

SKF ball bearing units UC range

Japanese Industrial Standards compliant ball bearing units



Solid design, solid benefits

In order to meet the industry's demands of improved protection against contaminant ingress, better shaft balance and locking strength, we have now developed a new range of ball bearing units – the UC range.

These bearing units offer optimized protection against contaminants as well as better resistance against washdowns. In addition, the units are designed with a 120° grub screw angle locking system to operate reliably in applications where good shaft balance is needed and where systemic vibration is a characteristic application condition.

Easy to order, easy to replace

You want a solution that makes your life easy – a solution with interchangeable boundary dimensions, housing configurations and part numbers. The UC range ball bearing units achieve this and more. It's compatible with JIS* housings available today on the market. No modification of your machine is needed. The dimensions meet most of the current UC designated bearing unit fitting requirements. And whatever product you need, with SKF you know it will be easy to obtain, straightforward to install and manufactured to SKF quality levels.

* JIS: Japanese Industrial Standards



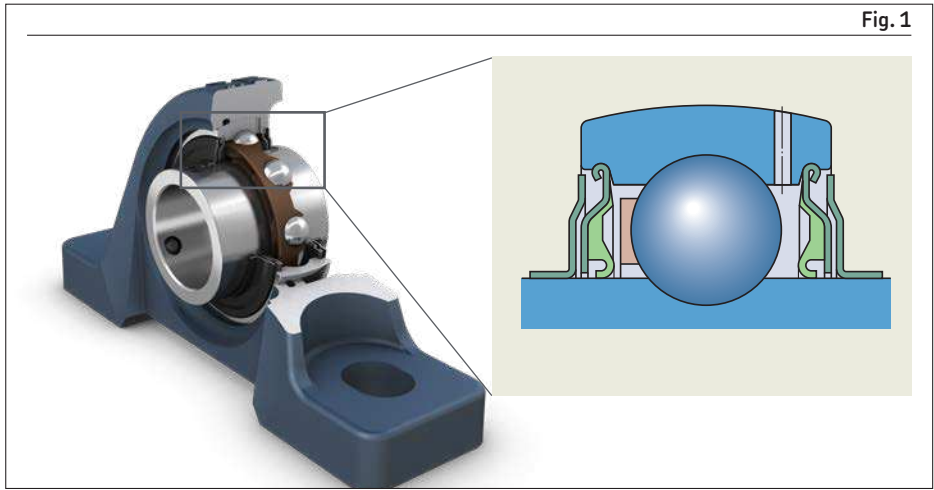
Main applications include

- Material handling conveyors
- Agriculture machinery
- Food & beverage machinery
- Packaging equipment
- Fitness equipment
- Air handling



Other industries

- Textile machinery
- Construction machinery
- Escalators
- Metal industry



Sealing system

SKF has cascaded its extensive field proven sealing experience to this new product range. The sealing system consists of an integral single-lip inner seal and an external flinger fitted on the inner ring (**fig 1**). This additional barrier acting as a deflector, together with the seal, improves bearing protection against the ingress of contaminants. Comparative tests of contaminant and washdown resistance show that SKF units perform better than comparable competitor products (**diagrams 1 and 2**).

Solid design for increased cleanliness

The solid base design provides a smooth surface to avoid the harboring of contaminants, especially in contaminated conveyor operating environments. The solid design also limits the risk of dirt collecting underneath the housing support and improves resistance to vibration.

To help comply with health and safety regulations, UC bearing units with flanged and take-up housings are available with hydrophobic polypropylene end covers. We offer these end covers as a high availability option.

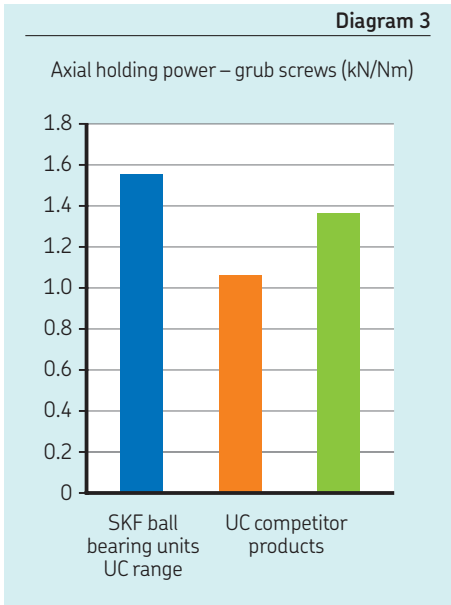
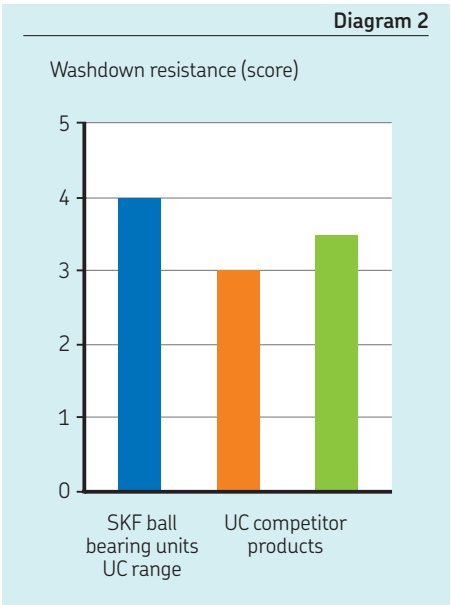
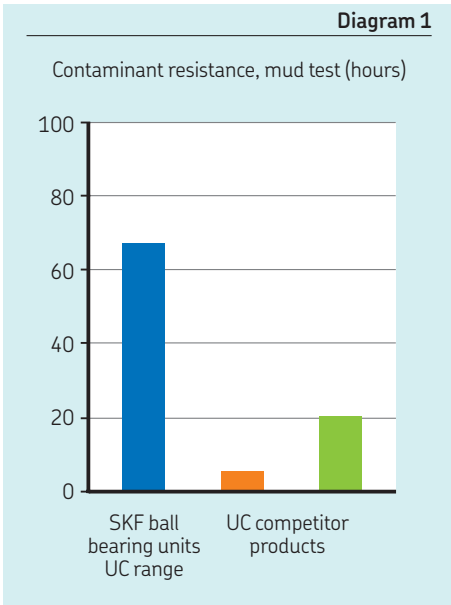
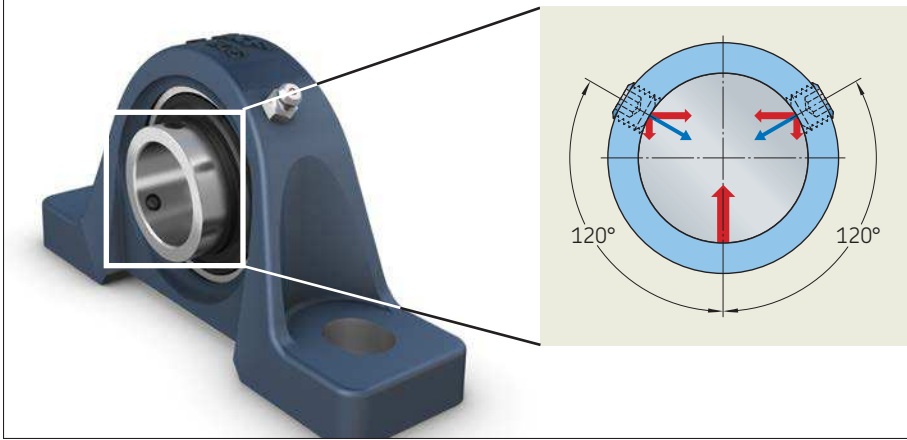


Fig. 2



Please note that end covers are not included with the SKF ball bearing units and must be ordered separately.

Better balance with a 120°¹⁾ locking screw angle

One of the most frequent causes for ball bearing unit failures in high speed applications is shaft imbalance and vibration loosening the locking system. Designing the UC range with a grub screw angle of 120° not only improves balance at high speed, it also reduces deformation of

the bearing when locking. For distribution of the forces acting on the shaft (fig 2).

A test of the axial holding power of the grub screw showed that the SKF locking system performed better than our competitors' equivalent offers (diagram 3, page 3).

¹⁾ Valid up to bore diameter 65 mm, for larger diameter shaft applications characterized by higher peak loads and lower rotational speeds, the ball bearing unit features a grub screw angle of 62°

SKF high-quality grease

Poor lubrication accounts for over 36% of premature bearing failures. In fact, most low speed applications fail due to lubrication related issues, not necessarily due to bearing fatigue. Provided that recommended maintenance intervals are followed, SKF high-quality grease helps bearings achieve expected service life as the SKF lubricants are designed to perform under real conditions (table 1).

Table 1

Lubricating greases	
Technical specification	Grease fills in standard ball bearings and standard ball bearing units
Thickener	Lithium-calcium soap
Base oil	Mineral oil
Colour	Yellowish brown
Temperature range [°C] (continuous operation)	-30 to +120 ¹⁾
Kinematic viscosity [mm ² /s]	190/15
Consistency (to NLGI scale)	2
Other	Long life grease

¹⁾ The temperature range for reliable operation in accordance with the SKF traffic light concept is between 10 and 120 °C.

Your benefits at a glance

SKF understands machine and plant productivity and the need to deliver high rotating equipment performance. The UC range has been designed to provide reliable performance as well as reduce machine downtime. It includes specific features that can make the difference in your equipment:

- Interchangeable with JIS housing
- Full range assortment
- Shorter lead times with available local stock
- 120° grub screw angle – better balance at high speed and less deformation when locking
- Robust design reducing contaminant ingress and vibration
- Enhanced washdown resistance

Designations

The complete designation for the SKF ball bearing units – UC range consists of:

- Prefixes, identifying ball bearing housing type
- Figures, identifying the size
- Suffixes, identifying design and variants

More details about the basic designations and the supplementary designations can be obtained from the table **Designation system**.

SKF's global distribution network – always close to you

Finding replacement parts can sometimes be a challenge. SKF is well positioned to bring you the right support and the right parts, no matter where your application is based. We have 17 000 distribution locations in over 130 countries around the globe, which, together with our distribution partners, help us achieve industry leading product availability.

Designation system

Examples: UCP 216
UCFL 204/H

UC P 2 16
UC FL 2 04 /H

Bearing series

UC Insert bearing with grub screws
UK¹⁾ Insert bearing with a tapered bore and adapter sleeve

Housing type

P Pillow block unit
F Flanged unit, square 4-bolt flange
FL Flanged unit, oval 2-bolt flange
FC Flanged unit, round 4-bolt flange
T Take-up unit for linear motion
FB Flanged unit, 3-bolt bracket flange
PA Short base pillow block unit

Dimension series

2 Normal series
3 Heavy duty series

Bore diameter

For metric shaft
04 20 mm
to to
18 90 mm

Suffixes

/H Higher stability and better load balance than standard
For UC ball bearing units: 120° grub screws angle instead of 62°
K Without adapter sleeve

¹⁾ Order adapter sleeve separately.

Technical specifications

Dimensions and tolerances

Ball bearings UC type according to ISO 9628:2006
Ball bearings UK type according to JIS B 1558:1995, with tapered bore 1:12
Adapter sleeve for UK type H23 series according to ISO 2982-1:1995
Housings according to JIS B 1559:1995

Bearing radial internal clearance

Ball bearings UC type with cylindrical bore according to Group N (CN) ISO 9628:2006
Ball bearings UK type with tapered bore according to Group 3 (C3) ISO 9628:2006

Recommended fits and shaft tolerances

Ball bearings UC type with cylindrical bore:

- for $P > 0,05 C$ and/or high speeds → h6
- for $0,035 C < P \leq 0,05 C$ → h7
- for $0,02 C < P \leq 0,035 C$ and/or low speeds → h8
- simple bearing arrangements or $P \leq 0,02 C$ → h9 – h11

Ball bearings UK type with tapered bore:

- for all loads and speeds → h9/IT5

Rotation limiting speed

Please refer to the technical tables enclosed

Permissible misalignment

Up to 5° when lubrication is not required
Up to 2° when lubrication is required

Lubrication and maintenance

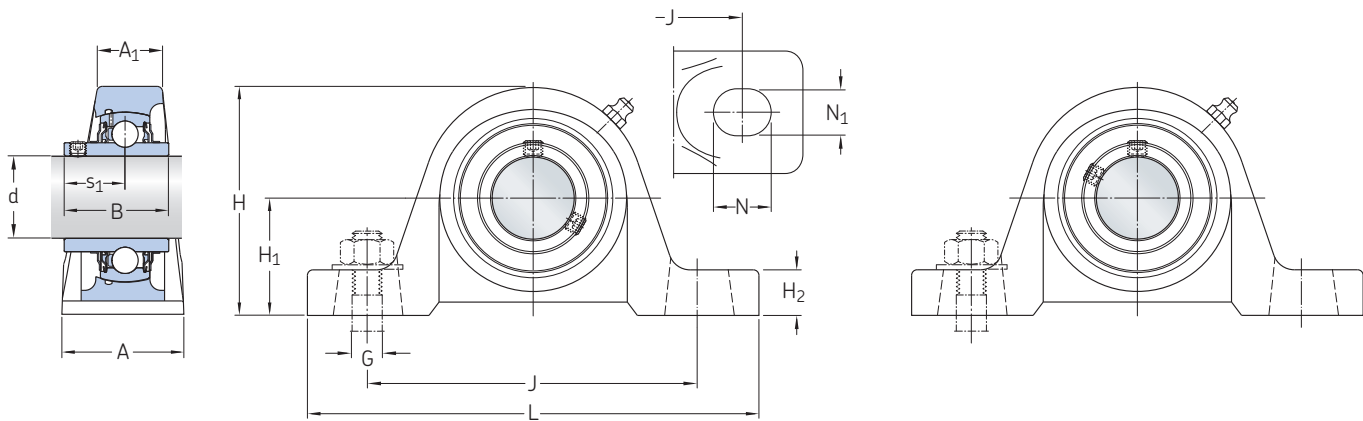
Standard grease characteristics, please refer to **Table 1**
Bearing relubrication is not required if:

- loads and speeds are moderate
- vibration does not occur
- operating temperatures are between 40 and 55 °C

Pillow block ball bearing units, grub screw locking, metric shafts

d 20 – 100 mm

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UCP 204/H to UCP 213/H

UCP 214 to UCP 218
UCP 308 to UCP 320

Principal dimensions			Basic load ratings		Fatigue load limit	Limiting speed	Mass	Designations
d	H ₁	J	dynamic	static	P _u	with shaft tolerance h6	kg	–
mm			kN			r/min		
20	33,3	95	12,7	6,55	0,28	6 500	0,6	UCP 204/H
25	36,5	105	14	7,8	0,335	5 850	0,76	UCP 205/H
30	42,9	121	19,5	11,2	0,475	5 000	1,2	UCP 206/H
35	47,6	127	25,5	15,3	0,655	4 300	1,5	UCP 207/H
40	49,2	137	30,7	19	0,8	3 750	2	UCP 208/H
	60	170,5	41	24	1,02	4 200	3,6	UCP 308
45	54	146	33,2	21,6	0,915	3 400	2,2	UCP 209/H
50	57,2	159	35,1	23,2	0,98	3 300	2,7	UCP 210/H
	75	212,5	61,8	38	1,6	3 400	6,5	UCP 310
55	63,5	171	43,6	29	1,25	3 000	3,55	UCP 211/H
60	69,8	184	52,7	36	1,53	2 700	4,55	UCP 212/H
	85	250,5	81,9	52	2,2	2 900	9,75	UCP 312
65	76,2	203	57,2	40	1,7	2 350	6,25	UCP 213/H
70	79,4	210	62,4	45	1,86	2 250	6,8	UCP 214
75	82,6	217	66,3	49	2,04	2 100	7,3	UCP 215
	100	290,5	114	76,5	3	2 300	15,5	UCP 315
80	88,9	232	71,5	54	2,2	1 900	9,45	UCP 216
90	101,6	262	95,6	72	2,7	1 600	14,1	UCP 218
100	140	380,5	174	140	4,75	1 700	36,7	UCP 320

Dimensions

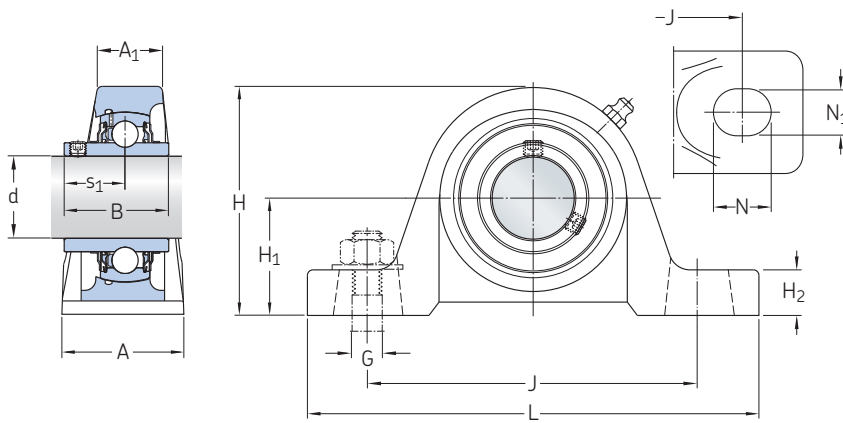
d	A	A ₁	B	H	H ₂	L	N	N ₁	G	s ₁
mm										
20	34	21	31	64,5	13,5	127	18	13	10	18,3
25	38	22	34,1	70,5	16	139,5	18	13	10	19,8
30	45	24	38,1	83,5	16,5	165	21	17	14	22,2
35	46	27	42,9	93,5	18,5	166,5	21	17	14	25,4
40	49	29	49,2	101	20,5	184	21	17	14	30,2
	57	38	52	119,5	25	221	26,5	17	14	33
45	51	29	49,2	108	19	189,5	21	17	14	30,2
50	56	31	51,6	116	19	206,5	22	20	16	32,6
	65	43	61	152	25	275	34,5	20	16	39
55	59	35	55,6	126	22	219	22	20	16	33,4
60	62	36	65,1	141,5	22	239,5	25	20	16	39,7
	72	48	71	171	35	321	36,5	24	20	45
65	72	35	68,3	153,5	25,5	265	30	25	20	42,9
70	72	41	69,9	159,5	28	266	30	25	20	39,7
75	73	42	77,8	164	25,5	271,5	30	25	20	44,5
	86	58	82	202	40	368	39,5	27	22	50
80	78	45	82,6	176	32,5	292	35	25	20	49,3
90	88	51	96	202,5	36,5	327	40	27	22	56,3
100	107	71	108	283	55	482	49,5	36	30	66

Pillow block ball bearing units, grub screw locking, inch shafts

d 3/4 – 2 1/2 in.

19,05 – 63,5 mm

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Principal dimensions			Basic load ratings		Fatigue load limit	Limiting speed	Mass	Designations
d	H ₁	J	dynamic	static	P _u	with shaft tolerance h6		
in./mm	mm		kN			r/min	kg	–
3/4 19,05	33,3	95	12,7	6,7	0,285	6 500	0,6	UCP 204-12
7/8 22,225	36,5	105	14	7,8	0,335	5 850	0,79	UCP 205-14
15/16 23,812	36,5	105	14	7,8	0,335	5 850	0,77	UCP 205-15
1 25,4	36,5	105	14	7,8	0,335	5 850	0,76	UCP 205-16
1 1/8 28,575	42,9	121	19,5	11,4	0,48	5 000	1,2	UCP 206-18
1 3/16 30,162	42,9	121	19,5	11,4	0,48	5 000	1,2	UCP 206-19
1 1/4 31,75	47,6	127	25,5	15,3	0,655	4 300	1,55	UCP 207-20
1 3/8 34,925	47,6	127	25,5	15,3	0,655	4 300	1,5	UCP 207-22
1 7/16 36,512	47,6	127	25,5	15,3	0,655	4 300	1,5	UCP 207-23
1 1/2 38,1	49,2	137	32,5	20	0,85	3 750	2,05	UCP 208-24
1 3/4 44,45	54	146	32,5	20,4	0,865	3 400	2,25	UCP 209-28
2 50,8	63,5	171	43,6	29	1,25	3 000	3,75	UCP 211-32
2 1/4 57,15	69,8	184	52,7	36	1,53	2 700	4,8	UCP 212-36
2 1/2 63,5	76,2	203	57,2	40	1,7	2 350	6,35	UCP 213-40

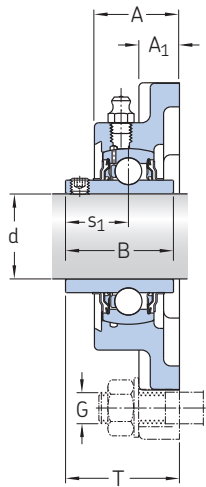
Dimensions

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in./mm	mm									
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7/8 22,225	38	22	34	70,5	16	139,5	18	13	10	19,7
15/16 23,812	38	22	34	70,5	16	139,5	18	13	10	19,7
1 25,4	38	22	34	70,5	16	139,5	18	13	10	14,3
1 1/8 28,575	45	24	38,1	83,5	16,5	165	21	17	14	22,2
1 3/16 30,162	45	24	38,1	83,5	16,5	165	21	17	14	22,2
1 1/4 31,75	46	27	42,9	93,5	18,5	166,5	21	17	14	25,4
1 3/8 34,925	46	27	42,9	93,5	18,5	166,5	21	17	14	25,4
1 7/16 36,512	46	27	42,9	93,5	18,5	166,5	21	17	14	25,4
1 1/2 38,1	49	29	49,2	101	20,5	184	21	17	14	30,2
1 3/4 44,45	51	29	49,2	108	19	189,5	21	17	14	30,2
2 50,8	59	35	55,6	126	22	219	22	20	16	33,4
2 1/4 57,15	62	36	65,1	141,5	22	239,5	25	20	16	39,7
2 1/2 63,5	72	35	65,1	153,5	25,5	265	30	25	20	39,7

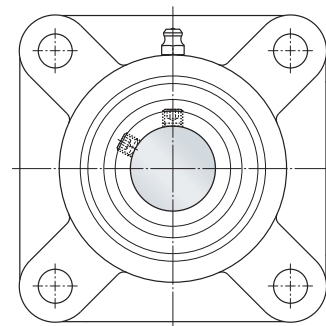
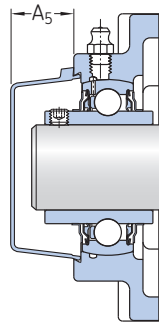
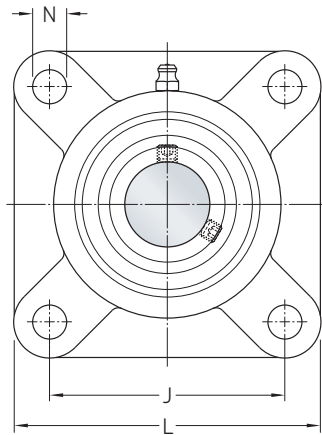
Square flanged ball bearing units, grub screw locking, metric shafts

d 20 – 100 mm

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UCF 204/H to UCF 213/H



UCF 214 to UCF 218
UCF 308 to UCF 320

Principal dimensions		Basic load ratings		Fatigue load limit	Limiting speed	Mass	Designations	Associated end cover
d	J	dynamic	static	P_u	with shaft tolerance h6		Ball bearing unit	
mm		kN	C_0		r/min	kg	–	
20	64	12,7	6,55	0,28	6 500	0,53	UCF 204/H	ECY 204
25	70	14	7,8	0,335	5 850	0,72	UCF 205/H	ECY 205
30	83	19,5	11,2	0,475	5 000	1,05	UCF 206/H	ECY 206
35	92	25,5	15,3	0,655	4 300	1,35	UCF 207/H	ECY 207
40	102	30,7	19	0,8	3 750	1,8	UCF 208/H	ECY 208
	112	41	24	1,02	4 200	2,65	UCF 308	–
45	105	33,2	21,6	0,915	3 400	2,1	UCF 209/H	ECY 209
50	111	35,1	23,2	0,98	3 300	2,4	UCF 210/H	ECY 210
	132	61,8	38	1,6	3 400	4,95	UCF 310	–
55	130	43,6	29	1,25	3 000	3,4	UCF 211/H	ECY 211
60	143	52,7	36	1,53	2 700	4,05	UCF 212/H	ECY 212
	150	81,9	52	2,2	2 900	7	UCF 312	–
65	149	57,2	40	1,7	2 350	5,35	UCF 213/H	ECY 213
70	152	62	44	1,86	2 250	5,95	UCF 214	ECY 214
75	159	66	49	2,04	2 100	6,2	UCF 215	ECY 215
	184	114	76,5	3	2 300	11,6	UCF 315	–
80	165	72	54	2,2	1 900	7,35	UCF 216	ECY 216
90	187	96	72	2,7	1 600	11,5	UCF 218	ECY 218
100	242	174	140	4,75	1 700	29,8	UCF 320	–

Dimensions

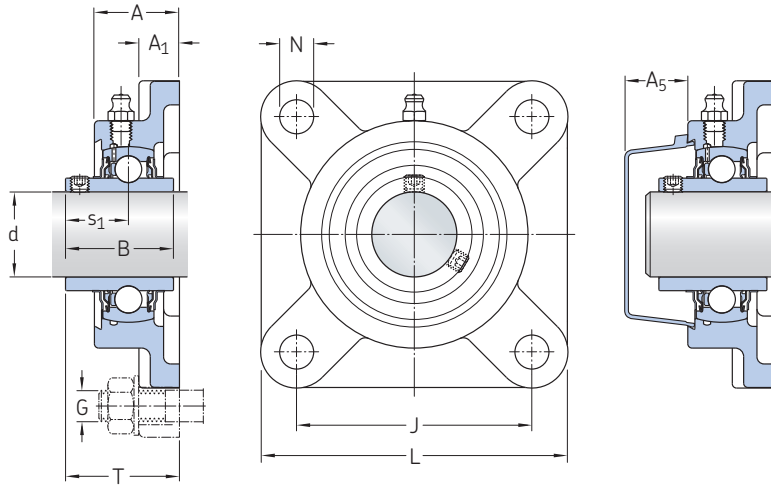
d	A	A ₁	A ₅	B	L	N	G	s ₁	T
mm									
20	25,5	11	20,5	31	86	12	10	18,3	33,3
25	27	13	20,5	34,1	95	12	10	19,8	35,8
30	30	14	22,5	38,1	108	12	10	22,2	40,2
35	32	15	24,5	42,9	118	14	12	25,4	44,4
40	35,5	15	26	49,2	130	16	14	30,2	51,2
	42	18	–	52	149	19	16	33	56
45	38	16	26,5	49,2	137	16	14	30,2	52,2
50	39,5	16	33	51,6	143	16	14	32,6	54,6
	49,5	20	–	61	175	23	20	39	67
55	43	18	37,5	55,6	162	19	16	33,4	58,4
60	47,5	18	39	65,1	175	19	16	39,7	68,7
	57,5	23	–	71	193	23	20	45	78
65	50	22	39	68,3	187	19	16	42,9	72,9
70	54	22	41,5	74,6	193	19	16	44,4	75,4
75	56,5	22	41,5	77,8	200	19	16	44,5	78,3
	68	26	–	82	229	25	22	50	89
80	58	22	41,5	82,6	208	23	20	49,3	83,3
90	68,5	25	45,5	96	235	23	20	56,3	96
100	94,5	33	–	108	312	38	33	66	125

Square flanged ball bearing units, grub screw locking, inch shafts

d $\frac{3}{4}$ – 2 $\frac{1}{2}$ in.

19,05 – 63,5 mm

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Principal dimensions		Basic load ratings		Fatigue load limit	Limiting speed	Mass	Designations	
d	J	dynamic	static	P_u	with shaft tolerance h6		Ball bearing unit	Associated end cover
in./mm	mm	kN			r/min	kg	–	
$\frac{3}{4}$ 19,05	64	12,7	6,7	0,285	6 500	0,53	UCF 204-12	ECY 204
$\frac{7}{8}$ 22,225	70	14	7,8	0,335	5 850	0,74	UCF 205-14	ECY 205
$\frac{15}{16}$ 23,812	70	14	7,8	0,335	5 850	0,73	UCF 205-15	ECY 205
1 25,4	70	14	7,8	0,335	5 850	0,71	UCF 205-16	ECY 205
1 $\frac{1}{8}$ 28,575	83	19,5	11,4	0,48	5 000	1,05	UCF 206-18	ECY 206
1 $\frac{3}{16}$ 30,162	83	19,5	11,4	0,48	5 000	1,05	UCF 206-19	ECY 206
1 $\frac{1}{4}$ 31,75	92	25,5	15,3	0,655	4 300	1,4	UCF 207-20	ECY 207
1 $\frac{3}{8}$ 34,925	92	25,5	15,3	0,655	4 300	1,35	UCF 207-22	ECY 207
1 $\frac{7}{16}$ 36,512	92	25,5	15,3	0,655	4 300	1,3	UCF 207-23	ECY 207
1 $\frac{1}{2}$ 38,1	102	32,5	20	0,85	3 750	1,85	UCF 208-24	ECY 208
1 $\frac{3}{4}$ 44,45	105	32,5	20,4	0,865	3 400	2,1	UCF 209-28	ECY 209
2 50,8	130	43,6	29	1,25	3 000	3,6	UCF 211-32	ECY 211
2 $\frac{1}{4}$ 57,15	143	52,7	36	1,53	2 700	4,25	UCF 212-36	ECY 212
2 $\frac{1}{2}$ 63,5	149	57,2	40	1,7	2 350	5,4	UCF 213-40	ECY 213

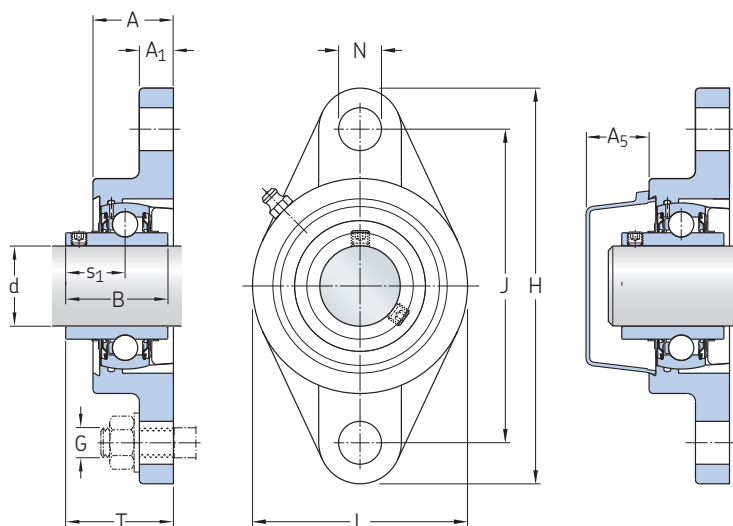
Dimensions

d	A	A ₁	A ₅	B	L	N	G	s ₁	T
in./mm	mm								
3/4 19,05	25,5	11	20,5	31	86	12	10	18,3	33,3
7/8 22,225	27	13	20,5	34	95	12	10	19,7	35,7
15/16 23,812	27	13	20,5	34	95	12	10	19,7	35,7
1 25,4	27	13	20,5	34	95	12	10	14,3	35,7
1 1/8 28,575	30	14	22,5	38,1	108	12	10	22,2	40,2
1 3/16 30,162	30	14	22,5	38,1	108	12	10	22,2	40,2
1 1/4 31,75	32	15	24,5	42,9	118	14	12	25,4	44,4
1 3/8 34,925	32	15	24,5	42,9	118	14	12	25,4	44,4
1 7/16 36,512	32	15	24,5	42,9	118	14	12	25,4	44,4
1 1/2 38,1	35,5	15	26	49,2	130	16	14	30,2	51,2
1 3/4 44,45	38	16	26,5	49,2	137	16	14	30,2	52,2
2 50,8	43	18	37,5	55,6	162	19	16	33,4	58,4
2 1/4 57,15	47,5	18	39	65,1	175	19	16	39,7	68,7
2 1/2 63,5	50	22	39	65,1	187	19	16	39,7	69,7

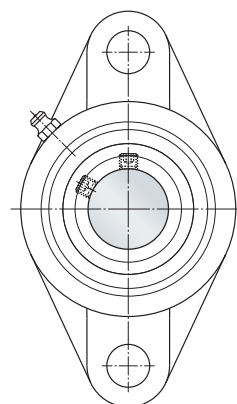
Oval flanged ball bearing units, grub screw locking

d 20 – 90 mm

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UCFL 204/H to UCFL 213/H



UCFL 214 to UCFL 218

Principal dimensions		Basic load ratings		Fatigue load limit	Limiting speed	Mass	Designations	Associated end cover
d	J	dynamic	static	P_u	with shaft tolerance h6	kg	Ball bearing unit	
mm		kN			r/min		–	
20	90	12,7	6,55	0,28	6 500	0,44	UCFL 204/H	ECY 204
25	99	14	7,8	0,335	5 850	0,61	UCFL 205/H	ECY 205
30	117	19,5	11,2	0,475	5 000	0,9	UCFL 206/H	ECY 206
35	130	25,5	15,3	0,655	4 300	1,15	UCFL 207/H	ECY 207
40	144	30,7	19	0,8	3 750	1,5	UCFL 208/H	ECY 208
45	148	33,2	21,6	0,915	3 400	1,8	UCFL 209/H	ECY 209
50	157	35,1	23,2	0,98	3 300	2,2	UCFL 210/H	ECY 210
55	184	43,6	29	1,25	3 000	3,05	UCFL 211/H	ECY 211
60	202	52,7	36	1,53	2 700	3,85	UCFL 212/H	ECY 212
65	210	57,2	40	1,7	2 350	4,85	UCFL 213/H	ECY 213
70	216	62,4	44	1,86	2 250	5,45	UCFL 214	ECY 214
75	225	66,3	49	2,04	2 100	5,95	UCFL 215	ECY 215
80	233	71,5	54	2,2	1 900	7,5	UCFL 216	ECY 216
90	265	95,6	72	2,7	1 600	11,3	UCFL 218	ECY 218

Dimensions

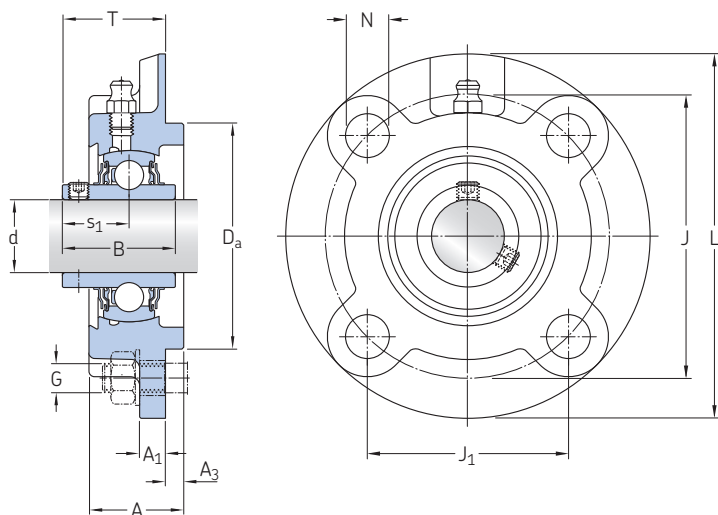
d	A	A ₁	A ₅	B	H	L	N	G	s ₁	T
20	25,5	11	20,5	31	113	60	12	10	18,3	33,3
25	27	13	20,5	34,1	130	68	16	14	19,8	35,8
30	30	13	22,5	38,1	147,5	80	16	14	22,2	40,2
35	32	14	24,5	42,9	161	90	16	14	25,4	44,4
40	34	14	26	49,2	174,5	100	16	14	30,2	51,2
45	35	15	26,5	49,2	188	108	19	16	30,2	51,2
50	39	15	33	51,6	197	115	19	16	32,6	53,6
55	41,5	18	37,5	55,6	224	130	19	16	33,4	58,4
60	45	18	39	65,1	250	140	23	20	39,7	68,7
65	47	20	39	68,3	258	155	23	20	42,9	72,9
70	50	20	41,5	74,6	265	160	23	20	44,4	75,4
75	54	20	41,5	77,8	275	164	23	20	44,5	78,5
80	56	20	41,5	82,6	290	180	25	22	49,3	83,3
90	68	23	45,5	96	320	205	25	22	56,3	96,3

mm

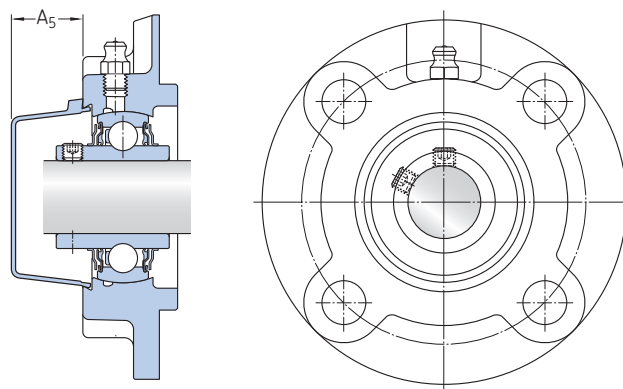
Round flanged ball bearing units, grub screw locking

d 20 – 90 mm

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UCFC 204/H to UCFC 213/H



UCFC 214 to UCFC 218

Principal dimensions				Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designations	
d	Da	J	J ₁	dynamic	static				Ball bearing unit	Associated end cover
mm				kN			r/min	kg	–	
20	62	78	55,2	12,7	6,55	0,28	6 500	0,71	UCFC 204/H	ECY 204
25	70	90	63,6	14	7,8	0,335	5 850	1	UCFC 205/H	ECY 205
30	80	100	70,7	19,5	11,2	0,475	5 000	1,3	UCFC 206/H	ECY 206
35	90	110	77,8	25,5	15,3	0,655	4 300	1,6	UCFC 207/H	ECY 207
40	100	120	84,9	30,7	19	0,8	3 750	2	UCFC 208/H	ECY 208
45	105	132	93,3	33,2	21,6	0,915	3 400	2,7	UCFC 209/H	ECY 209
50	110	138	97,6	35,1	23,2	0,98	3 300	2,9	UCFC 210/H	ECY 210
55	125	150	106,1	43,6	29	1,25	3 000	4,1	UCFC 211/H	ECY 211
60	135	160	113,1	52,7	36	1,53	2 700	4,95	UCFC 212/H	ECY 212
65	145	170	120,2	57,2	40	1,7	2 350	5,65	UCFC 213/H	ECY 213
70	150	177	125,2	62,4	44	1,86	2 250	6,85	UCFC 214	ECY 214
75	160	184	130,1	66,3	49	2,04	2 100	7,35	UCFC 215	ECY 215
80	170	200	141,4	71,5	54	2,2	1 900	9,1	UCFC 216	ECY 216
90	190	220	155,6	95,6	72	2,7	1 600	12,8	UCFC 218	ECY 218

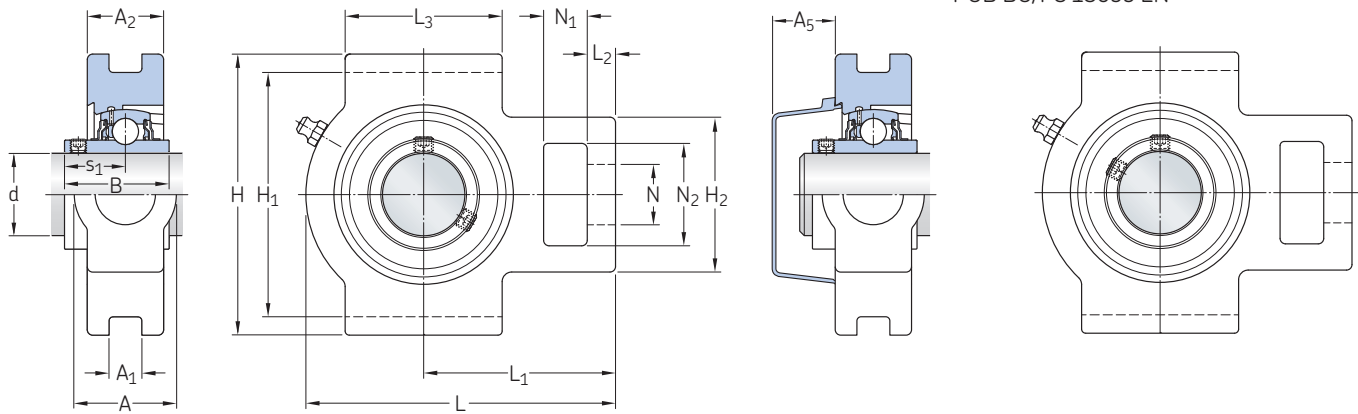
Dimensions

d	A	A ₁	A ₃	A ₅	B	L	N	G	s ₁	T
<hr/>										
mm										
<hr/>										
20	26	7	5	20,5	31	100	12	10	18,3	28,3
25	27,5	7	6	20,5	34,1	115	12	10	19,8	29,8
30	30	8	8	22,5	38,1	125	12	10	22,2	32,2
35	32	9	8	24,5	42,9	135	14	12	25,4	36,4
40	35,5	9	10	26	49,2	145	14	12	30,2	41,2
45	37,5	14	12	26,5	49,2	160	16	14	30,2	40,2
50	39	14	12	33	51,6	165	16	14	32,6	42,6
55	43	15	12	37,5	55,6	185	19	16	33,4	46,4
60	47,5	15	12	39	65,1	195	19	16	39,7	56,7
65	50	15	14	39	68,3	205	19	16	42,9	58,9
70	54	10	14	41,5	74,6	215	19	16	44,4	61,4
75	56	10	16	41,5	77,8	220	19	16	44,5	62,5
80	58	10	16	41,5	82,6	240	23	20	49,3	67,3
90	68,5	20	18	45,5	96	265	23	20	56,3	78,3

Take-up ball bearing units, grub screw locking

d 20 – 85 mm

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UCT 204/H to UCT 213/H

UCT 214 to UCT 217

Principal dimensions				Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designations	
d	H ₁	A ₁	N	dynamic C	static C ₀				Ball bearing unit	Associated end cover
mm				kN		P _u	r/min	kg	–	
20	76	12	19	12,7	6,55	0,28	6 500	0,7	UCT 204/H	ECY 204
25	76	12	19	14	7,8	0,335	5 850	0,79	UCT 205/H	ECY 205
30	89	12	22	19,5	11,2	0,475	5 000	1,25	UCT 206/H	ECY 206
35	89	12	22	25,5	15,3	0,655	4 300	1,6	UCT 207/H	ECY 207
40	102	16	29	30,7	19	0,8	3 750	2,35	UCT 208/H	ECY 208
45	102	16	29	33,2	21,6	0,915	3 400	2,35	UCT 209/H	ECY 209
50	102	16	29	35,1	23,2	0,98	3 300	2,5	UCT 210/H	ECY 210
55	130	22	35	43,6	29	1,25	3 000	3,85	UCT 211/H	ECY 211
60	130	22	35	52,7	36	1,53	2 700	4,7	UCT 212/H	ECY 212
65	151	26	41	57,2	40	1,7	2 350	6,7	UCT 213/H	ECY 213
70	151	26	41	62,4	44	1,86	2 250	6,9	UCT 214	ECY 214
75	151	26	41	66,3	49	2,04	2 100	7,2	UCT 215	ECY 215
80	165	26	41	71,5	54	2,2	1 900	8,3	UCT 216	ECY 216
85	173	30	48	83,2	64	2,5	1 800	10,8	UCT 217	ECY 217

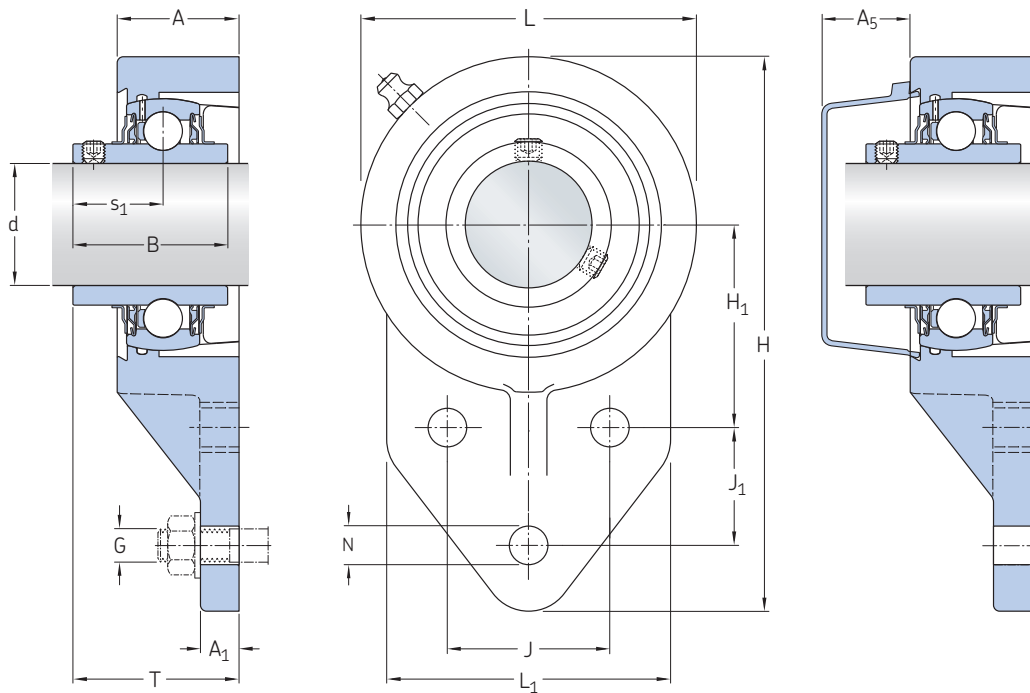
Dimensions

d	A	A ₂	A ₅	B	H	H ₂	L	L ₁	L ₂	L ₃	N ₁	N ₂	s ₁
mm													
20	32	21	20,5	31	89	51	94	61	10	51	16	32	18,3
25	32	24	20,5	34,1	89	51	97	62	10	51	16	32	19,8
30	37	28	22,5	38,1	102	56	113	70	10	57	16	37,5	22,2
35	37	30	24,5	42,9	102	64	129	78	13	64	16	37,5	25,4
40	49	33	26	49,2	114	83	145	88	16	83	19	49	30,2
45	49	35	26,5	49,2	117	83	145	87	16	83	21	51	30,2
50	49	37	33	51,6	117	83	148	90	16	86	19	49	32,6
55	64	38	37,5	55,6	146	102	172	106	19	95	25	64,5	33,4
60	64	42	39	65,1	146	102	45	119	19	102	32	64,5	39,7
65	70	44	39	68,3	167	111	225	137	21	121	32	70	42,9
70	70	46	41,5	74,6	167	111	225	137	21	121	32	70	44,4
75	70	48	41,5	77,8	167	111	232	140	21	121	32	70	44,5
80	70	51	41,5	82,6	184	111	235	140	21	121	32	70	49,3
85	73	54	43	85,7	198	124	260	162	29	157	38	73	51,6

3-bolt bracket flanged ball bearing units, grub screw locking

d 30 – 45 mm

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Principal dimensions				Basic load ratings		Fatigue load limit	Limiting speed	Mass	Designations	Associated end cover
d	H ₁	J	J ₁	C	C ₀	P _u	with shaft tolerance h6	kg	Ball bearing unit	
mm				kN			r/min		–	
30	50	40	29	19,5	11,2	0,475	5 000	1,05	UCFB 206/H	ECY 206
35	55	46	32	25,5	15,3	0,655	4 300	1,4	UCFB 207/H	ECY 207
40	60	50	41	30,7	19	0,8	3 750	1,8	UCFB 208/H	ECY 208
45	65	54	43	33,2	21,6	0,915	3 400	2,15	UCFB 209/H	ECY 209

Dimensions

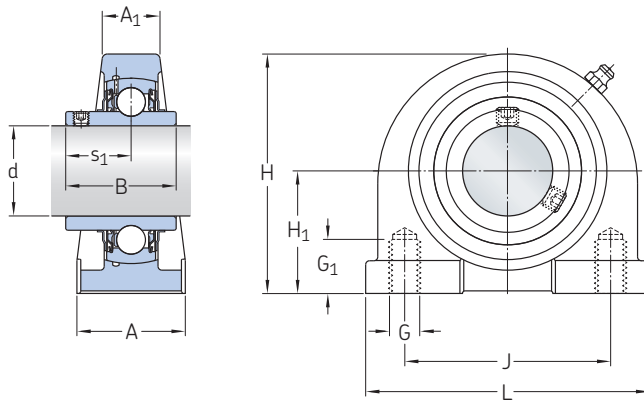
d	A	A ₁	A ₅	B	H	L	L ₁	N	G	s ₁	T
30	30	10	22,5	38,1	137	83	70	9,5	8	22,2	40,9
35	33,5	13	24,5	42,9	144	90	83	9,5	8	25,4	44,4
40	35,5	16	26	49,2	164	100	78	11	10	30,2	51,2
45	37	18	26,5	49,2	176	106	80	11	10	30,2	50,2

mm

Short base pillow block ball bearing units, grub screw locking

d 35 – 50 mm

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PUB BU/P8 18054 EN



Principal dimensions			Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designations
d	H ₁	J	dynamic C	static C ₀				
mm			kN		P _u	r/min	kg	–
35	47,6	80	25,5	15,3	0,655	4 300	1,45	UCPA 207/H
40	49,2	84	30,7	19	0,8	3 750	1,65	UCPA 208/H
45	54,2	90	33,2	21,6	0,915	3 400	1,85	UCPA 209/H
50	57,2	94	35,1	23,2	0,98	3 300	2,25	UCPA 210/H

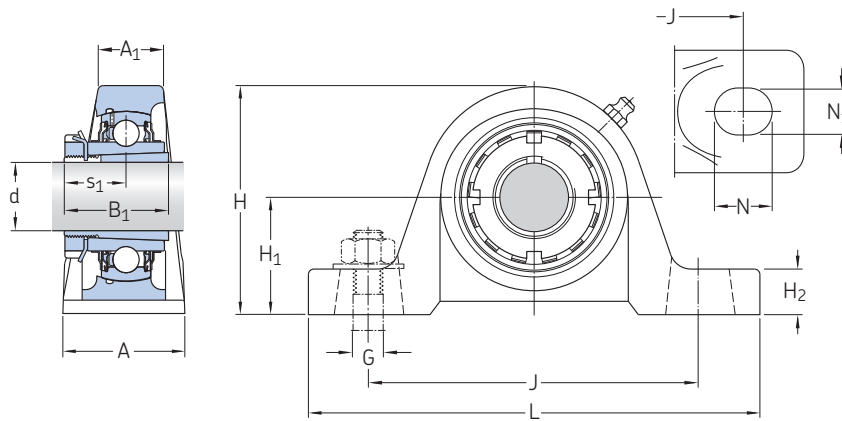
Dimensions

d	A	A ₁	B	H	L	G	G ₁	s ₁
mm						-	mm	
35	42	22	42,9	93	110,5	M14	20	25,4
40	45	27	49,2	98	116	M14	20	30,2
45	45	26	49,2	106	120	M14	25	30,2
50	51	27	51,6	113	130	M16	25	32,6

Pillow block ball bearing units, adapter locking

d 20 – 60 mm

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Principal dimensions			Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designations	
d	H ₁	J	dynamic C	static C ₀				P _u	kg
mm			kN			r/min		–	
20	36,5	105	14	7,8	0,335	5 850	0,82	UKP 205 K/H	H 2305
25	42,9	121	19,5	11,2	0,475	5 000	1,25	UKP 206 K/H	H 2306
30	47,6	127	25,5	15,3	0,655	4 300	1,6	UKP 207 K/H	H 2307
35	49,2	137	30,7	19	0,8	3 750	2,1	UKP 208 K/H	H 2308
40	54	146	33,2	21,6	0,915	3 400	2,4	UKP 209 K/H	H 2309
45	57,2	159	35,1	23,2	0,98	3 300	2,9	UKP 210 K/H	H 2310
50	63,5	171	43,6	29	1,25	3 000	3,75	UKP 211 K/H	H 2311
55	69,8	184	52,7	36	1,53	2 700	4,7	UKP 212 K/H	H 2312
60	76,2	203	57,2	40	1,7	2 350	6,4	UKP 213 K/H	H 2313

¹⁾ Order adapter sleeve separately.

Dimensions

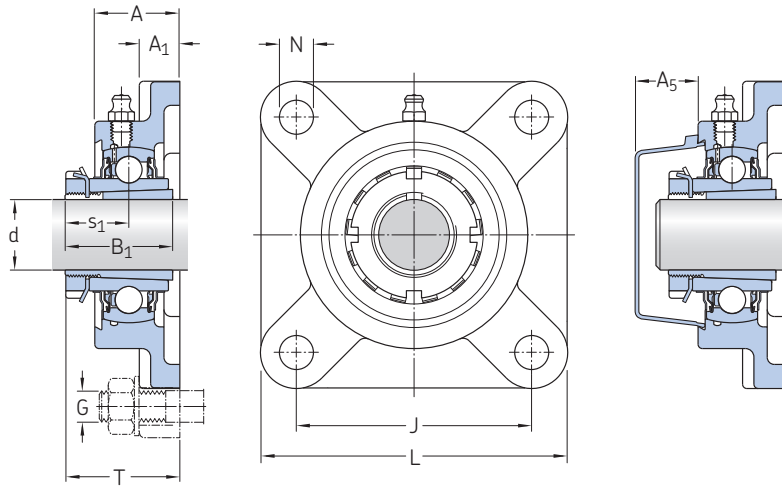
d	A	A ₁	B ₁	H	H ₂	L	N	N ₁	G	s ₁ ²⁾
mm										
20	38	22	35	70,5	16	139,5	18	13	10	20,5
25	45	24	38	83,5	16,5	165	21	17	14	22,5
30	46	27	43	93,5	18,5	166,5	21	17	14	24,8
35	49	29	46	101	20,5	184	21	17	14	27,5
40	51	29	50	108	19	189,5	21	17	14	29
45	56	31	55	116	19	206,5	22	20	16	31,1
50	59	35	59	126	22	219	22	20	16	32,5
55	62	36	62	141,5	22	239,5	25	20	16	33,8
60	72	35	65	153,5	25,5	265	30	25	20	35,3

²⁾ Values for s₁ are valid before the sleeve is driven into the bearing bore (sleeve and inner ring at starting position).

Square flanged ball bearing units, adapter locking

d 20 – 60 mm

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Principal dimensions		Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designations Ball bearing unit	Adapter sleeve ¹⁾	Associated end cover
d	J	dynamic C	static C ₀						
mm		kN			r/min	kg	–		
20	70	14	7,8	0,335	5 850	0,77	UKF 205 K/H	H 2305	ECY 205
25	83	19,5	11,2	0,475	5 000	1,15	UKF 206 K/H	H 2306	ECY 206
30	92	25,5	15,3	0,655	4 300	1,45	UKF 207 K/H	H 2307	ECY 207
35	102	30,7	19	0,8	3 750	1,9	UKF 208 K/H	H 2308	ECY 208
40	105	33,2	21,6	0,915	3 400	2,25	UKF 209 K/H	H 2309	ECY 209
45	111	35,1	23,2	0,98	3 300	2,6	UKF 210 K/H	H 2310	ECY 210
50	130	43,6	29	1,25	3 000	3,6	UKF 211 K/H	H 2311	ECY 211
55	143	52,7	36	1,53	2 700	4,2	UKF 212 K/H	H 2312	ECY 212
60	149	57,2	40	1,7	2 350	5,45	UKF 213 K/H	H 2313	ECY 213

¹⁾ Order adapter sleeve separately.

Dimensions

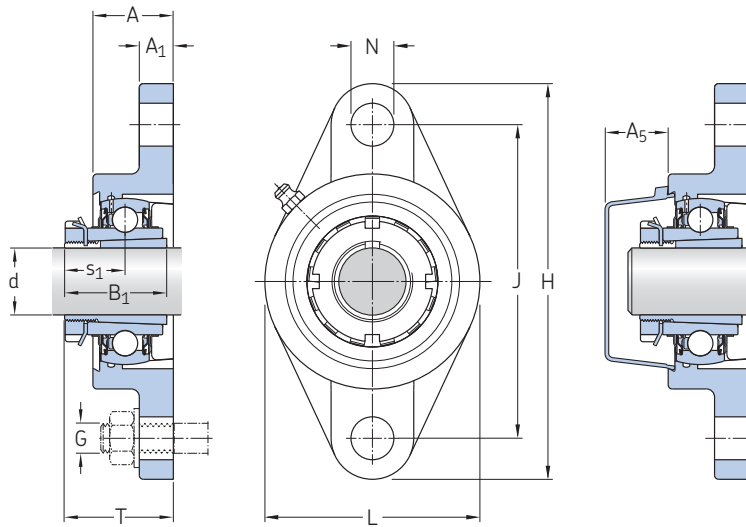
d	A	A ₁	A ₅	B ₁	L	N	G	s ₁ ²⁾	T
mm									
20	27	13	20,5	35	95	12	10	20,5	36,5
25	30	14	22,5	38	108	12	10	22,5	40,5
30	32	15	24,5	43	118	14	12	24,8	43,8
35	35,5	15	26	46	130	16	14	27,5	48,5
40	38	16	26,5	50	137	16	14	29	51
45	39,5	16	33	55	143	16	14	31,1	53,1
50	43	18	37,5	59	162	19	16	32,5	57,5
55	47,5	18	39	62	175	19	16	33,8	62,8
60	50	22	39	65	187	19	16	35,3	65,3

²⁾ Values for s₁ are valid before the sleeve is driven into the bearing bore (sleeve and inner ring at starting position).

Oval flanged ball bearing units, adapter locking

d 20 – 60 mm

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Principal dimensions		Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designations Ball bearing unit	Adapter sleeve ¹⁾	Associated end cover
d	J	dynamic C	static C ₀						
mm		kN							
20	99	14	7,8	0,335	5 850	0,67	UKFL 205 K/H	H 2305	ECY 205
25	117	19,5	11,2	0,475	5 000	0,97	UKFL 206 K/H	H 2306	ECY 206
30	130	25,5	15,3	0,655	4 300	1,25	UKFL 207 K/H	H 2307	ECY 207
35	144	30,7	19	0,8	3 750	1,6	UKFL 208 K/H	H 2308	ECY 208
40	148	33,2	21,6	0,915	3 400	2	UKFL 209 K/H	H 2309	ECY 209
45	157	35,1	23,2	0,98	3 300	2,4	UKFL 210 K/H	H 2310	ECY 210
50	184	43,6	29	1,25	3 000	3,3	UKFL 211 K/H	H 2311	ECY 211
55	202	52,7	36	1,53	2 700	4	UKFL 212 K/H	H 2312	ECY 212
60	210	57,2	40	1,7	2 350	5	UKFL 213 K/H	H 2313	ECY 213

¹⁾ Order adapter sleeve separately.

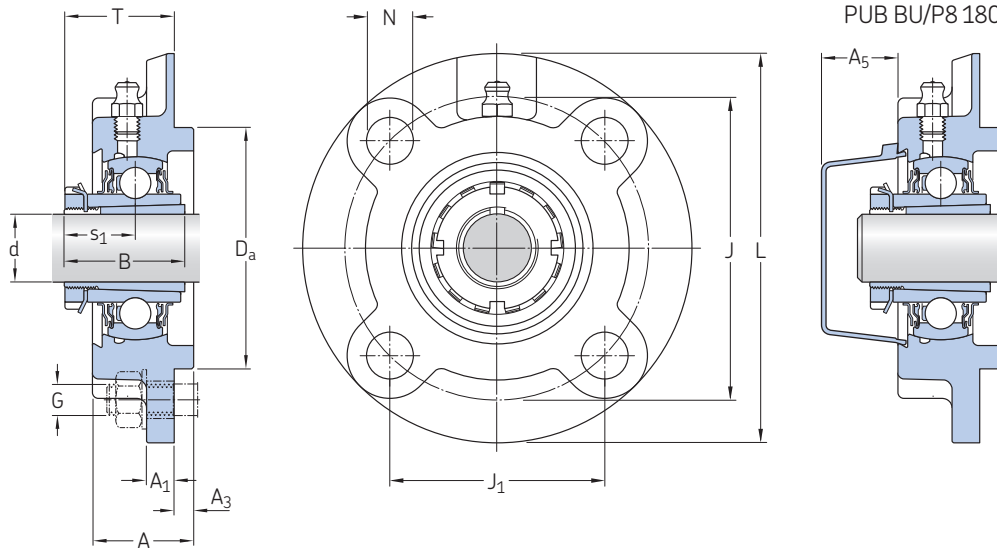
Dimensions

d	A	A ₁	A ₅	B ₁	H	L	N	G	s ₁ ²⁾	T
mm										
20	27	13	20,5	35	130	68	16	14	20,5	36,5
25	30	13	22,5	38	147,5	80	16	14	22,5	40,5
30	32	14	24,5	43	161	90	16	14	24,8	43,8
35	34	14	26	46	174,5	100	16	14	27,5	48,5
40	35	15	26,5	50	188	108	19	16	29	51
45	39	15	33	55	197	115	19	16	31,1	53,1
50	41,5	18	37,5	59	224	130	19	16	32,5	57,5
55	45	18	39	62	250	140	23	20	33,8	62,8
60	47	20	39	65	258	155	23	20	35,3	65,3

²⁾ Values for s₁ are valid before the sleeve is driven into the bearing bore (sleeve and inner ring at starting position).

Round flanged ball bearing units, adapter locking

d 20 – 60 mm



This page is a reprint from
PUB BU/P8 18058 EN

Principal dimensions				Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designations Ball bearing unit	Adapter sleeve ¹⁾	Associated end cover
d	Da	J	J ₁	dynamic	static						
mm				kN			r/min	kg	–		
20	70	90	63,6	14	7,8	0,335	5 850	1,05	UKFC 205 K/H	H 2305	ECY 205
25	80	100	70,7	19,5	11,2	0,475	5 000	1,35	UKFC 206 K/H	H 2306	ECY 206
30	90	110	77,8	25,5	15,3	0,655	4 300	1,7	UKFC 207 K/H	H 2307	ECY 207
35	100	120	84,9	30,7	19	0,8	3 750	2,15	UKFC 208 K/H	H 2308	ECY 208
40	105	132	93,3	33,2	21,6	0,915	3 400	2,9	UKFC 209 K/H	H 2309	ECY 209
45	110	138	97,6	35,1	23,2	0,98	3 300	3,1	UKFC 210 K/H	H 2310	ECY 210
50	125	150	106,1	43,6	29	1,25	3 000	4,3	UKFC 211 K/H	H 2311	ECY 211
55	135	160	113,1	52,7	36	1,53	2 700	5,1	UKFC 212 K/H	H 2312	ECY 212
60	145	170	120,2	57,2	40	1,7	2 350	5,75	UKFC 213 K/H	H 2313	ECY 213

¹⁾ Order adapter sleeve separately.

Dimensions

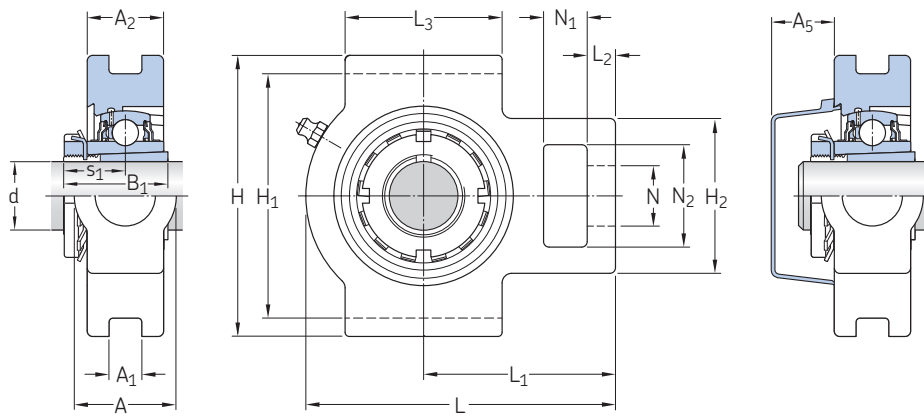
d	A	A ₁	A ₃	A ₅	B ₁	L	N	G	s ₁ ²⁾	T
mm										
20	27,5	7	6	20,5	35	115	12	10	20,5	30,5
25	30	8	8	22,5	38	125	12	10	22,5	32,5
30	32	9	8	24,5	43	135	14	12	24,8	35,8
35	35,5	9	10	26	46	145	14	12	27,5	38,5
40	37,5	14	12	26,5	50	160	16	14	29	39
45	39	14	12	33	55	165	16	14	31,1	41,1
50	43	15	12	37,5	59	185	19	16	32,5	45,5
55	47,5	15	12	39	62	195	19	16	33,8	50,8
60	50	15	14	39	65	205	19	16	35,3	51,3

²⁾ Values for s₁ are valid before the sleeve is driven into the bearing bore (sleeve and inner ring at starting position).

Take-up ball bearing units, adapter locking

d 20 – 60 mm

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PUB BU/P8 18062 EN



Principal dimensions				Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designations			
d	H ₁	A ₁	N	dynamic	static				Ball bearing unit	Adapter sleeve ¹⁾	Associated end cover	
mm				C	C ₀	P _u	r/min	kg	–			
20	76	12	19	14	7,8	0,335	5 850	0,84		UKT 205 K/H	H 2305	ECY 205
25	89	12	22	19,5	11,2	0,475	5 000	1,3		UKT 206 K/H	H 2306	ECY 206
30	89	12	22	25,5	15,3	0,655	4 300	1,7		UKT 207 K/H	H 2307	ECY 207
35	102	16	29	30,7	19	0,8	3 750	2,45		UKT 208 K/H	H 2308	ECY 208
40	102	16	29	33,2	21,6	0,915	3 400	2,5		UKT 209 K/H	H 2309	ECY 209
45	102	16	29	35,1	23,2	0,98	3 300	2,7		UKT 210 K/H	H 2310	ECY 210
50	130	22	35	43,6	29	1,25	3 000	4,05		UKT 211 K/H	H 2311	ECY 211
55	130	22	35	52,7	36	1,53	2 700	4,8		UKT 212 K/H	H 2312	ECY 212
60	151	26	41	57,2	40	1,7	2 350	6,8		UKT 213 K/H	H 2313	ECY 213

¹⁾ Order adapter sleeve separately.

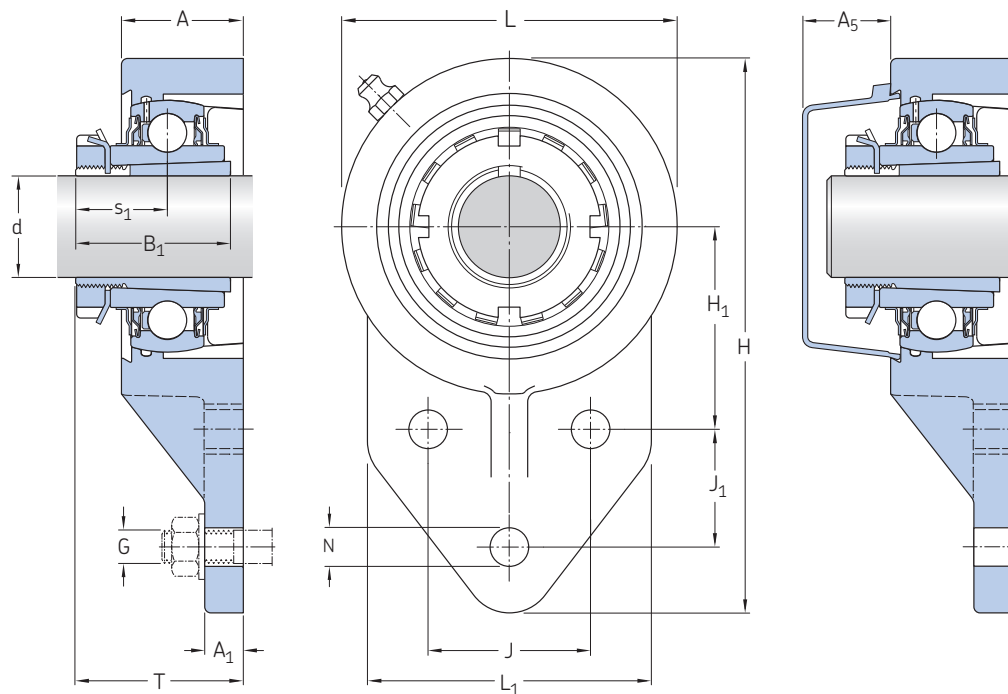
Dimensions

d	A	A ₂	A ₅	B ₁	H	H ₂	L	L ₁	L ₂	L ₃	N ₁	N ₂	s ₁ ²⁾
mm													
20	32	24	20,5	35	89	51	97	62	10	51	16	32	20,5
25	37	28	22,5	38	102	56	113	70	10	57	16	37,5	22,5
30	37	30	24,5	43	102	64	129	78	13	64	16	37,5	24,8
35	49	33	26	46	114	83	145	88	16	83	19	49	27,5
40	49	35	26,5	50	117	83	145	87	16	83	21	51	29
45	49	37	33	55	117	83	148	90	16	86	19	49	31,1
50	64	38	37,5	59	146	102	172	106	19	95	25	64,5	32,5
55	64	42	39	62	146	102	194	119	19	102	32	64,5	33,8
60	70	44	39	65	167	111	225	137	21	121	32	70	35,3

²⁾ Values for s₁ are valid before the sleeve is driven into the bearing bore (sleeve and inner ring at starting position).

3-bolt bracket flanged ball bearing units, adapter locking

d 25 – 40 mm



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PUB BU/P8 18057 EN

Principal dimensions				Basic load ratings		Fatigue load limit	Limiting speed	Mass	Designations	Adapter sleeve ¹⁾	Associated end cover
d	H ₁	J	J ₁	C	C ₀	P _u	with shaft tolerance h6	kg	Ball bearing unit		
mm				kN			r/min		–		
25	50	40	29	19,5	11,2	0,475	5 000	1,1	UKFB 206 K/H	H 2306	ECY 206
30	55	46	32	25,5	15,3	0,655	4 300	1,5	UKFB 207 K/H	H 2307	ECY 207
35	60	50	41	30,7	19	0,8	3 750	1,95	UKFB 208 K/H	H 2308	ECY 208
40	65	54	43	33,2	21,6	0,915	3 400	2,3	UKFB 209 K/H	H 2309	ECY 209

¹⁾ Order adapter sleeve separately.

Dimensions

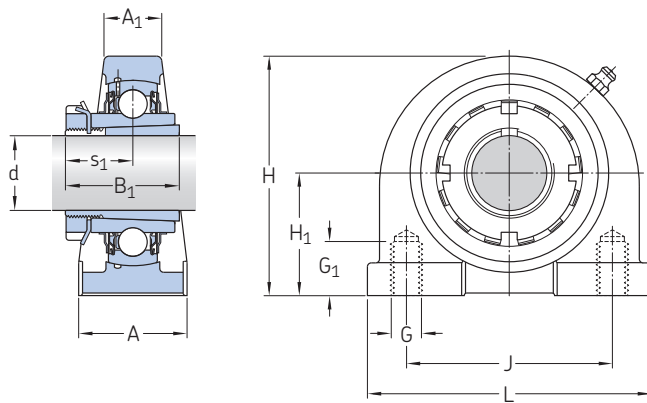
d	A	A ₁	A ₅	B ₁	H	L	L ₁	N	G	s ₁ ²⁾	T
mm											
25	30	10	22,5	38	137	83	70	9,5	8	22,5	41,2
30	33,5	13	24,5	43	144	90	83	9,5	8	24,8	43,8
35	35,5	16	26	46	164	100	78	11	10	27,5	48,5
40	37	18	26,5	50	176	106	80	11	10	29	49

²⁾ Values for s₁ are valid before the sleeve is driven into the bearing bore (sleeve and inner ring at starting position).

Short base pillow block ball bearing units, adapter locking

d 30 – 45 mm

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Principal dimensions			Basic load ratings		Fatigue load limit	Limiting speed with shaft tolerance h6	Mass	Designations	
d	H ₁	J	dynamic	static				C	C ₀
mm			kN			r/min	kg	–	
30	47,6	80	25,5	15,3	0,655	4 300	1,5	UKPA 207 K/H	H 2307
35	49,2	84	30,7	19	0,8	3 750	1,75	UKPA 208 K/H	H 2308
40	54,2	90	33,2	21,6	0,915	3 400	2	UKPA 209 K/H	H 2309
45	57,2	94	35,1	23,2	0,98	3 300	2,45	UKPA 210 K/H	H 2310

¹⁾ Order adapter sleeve separately.

Dimensions

d	A	A ₁	B ₁	H	L	G	G ₁	s ₁ ²⁾
mm						–	mm	
30	42	22	43	93	110,5	M14	20	24,8
35	45	27	46	98	116	M14	20	27,5
40	45	26	50	106	120	M14	25	29
45	51	27	55	113	130	M16	25	31,1

²⁾ Values for s₁ are valid before the sleeve is driven into the bearing bore (sleeve and inner ring at starting position).

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