BUREAU OF INDIAN STANDARDS
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प्रारंभिक मसौदा

रोलिंग बियरिंग्स — इन्सर्ट बियरिंग्स के लिए कास्ट और प्रेस्ड हाउसिंग— सीमा आयाम और टॉलरेंस

Preliminary Draft

Rolling Bearings — Cast and Pressed Housings for Insert Bearings — Boundary Dimensions and Tolerances

ICS 21.100.20

Bearings Sectional Committee, PGD 13	Last date for Comment: 25 May 2024

FOREWORD

This Indian Standard which is identical with ISO 3228 : 2013 'Rolling bearings Cast and pressed housings for insert bearings Boundary dimensions and tolerances' issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Name of Sectional Committee and approval of the Name of Division Council.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their places, are listed below along with their degree of equivalence for the editions indicated:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 5593 Rolling bearings — Vocabulary	Doc No. PGD 13 (23225) / ISO 5593 : 2023 Rolling bearings — Vocabulary (*third revision*)	Identical

ISO 15241 Rolling bearings – Symbols for physical quantities	Doc No. PGD 13 (24061) / ISO 15241 : 2012 Rolling bearings – Symbols for physical quantities	Identical

In reporting the result of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*Second revision*)’.

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Indian Standard

ROLLING BEARINGS
CAST AND PRESSED HOUSINGS FOR INSERT BEARINGS
BOUNDARY DIMENSIONS AND TOLERANCES

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 it is intended that they intersect the zone specified in ISO 9628 in such a way that lubricant satisfactorily feeds from the housing through this zone. The exact design of the relubrication features is not otherwise covered by this International Standard.

2 NORMATIVE REFERENCES

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5593, Rolling bearings — Vocabulary

ISO 15241, Rolling bearings — Symbols for quantities

3 TERMS AND DEFINITIONS

For the purposes of this document, the terms and definitions given in ISO 5593 apply.

4 SYMBOLS

4.1 General

For the purposes of this document, the symbols given in ISO 15241 and those in 4.2 to 4.7 apply. The symbols (except those for tolerances) shown in Figure 1 to 6, and the values given in Tables 1 to 26 denote nominal dimensions, unless specified otherwise.

NOTE — Figure 1 to 6 are drawn schematically and do not necessarily show all design details. The grease nipple positions in Figure 1 to 4 are examples. Other positions are at the discretion of the manufacturer.

4.2 Cast Plummer Block Housing

See Figure 1 and Table 1 to 5.

A (overall) width of base
Da spherical seating diameter of housing
H distance from mounting base to centreline of spherical seating diameter
H1 height of feet
J centre distance between bolt holes
L (overall) length of base

N width of bolt hole
N1 length of bolt hole
ΔHs deviation of single distance from mounting base to centreline of spherical seating diameter

4.3 Cast Flanged Housing, Square

See Figure 2 and Table 6 to 10.

A (overall) width
A1 width of flange
A2 distance from mounting face to centreline of spherical seating diameter
Da spherical seating diameter of housing
J centre distance between bolt holes
L (overall) length
N diameter of bolt hole
X position tolerance of bolt holes
ΔA2s deviation of single distance from mounting face to centreline of spherical seating diameter

4.4 Cast Flanged Housing, Oval

See Figure 3 and Tables 11 to 15.

A (overall) width
A1 width of flange
A2 distance from mounting face to centreline of spherical seating diameter
Da spherical seating diameter of housing
H height of flange
J centre distance between bolt holes
L (overall) length
N diameter of bolt hole
X position tolerance of bolt holes
ΔA2s deviation of single distance from mounting face to centreline of spherical seating diameter

4.5 Cast Take-Up Housing

See Figure 4 and Table 16 to 20.

A (overall) width (attachment end)
A1 width of location slot
A2 width of flange in which location slot is provided
Da spherical seating diameter of housing
H (overall) height
H1 distance between bottoms of location slots
H2 height (attachment end)
L (overall) length
L1 distance from attachment end face to centreline of spherical seating diameter
L2 length (attachment end)
L3 length of location slot
N diameter of attachment hole

N1 length of attachment slot
N2 height of attachment slot
ΔH1s deviation of single distance between bottoms of location slots

4.6 Pressed Plummer Block Housing

See Figure 5 and Table 21 to 23.

A (overall) width of base
Da spherical seating diameter of housing
H distance from mounting base to centreline of spherical seating diameter
H1 height of feet
J centre distance between bolt holes
L (overall) length of base
N diameter of bolt hole
ΔJs deviation of single centre distance between bolt holes
ΔNs deviation of single diameter of bolt hole

4.7 Pressed Flanged Housings, Round, Triangular and Oval

See Figure 6 and Table 24 to 26.

A (overall) width
A1 width of flange
Da spherical seating diameter of housing
H height (round, triangular, oval)
H1 distance from straight edge to centreline of spherical seating diameter (triangular)
H2 limit diameter of flat surface
J pitch circle diameter of bolt holes (round and triangular); centre distance between bolt holes (oval)
L (overall) length of flange (oval)
N side dimension of square bolt hole
ΔJs deviation of single pitch circle diameter of bolt holes (round and triangular); deviation of single centre distance between bolt holes (oval)
ΔNs deviation of single side dimension of square bolt hole

5 BOUNDARY DIMENSIONS AND TOLERANCES

5.1 General

Boundary dimensions and tolerances are given in Tables 1 to 26.

Where “max.” is shown in Tables 1 to 26, this indicates that the value is both the nominal value and the largest actual value permitted. Where “min.” is shown in Tables 1 to 20, this indicates that the value is both the nominal value and the smallest actual value permitted.

5.2 Cast Housings

Boundary dimensions and tolerances for cast housings are given in Tables 1 to 20.

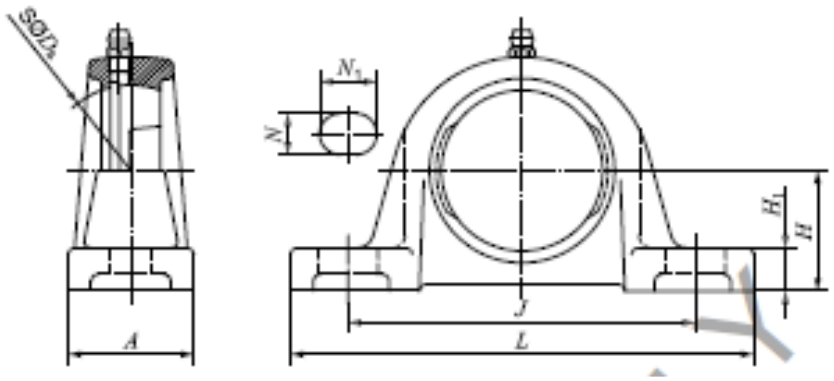


FIG. 1 CAST PLUMMER BLOCK HOUSING

Table 1 ISO - Cast Plummer Block Housings — Diameter Series 2

(*Clause* 4.1, 4.2, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	L	A	J	H	Δ_{Ns}	H_1	N		N_1	H_2	Alternate base to center height
	max	max				max	min	max	min	max	
40	129	39	*96*	30.2	±0.25	17	10.5	12.5	16		
47	134	39	*96*	33.3	±0.25	17	10.5	12.5	16		
52	142	39	105	36.5	±0.25	17	10.5	12.5	16		
62	167	48	121	42.9	±0.25	20	13	15	19		
72	172	48	126	47.6	±0.25	20	13	15	19		
80	186	55	136	49.2	±0.25	20	13	15	19		
85	192	55	146	54	±0.3	22	13	15	19		
90	208	61	159	57.2	±0.3	23	17	19.5	20.5		
100	233	61	172	63.5	±0.3	25	17	19.5	20.5		
110	243	71	186	69.9	±0.3	27	17	19.5	22		
120	268	73	~~230~~ 203	76.2	±0.3	34	21	25	24		
125	274	74	210	79.4	±0.3	34	21	25	24		
130	300	83	217	82.6	±0.35	35	21	25	24		
140	305	84	232	88.9	±0.35	38	21	25	24		
150	330	95	247	95.2	±0.35	41	21	25	24		
160	356	100	262	101.6	±0.35	44	25	29	34		
180	390	111	308	115	±0.35	46	25	29	34		

Table 2 ABMA - Cast Plummer Block Housings — Diameter Series 2

(*Clause* 4.1, 4.2, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	L	A	J	H	Δ_{Ns}	H_1	N		N_1	H_2	Alternate base to center height
	max	max				max	min	max	min	max	
40	129	39	92*	30.2		17	10.5		16		27
47	134	39	96	33.3		17	10.5		16		31.8
52	142	41*	105	36.5		17	10.5		16		33.3
62	167	48	118*	42.9		20	13		19		39.7
72	172	48	129*	47.8*		20	13		19		46

80	186	55	137*	51.0*		20	13		19		49.2
85	192	55	148*	54		22	13		19		52.4
90	208	61	159	57.2		23	17		20.5		55.6
100	233	61	175*	63.5		25	17		20.5		61.9
110	243	71	188*	69.9		27	17		22		68.3
120	268	73	203	76.2		34	21		24		---
125	274	74	210	79.4		39*	21		24		76.2
130	300	83	219*	82.6		35	21		24		84.1
140	305	84	232	88.9		48*	21		24		---·
150	330	95	247	95.2		41	21		24		---
160	356	100	262	101.6		44	24.0*		34		----
180	390	111	308	112.8*		46	24.0*		34		----

Table 3 JIS - Cast Plummer Block Housings — Diameter Series 2

(*Clause* 4.1, 4.2, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	L	A	J	H	Δ_{Ns}	H_1	N		N_1	H_2	Alternate base to center height
	max	max				max	min	max	min	max	
40	129	39	96	30.2	±0.25	17	10.5	12.43	16	63	
47	129	40	95	30.2	±0.15	17	11.5	14.5	13	63	
47	134	39	96	33.3	±0.25	17	10.5	12.43	16	66	
47	129	40	95	33.3	±0. 15	17	11.5	14.5	13	66	
52	142	39	105	36.5	±0.25	17	10.5	12.43	16	73	
52	142	40	105	36.5	±0.15	18	11.5	14.5	13	73	
62	167	48	121	42.9	±0.25	20	13	14.93	19	87	
62	167	50	121	42.9	±0. 15	20	15.5	18.5	17	87	
72	172	48	126	47.6	±0.25	20	13	14.93	19	96	
72	169	50	127	47.6	±0. 15	21	15.5	18.5	17	96	
80	186	55	136	49.2	±0.25	20	13	14.93	19	101	
80	186	56	137	49.2	±0.15	21	15.5	18.5	17	101	
85	192	55	146	54	±0.3	22	13	14.93	19	109	
85	192	56	146	54	±0. 15	23	15.5	18.5	17	109	
90	208	61	159	57.2	±0.3	23	17	19.02	20.5	117	
90	208	62	159	57.2	±0.15	24	18.5	21.5	20	117	
100	233	61	172	63.5	±0.3	25	17	19.02	20.5	128	
100	221	62	171	63.5	±0.2	26	18.5	21.5	20	128	
110	243	71	186	69.9	±0.3	27	17	19.02	22	144	
110	243	72	184	69.8	±0.2	28	18.5	21.5	20	142	
120	268	73	203	76.2	±0.3	34	21	24.52	24	157	
120	268	72	203	76.2	±0.2	31	23.5	26.5	25	155	
125	274	74	210	79.4	±0.3	34	21	24.52	24	162	
125	269	74	210	79.4	±0.2	31	23.5	26.5	25	160	
130	300	83	217	82.6	±0.35	35	21	24.52	24	168	
130	278	76	217	82.6	±0.2	32	23.5	26.5	25	166	
140	305	84	232	88.9	±0.35	38	21	24.52	24	181	
140	295	80	232	88.9	±0.2	34	23.5	26.5	25	179	
150	330	95	247	95.2	±0.35	41	21	24.52	24	193	
150	313	85	247	95.2	±0.2	36	23.5	26.5	25	191	
160	356	100	262	101.6	±0.35	44	25	28.52	34	206	
160	330	90	262	101.6	±0.2	38	25.5	28.5	27	204	

180	390	111	308	115	±0.35	46	25	28.52	34	233	

Table 4 ISO - Cast Plummer Block Housings — Diameter Series 3

(*Clause* 4.1, 4.2, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	L	A	J	H	Δ_{Ns}	H_1	N		N_1	H_2
	max	**max**				**max**	**min**	**max**	**min**	**max**
62	177	47	132	45	±0.25	18	15.5	18.5	18	
72	182	52	140	50	±0.25	21	15.5	18.5	18	
80	212	58	160	56	±0.3	23	15.5	18.5	23	
90	222	62	170	60	±0.3	25	15.5	18.5	23	
100	247	69	190	67	±0.3	27	18.5	21.5	23	
110	278	77	212	75	±0.3	30	18.5	21.5	33	
120	313	82	236	80	±0.3	33	18.5	21.5	36	
130	333	87	250	85	±0.35	35	23.5	26.5	36	
140	343	92	260	90	±0.35	38	23.5	26.5	36	
150	363	92	280	95	±0.35	42	25.5	28.5	38	
160	383	102	290	100	±0.35	42	25.5	28.5	38	
170	403	112	300	106	±0.35	47	25.5	28.5	38	
180	424	112	320	112	±0.35	47	31.5	34.5	43	
190	434	122	330	118	±0.35	52	31.5	34.5	43	
200	474	122	360	125	±0.4	52	34.5	37.5	43	
215	494	132	380	140	±0.4	57	34.5	37.5	48	
225	494	132	380	140	±0.4	57	34.5	37.5	48	
240	524	142	400	150	±0.4	62	38.5	41.5	53	
260	574	142	450	160	±0.4	72	38.5	41.5	53	
280	604	142	480	180	±0.4	82	38.5	41.5	53	
300	624	142	500	200	±0.46	82	38.5	41.5	53	

Table 5 JIS - Cast Plummer Block Housings — Diameter Series 3

(*Clause* 4.1, 4.2, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	L	A	J	H	Δ_{Ns}	H_1	N		N_1	H_2
	max	**max**				**max**	**min**	**max**	**min**	**max**
62	177	47	132	45	±0.15	18	15.5	18.5	18	91
72	182	52	140	50	±0.15	21	15.5	18.5	18	102
80	212	58	160	56	±0.15	23	15.5	18.5	23	114
90	222	62	170	60	±0.15	25	15.5	18.5	25	122
100	247	69	190	67	±0.15	27	18.5	21.5	28	136
110	278	77	212	75	±0.15	30	18.5	21.5	33	152
120	313	82	236	80	±0.2	33	18.5	21.5	36	162
130	333	87	250	85	±0.2	35	23.5	26.5	36	172
140	343	92	260	90	±0.2	38	23.5	26.5	36	182
150	363	92	280	95	±0.2	42	25.5	28.5	38	192
160	383	102	290	100	±0.2	42	25.5	28.5	38	202
170	403	112	300	106	±0.2	47	25.5	28.5	38	215

180	424	112	320	112	±0.2	47	31.5	34.5	43	227
190	434	112	330	118	±0.2	52	31.5	34.5	43	239
200	474	122	360	125	±0.3	52	34.5	37.5	48	253
215	494	122	380	140	±0.3	57	34.5	37.5	48	283
225	494	122	380	140	±0.3	57	34.5	37.5	48	283
240	524	142	400	150	±0.3	62	38.5	41.5	53	303
260	574	142	450	160	±0.3	72	38.5	41.5	53	323
280	604	142	480	180	±0.3	82	38.5	41.5	53	363
300	624	142	500	200	±0.3	82	38.5	41.5	53	403

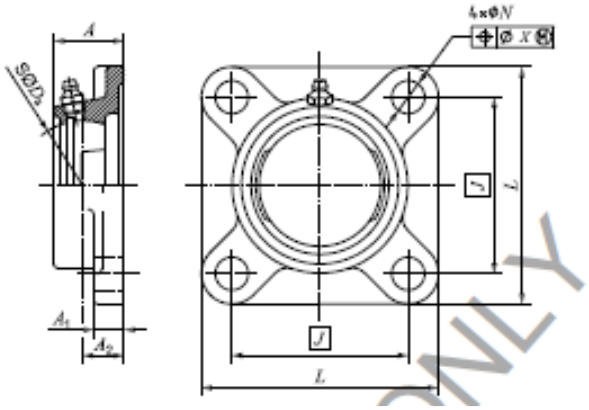


FIG. 2 CAST FLANGED HOUSING, SQUARE

Table 6 ISO - Cast Flanged Housings, Square — Diameter Series 2

(*Clause* 4.1, 4.3, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	*L*	*A*	*J*	*A1*	*A2*	Δ_{A2s}	*N*		*X*
	max	**max**					**min**	**max**	**min**
40	78	32	54	13	17	±0.43	10.5	12.5	0.6
47	88	34	63.5	15	19	±0.52	10.5	12.5	2.6
52	97	35	70	15	19	±0.52	11.5	12.5	0.6
62	110	38	82.5	16	20	±0.52	11.5	12.5	0.6
72	119	38	92	17	21	±0.52	13	15	0.8
80	132	43	101.5	17	24	±0.52	13	15	0.8
85	139	45	105	18	24	±0.52	13	17	0.8
90	145	48	111	20	28	±0.52	17	19.5	0.8
100	164	51	130	21	31	±0.62	17	19.5	0.8
110	177	55	143	21	34	±0.62	17	19.5	0.8
120	189	55	149.5	24	34	±0.62	17	19.5	0.8
125	195	57	152	24	35	±0.62	17	20	0.8
130	202	58	159	24	35	±0.62	17	25	0.8
140	213	65	165	24	35	±0.62	21	25	0.8
150	222	75	175	26	36	±0.62	21	25	0.8
160	240	75	187	27	42	±0.62	21	25	0.8
180	270	80	210	29	44	±0.62	25	29	0.8

Table 7 ABMA - Cast Flanged Housings, Square — Diameter Series 2

(*Clause* 4.1, 4.3, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	*L*	*A*	*J*	*A1*	*A2*	Δ_{A2s}	*N*		*X*
	max	**max**					**min**	**max**	**min**
40	78	32	54	13			10.0*		
47	88	34	63.5	16*			10.0*		
52	97	35	69.8*	16*			11.5		
62	110	38	82.5	16			11.5		
72	121*	38	92.2*	17			13		
80	132	43	101.5	17			13		
85	139	45	105	18			13		
90	145	48	111	20			13.0*		
100	165*	51	130.3*	24*			16.0*		
110	178*	60	143	24*			16.0*		
120	189	52	149.4*	24			16.0*		
125	195	64*	149.4*	24			16.0*		
130	202	67*	152.4*	24			16.0*		
140	213	65	152.4*	24			20.0*		
150	222	75	171.0*	27*			20.0*		
160	240	75	171.0*	27			20.0*		
180	270	80	210	29			25		

Table 8 JIS - Cast Flanged Housings, Square — Diameter Series 2

(*Clause* 4.1, 4.3, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	*L*	*A*	*J*	*A1*	*A2*	Δ_{A2s}	*N*		*X*
	max	**max**					**min**	**max**	**min**
40	78	32	54	13	17	±0.43	10.5	12.43	
47	88	34	63.5	15	19	±0.52	10.5	12.43	
47	88	27	64	13	15	±0.5	11.8	12.2	
52	97	35	70	15	19	±0.52	11.5	12.43	
52	97	29	70	15	16	±0.5	11.8	12.2	
62	110	38	82.5	16	20	±0.52	11.5	12.43	
62	110	33	83	15	18	±0.5	11.8	12.2	
72	119	38	92	17	21	±0.52	13	14.93	
72	119	36	92	17	19	±0.5	13.8	14.2	
80	132	43	101.5	17	24	±0.52	13	14.93	
80	132	38	102	17	21	±0.5	15.8	16.2	
85	139	45	105	18	24	±0.52	13	16.93	
85	139	40	105	19	22	±0.5	15.8	16.2	
90	145	48	111	20	28	±0.52	17	19.02	
90	145	42	111	19	22	±0.5	15.8	16.2	
100	164	51	130	21	31	±0.62	17	19.02	
100	164	45	130	21	25	±0.8	18.8	19.2	
110	177	60	143	21	34	±0.62	17	19.02	
110	177	50	143	21	29	±0.8	18.8	19.2	
120	189	52	149.5	24	34	±0.62	17	19.02	

120	189	52	149	25	30	±0.8	18.8	19.2	
125	195	57	152	24	35	±0.62	17	19.93	
125	195	56	152	25	31	±0.8	18.8	19.2	
130	202	58	159	24	35	±0.62	17	24.52	
130	202	58	159	25	34	±0.8	18.8	19.2	
140	213	65	165	24	35	±0.62	21	24.52	
140	210	60	165	25	34	±0.8	22.8	23.2	
150	222	75	175	26	36	±0.62	21	24.52	
150	222	65	175	27	36	±0.8	22.8	23.2	
160	240	75	187	27	42	±0.62	21	24.52	
160	237	70	187	28	40	±0.8	22.8	23.2	
180	270	80	210	29	44	±0.62	25	28.52	

Table 9 ISO - Cast Flanged Housings, Square — Diameter Series 3

(*Clause* 4.1, 4.3, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	L	A	J	A_1	A_2	Δ_{A2s}	N		X
	max	**max**					**min**	**max**	**min**
62	112	31	80	14	16	±0.43	15.8	16.2	0.7
72	127	34	95	16	18	±0.43	15.8	16.2	0.7
80	137	38	100	17	20	±0.52	18.8	19.2	0.7
90	152	42	112	18	23	±0.52	18.8	19.2	0.7
100	162	46	125	19	25	±0.52	18.8	19.2	0.7
110	177	50	132	20	28	±0.52	22.8	23.2	0.7
120	187	54	140	21	30	±0.52	22.8	23.2	1
130	197	58	150	23	33	±0.52	22.8	23.2	1
140	210	60	166	26	33	±0.52	22.8	23.2	1
150	228	63	178	26	36	±0.52	22.8	25.2	1
160	238	68	184	26	39	±0.62	24.8	25.2	1
170	252	70	196	28	38	±0.62	30.7	31.3	1
180	263	76	204	28	44	±0.62	30.7	31.3	1
190	283	78	216	31	44	±0.62	34.7	35.3	1
200	293	96	228	31	59	±0.62	34.7	35.3	1
215	313	96	242	33	59	±0.74	37.7	38.3	1
225	312	96	242	33	59	±0.62	37.7	38.3	1
240	343	98	266	36	60	±0.74	40.7	41.3	1
260	373	112	290	41	65	±0.74	40.7	41.3	1
280	373	117	320	46	65	±0.74	40.7	41.3	1
300	414	127	350	56	75	±0.74	40.7	41.3	1

Table 10 JIS - Cast Flanged Housings, Square — Diameter Series 3

(*Clause* 4.1, 4.3, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	L	A	J	A_1	A_2	Δ_{A2s}	N		X
	max	**max**					**min**	**max**	**min**
62	112	31	80	14	16	±0.5	15.8	16.2	
72	127	34	95	16	18	±0.5	15.8	16.2	

80	137	38	100	17	20	±0.5	18.8	19.2	
90	152	42	112	18	23	±0.5	18.8	19.2	
100	162	46	125	19	25	±0.5	18.8	19.2	
110	177	50	132	20	28	±0.5	22.8	23.2	
120	187	54	140	21	30	±0.8	22.8	23.2	
130	197	58	150	23	33	±0.8	22.8	23.2	
140	210	60	166	23	33	±0.8	22.8	23.2	
150	228	63	178	26	36	±0.8	24.8	25.2	
160	238	68	184	26	39	±0.8	24.8	25.2	
170	252	70	196	28	38	±0.8	30.7	31.3	
180	263	76	204	28	44	±0.8	30.7	31.3	
190	283	78	216	31	44	±0.8	34.7	35.3	
200	293	96	228	31	59	±0.8	34.7	35.3	
215	313	96	242	33	59	±0.8	37.7	38.3	
225	313	96	242	33	59	±0.8	37.7	38.3	
240	343	98	266	36	60	±0.8	40.7	41.3	
260	373	112	290	41	65	±0.8	40.7	41.3	
280	414	117	320	46	65	±0.8	40.7	41.3	
300	454	127	350	56	75	±0.8	40.7	41.3	

NOTE — [a] The holes may alternatively be square with sides equal to N.

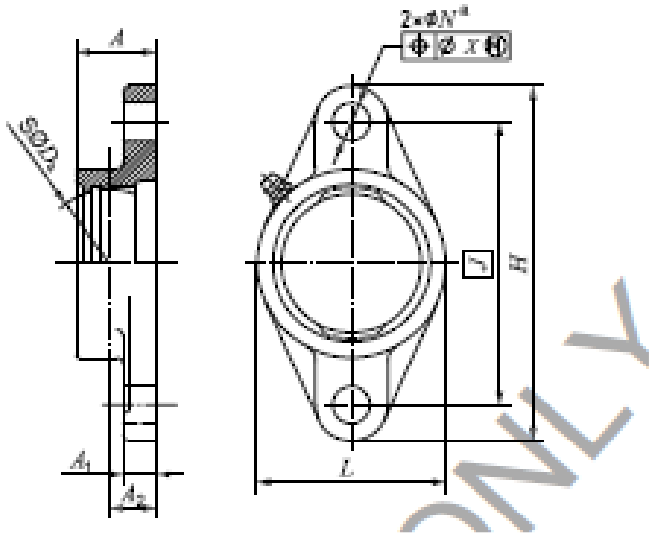


FIG. 3 CAST FLANGED HOUSING, OVAL

Table 11 ISO - Cast Flanged Housings, Oval — Diameter Series 2

(*Clause* 4.1, 4.4, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	H	L	A	J	A_1	A_2	Δ_{A2s}	N		X
	max	max	max					min	max	
40	99	61	32	76.5	13	17	±0.43	10.5	12.5	0.6
47	113	62	34	90	15	19	±0.52	10.5	12.5	0.6
52	125	70	35	99	15	19	±0.52	11.5	12.5	0.6
62	142	83	38	116.5	16	20	±0.52	11.5	12.5	0.6

72	156	96	38	130	~~178~~ 17	21	±0.52	13	15	0.8
80	172	105	43	143.5	17	24	±0.52	13	15	1
85	180	112	45	148.5	18	24	±0.52	13	17	1
90	190	117	48	157	20	28	±0.52	17	19.5	1
100	222	134	51	184	21	31	±0.62	17	19.5	1
110	238	142	55	202	21	34	±0.62	17	19.5	1
120	261	157	55	210	25	30	±0.52	22.8	23.2	1
125	268	162	57	216	25	31	±0.62	22.8	23.2	1
130	278	167	58	225	25	34	±0.62	22.8	23.2	1
140	293	182	65	233	25	34	±0.62	24.8	25.2	1
150	308	192	75	248	27	36	±0.62	24.8	25.2	1
160	323	207	75	265	28	40	±0.62	24.8	25.2	1

Table 12 ABMA - Cast Flanged Housings, Oval — Diameter Series 2

(*Clause* 4.1, 4.4, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	H	L	A	J	A_1	A_2	Δ_{A2s}	N		X
	max	**max**	**max**					**min**	**max**	
40	99	61	32	76.2*	13			10.0*		
47	113	65*	34	89.7*	15			10.0*		
52	126*	70	35	98.8*	16*			11.5		
62	142	83	38	116.6*	16			11.5		
72	156	96	38	130.3*	17			13		
80	173*	105	43	143.8*	17			13		
85	181*	112	45	148.3*	18			13		
90	190	117	48	157.2*	20			13.0*		
100	222	134	51	184.2*	21			16.0*		
110	238	142	60	202.2*	21			16.0*		

Table 13 JIS - Cast Flanged Housings, Oval — Diameter Series 2

(*Clause* 4.1, 4.4, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	H	L	A	J	A_1	A_2	Δ_{A2s}	N		X
	max	**max**	**max**					**min**	**max**	
40	99	61	32	76.5	13	17	±0.43	10.5	12.43	
47	113	62	34	90	15	19	±0.52	10.5	12.43	
47	115	62	27	90	13	15	±0.5	11.8	12.2	
52	125	70	35	99	15	19	±0.52	11.5	12.43	
52	132	70	29	99	15	16	±0.5	15.8	16.2	
62	142	83	38	116.5	16	20	±0.52	11.5	12.43	
62	150	82	33	117	15	18	±0.5	15.8	16.2	
72	156	96	38	130	17	2 1	±0.52	13	14.93	
72	163	92	36	130	17	19	±0.5	15.8	16.2	
80	172	105	43	143.5	17	24	±0.52	13	14.93	
80	177	102	38	144	17	21	±0.5	15.8	16.2	
85	180	112	45	148.5	18	24	±0.52	13	16.93	
85	190	110	40	148	19	22	±0.5	18.8	19.2	

90	190	117	48	157	20	28	±0.52	17	19.02	
90	199	117	42	157	19	22	±0.5	18.8	19.2	
100	222	134	51	184	21	31	±0.62	17	19.02	
100	226	132	45	184	21	25	±0.8	18.8	19.2	
110	238	142	60	202	21	34	±0.62	17	19.02	
110	252	142	50	202	21	29	±0.8	22.8	23.2	
120	261	157	52	210	25	30	±0.8	22.8	23.2	
125	268	162	56	216	25	31	±0.8	22.8	23.2	
130	278	167	58	225	25	34	±0.8	22.8	23.2	
140	293	182	60	233	25	34	±0.8	24.8	25.2	
150	308	192	65	248	27	36	±0.8	24 .8	25.2	
160	323	207	70	265	28	40	±0.8	24 .8	25.2	

Table 14 ISO - Cast Flanged Housings, Oval — Diameter Series 3

(*Clause* 4.1, 4.4, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	H	L	A	J	A_1	A_2	Δ_{A2s}	N		X
	max	**max**	**max**					**min**	**max**	
62	152	82	31	113	14	16	±0.43	18.8	19.2	0.7
72	182	92	34	134	16	18	±0.43	22.8	23.2	0.7
80	187	102	38	141	17	20	±0.52	22.8	23.2	0.7
90	202	114	42	158	18	23	±0.52	22.8	23.2	0.7
100	232	127	46	177	19	25	±0.52	24.8	25.2	0.7
110	242	142	50	187	20	28	±0.52	24.8	25.2	0.7
120	252	152	54	198	21	30	±0.52	24.8	25.2	1
130	273	162	58	212	23	33	±0.62	30.7	31.3	1
140	298	177	60	240	26	33	±0.62	30.7	31.3	1
150	318	187	63	250	29	36	±0.62	34.7	35.3	1
160	323	197	68	260	31	39	±0.62	34.7	35.3	1
170	358	212	70	285	33	38	±0.62	37.7	38.3	1
180	373	222	76	300	33	44	±0.62	37.7	38.3	1
190	388	237	78	315	37	44	±0.62	37.7	38.3	1
200	409	252	96	330	41	59	±0.74	40.7	41.3	1
215	444	273	96	360	41	59	±0.74	43.7	44.3	1
225	444	273	96	360	41	59	±0.74	43.7	44.3	1
240	474	303	98	390	43	60	±0.74	43.7	44.3	1
260	524	333	112	430	49	65	±0.74	46.7	47.3	1
280	554	363	117	460	51	65	±0.74	46.7	47.3	1
300	604	403	127	500	61	75	±0.74	50.7	51.3	1

Table 15 JIS - Cast Flanged Housings, Oval — Diameter Series 3

(*Clause* 4.1, 4.4, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	H	L	A	J	A_1	A_2	Δ_{A2s}	N		X
	max	**max**	**max**					**min**	**max**	
62	152	82	31	113	14	16	±0.5	18.8	19.2	
72	182	92	34	134	16	18	±0.5	22.8	23.2	

80	187	102	38	141	17	20	±0.5	22.8	23.2	
90	202	114	42	158	18	23	±0.5	22.8	23.2	
100	232	127	46	177	19	25	±0.5	24 .8	25.2	
110	242	142	50	187	20	28	±0.5	24 .8	25.2	
120	252	152	54	198	21	30	±0.8	24.8	25.2	
130	273	162	58	212	23	33	±0.8	30.7	31.3	
140	298	177	60	240	26	33	±0.8	30.7	31.3	
150	318	187	63	250	29	36	±0.8	34.7	35.3	
160	323	197	68	260	31	39	±0.8	34 .7	35.3	
170	358	212	70	285	33	38	±0.8	37.7	38.3	
180	373	222	76	300	33	44	±0.8	37.7	38.3	
190	388	237	78	315	37	44	±0.8	37.7	38.3	
200	409	252	96	330	41	59	±0.8	40.7	41.3	
215	444	273	96	360	41	59	±0.8	43.7	44.3	
225	444	273	96	360	41	59	±0.8	43.7	44.3	
240	474	303	98	390	43	60	±0.8	43.7	44.3	
260	524	333	112	430	49	65	±0.8	46.7	47.3	
280	554	363	117	460	51	65	±0.8	46.7	47.3	
300	604	403	127	500	61	75	±0.8	50.7	51.3	

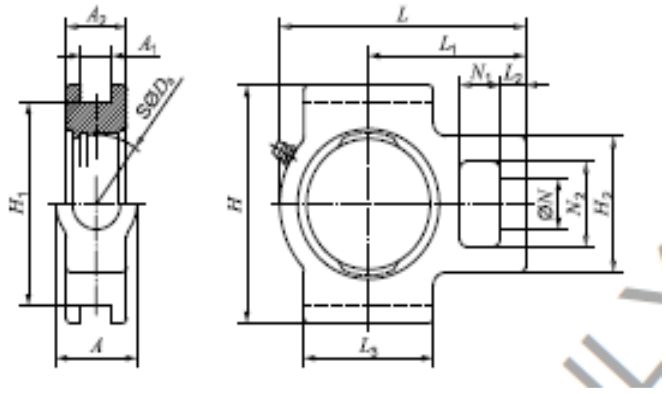


FIGURE 4 — CAST TAKE-UP HOUSING

Table 16 ISO - Cast Take-Up Housings — Diameter Series 2

(*Clause* 4.1, 4.5, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	A	A_1[a]		A_2	H	H_1	Δ_{H1s}	H_2	L	L_1	L_2	L_3	N	N_1	N_2
	max	min	max	max	max			max	max	max	min	max	min	min	min
47	51	12	14	36	94	76	±0.3	64	104	69	9	59	18	15	30
52	51	12	14	38	94	76	±0.3	64	104	69	9	59	18	15	30
62	53	12	14	38	107	89	±0.35	66	118	74	9	66	19	15	36
72	53	12	14	38	107	89	±0.35	66	132	81	10	72	19	15	36
80	67	16	18	44	124	101	±0.35	65	146	91	14	84	27	18	47
85	67	16	18	44	124	101	±0.35	85	149	91	14	84	27	18	47
90	67	16	18	50	124	101	±0.35	85	153	92	14	88	27	18	47
100	72	22	28	56	152	130	±0.4	104	191	120	17	104	34	24	62

110	72	22	28	56	152	130	±0.4	104	196	120	17	104	34	29	62
120	72	25	28	56	169	150.6	±0.4	113	226	139	20	123	40	31	69
125	72	25	28	56	169	150.6	±0.4	113	226	139	20	123	40	31	69
130	72	25	28	56	169	150.6	±0.4	113	234	142	20	123	40	31	69
140	72	26	29	56	186	164.6	±0.4	113	237	142	20	123	40	31	69
150	75	29	32	56	200	172.6	±0.4	126	263	164	28	159	47	37	72

Table 17 ABMA - Cast Take-Up Housings — Diameter Series 2

(*Clause* 4.1, 4.5, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	A	A_1[a]		A_2	H	H_1	Δ_{H1s}	H_2	L	L_1	L_2	L_3	N	N_1	N_2
	max	**min**	**max**	**max**	**max**			**max**	**max**	**max**	**min**	**max**	**min**	**min**	**min**
47	51	13.5		36	94	76.2*		64	104	69	9	59	18	15	30
52	51	13.5		38	94	762.*		64	104	69	9	59	18	15	30
62	53	13.5		38	107	89		66	118	74	9	66	19	15	36
72	53	13.5		38	107	89		66	132	81	10	72	19	15	36
80	67	17.5		44	124	101		85	146	91	14	84	27	18	47
85	67	17.5		44	124	101		85	149	91	14	84	27	18	47
90	67	17.5		50	124	101		85	153	92	14	88	27	18	47
100	72	27		56	152	129*		104	191	120	17	104	34	24	62
110	72	27		56	152	129*		104	196	120	17	104	34	29	62

Table 18 JIS - Cast Take-Up Housings — Diameter Series 2

(*Clause* 4.1, 4.5, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	A	A_1[a]		A_2	H	H_1	Δ_{H1s}	H_2	L	L_1	L_2	L_3	N	N_1	N_2
	max	**min**	**max**	**max**	**max**			**max**	**max**	**max**	**min**	**max**	**min**	**min**	**min**
47	51	13.25	14	36	94	76	±0.25	64	104	69	9	59	18	15	30
47	34	12	12.2	23	91	76	0 -0.5	53	96	63	9	53	18	15	31
52	51	13.25	14	38	94	76	±0.25	64	104	69	9	59	18	15	30
52	34	12	12.2	26	91	76	0 -0.5	53	99	64	9	53	18	15	31
62	53	13.25	14	38	107	89	±0.25	66	118	74	9	66	19	15	36
62	39	12	12.2	30	104	89	0 -0.5	58	115	72	9	59	21	15	36
72	53	13.25	14	38	107	89	±0.25	66	132	81	10	72	19	15	36
72	39	12	12.2	32	104	89	0 -0.5	66	131	80	12	66	21	15	36
80	67	17.25	18	44	124	101	±0.25	85	146	91	14	84	27	18	47
80	51	16	16.2	35	116	102	0 -0.5	85	146	90	15	85	28	18	48
85	67	17.25	18	44	124	101	±0.25	85	149	91	14	84	27	18	47
85	51	16	16.2	37	119	102	0 -0.5	85	146	89	15	85	28	18	48
90	67	17.25	18	50	124	101	±0.25	85	153	92	14	88	27	18	47

90	51	16	16.2	39	119	102	0 -0.5	85	151	92	15	88	28	18	48
100	72	26.75	28	56	152	130	±0.25	104	191	120	17	104	34	24	62
100	66	22	22.3	40	148	130	0 -0.8	104	173	108	18	97	34	24	63
110	72	26.75	28	56	152	130	±0.25	104	196	120	17	104	34	29	62
110	66	22	22.3	44	148	130	0 -0.8	104	196	121	18	104	34	31	63
120	72	26	26.3	46	169	151	0 -0.8	113	226	139	20	123	40	31	69
125	72	26	26.3	48	169	151	0 -0.8	113	226	139	20	123	40	31	69
130	72	26	26.3	50	169	151	0 -0.8	113	234	142	20	123	40	31	69
140	72	26	26.3	53	186	165	0 -0.8	113	237	142	20	123	40	31	69
150	75	30	30.3	56	200	173	0 -0.8	126	263	164	28	159	47	37	72

NOTE — [a] Dimensions of adjacent parts are in accordance with each manufacturer's recommendations.

Table 19 ISO - Cast Take-Up Housings — Diameter Series 3

(*Clause* 4.1, 4.5, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	A	A_1		A_2	H	H_1	Δ_{H1s}	H_2	L	L_1	L_2	L_3	N	N_1	N_2
	max	**min**	**max**	**max**	**max**			**max**	**max**	**max**	**min**	**max**	**min**	**min**	**min**
62	38	12	12.75	28	91	79.75	±0.3	64	124	78	11	67	25	15	35
72	43	16	16.75	30	102	89.75	±0.35	72	139	87	13	76	27	17	40
80	47	16	16.75	34	113	99.75	±0.35	77	152	96	14	82	29	19	44
90	52	18	18.75	36	126	111.8	±0.35	85	164	102	16	91	31	21	49
100	57	18	18.75	40	140	124.8	±0.4	92	180	112	17	99	33	23	54
110	63	20	20.75	42	153	139.8	±0.4	100	193	119	19	108	36	26	60
120	68	22	23.25	46	165	149.6	±0.4	107	209	129	20	117	38	28	65
130	73	22	23.25	48	180	159.6	±0.4	115	222	137	22	125	40	30	69
140	82	26	27.25	52	192	169.6	±0.4	118	240	148	24	136	42	31	69
150	92	26	27.25	54	204	179.6	±0.4	132	255	157	24	142	45	35	84
160	92	26	27.25	57	218	191.6	±0.46	134	265	162	24	152	45	35	84
170	104	30	31.25	62	232	203.6	±0.46	152	285	176	27	162	52	41	97
180	104	32	33.25	66	242	213.6	±0.46	154	301	185	29	172	52	41	97
190	112	32	33.25	68	258	227.6	±0.46	162	315	194	29	177	56	45	105
200	112	35	36.25	74	273	239.6	±0.46	167	325	199	30	182	56	45	105
215	122	35	36.25	77	293	259.6	±0.52	177	348	212	31	202	58	47	114
225	122	35	36.25	77	293	259.6	±0.52	177	348	212	31	202	58	47	114
240	132	38	39.25	82	323	284.6	±0.52	187	388	237	37	217	64	51	124
260	142	45	46.25	92	358	319.6	±0.57	212	436	270	41	232	69	59	139
280	152	50	51.25	102	388	349.6	±0.57	222	469	288	44	242	74	64	149
300	157	50	51.25	102	419	349.6	±0.57	232	519	318	49	258	79	69	159

Table 20 JIS - Cast Take-Up Housings — Diameter Series 3

(*Clause* 4.1, 4.5, 5.1 and 5.2)

Dimensions and tolerance values in millimetres

D_a	A	A_1		A_2	H	H_1	Δ_{H1s}	H_2	L	L_1	L_2	L_3	N	N_1	N_2
	max	min	max	max	max			max	max	max	min	max	min	min	min
62	38	12	12.2	28	91	80	0 -0.5	64	124	78	11	67	25	15	35
72	43	16	16.2	30	102	90	0 -0.5	72	139	87	13	76	27	17	40
80	47	16	16.2	34	113	100	0 -0.5	77	152	96	14	82	29	19	44
90	52	18	18.2	36	126	112	0 -0.5	85	164	102	16	91	31	21	49
100	57	18	18.2	40	140	125	0 -0.5	92	180	112	17	99	33	23	54
110	63	20	20.2	42	153	140	0 -0.5	100	193	119	19	108	36	26	60
120	68	22	22.3	46	165	150	0 -0.8	107	209	129	20	117	38	28	65
130	73	22	22.3	48	180	160	0 -0.8	115	222	137	22	125	40	30	70
140	82	26	26.3	52	192	170	0 -0.8	118	240	148	24	136	42	31	69
150	92	26	26.3	54	204	180	0 -0.8	132	255	157	24	142	45	35	84
160	92	26	26.3	57	218	192	0 -0.8	134	265	162	24	152	45	35	84
170	104	30	30.3	62	232	204	0 -0.8	152	285	176	27	162	52	41	97
180	104	32	32.3	66	242	214	0 -0.8	154	301	185	29	172	52	41	97
190	112	32	32.3	68	258	228	0 -0.8	162	315	194	29	177	56	45	105
200	112	35	35.3	74	273	240	0 -0.8	167	325	199	30	182	56	45	105
215	122	35	35.3	77	293	260	0 -0.8	177	348	212	31	202	58	47	114
225	122	35	35.3	77	293	260	0 -0.8	177	348	212	31	202	58	47	114
240	132	38	38.3	82	323	285	0 -0.8	187	388	237	37	217	64	51	124
260	142	45	45.3	92	358	320	0 -0.8	212	436	270	41	232	69	59	139
280	152	50	50.3	102	388	350	0 -0.8	222	469	288	44	242	74	64	149
300	157	50	50.3	102	419	380	0 -0.8	232	519	318	49	258	79	69	159

5.3 Pressed Housings

Boundary dimensions and tolerances for pressed housings are given in Tables 9 and 10.

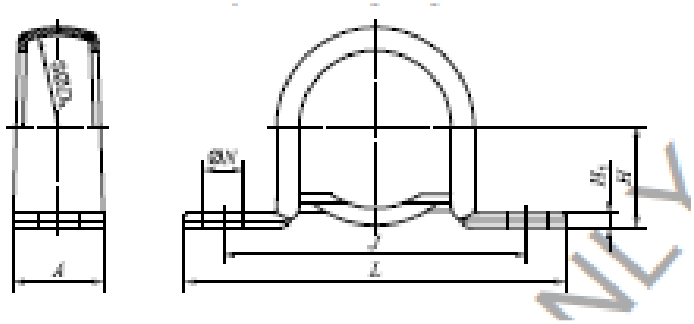


FIG. 5 PRESSED PLUMMER BLOCK HOUSING

Table 21 ISO - Pressed Plummer Block Housings — Diameter Series 2
(*Clause* 4.1, 4.6 and 5.1)

Dimensions and tolerance values in millimetres

D_a	L	A	J	Δ_{Js}	H	H_1	N	Δ_{Ns}	H_2
	max	max				max			max
40	87	26	68	±0.4	22	4	9.5	±0.5	
47	99	33	76	±0.4	25	4	9.5	±0.5	
52	109	33	86	±0.4	29	5	11.5	±0.5	
62	119	39	95	±0.4	33	5	11.5	±0.5	
72	130	43	106	±0.4	40	5	11.5	±0.5	
80	148	43	120	±0.4	44	13	13.0	±0.5	
85	156	43	128	±0.4	47	13	13.0	±0.5	

Table 22 ABMA - Pressed Plummer Block Housings — Diameter series 2
(*Clause* 4.1, 4.6 and 5.1)

Dimensions and tolerance values in millimetres

D_a	L	A	J	Δ_{Js}	H	H_1	N	Δ_{Ns}	H_2
	max	max				max			max
40	92	26	68		22	4	9.4		
47	105	33	76		25	5	9.4		
52	114	33	86		29	5	11.2		
62	124	39	95		33	6	11.2		
72	130	43	106		40	6	11.2		
80	148	43	120		44	6	13.0		
85	156	45	128		47	6	13.0		

Table 23 JIS - Pressed Plummer Block Housings — Diameter series 2
(*Clause* 4.1, 4.6 and 5.1)

Dimensions and tolerance values in millimetres

D_a	L	A	J	Δ_{Js}	H	H_1	N	Δ_{Ns}	H_2
	max	max				max			max
40	87	26	68	±0.4	22	4	9.5	±0.5	44

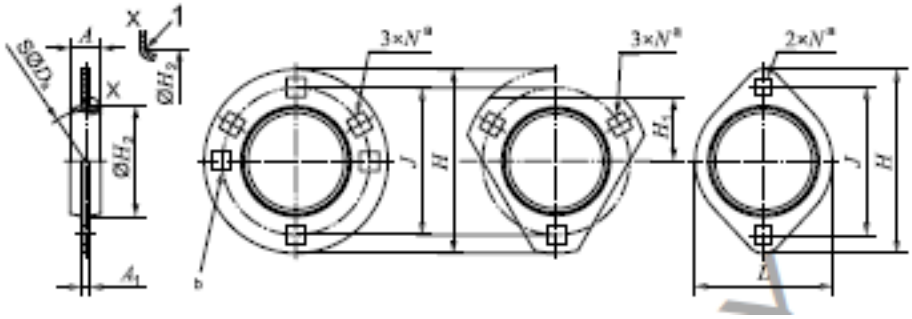
47	99	33	76	±0.4	25	4	9.5	±0.5	51
52	109	33	86	±0.4	29	5	11.5	±0.5	57
62	119	39	95	±0.4	33	5	11.5	±0.5	67
72	130	43	106	±0.4	40	5	11.5	±0.5	78
80	148	43	120	±0.4	44	5	13.0	±0.5	86
85	156	45	128	±0.4	47	6	13.0	±0.5	92

Key

1 limit of flat surface

[a] The holes may alternatively be round with diameter equal to N.

[b] Housings with Da ≥ 80 mm have four bolt holes.



a) Round b) Triangular c) Oval

FIG. 6 PRESSED FLANGED HOUSINGS, ROUND, TRIANGULAR AND OVAL

Table 24 ISO - Pressed Flanged Housings, Round, Triangular and Oval — Diameter Series 2
(*Clause* 4.1, 4.7 and 5.1)

Dimensions and tolerance values in millimetres

D_a	H	L	A	J	Δ_{Js}	A_1	H_1	H_2	N	Δ_{Ns}
	max	**max**	**max**			**max**	**max**	**max**		
40	82	60	15	63.5	±0.4	4.5	29	49	7.1	±0.25
47	91	68	17	71.5	±0.4	4.5	34	56	9	±0.25
52	96	72	19	76	±0.4	4.5	26	61	9	±0.25
62	114	85	20	90.5	±0.4	5.5	41	72	11	±0.25
72	127	95	23	100	±0.4	5.5	45	81	11	±0.25
80	149	104	23	119	±0.4	7	—	91	13.5	±0.25
85	150	—	23	120.5	±0.4	7	—	98	13.5	±0.25
90	157	—	25	127	±0.4	8	—	102	13.5	±0.25
100	168	—	26	138	±0.4	8	—	113	13.5	±0.25
110	177	—	28	148	±0.4	8	—	122	13.5	±0.25

Table 25 ABMA - Pressed Flanged Housings, Round, Triangular and Oval — Diameter Series 2
(*Clause* 4.1, 4.7 and 5.1)

Dimensions and tolerance values in millimetres

D_a	H	L	A	J	Δ_{Js}	A_1	H_1	H_2	N	Δ_{Ns}
	max	**max**	**max**			**max**	**max**	**max**		
40	82		15	63.5		4.5	29	49	7.1	

47	91		17	71.5		4.5	34	56	8.7*	
52	96		19	76.2*		4.5	36	61	8.7*	
62	114		20	90.5		5.5	41	72	10.4*	
72	127		23	100		5.5	45	81	10.4*	
80	149		23	119		7	--	91	13.5	
85	150		23	120.6*		7	-	98	13.5	
90	157		25	127		8	--	102	13.5	
100	168		26	138.2*		8	--	113	13.5	

Table 26 JIS - Pressed Flanged Housings, Round, Triangular and Oval — Diameter Series 2
(*Clause* 4.1, 4.7 and 5.1)

Dimensions and tolerance values in millimetres

D_a	H	L	A	J	Δ_{Js}	A_1	H_1	H_2	N	Δ_{Ns}
	max	**max**	**max**			**max**	**max**	**max**		
40	82	60	15	63.5	±0.4	4.5	29	49	7.l	±0.25
47	91	68	17	71.5	±0.4	4.5	34	56	9	±0.25
52	96	72	19	76	±0.4	4.5	36	61	9	±0.25
62	114	85	20	90.5	±0.4	5.5	41	72	11	±0.25
72	127	95	23	100	±0.4	5.5	45	81	11	±0.25
80	149		23	119	±0.4	7		91	13.5	±0.25
85	150		23	120.5	±0.4	7		9S	13.5	±0.25
90	157		25	127	±0.4	8		102	13.5	±0.25
100	168		26	138	±0.4	8		113	13.5	±0.25
110	177	-	28	148	±0.4	8	-	122	13.5	±0.25