the figures and given in the tables denote nominal dimensions unless otherwise specified.

4.1 Cast plummer block housings (see figure 1)

A	width of base
D_a	spherical seating diameter of housing
H	distance from mounting base to centreline of spherical seating diameter
H_{10-4cf}	height of feet
J	centre distance between bolt holes
L	length of base
N	width of bolt hole
N_1	length of bolt hole

4.2 Cast flanged housings, square (see figure 2)

A	width (overall)
A_1	width of flange
A_2	distance from mounting face to centreline of spherical seating diameter
D_a	spherical seating diameter of housing
J	centre distance between bolt holes
L	length
N	diameter of bolt hole

4.3 Cast flanged housings, oval (see figure 3)

A	width (overall)
A_1	width of flange
A_2	distance from mounting face to centreline of spherical seating diameter
D_a	spherical seating diameter of housing
H	height of flange
J	centre distance between bolt holes
L	length (overall)
N	diameter of bolt hole

4.4 Pressed plummer block housings (see figure 4)

A	width of base
D_a	spherical seating diameter of housing
H	distance from mounting base to centreline of spherical seating diameter
H_1	height of feet
J	centre distance between bolt holes
L	length of base
N	diameter of bolt hole

4.5 Pressed flanged housings, round, triangular and oval (see figure 5)

A	width (overall)
A_1	width of flange
D_a	spherical seating diameter of housing
H	height (round, triangular, oval)
H_1	distance from straight edge to centreline of spherical seating diameter

H_2 limit diameter of flat surface

J pitch circle diameter of bolt holes (round and triangular); centre distance between bolt holes (oval)

L length of flange (oval)

N side of bolt hole (square)

4.6 Cast take-up housings (see figure 6)

A	width (attachment end)
A_1	width of location slot
A_2	width over location-slot flanges
D_a	spherical seating diameter of housing
H	height (overall)
H_1	distance between bottoms of location slots
H_2	height (attachment end)
L	length (overall)
L_1	distance from attachment end face to centreline of spherical seating diameter
L_2	length (attachment end)
L_3	length of location slot
N	diameter of attachment hole

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 N_1 length of attachment slot
 N_2 height of attachment slot

5 Boundary dimensions and tolerances

NOTE 2 Where the subscript "max" is shown in tables 1 to 6, this indicates that the value is both the nominal and the largest actual value permitted. Where the subscript "min" is shown in tables 1 to 6, this indicates that the value is both the nominal and the smallest actual value permitted.

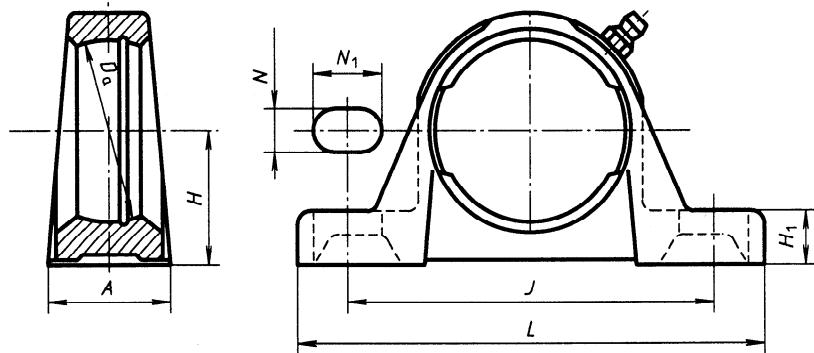


Figure 1 — Cast plummer block housings

Table 1 — Cast plummer block housings

Dimensions in millimetres

D_a	L_{\max}	A_{\max}	J	H ± IT12	$H_{1\max}$	N_{\min}	N_{\max}	$N_{1\min}$
40	129	39	96	30,2	17	10,5	12,43	16
47	134	39	96	33,3	17	10,5	12,43	16
52	142	39	105	36,5	17	10,5	12,43	16
62	167	48	121	42,9	20	13	14,93	19
72	172	48	126	47,6	20	13	14,93	19
80	186	55	136	49,2	20	13	14,93	19
85	192	55	146	54	22	13	14,93	19
90	208	61	159	57,2	23	17	19,02	20,5
100	233	61	172	63,5	25	17	19,02	20,5
110	243	71	186	69,9	27	17	19,02	22
120	268	73	203	76,2	34	21	24,52	24
125	274	74	210	79,4	34	21	24,52	24
130	300	83	217	82,6	35	21	24,52	24
140	305	84	232	88,9	38	21	24,52	24
150	330	95	247	95,2	41	21	24,52	24
160	356	100	262	101,6	44	25	28,52	34
180	390	111	308	115	46	25	28,52	34

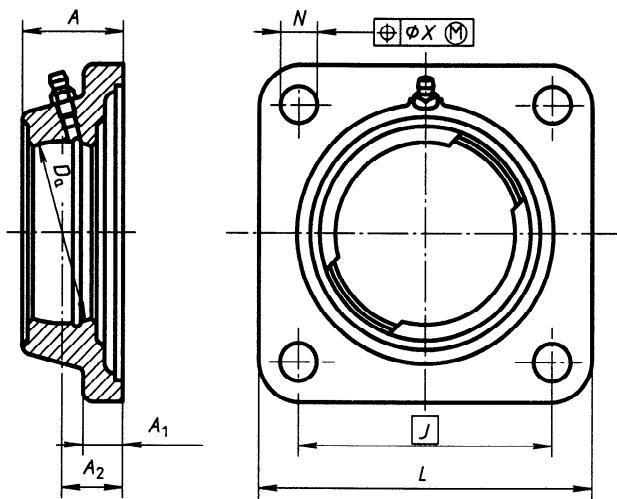


Figure 2 — Cast flanged housings (square)

Table 2 — Cast flanged housings (square)

Dimensions in millimetres

D_a	L_{\max}	A_{\max}	J	$A_{1\max}$	$A_{2\max}$ $\pm IT14$	N_{\min}	N_{\max}	X
40	78	32	54	13	17	10,5	12,43	0,6
47	88	34	63,5	15	19	10,5	12,43	0,6
52	97	35	70	15	19	11,5	12,43	0,6
62	110	38	82,5	16	20	11,5	12,43	0,6
72	119	38	92	17	21	13	14,93	0,8
80	132	43	101,5	17	24	13	14,93	0,8
85	139	45	105	18	24	13	16,93	0,8
90	145	48	111	20	28	17	19,02	0,8
100	164	51	130	21	31	17	19,02	0,8
110	177	60	143	21	34	17	19,02	0,8
120	189	52	149,5	24	34	17	19,02	0,8
125	195	57	152	24	35	17	19,93	0,8
130	202	58	159	24	35	17	24,52	0,8
140	213	65	165	24	35	21	24,52	0,8
150	222	75	175	26	36	21	24,52	0,8
160	240	75	187	27	42	21	24,52	0,8
180	270	80	210	29	44	25	28,52	0,8