

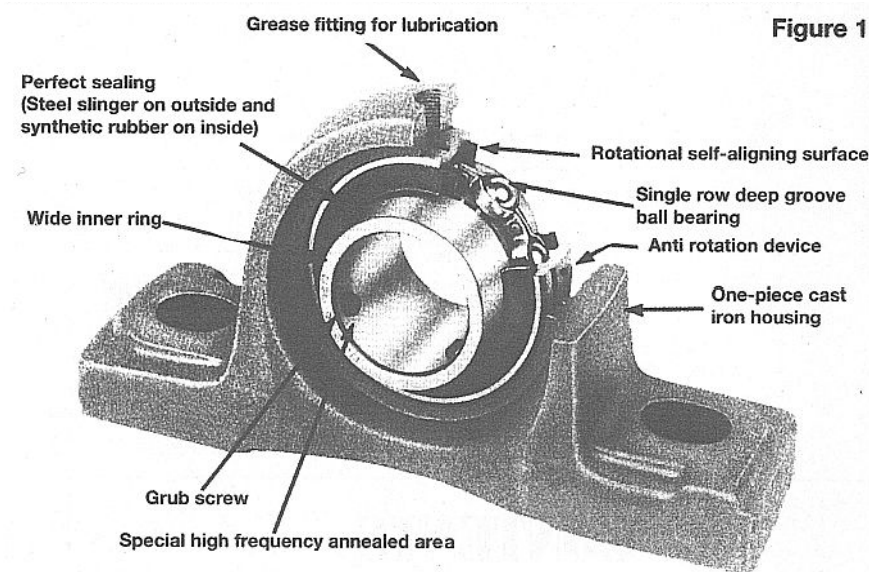


Figure 1

A. CONSTRUCTION AND FEATURES OF BALL BEARING MOUNTED UNITS

CCVI Mounted Ball Bearing Units consist of a double sealed, single row, deep groove ball bearing and any one of various types of housing. The outer race of the self-contained ball bearing is ground to a sphere, and the bore of the housing is machined to a matching radius. This permits self-alignment between the two members.

Figure 1 is a view of a Pillow Block which is the most popular type of mounted unit. Grub screw locking.

B. TYPICAL FEATURES OF BALL BEARING MOUNTED UNITS



Figure 2

(1) Internal construction of single row deep groove bearings in mounted units.

The bearings used in mounted units are quite similar in internal construction to the 6200 and 6300 series of single row, deep groove, radial ball bearings. These bearings operate under radial loads and thrust loads. They have considerably greater load carrying capacity than double row, self-aligning bearings used in some other types of mounted units.

(2) All bearings are made of 100 Cr6 steel.

This high quality steel coupled with precision grinding and superfinishing increases bearing life.

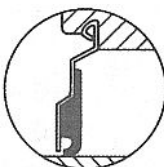


Figure 3

(3) Sealing

CCVI offers two different types of sealing:

a. Slinger with synthetic rubber seal insures positive dirt exclusion. The steel slinger is fixed on the inner ring. The seal is fixed to the outer ring and contacts the inner ring under light pressure. This combination of two sealing elements serves to exclude dirt and moisture and retains grease within the bearings ensuring full performance of the bearing even in the most severe operating conditions. (Figure 2)(Ref. to UC series).

b. Standard synthetic rubber seal moulded to a thick steel plate. This metal plate acts as a shroud and protects the rubber seal from contaminants creeping on the shaft and damaging the seal. This extra protection allows operation in many adverse conditions. Used primarily on our SA and SB type bearings. (Figure 3).

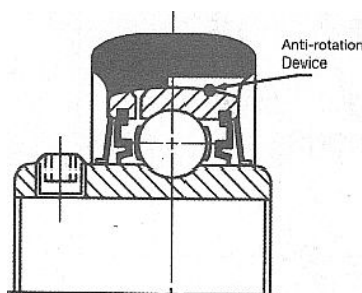


Figure 4

(4) Locking bearings to the shaft

There is an extended inner ring with two set screws. The high frequency annealed areas around the set screws help eliminate cracking of the inner ring when tightening.

(5) Anti-Rotation device for prevention of outer ring rotation

The optional feature of an anti-rotation pin is provided for the purpose of helping reduce potential outer ring rotation between the bearing and housing. (Figure 4)

DATA OF BEARINGS

1. Tolerances of Inner Ring Unit: 0,001 mm

Nominal inner diameter d (mm)		Bore				Inner width Bi		Radial runout (Max.)
over	incl	High	Low	High	Low	High	Low	
6	10	+15	0	+18	-3	0	-120	15
10	18	+18	0	+2	-4	0	-120	15
18	30	+21	0	+25	-4	0	-120	18
30	50	+25	0	+30	-5	0	-120	20
50	80	+30	0	+36	-6	0	-150	25
80	120	+35	0	+42	-7	0	-200	30
120	180	+40	0	+48	-8	0	-250	35

Note: dm is mathematical mean of the maximum and minimum values obtainable by measuring two points

3. Clearance Unit: 0,001 mm

Nominal inner diameter d (mm)		CO (standard)		C3	
over	incl.	Min.	Max	Min.	Max.
10	18	3	18	11	25
18	24	5	20	13	28
24	30	5	20	13	28
30	40	6	20	15	33
40	50	6	23	18	36
50	65	8	28	23	43
65	80	10	30	25	51
80	90	12	36	30	58

2. Tolerances of Outer Ring Unit: 0,001 mm

Nominal outside diameter D (mm)		Outside diameter Dm		Radial runout (Max.)
over.	incl	High	Low	
18	30	0	-9	15
30	50	0	-11	20
50	80	0	-13	25
80	120	0	-15	35
120	150	0	-18	40
150	180	0	-25	45
180	250	0	-30	50
250	315	0	-35	60

Note:

1. Dm is mathematical mean of the maximum and minimum values of the outer diameter when measured by the two point measuring system
2. The outside diameter tolerance shown in the above table (Dm) is not applicable to the span _ of the width of the outer ring measured from its side

4. Recommended set-screw tightening torque

Type		Screw Dimension	Tightening Torque (Nm)
SB	UC		
201	---	M 5x0,8	3
202	---		
203	---		
204	204	M 6x0,75	4
205	205		
206	206		
207	207	M 8x1	8,5
208	208		
209	209		
210	---	M 10x1,25	17,5
---	210		
---	211		
---	212		
---	213	M 12x1,25	28
---	214		
---	215		
---	216		
---	217		
---	218		

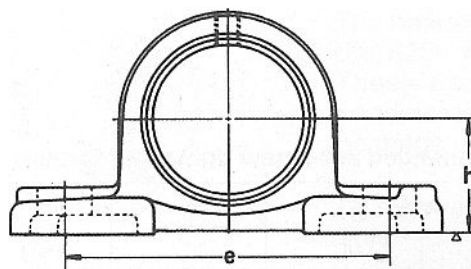
TOLERANCES OF HOUSINGS

1. Pillow Block P

Unit: 0,001 mm

Housing No.	Tolerance of h
P 203 P 204 P 205 P206 P 207 P 208 P 209 P 210	±150
P 211 P 212 P 213 P214 P 215 P 216 P 217 P 218	±200

Note: h represents shaft centreline.

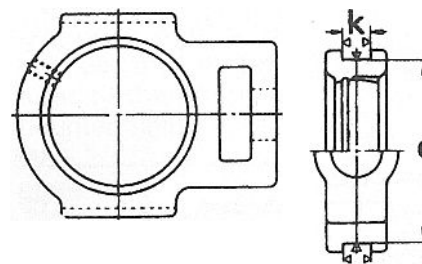


2. Take-Up Unit T

Unit: 0,001 mm

Housing No.	Tolerance of k and e		Tolerances of parallelism between both grooves (Max.)
	k	e	
T 204 T 205 T 206 T 207 T 208 T209 T 210	+ 200 0	0 - 500	500
T 211 T 212 T213 T 214 T 215 T 216 T 217	+ 300 0	0 -800	600

Note: k represents the width of guide rail grooves
e represents the maximum span of guide rail grooves



4. Spherical Inner Diameter of Housings

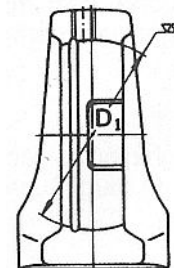
Unit: 0,001

Nominal spherical diameter D ₁ (mm)		Tolerance symbol H				Tolerance symbol J				Tolerance symbol K			
		D _{1m}		D ₁		D _{1m}		D ₁		D _{1m}		D ₁	
over.	incl	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
30	50	+25	0	+30	-5	+14	-11	+19	-16	+7	-18	+12	-23
50	80	+30	0	+36	-6	+18	-12	+24	-18	+9	-21	+15	-27
80	120	+35	0	+42	-7	+22	-13	+29	-20	+10	-25	+17	-32
120	180	+40	0	+48	-8	+26	-14	+34	-22	+12	-28	+20	-36
180	250	+46	0	+55	-9	+30	-16	+39	-25	+13	-33	+22	-42
250	315	+52	0	+62	-10	+36	-16	+46	-26	+16	-36	+26	-46

Note: 1.

$$D_{1m} = \frac{D_1 \text{ Max.} + D_1 \text{ Min.}}{2}$$

2. The spherical inner diameter of the housing is divided into H for a clearance fit and J and K for tight fits. As the bearings our company manufactures are equipped with a locking pin for the prevention of outer race rotation, the tolerance symbol H indicates standard tolerances.



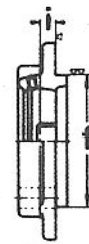
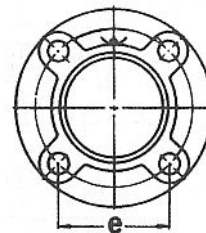
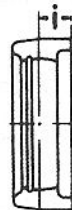
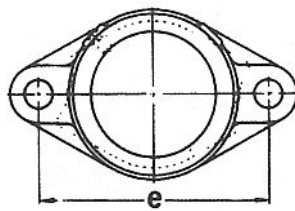
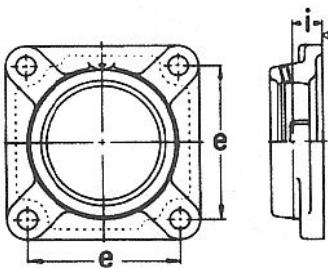
TOLERANCES OF HOUSINGS

3. Flange Unit F, FL, FC

Unit: 0,001 mm

Housing No.			Tolerance of e and i		Machined back (Max.)	Tolerance of f	
			e	i	(Housing FC)	High	Low
F 204 F 205 F 206	FL 204 FL 205 FL 206	FC 204 FC 205 FC 206	± 700	± 500	200	0	-46
F 207 F 208 F 209 F 210	FL 207 FL 208 FL 209 FL 210	FC 207 FC 208 FC 209 FC 210				0	-54
F 211 F 212 F 213 F 214 F 215 F 216 F 217	FL 211 FL 212 FL 213 FL 214 FL 215 FL 216 FL 217	FC 211 FC 212 FC 213 FC 214 FC 215 FC 216 FC 217				0	63
F 218	FL 218	FC218				0	-72

Note: e represents bolts hole centerline dimension.
i represents the bearing centerline distance from the mounting surface.
f represents the outside diameter of machined back.



TOLERANCES OF HOUSINGS

Standard Machining Tolerances

Unit: mm

Nominal boreDiameter	Dimentional tolerances
up 4 to 16 incl.	± 0,2
up 16 to 63 incl.	± 0,3
up 63 to 250 incl.	± 0,5

Standard Casting Tolerances

1) Tolerances of length

Unit: mm

Nominal bore diameter	up to 100 incl. incl.	100 up to 200 incl.	200 up to 400 inc	400 up to 800 incl.
Dimentional tolerances	± 1,5	± 2,0	± 3,0	± 4,0

2) Tolerances of thickness

Unit: mm

Nominal bore diameter	up to 5 incl.	5 up to 10 incl.	10 up to 20 incl.	20 up to 30 incl.	30 up to 40 incl.
Dimentional tolerances	± 1.0	± 1,5	± 2.0	± 3,0	± 4,0

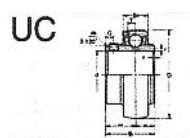
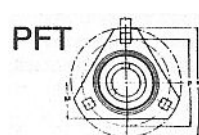
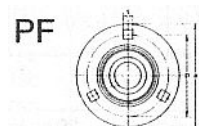
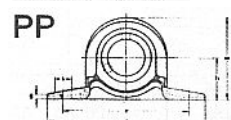
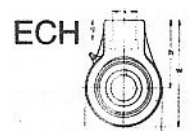
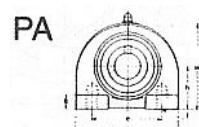
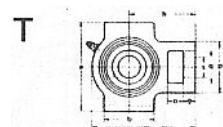
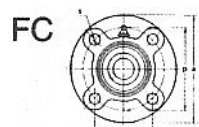
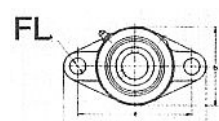
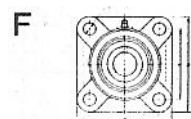
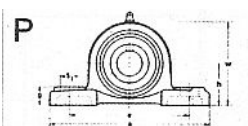
3) Tolerances of inclination

Unit: mm

Inclination	Outer	Inner
Tolerances (Values)	3/100	5/100

RANGE OF PRODUCTS

HOUSINGS



UCP

UCF

UCFL

UCFC

UCT

UCPA

UCECH

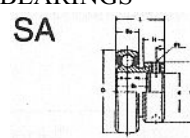
UCPP

UCPF

UCPFL

UCPFT

BEARINGS



SAP

SAF

SAFL

SAFC

SAT

SAPA

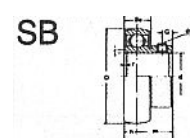
SAECH

SAPP

SAPF

SAPFL

SAPFT



SBP

SBF

SBFL

SBFC

SBT

SBPA

SBECH

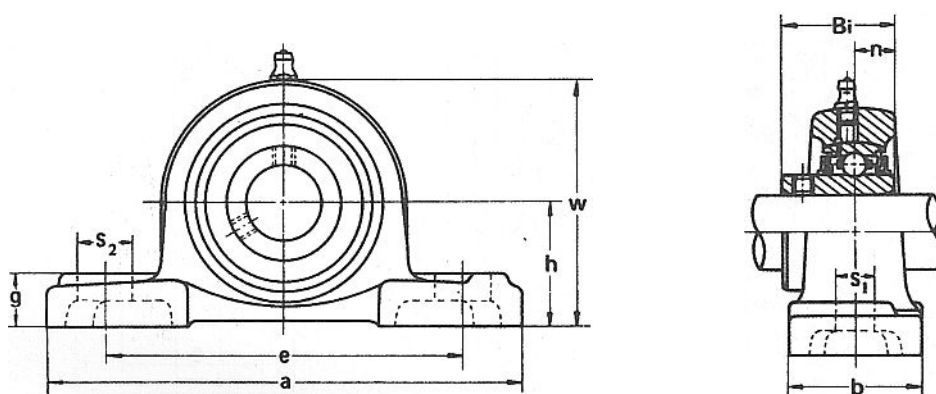
SBPP

SBPF

SBPFL

SBPFT

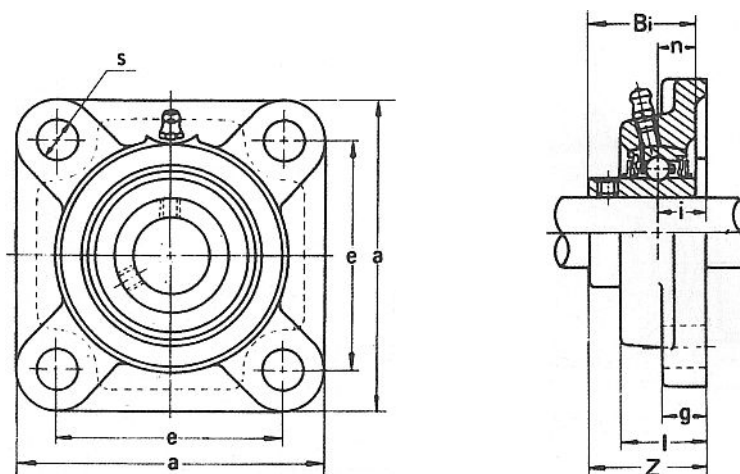
PILLOW BLOCKS UCP SERIES



Type UCP 200

Unit No.	Shaft Dia. mm	Dimensions mm										Bolt Size mm	Bearing No.	Weight kg
		h	a	e	b	s ₁	s ₂	g	w	Bi	n			
UCP 204	20	33.3	127	95	38	13	19	13	64	31.0	12.7	10	UC 204	0.66
UCP 205	25	36.5	140	105	38	13	19	15	71	34.1	14.3	10	UC 205	0.80
UCP 206	30	42.9	165	121	48	17	21	17	84	38.1	15.9	14	UC 206	1.2
UCP 207	35	47.6	167	127	48	17	21	19	93	42.9	17.5	14	UC 207	1.7
UCP 208	40	49.2	184	137	54	17	21	20	98	49.2	19.0	14	UC 208	2.1
UCP 209	45	54.0	190	146	54	17	21	20	106	49.2	19.0	14	UC 209	2.4
UCP 210	50	57.2	206	159	60	20	22	22	114	51.6	19.0	16	UC 210	2.9
UCP 211	55	63.5	219	171	60	20	22	22	125	55.6	22.2	16	UC 211	3.7
UCP 212	60	69.8	241	184	70	20	25	25	138	65.1	25.4	16	UC 212	4.9
UCP 213	65	76.2	265	203	70	25	30	27	150	65.1	25.4	20	UC 213	5.9
UCP 214	70	79.4	266	210	72	25	30	28	156	74.6	30.2	20	UC 214	6.6
UCP 215	75	82.6	275	217	74	25	30	28	162	77.8	33.3	20	UC 215	7.3
UCP 216	80	88.9	292	232	78	25	30	32	174.9	82.6	33.3	20	UC 216	10
UCP 217	85	95.2	310	247	83	25	30	32	187	85.7	34.1	20	UC 217	11.2
UCP 218	90	101.6	327	262	88	27	35	34	200	96.0	39.7	22	UC 218	14.5

Measurements in inches on request

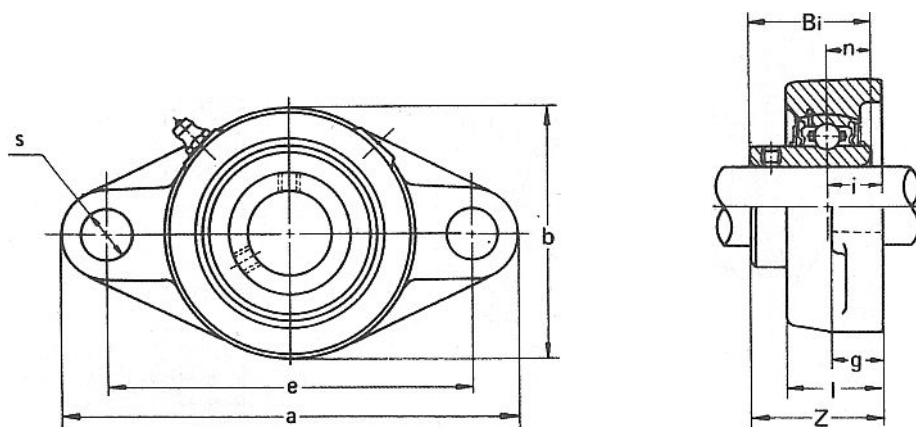


Type UCF 200

Unit No.	Shaft Dia. mm	Dimensions mm									Bolt Size mm	Bearing No.	Weight kg
		a	e	i	g	l	s	Z	Bi	n			
UCF 204	20	86	64	15	11	25	12	33.3	31.0	12.7	10	UC 204	0.6
UCF 205	25	95	70	16	13	27	12	35.8	34.1	14.3	10	UC 205	0.86
UCF 206	30	108	83	18	13	31	12	40.2	38.1	15.9	10	UC 206	1.1
UCF 207	35	117	92	19	15	34	14	44.4	42.9	17.5	12	UC 207	1.6
UCF 208	40	130	102	21	15	36	16	51.2	49.2	19.0	14	UC 208	1.9
UCF 209	45	137	105	22	16	38	16	52.2	49.2	19.0	14	UC 209	2.4
UCF 210	50	143	111	22	16	40	16	54.6	51.6	19.0	14	UC 210	2.6
UCF 211	55	162	130	25	18	43	19	58.4	55.6	22.2	16	UC 211	3.5
UCF 212	60	175	143	29	18	48	19	68.7	65.1	25.4	16	UC 212	4.2
UCF 213	65	187	149	30	22	50	19	69.7	65.1	25.4	16	UC 213	5.3
UCF 214	70	193	152	31	22	54	19	75.4	74.6	30.2	16	UC 214	5.5
UCF 215	75	200	159	34	22	56	19	78.5	77.8	33.3	16	UC 215	6.2
UCF 216	80	208	165	34	22	58	23	83.3	82.6	33.3	20	UC 216	7.7
UCF 217	85	220	175	36	24	63	23	87.6	85.7	34.1	20	UC 217	9.0
UCF 218	90	235	187	40	24	68	23	96.3	96.0	39.7	20	UC 218	11.3

Measurements in inches on request

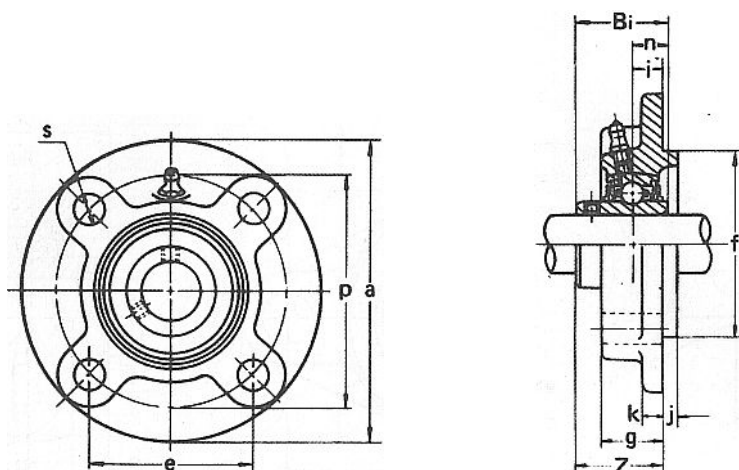
FLANGE UNITS UCFL SERIES



Type UCFL 200

Unit No.	Shaft Dia. mm	Dimensions mm										Bolt Size mm	Bearing No.	Weight kg
		a	e	i	g	l	s	b	Z	Bi	n			
UCFL 204	20	113	90	15	11	25.5	12	60	33.3	31.0	12.7	10	UC 204	0.47
UCFL 205	25	130	99	16	13	27	16	68	35.8	34.1	14.3	14	UC 205	0.63
UCFL 206	30	148	117	18	13	31	16	80	40.2	38.1	15.9	14	UC 206	0.85
UCFL 207	35	161	130	19	16	34	16	90	44.4	42.9	17.5	14	UC 207	1.2
UCFL 208	40	175	144	21	16	36	16	100	51.2	49.2	19.0	14	UC 208	1.6
UCFL 209	45	188	148	22	16	38	19	108	52.2	49.2	19.0	14	UC 209	1.9
UCFL 210	50	197	157	22	16	40	19	115	54.6	51.6	19.0	16	UC 210	2.3
UCFL 211	55	224	184	25	18	43	19	130	58.4	55.6	22.2	16	UC 211	3.3
UCFL 212	60	250	202	29	18	48	23	140	68.7	65.1	25.4	16	UC 212	4.3
UCFL 213	65	258	210	30	20	50	23	155	69.7	65.1	25.4	20	UC 213	5.2
UCFL 214	70	265	216	31	20	54	23	160	75.4	74.6	30.2	20	UC 214	5.7
UCFL 215	75	275	225	34	20	56	23	165	78.5	77.8	33.3	20	UC 215	6.4
UCFL 216	80	290	233	34	20	58	25	180	83.3	82.6	33.3	22	UC 216	8.34
UCFL 217	85	305	248	36	22	63	25	190	87.6	85.7	34.1	22	UC 217	9.80
UCFL 218	90	320	265	40	23	68	25	205	96.3	96.0	39.7	22	UC 218	12.1

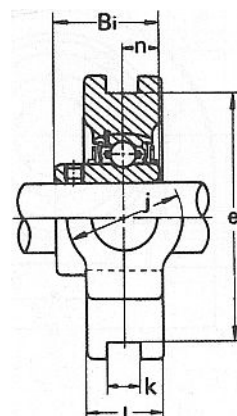
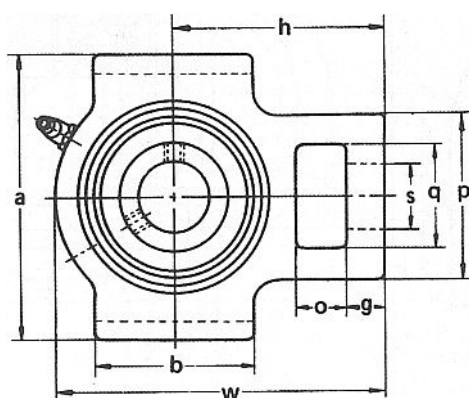
Measurements in inches on request



Type UCFC 200

Unit No.	Shaft Dia. mm	Dimensions mm												Bolt Size mm	Bearing No.	Weight kg
		a	p	e	i	s	j	k	g	f	Z	Bi	n			
UCFC 204	20	100	78	55.1	10	12	5	7	20.5	62	28.3	31.0	12.7	10	UC 204	0.75
UCFC 205	25	115	90	63.6	10	12	6	7	21	70	29.7	34.1	14.3	10	UC 205	0.95
UCFC 206	30	125	100	70.7	10	12	8	8	23	80	32.2	38.1	15.9	10	UC 206	1.3
UCFC 207	35	135	110	77.8	11	14	8	9	26	90	36.4	42.9	17.5	12	UC 207	1.8
UCFC 208	40	145	120	84.8	11	14	10	9	26	100	41.2	49.2	19.0	12	UC 208	2.0
UCFC 209	45	160	132	93.3	10	16	12	14	26	105	40.2	49.2	19.0	14	UC 209	2.7
UCFC 210	50	165	138	97.6	10	16	12	14	28	110	42.6	51.6	19.0	14	UC 210	2.9
UCFC 211	55	185	150	106.1	13	19	12	15	31	125	46.4	55.6	22.2	16	UC 211	4.3
UCFC 212	60	195	160	113.1	17	19	12	15	36	135	56.7	65.1	25.4	16	UC 212	5.0
UCFC 213	65	205	170	120.2	16	19	14	15	36	145	55.7	65.1	25.4	16	UC 213	5.6
UCFC 214	70	215	177	125.1	17	19	14	18	40	150	61.4	74.6	30.2	16	UC 214	6.7
UCFC 215	75	220	184	130.1	18	19	16	18	40	160	62.5	77.8	33.3	16	UC 215	7.1
UCFC 216	80	240	200	141.4	18	21	16	18	42	170	67.3	82.6	33.3	20	UC 216	8.6
UCFC 217	85	250	208	147.1	18	23	18	20	45	180	69.6	85.7	34.1	20	UC 217	10.2
UCFC 218	90	265	220	155.5	22	23	18	20	50	190	78.3	96.0	39.7	20	UC 218	13.4

Measurements in inches on request

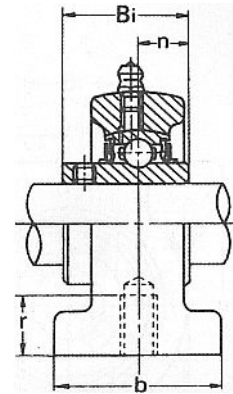
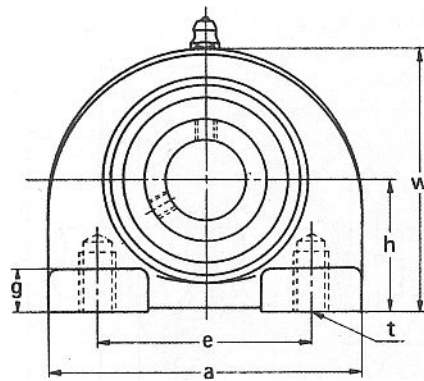


Type UCT 200

Unit No.	Shaft Dia. mm	Dimensions mm															Beating No.	Weight kg
		o	g	p	q	s	b	k	e	a	w	j	l	h	Bi	n		
UCT 204	20	16	10	51	32	19	51	12	76	89	94	32	21	61	31.0	12.7	UC 204	0.8
UCT 205	25	16	10	51	32	19	51	12	76	89	97	32	24	62	34.1	14.3	UC 205	0.85
UCT 206	30	16	10	56	37	22	57	12	89	102	113	37	28	70	38.1	15.9	UC 206	1.3
UCT 207	35	16	13	64	37	22	64	12	89	102	129	37	30	78	42.9	17.5	UC 207	1.7
UCT 208	40	19	16	83	49	29	83	16	102	114	144	49	33	88	49.2	19.0	UC 208	2.5
UCT 209	45	19	16	83	49	29	83	16	102	117	144	49	35	87	49.2	19.0	UC 209	2.6
UCT 210	50	19	16	83	49	29	86	16	102	117	149	49	37	90	51.6	19.0	UC 210	2.7
UCT 211	55	25	19	102	64	35	95	22	130	146	171	64	38	106	55.6	22.2	UC 211	4.2
UCT 212	60	32	19	102	64	35	102	22	130	146	194	64	42	119	65.1	25.4	UC 212	5.0
UCT 213	65	32	21	111	70	41	121	26	151	167	224	70	44	137	65.1	25.4	UC 213	7.0
UCT 214	70	32	21	111	70	41	121	26	151	167	224	70	46	137	74.6	30.2	UC 214	7.3
UCT 215	75	32	21	111	70	41	121	26	151	167	232	70	48	140	77.8	33.3	UC 215	7.6
UCT 216	80	32	21	111	70	41	121	26	165	184	235	70	51	140	82.6	33.3	UC 216	8.5
UCT 217	85	38	29	124	73	48	157	30	173	198	260	73	54	162	85.7	34.1	UC 217	11.5

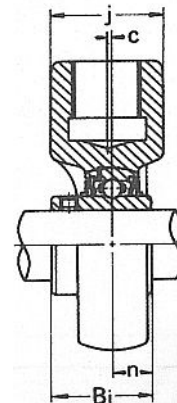
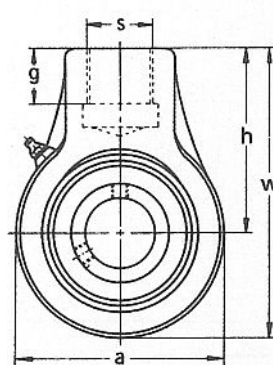
Measurements in inches on request

PILLOW BLOCKS TAPPED BASE HANGER BEARING UNITS



Type UCPA 200

Unit No.	Shaft Dia. mma	Dimensions mm									Bolt Size mm (t)	Bearing No.	Weight kg
		h	a	e	b	r	g	w	Bi	n			
UCPA 204	20	30.2	76	52	40	13	11	62	31.0	12.7	M 10	UC 204	0.6
UCPA 205	25	36.5	84	56	45	13	12	72	34.1	14.3	M 10	UC 205	0.8
UCPA 206	30	42.9	94	66	50	18	12	84	38.1	15.9	M 14	UC 206	1.25
UCPA 207	35	47.6	110	80	55	20	13	95	42.9	17.5	M 14	UC 207	1.7
UCPA 208	40	49.2	116	84	58	20	13	100	49.2	19.0	M 14	UC 208	2.0
UCPA 209	45	54.2	120	90	60	25	13	108	49.2	19.0	M 14	UC 209	2.2
UCPA 210	50	57.2	130	94	64	25	14	116	51.6	19.0	M 16	UC 210	2.8



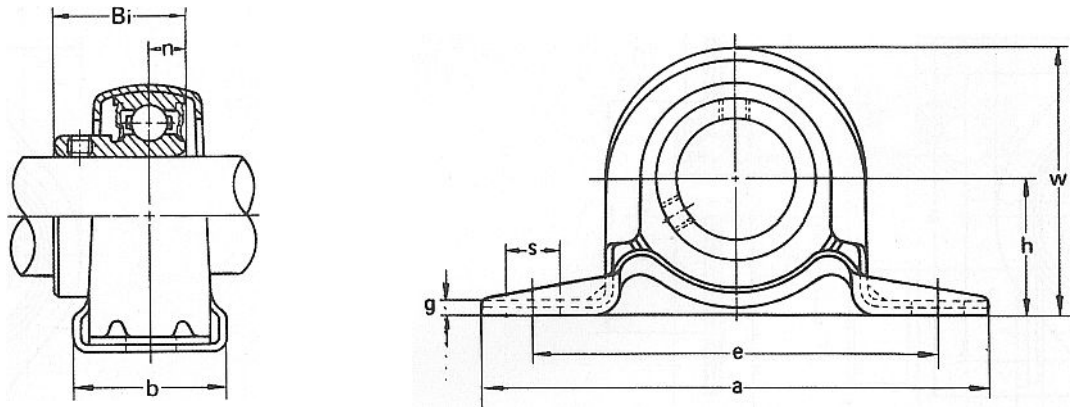
Type UCECH 200

Unit No.	Shaft Dia. mma	Dimensions mm									Bearing No.	Weight kg
		a	w	h	j	s	g	Bi	n	c		
UCECH 204	20	64	96	64	40	PF 3/4	19	31.0	12.7	0	UC 204	0.8
UCECH 205	25	78	103	64	40	PF 3/4	19	34.0	14.3	0	UC 205	0.9
UCECH 206	30	78	103	64	40	PF 3/4	19	38.1	15.9	0	UC 206	1.0
UCECH 207	35	92	116	70	40	PF 3/4	19	42.9	17.5	0	UC 207	1.2
UCECH 208	40	96	121	73	40	PF 3/4	19	49.2	19.0	2	UC 208	1.4
UCECH 209	45	108	136	82	48	PF 1	21	49.2	19.0	5	UC 209	1.8
UCECH 210	50	118	142	83	48	PF 1	21	51.6	19.0	5	UC 210	1.9
UCECH 211	55	126	158	95	60	PF 1-1/4	25	55.6	22.2	7	UC 211	2.3
UCECH 212	60	142	173	102	60	PF 1-1/4	28	65.1	25.4	9	UC 212	4.2

Measurements in inches on request

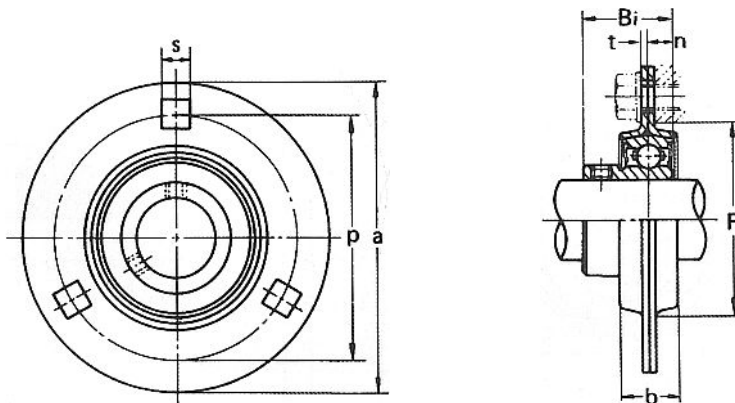
AS MODULATOR

PILLOW BLOCKS PRESSED STEEL



Type BPP

Unit No.	Shaft Dia. mm	Dimensions mm									Bolt Size mm	Bearing No.	Housing No.	Weight kg
		h	a	e	b	s	g	w	Bi	n				
BPP 1	12													
BPP 2	15	22.2	86	68	25	9.5	3.0	44.0	22	6.0	M 8	SB 201	P 1	0.16
BPP 3	17											SB 202		
												SB 203		
BPP 4	20	25.4	98	76	32	9.5	3.0	50.5	25	7.0	M 8	SB 204	P 4	0.21
BPP 5	25	28.6	108	86	32	11.5	4.0	56.6	27	7.5	M 10	SB 205	P 5	0.29
BPP 6	30	33.3	117	95	38	11.5	4.0	66.3	30	8.0	M 10	SB 206	P 6	0.45
BPP 7	35	39.7	129	106	42	11.5	4.6	78.0	32	8.5	M 10	SB 207	P 7	0.61



Type BPF

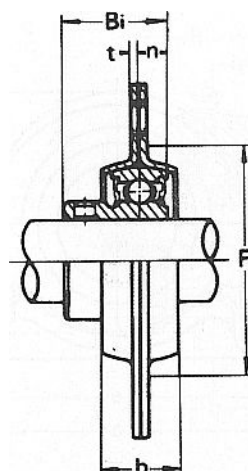
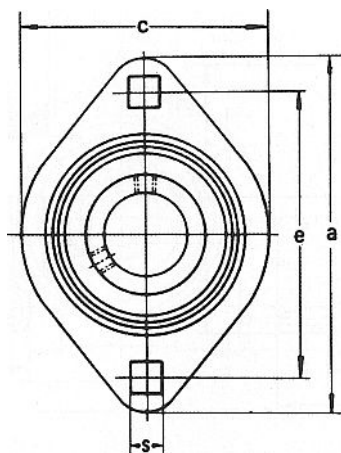
Unit No.	Shaft Dia. mm	Dimensions mm								Bolt Size mm	Bearing No.	Housing No.	Weight kg
		a	p	t	b	s	F (min.)	Bi	n				
BPF 1	12												
BPF 2	15	81	64	2.0	14	7	49	22	6.0	M 6	SB 201	F 1	0.20
BPF 3	17										SB 202		
											SB 203		
BPF 4	20	90	71	2.0	16	9	56	25	7.0	M 8	SB 204	F 4	0.25
BPF 5	25	95	76	2.0	18	9	60	27	7.5	M 8	SB 205	F 5	0.35
BPF 6	30	113	90	2.6	18	11	71	30	8.0	M 10	SB 206	F 6	0.54
BPF 7	35	122	100	2.6	20	11	81	32	8.5	M 10	SB 207	F 7	0.71
BPF 8	40	147.5	119	3.5	21	13.5	90	34	9.0	M 12	SB 208	F 8	1.13
BPF 9	45	149.2	120.5	3.5	23	13.5	95	41.2	10.2	M 12	SB 209	F 9	1.48
BPF 10	50	155.5	127	4.0	25	13.5	100	43.5	10.9	M 12	SB 210	F 10	1.88

Available also with grease nipple up to diameter 35 mm. Suffix ...N

Size 5 and 9 available also with 4 bolt holes. Suffix ...-4

Size 10 available only with 4 bolt holes.

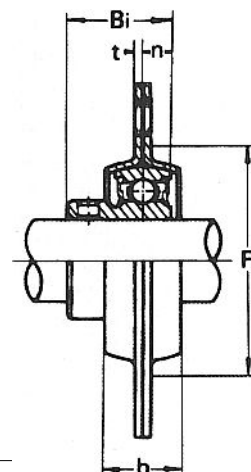
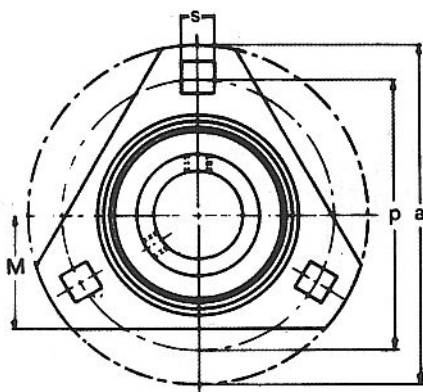
AS MODULATOR



Type BPFL

Unit No.	Shaft Dia. mm	Dimensions mm									Bolt Size mm	Bearing No.	Housing No.	Weight kg
		a	e	t	b	s	c (min)	F	Bi	n				
BPFL 1	12											SB 201		
BPFL 2	15	81	63.5	2.0	15	7	59	49	22	6.0	M 6	SB 202	FL 1	0.19
BPFL 3	17											SB 203		
BPFL 4	20	90	71.5	2.0	16	9	67	56	25	7.0	M 8	SB 204	FL 4	0.24
BPFL 5	25	95	76.0	2.0	18	9	71	60	27	7.5	M 8	SB 205	FL 5	0.28
BPFL 6	30	113	90.5	2.6	18	11	84	71	30	8.0	M 10	SB 206	FL 6	0.38
BPFL 7	35	122	100.0	2.6	20	11	94	81	32	8.5	M 10	SB 207	FL 7	0.65
BPFL 8	40	148	119.0	3.5	24	13.5	100	90	34	9.0	M 12	SB 208	FL 8	0.77

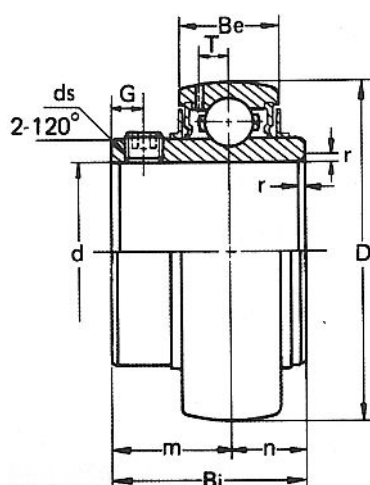
Available also with grease nipple up to diameter 35 mm. Suffix ...N



Type BPFT

Unit No.	Shaft Dia. mm	Dimensions mm									Bolt Size mm	Bearing No.	Housing No.	Weight kg
		a	P	t	b	s	F	Bi	n					
BPFT 1	12											SB 201		
BPFT 2	15	81	63.5	2.0	14	7.5	49	22	6.0	M 6		SB 202	FT 1	0.20
BPFT 3	17											SB 203		
BPFT 4	20	90	71.5	2.0	17	9	56	25	7.0	M 8		SB 204	FT 4	0.25
BPFT 5	25	95	76.0	2.0	18	9	60	27	7.5	M 10		SB 205	FT 5	0.35
BPFT 6	30	113	90.5	2.5	20	11	71	30	8.0	M 10		SB 206	FT 6	0.54
BPFT 7	35	122	100.0	2.5	22	11	81	32	8.5	M 10		SB 207	FT 7	0.71
BPFT 8	40	147.5	119.0	3.5	21	13.5	90	34	9.0	M 12		SB 208	FT 8	1.13
BPFT 9	45	149.2	120.5	3.5	23	13.5	90	41.2	10.2	M 12		SB 209	FT 9	1.48

Available also with grease nipple up to diameter 35 mm. Suffix ...N

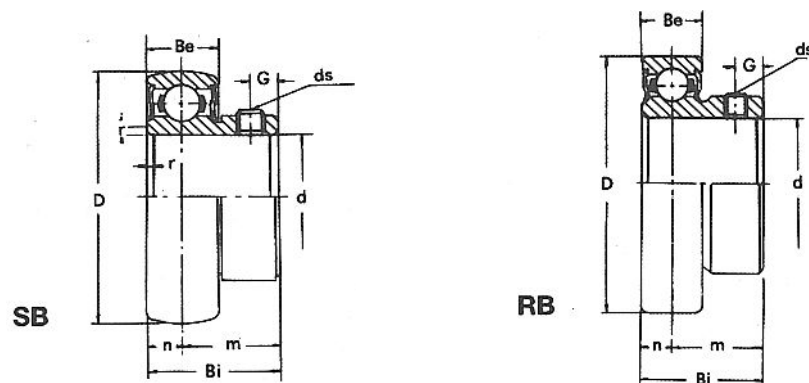


Type UC 200

Bearing No.	Dimensions mm										Basic Load Rating kgf		weight kg
	d	D	Bi	Be	r	n	m	G	T	ds	Dynamic C	Static Co	
UC 204	20	47	31.0	17	1.0	12.7	18.3	5	3.7	M 6x0.75	1000	630	0.16
UC 205	25	52	34.1	17	1.5	14.3	19.8	5	3.9	M 6x0.75	1100	710	0.19
UC 206	30	62	38.1	19	1.5	15.9	22.2	5	5.0	M 6x0.75	1540	1020	0.31
UC 207	35	72	42.9	20	2.0	17.5	25.4	6	5.7	M 8x1	2030	1400	0.46
UC 208	40	80	49.2	21	2.0	19.0	30.2	8	6.2	M 8x1	2300	1600	0.63
UC 209	45	85	49.2	22	2.0	19.0	30.2	8	6.4	M 8x1	2560	1810	0.68
UC 210	50	90	51.6	24	2.0	19.0	32.6	10	6.5	M10x1.25	2750	2020	0.78
UC 211	55	100	55.6	25	2.5	22.2	33.4	10	7.0	M10x1.25	3400	2550	1.07
UC 212	60	110	65.1	27	2.5	25.4	39.7	10	7.6	M10x1.25	4100	3150	1.52
UC 213	65	120	65.1	28	2.5	25.4	39.7	10	8.9	M10x1.25	4480	3470	1.80
UC 214	70	125	74.6	30	2.5	30.2	44.4	12	8.9	M12x1.5	4870	3810	2.06
UC 215	75	130	77.8	32	2.5	33.3	44.5	12	8.9	M12x1.5	5200	4200	2.19
UC 216	80	140	82.6	33	3.0	33.3	49.3	14	9.6	M12x1.5	5700	4550	2.82
UC 217	85	150	85.7	35	3.0	34.1	51.6	14	10.0	M12x1.5	6600	5320	3.46
UC 218	90	160	96.0	37	3.0	39.7	56.3	15	11.0	M12x1.5	7550	6170	4.53

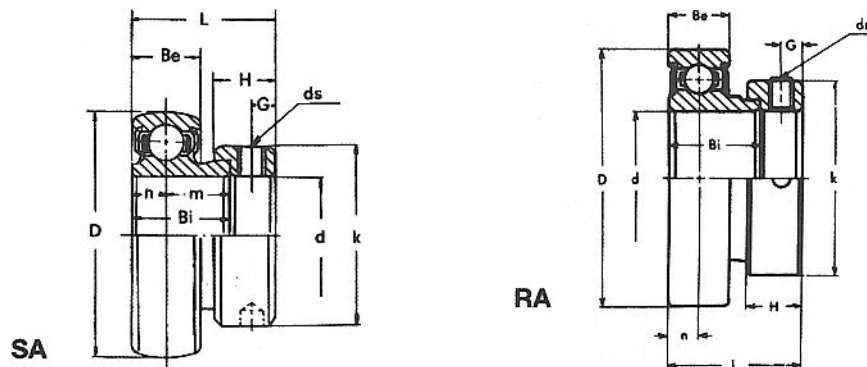
Measurements in inches on request

AS MODULATOR



Type SB - RB

Bearing No.	Dimensions mm									Basic Load Rating kgf		weight kg
	d	D	Bi	Be	r	n	m	G	ds	Dynamic C	Static Co	
201	12	40	22	12	1.0	6.0	16.0	4.5	M5x0.8	780	454	0.07
202	15	40	22	12	1.0	6.0	16.0	4.5	M5x0.8	780	454	0.07
203	17	40	22	12	1.0	6.0	16.0	4.5	M5x0.8	780	454	0.07
204	20	47	25	14	1.5	7.0	18.0	4.5	M6x0.75	1010	630	0.12
205	25	52	27	15	1.5	7.5	19.5	5.0	M6x0.75	1100	710	0.17
206	30	62	30	16	1.5	8.0	22.0	5.5	M6x0.75	1550	1020	0.25
207	35	72	32	17	2.0	8.5	23.5	6.0	M8x1	2030	1400	0.37
208	40	80	34	18	2.0	9.0	25.0	8.0	M8x1	2300	1600	0.45
209	45	85	41.2	19	2.0	10.2	31.0	8.0	M8x1	2750	1810	0.80
210	50	90	43.5	20	2.0	10.9	32.6	9.0	M8x1	3400	2550	1.10

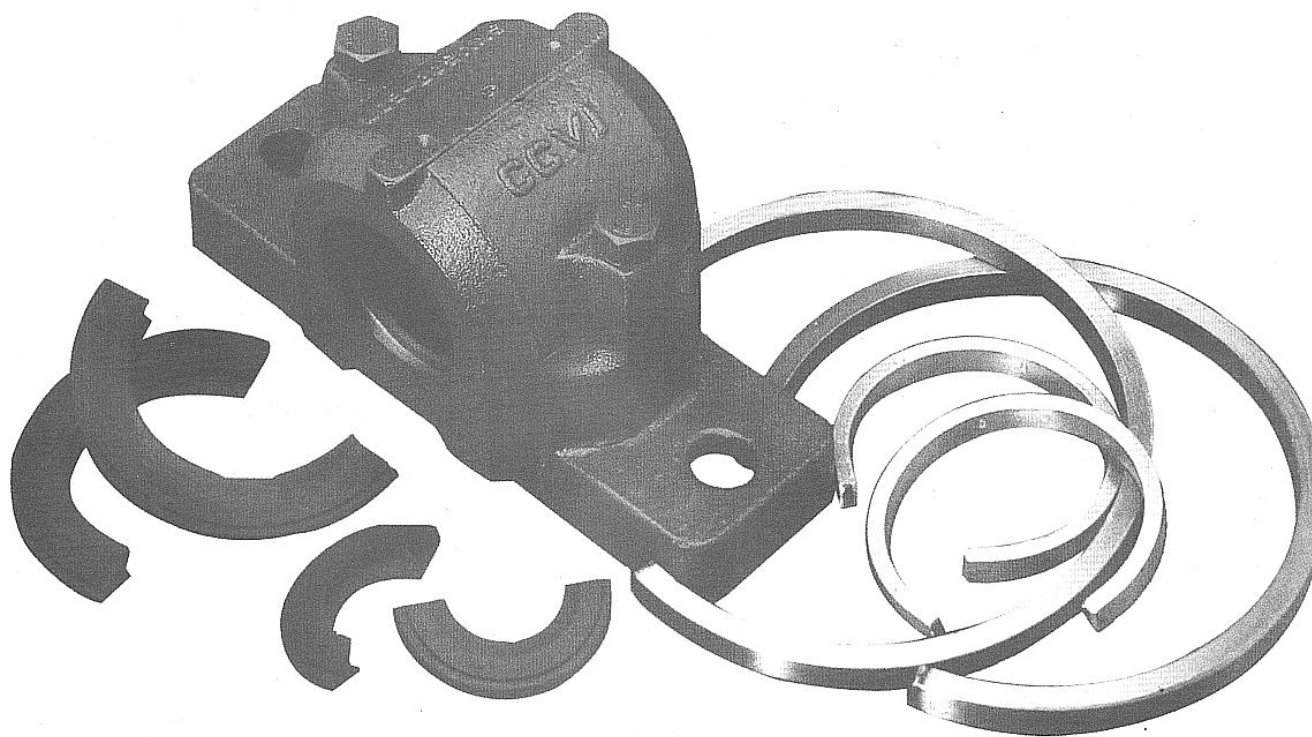


Type SA - RA

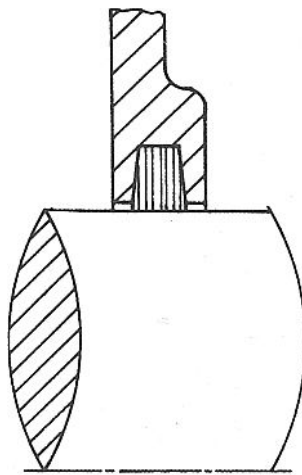
Bearing No.	Dimensions mm											Basic Load Rating kgf		weight kg
	d	D	L	Bi	Be	n	m	k	H	G	ds	Dynamic C	Static Co	
201	12	40	28.6	19.1	12	6.0	13.1	28.6	13.5	5.0	M6x0.75	780	454	0.12
202	15	40	28.6	19.1	12	6.0	13.1	28.6	13.5	5.0	M6x0.75	780	454	0.11
203	17	40	28.6	19.1	12	6.0	13.1	28.6	13.5	5.0	M6x0.75	780	454	0.10
204	20	47	31.0	21.5	14	7.0	14.5	33.3	13.5	5.0	M6x0.75	1010	630	0.16
205	25	52	31.0	21.5	15	7.5	14.5	38.1	13.5	5.0	M6x0.75	1100	710	0.18
206	30	62	35.7	23.8	16	8.0	15.8	44.5	15.9	6.0	M8x1	1550	1020	0.30
207	35	72	38.9	25.4	17	8.5	16.9	55.6	17.5	6.5	M8x1	2030	1400	0.50
208	40	80	43.7	30.2	18	9.0	21.2	60.3	18.3	6.5	M8x1	2300	1600	0.63
209	45	85	43.7	30.2	19	9.5	20.7	63.5	18.3	6.5	M8x1	2570	1810	0.66
210	50	90	43.7	30.2	20	10.0	20.2	69.9	18.3	6.5	M8x1	2760	2010	0.80
211	55	100	48.4	32.5	21	10.5	22.0	76.2	20.7	8.0	M10x1.25	3400	2550	0.77

Measurements in inches on request

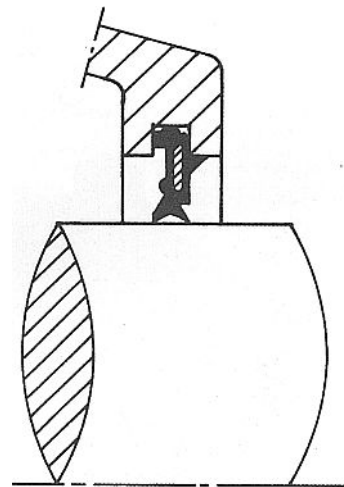
AS MODULATOR



SEALING ARRANGEMENT



FELT SEAL



U-LOCK U -SEAL

Accessories:

NAME	PART. NO.	MATERIALS
HEXAGON BOLT	M/UNC	CARBON STEEL AISI 1010
FELT STRIP	FS	80% WOOL 20% RAYON. DENSITY 0.25 g/cm ²
LOCATING RING	FR	ALUMINIUM OR STEEL
U- LOK SEAL	U500/U600	NBR

Machine tolerance

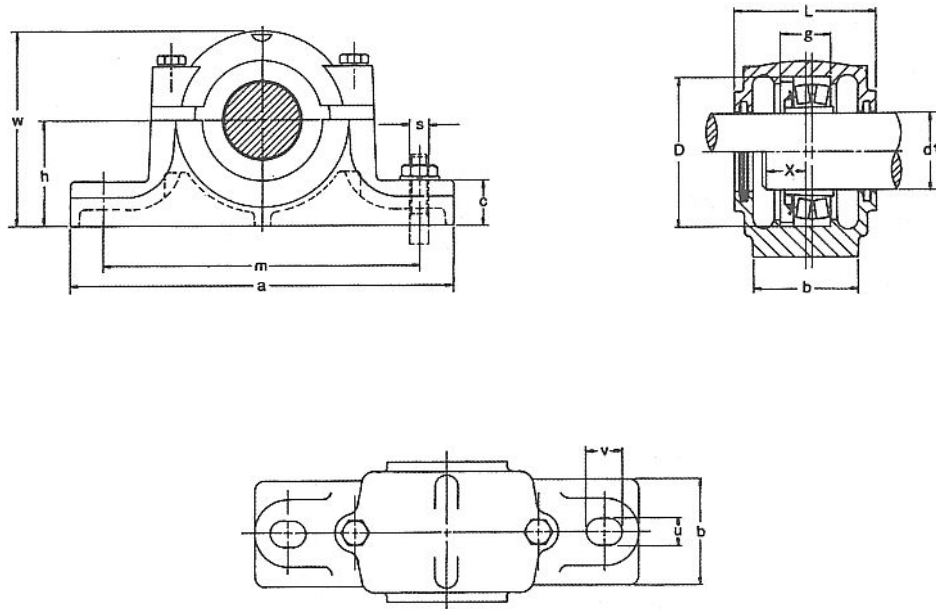
1 (D) μm				
BORE DIA	G7	H7	H8	J7
50 mm – 80 mm	+40 +10	+30 -0	+46 -0	+18 -12
80 mm – 120 mm	+42 +12	+35 -0	+54 -0	+22 -13
120 mm – 180 mm	+54 +14	+40 -0	+63 -0	+26 -14
180 mm – 250 mm	+61 +15	+46 -0	+72 -0	+30 -16
250 mm – 315 mm	+69 +17	+52 -0	+81 -0	+36 -16
315 mm – 400 mm	+75 +18	+57 -0	+89 -0	+39 -18
400 mm – 500 mm	+83 +20	+63 -0	+97 -0	+43 -20
500 mm – 620 mm	+92 +23	+69 -0	+104 -0	+46 -23

2. OTHER TOLERANCES

μm					
DIMENSION	H11	H12	H13	h12	h13
18 mm - 30 mm	+130 -0	+210 -0	+330 -0	+0 -210	+0 -330
30 mm - 50 mm	+160 -0	+250 -0	+390 -0	+0 -250	+0 -390
50 mm - 80 mm	+ 190 -0	+ 300 -0	+ 460 -0	+ 0 -300	+ 0 -460
80 mm - 120 mm	+220 -0	+350 -0	+540 -0	+0 -350	+0 -540
120 mm - 180 mm	+ 250 -0	+ 400 -0	+ 630 -0	+ 0 -400	+0 -630
180 mm - 250 mm	+ 290 -0	+ 460 -0	+ 720 -0	+0 -460	+0 -720
250 mm - 315 mm	+320 -0	+520 -0	+810 -0	+0 -520	+0 -810
315 mm - 400 mm	+ 360 -0	+ 570 -0	+ 890 -0	+ 0 -570	+ 0 -890

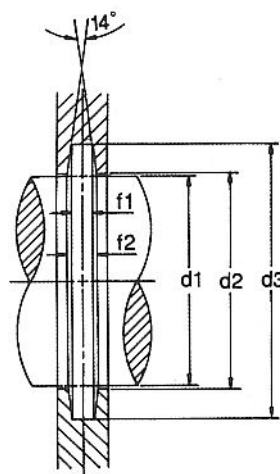
CASTING TOLERANCE	LENGTH	TOLERANCE
	1 mm - 100 mm	± 1.5 mm
	100 mm - 200 mm	± 2.0 mm
	200 mm - 400 mm	± 3.0 mm
	400 mm - 800 mm	± 4.0 mm
	800 mm -1600 mm	± 5.0 mm

SN 500 SERIES



Housing No.	Shaft dia. d1		D H8	a	b	c	g H12	h h12	l ± 0.5	w	m	S BOLT	u	v
	metric	inch												
SN 505	20	3/4	52	165	46	22	25	40	67	75	130	M12	15	20
SN 506	25	1	62	185	52	22	30	50	77	90	150	M12	15	20
SN 507	30	1 1/8	72	185	52	22	33	50	82	95	150	M12	15	20
SN508	35	1 1/4	80	205	60	25	33	60	85	110	170	M12	15	20
SN 509	40	1 1/2	85	205	60	25	31	60	85	112	170	M12	15	20
SN 510	45	1 3/4	90	205	60	25	33	60	90	115	170	M12	15	20
SN 511	50	2	100	255	70	28	33	70	95	130	210	M16	18	23
SN 512	55	2 1/8	110	255	70	30	38	70	105	135	210	M16	18	23
SN 513	60	2 1/4	120	275	80	30	43	80	110	150	230	M16	18	23
SN 515	65	2 1/2	130	280	80	30	41	80	115	155	230	M16	18	23
SN 516	70	2 3/4	140	315	90	32	43	95	120	175	260	M20	22	27
SN 517	75	3	150	320	90	32	46	95	125	185	260	M20	22	27
SN 518	80	3 1/4	160	345	100	35	62.4	100	145	195	290	M20	22	27
SN 519	85	-	170	345	100	35	53	112	140	210	290	M20	22	27
SN 520	90	3 1/2	180	380	110	40	70.3	112	160	218	320	M24	26	32
SN 522	100	4	200	410	120	45	80	125	175	240	350	M24	26	32
SN 524	110	4 1/4	215	410	120	45	86	140	185	270	350	M24	26	32
SN 526	115	4 1/2	230	445	130	50	90	150	190	290	380	M24	28	36
SN 528	125	5	250	500	150	50	98	150	205	305	420	M30	33	42
SN 530	135	5 1/4	270	530	160	60	106	160	220	325	450	M30	33	42
SN 532	140	5 1/2	290	550	160	60	114	170	235	345	470	M30	33	42

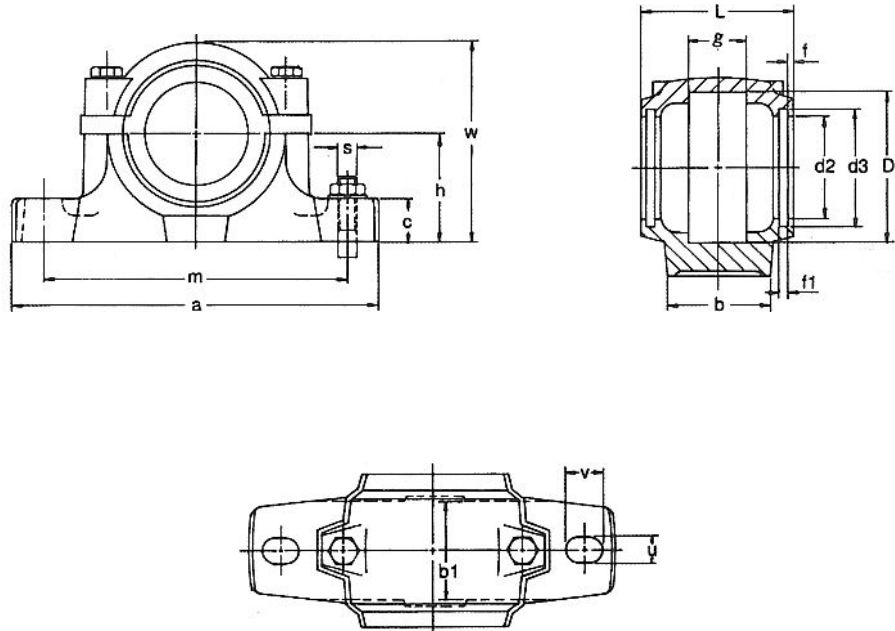
SN 500 SERIES



Unit: mm

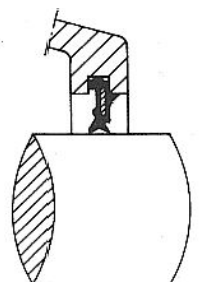
X (REF.)	D2 H12	D3 H12	F1 H13	f2 (REF.)	Weight Kg	Bearing No.		Adapter Sleeve		Locating ring		Housing No.
						Self-align. Ball	Spherical Roller	metric	Inch	Number	p.ty	
22	21.5	31	3	4.2	1.4	1205 K 2205 K	- 22205 K	H 205 H 305	HE 205 HE 305	FR 52x 5 FR 52x 7	2 1	SN 505
22	26.5	38	4	5.4	1.9	1206 K 2206 K	- 22206 K	H 206 H 306	HE 206 HE 306	FR 62x 7 FR 62x10	2 1	SN 506
24	31.5	43	4	5.4	2.0	1207 K 2207 K	- 22207 K	H 207 H 307	HE 207 HE 307	FR 72x 8 FR 72x10	2 1	SN 507
26	36.5	48	4	5.4	3.2	1208 K 2208 K	- 22208 K	H 208 H 308	HE 208 HE 308	FR 80x 7.5 FR 80x10	2 1	SN 508
28	41.5	53	4	5.4	3.0	1209 K 2209 K	- 22209 K	H 209 H 309	HE 209 HE 309	FR 85x 6 FR 85x 8	2 1	SN 509
28	46.5	58	4	5.4	3.4	1210 K 2210 K	- 22210 K	H 210 H 310	HE 210 HE 310	FR 90x 6.5 FR 90x10	2 1	SN 510
30	51.5	67	5	6.9	4.6	1211 K 2211 K	- 22211 K	H 211 H 311	HE 211 HE 311	FR100x 6 FR100x 8	2 1	SN 511
32	56.5	72	5	6.9	5.0	1212 K 2212 K	- 22212 K	H 212 H 312	HE 212 HE 312	FR110x 8 FR110x10	2 1	SN 512
36	62	77	5	6.8	6.8	1213 K 2213 K	- 22213 K	H 213 H 313	HE 213 HE 313	FR120x10 FR120x12	2 1	SN 513
38	67	82	5	6.8	7.4	1215 K 2215 K	- 22215 K	H 215 H 315	HE 215 HE 315	FR130x 8 FR130x10	2 1	SN 515
40	72	89	6	8.1	g 5	1216 K 2216 K	- 22216 K	H 216 H 316	HE 216 HE 316	FR140x 8.5 FR140x10	2 1	SN 516
42	77	94	6	8.1	10.0	1217 K 2217 K	- 22217 K	H 217 H 317	HE 217 HE 317	FR150x 9 FR150x10	2 1	SN 517
50	82	99	6	8.1	12.8	1218 K 2218 K -	- 22218 K 23218 K	H 218 H 318 H 2318	HE 218 HE 318 HE 2318	FR160x16.2 FR160x11.2 FR160x10	2 2 1	SN 518
52	87	104	6	8.1	14.0	1219 K 2219 K	- 22219K	H 219 H 319	HE 219 HE319	FR170x10.5 FR170x10	2 1	SN 519
54	92	111	7	9.3	17.8	2220 K -	22220 K 23220 K	H 320 H 2320	HE 320 HE 2320	FR180x12.1 FR180x10	2 1	SN 520
60	102	125	8	10.8	19.0	2222 K -	22222 K 23222 K	H 322 H 2322	HE 322 HE 2322	FR200x13.5 FR200x10	2 1	SN 522
64	113	135	8	10.7	26.0	-	22224 K 23224 K	H 3124 H 2324	HE 3124 HE 2324	FR215x14 FR215x10	2 1	SN 524
64	118	140	8	10.7	32.0	-	22226 K 23226 K	H 3126 H 2326	HE 3126 HE 2326	FR230x13 FR230x10	2 1	SN 526
70	128	154	9	12.2	40.0	-	22228 K 23228 K	H 3128 H 2328	HE 3128 HE 2328	FR250x15 FR250x10	2 1	SN 528
76	138	164	9	12.2	47.0	-	22230 K 23230 K	H 3130 H 2330	HE 3130 HE 2330	FR270x16.5 FR270x10	2 1	SN 530
80	143	173	10	13.7	56.0	-	22232 K 23232 K	H 3132 H 2332	HE 3132 HE 2332	FR290x17 FR290x10	2 1	SN 532

SNU 500 & 600 SERIES



Housing no.	Shaft dia. mm	D H8	a	b	c	g H12	h h12	L ±0.5	w	m	s BOLT	u	v
SNU 506	25	62	185	52	22	32	50	77	87	150	M10	13	22
SNU 606	25	72	185	52	22	34	50	82	92	150	M10	13	20
SNU 507	30	72	185	52	22	34	50	82	92	150	M10	13	20
SNU 607	30	80	205	60	25	39	60	85	106	170	M12	15	20
SNU 508	35	80	205	60	25	39	60	85	106	170	M12	15	20
SNU 608	35	90	205	60	25	41	60	90	112	170	M12	15	20
SNU 509	40	85	205	60	25	30	60	85	109	170	M12	15	20
SNU 609	40	100	255	70	28	44	70	95	127	210	M16	18	23
SNU 510	45	90	205	60	25	41	60	90	112	170	M12	15	20
SNU 610	45	110	255	70	30	48	70	105	133	210	M16	18	23
SNU 511	50	100	255	70	28	44	70	95	127	210	M16	18	23
SNU 611	50	120	275	80	30	51	80	110	148	230	M16	18	24
SNU 512	55	110	255	70	30	48	70	105	133	210	M16	18	23
SNU 612	55	130	280	80	30	56	80	115	154	230	M16	18	26
SNU 513	60	120	275	80	30	51	80	110	148	230	M16	18	24
SNU 613	60	140	315	90	32	58	95	120	175	260	M20	22	29
SNU 515	65	130	280	80	30	56	80	115	154	230	M16	18	26
SNU 615	65	160	345	100	35	65	100	140	192	290	M20	22	27

SNU 500 & 600 SERIES

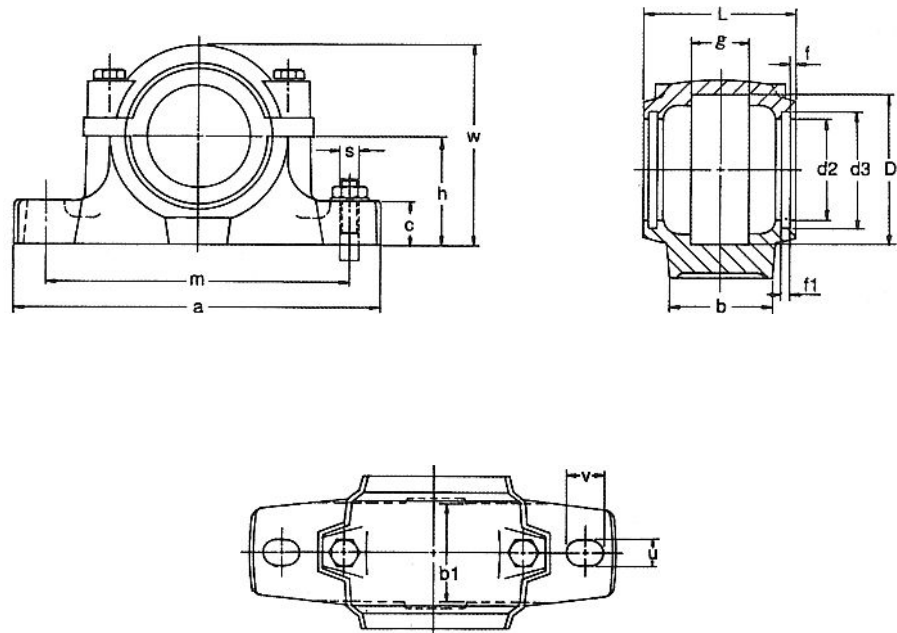


**U-LOK U-SEAL
FOR SNU TYPE**

Unit: mm

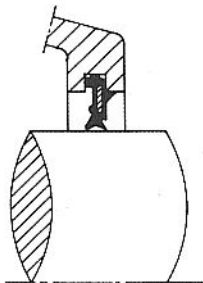
b1	D2 H12	D3 H12	f	fi	Weight Kg	Bearing No.		Adapter(mnc)	Locating ring		Housing No.
						Self-align. Ball	Spherical Roller		Number	Q.ty	
45	36.5	44.5	2.5	5	2.1	1206 K 2206 K	- 22206 K	H 206 H 306	FR 62x 8 FR 62x 6	2 2	SNU 506
45	46.5	54.5	2.5	5	2.2	1306 K 2306 K	-	H 306 H 2306	FR 72x 7.5 FR 72x 7	2 1	SNU 606
45	46.5	54.5	2.5	5	2.2	1207 K 2207 K	- 22207 K	H 207 H 307	FR 72x 8.5 FR 72x 5.5	2 2	SNU 507
50	51.5	59.5	2.5	5	2.7	1307 K 2307 K	-	H 307 H 2307	FR 80x 9 FR 80x 8	2 1	SNU 607
50	51.5	59.5	2.5	5	2.7	1208 K 2208 K	- 22208 K	H 208 H 2308	FR 80x10.5 FR 80x 8	2 2	SNU 508
50	62	70.5	3.5	5	2.9	1308 K 2308 K	21308 K 22308 K	H 308 H 2308	FR 90x 9 FR 90x 8	2 1	SNU 608
50	56.5	64.5	3.5	5	2.8	1209 K 2209 K	- 22209 K	H 209 H 2309	FR 85x 5.6 FR 85x 7	2 1	SNU 509
58	67	75.5	3.5	5	4.5	1309 K 2309 K	21309 K 22309 K	H 309 H 2309	FR100x 9.5 FR100x 8	2 1	SNU 609
50	62	70.5	3.5	5	2.9	1210 K 2210 K	- 22210 K	H 210 H 310	FR 90x10.5 FR 90x 9	2 2	SNU 510
60	72	80.5	3.5	5	5.0	1310 K 2310 K	21310 K 22310 K	H 310 H 2310	FR110x10.5 FR110x 8	2 1	SNU 610
58	67	75.5	3.5	5	4.5	1211 K 2211 K	- 22211 K	H 211 H 311	FR100x11.5 FR100x 9.5	2 2	SNU 511
65	77	85.5	3.5	5	5.9	1311 K 2311 K	21311 K 22311 K	H 311 H 2311	FR120x11 FR120x 8	2 1	SNU 611
60	72	80.5	3.5	5	5.0	1212 K 2212 K	- 22212 K	H 212 H 312	FR110x13 FR110x10	2 2	SNU 512
65	87	95.5	3.5	5	6.8	1312 K 2312 K	21212 K 22312 K	H 312 H 2312	FR130x12.5 FR130x10	2 1	SNU 612
65	77	85.5	3.5	5	5.9	1213 K 2213 K	- 22213 K	H 213 H 313	FR120x14 FR120x10	2 2	SNU 513
75	92.5	101	5.5	5	9.7	1313 K 2313 K	21213 K 22313 K	H 313 H 2313	FR140x12.5 FR140x10	2 1	SNU 613
65	87	95.5	3.5	5	6.8	1215 K 2215 K	- 22215 K	H 215 H 315	FR130x15.5 FR130x12.5	2 2	SNU 515
85	102.5	111	5.5	5	13.1	1315 K 2315 K	21215 K 22315 K	H 315 H 2315	FR160x14 FR160x10	2 1	SNU 615

SNU 500 & 600 SERIES



Housing No.	Shaft dia. mm	D H8	a	b	c	g H12	h h12	L ±0.5	w	m	s BOLT	u	v
SNU 516	70	140	315	90	32	58	95	120	175	260	M20	22	29
SNU 616	70	170	345	100	35	68	112	145	209	290	M20	22	27
SNU 517	75	150	320	90	32	61	95	125	181	260	M20	22	30
SNU 617	75	180	380	110	40	70	112	160	215	320	M24	26	32
SNU 518	80	160	345	100	35	65	100	140	192	290	M20	22	27
SNU 519	85	170	345	100	35	68	112	145	209	290	M20	22	27
SNU 619	85	200	410	120	45	80	125	175	239	350	M24	26	32
SNU 520	90	180	380	110	40	70	112	160	215	320	M24	26	32
SNU 620	90	215	410	120	45	86	140	185	271	350	M24	26	32
SNU 522	100	200	410	120	45	80	125	175	239	350	M24	26	32
SNU 524	110	215	410	120	45	86	140	185	271	350	M24	26	32
SNU 526	115	230	445	130	50	90	150	190	290	380	M24	28	35
SNU 528	125	250	500	150	50	98	150	205	302	420	M30	35	42
SNU 530	135	270	530	160	60	106	160	220	323	450	M30	35	42
SNU 532	140	290	550	160	60	114	170	235	344	470	M30	35	42

SNU 500 & 600 SERIES



**U-LOK U-SEAL
FOR SNU TYPE**

Unit: mm

b1	D2 H12	D3 H12	f1	f	Weight Kg	Bearing No		Adapter Sleeve (metric)	Locating ring		Housing No.
						Self-align. Ball	Spherical Rolled		Number	Q.ty	
75	92.5	101	5	5.5	9.7	1216 K 2216 K	- 22216 K	H 216 H 316	FR140x16 FR140x12.5	2 2	SNU 516
85	131	141	6	5.5	15.0	1316 K 2316 K	21316 K 22316 K	H 316 H 2316	FR170x14.5 FR170x10	2 1	SNU 616
75	97.5	106	5	5.5	11.0	1217 K 2217 K	- 22217 K	H 217 H 317	FR150x16.5 FR150x12.5	2 2	SNU 517
95	137.5	147.5	6	5.5	18.1	1317 K 2317 K	21317 K 22317 K	H 317 H 2317	FR180x14.5 FR180x10	2 1	SNU 617
85	102.5	111	5	5.5	13.1	1218 K 2218 K	- 22218 K 23218 K	H 218 H 318 H 2318	FR160x17.5 FR160x12.5 FR160x12.5	2 2 1	SNU 518
85	131	141	6	5.5	13.2	1219 K 2219 K	- 22219 K	H 219 H 319	FR170x18 FR170x12.5	2 2	SNU 519
100	147.5	157.5	6	5.5	22.0	1319 K 2319 K	- 22319 K	H 319 H 2319	FR200x17.5 FR200x13	2 1	SNU 619
95	137.5	147.5	6	5.5	18.1	2220 K -	22220 K 23220 K	H 320 H 2320	FR180x12 FR180x 9.7	2 1	SNU 520
100	157.5	167.5	6	5.5	26.0	2320 K	22220 K 23220 K	H 2320	FR215x13	1	SNU 620
100	147.5	157.5	6	5.5	22.0	2222 K -	22222 K 23222 K	H 322 H 2322	FR200x13.5 FR200x10	2 1	SNU 522
100	157.5	167.5	6	5.5	26.0	-	22224 K 23224 K	H 3124 H 2324	FR215x14 FR215x10	2 1	SNU 524
110	167.5	177.5	6	7	34.0	-	22226 K 23226 K	H 3126 H 2326	FR230x13 FR230x10	2 1	SNU 526
130	177.5	187.5	6	7	44.0	-	22228 K 23228 K	H 3128 H 2328	FR250x15 FR250x10	2 1	SNU 528
140	192.5	202.5	6	7.5	52.0	-	22230 K 23230 K	H 3130 H 2330	FR270x16.5 FR270x10	2 1	SNU 530
140	202.5	212.5	6	7.5	61.0	-	22232 K 23232 K	H 3132 H 2332	FR290x17 FR290x10	2 1	SNU 532

