

SQUARE FLANGE BEARING

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OVAL FLANGE BEARING

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PILLOW BLOCK BEARING

Pag. B22 - B25



COMPACT PILLOW BLOCK BEARING

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SIDE FLANGE BEARING

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TAKE-UP BEARING

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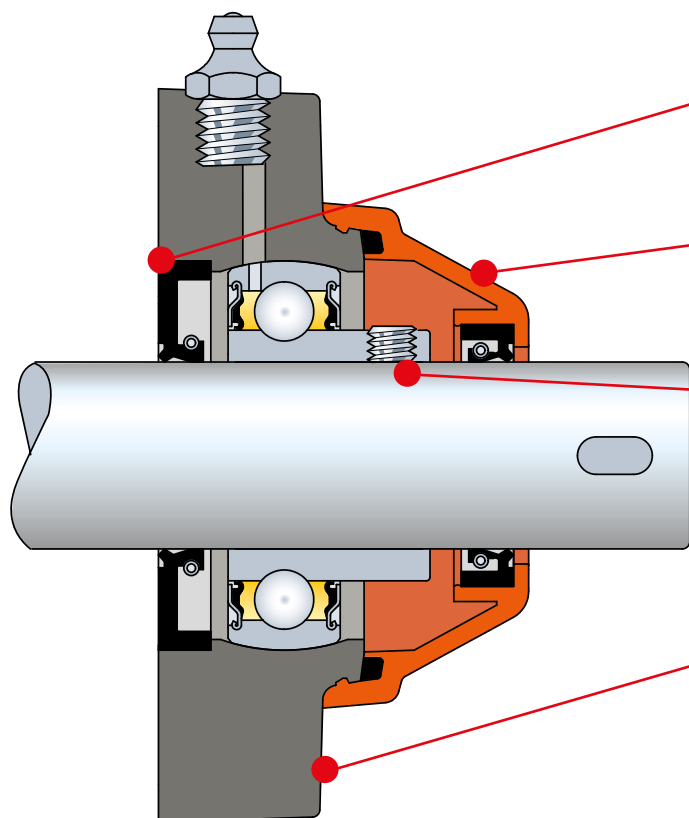
ROUND FLANGE BEARING

Pag. B38 - B43



TECHNICAL INFORMATION

Technical Informations see Pag. B45 - B59



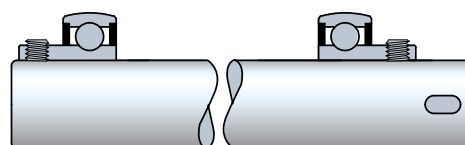
Waterproof housing

The waterproof sealing system guarantees protection of the bearing from the external environment

Inspectable bearing

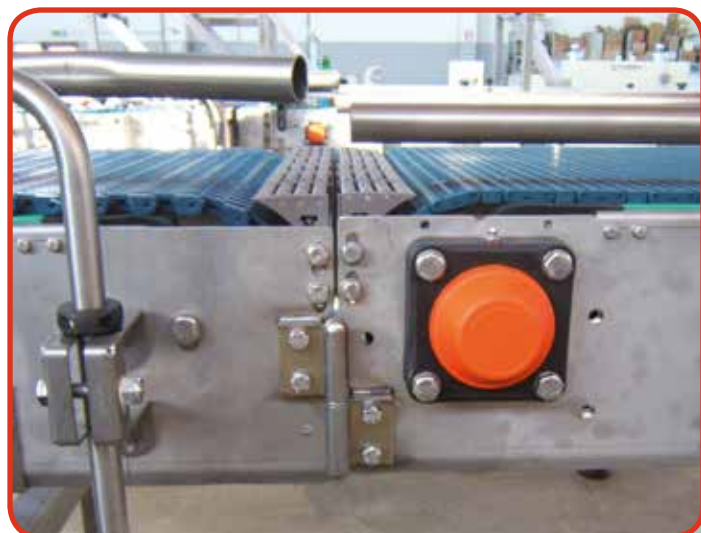
The clip-on protection cover can be removed for bearing inspection

Locking by grub screws



ISO dimensions

The overall dimensions can be interchanged with the corresponding cast iron type bearings



- Overall dimensions of self-aligning bearings are in accordance with ISO 3228 standards
- All self-aligning bearings are interchangeable with their correspondent cast iron versions

ISO
3228

ISO dimensions

- Self-aligning bearings are equipped with stainless steel AISI 304/316 bushes to reinforce mounting holes
- The reinforcing bushings avoid damages to the plastic flange during screw tightening



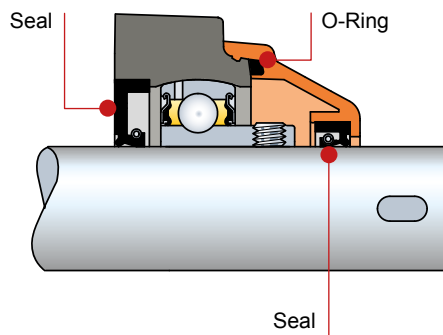
Fixing bushes

- Only best quality glass fibre reinforced polyamide PA FV/polypropylene PP FV thermoplastic resins are used for the self-aligning housings
- The resins used guarantee high resistance to oxidation and corrosion and at the same time equal the strength offered by cast iron housings. They offer a better resistance to impact
- Polyamide PA FV resins offer maximum heat and mechanical resistance
- Polypropylene PP FV resins offer maximum resistance to chemical agents



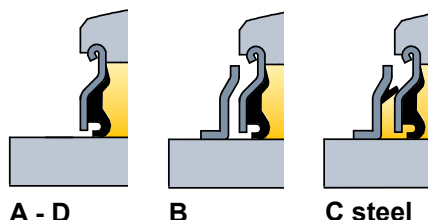
Thermoplastic resins

- A system of waterproof seals protects the bearing from external environment
- Protection from dust, humidity, washouts, chemical agents
- The clip-on protection cover allows inspection of the bearing



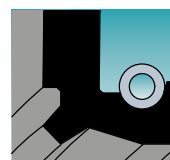
Waterproof housing

- Self-aligning bearings are equipped with ball bearings featuring multipurpose sealing systems.
- **A - D** - Superagriseal unit. The system consists of a metallic ring fitted with a low friction rubber sealing lip
- **B** - Superagriseal unit + centrifuging ring. The system is further equipped with a metallic protection ring providing a centrifugal sealing action.
- **C steel** - Superagriseal unit + rubberised centrifuging ring. This system is used in stainless steel bearings. The upper lip of the centrifuging ring together with the grease trapped between the base seal and the ring itself guarantees maximum sealing capacity.



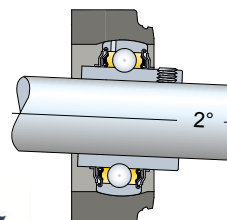
Bearing seals

- Waterproof self-aligning bearings feature seals for the protection against external environment
- Viton rubber seals ensure maximum resistance to chemical agents



Support seals

- All bearings are self-aligning, capable of compensating misalignments up to 2°



Misalignment

Square flange bearing units

UCF/C - SUCF/C - HCF/C - SHCF/C



Waterproof housing

Grub screws or eccentric collar shaft locking

PA FV polyamide housing

High mechanical and heat resistance. Proof to dust, humidity, washouts, steam, average aggressive chemical agents.

PP FV polypropylene housing

Proof to highly aggressive chemical agents. Inferior loading ability.

Solid flange bearings

They differ from standard flange versions for their closed surface structure, ideal for sanification.

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Protection cover in polypropylene PP (orange)
- Seal and O-Ring in NBR rubber (black)
- Ball type nickel plated brass greasing nipple
- Reinforcing bushings on mounting holes and washers in stainless steel AISI 304

Continuous operating temperature

in air: - 20 to + 60°C.

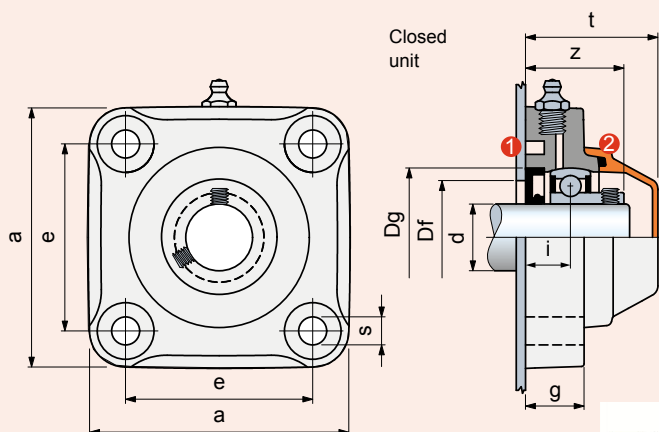
Maximum allowed misalignment: 2°.

Bearing

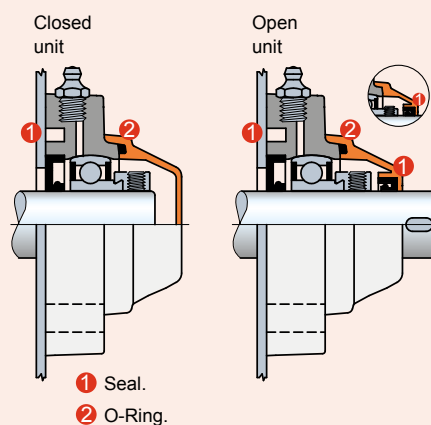


- Type A (grub screws shaft locking)
- Type D (eccentric collar shaft locking)
- Chrome alloy steel
- Superagriseal unit
- Prelubricated with lithium / calcium grease
- Can be relubricated.

• Series UCF/C • Type A Grub screws shaft locking



• Series HCF/C • Type D Eccentric collar shaft locking



UCF/C - SUCF/C - HCF/C - SHCF/C

		Housing material													
dia. d mm	Series	Polyamide PA FV Standard Flange (black) Cover (orange)	Dimensions in mm								Bore in frame ²⁾ Df		Bearing	Weight Kg	Spare parts Cover orange
		Code	e	a	s	g	i	z	t	Dg	max.	min.			Code
Grub screws shaft locking • Closed unit															
25	UCF 205 C	64573	70	98	11	22,5	16,8	36,3	49,5	52	50	45	Type A	0,40	681952
30	UCF 206 C	63112	83	110	11	26	20	42	56	62	60	50	Type A	0,56	63154
35	UCF 207 C	64018	92	120	11	26	19,5	43	59	72	70	55	Type A	0,72	682022
35*	SUCF 207 C	680522 ¹⁾	83	110	11	26	19,5	43	61	72	70	55	Type A	0,67	63539
40	UCF 208 C	68916	102	131	11	30	22	47	65,5	80	78	65	Type A	0,95	63539
40*	SUCF 208 C	61819	83	110	11	26	19	44	66	80	78	65	Type A	0,88	600882
Grub screws shaft locking • Open unit															
25	UCF 205 C	64623	70	98	11	22,5	16,8	36,3	49,5	52	50	45	Type A	0,40	681972
30	UCF 206 C	63172	83	110	11	26	20	42	56	62	60	50	Type A	0,56	69965
35	UCF 207 C	64028	92	120	11	26	19,5	43	59	72	70	55	Type A	0,72	682032
35*	SUCF 207 C	680582 ¹⁾	83	110	11	26	19,5	43	61	72	70	55	Type A	0,67	615692
40	UCF 208 C	68926	102	131	11	30	22	47	65,5	80	78	65	Type A	0,95	63549
40*	SUCF 208 C	61829	83	110	11	26	19	44	66	80	78	65	Type A	0,88	600892
Eccentric collar shaft locking • Closed unit															
40*	SHCF 208 C	62439	83	110	11	26	19	51,7	66	80	78	65	Type D	1,07	600882
Eccentric collar shaft locking • Open unit															
40*	SHCF 208 C	62449	83	110	11	26	19	51,7	66	80	78	65	Type D	1,07	600892

* = Version with special fixing holes.

¹⁾ = Solid flange.

²⁾ = Dimensions Df max / Df min must be respected to ensure positive retention of the seals and to allow air bleeding during lubrication.

Packaging: 4 pieces.

Square flange bearing units

UCF/CL - SUCF/CL - HCF/CL - SHCF/CL

LIFE LUBRICATED



Dry use recommended



Life lubricated

The ball-bearings are pre-lubricated with a special grease keeping the bearing for its whole life. No need for re-lubrication (see page B56 to calculate the grease life)

Grub screws or eccentric collar shaft locking

PA FV polyamide housing

High mechanical and heat resistance. Proof to dust, average aggressive chemical agents.

Solid flange bearings

They differ from standard flange versions for their closed surface structure, ideal for sanification.

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Protection cover in polypropylene PP (orange)
- Seal and O-Ring in NBR rubber (black)
- Reinforcing bushings on mounting holes and washers in stainless steel AISI 304.

Continuous operating temperature

in air: - 20 to + 60°C.

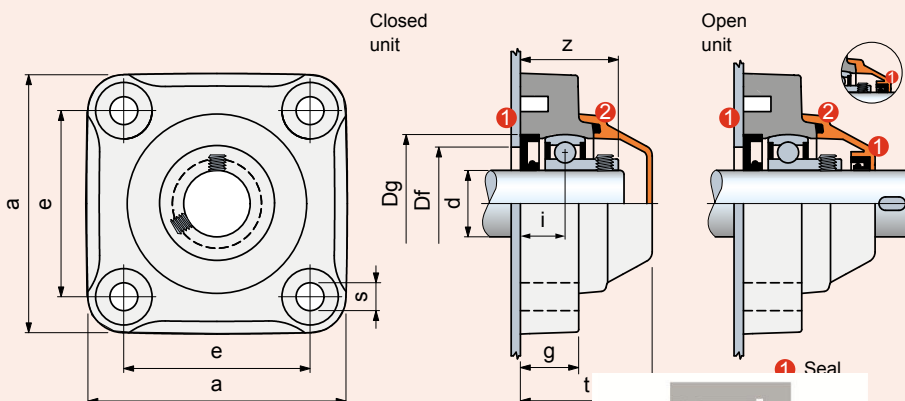
Maximum allowed misalignment: 2°.

Bearing



- Type A (grub screws shaft locking)
- Chrome alloy steel
- Superagriseal unit
- Prelubricated with lithium / calcium grease, no need for re-lubrication.

• Series UCF/CL • Type A Grub screws shaft locking



UCF/CL - SUCF/CL - HCF/CL - SHCF/CL

dia. d mm	Series	Housing material		e	a	s	Dimensions in mm				Dg	Bore in frame Df		Bearing	Weight Kg	Spare parts Cover orange	
		Polyamide PA FV Standard Flange (black) Cover (orange)	Code				g	i	z	t		max.	min.			Code	
Grub screws shaft locking • Closed unit																	
40*	SUCF 208 CL	61819L	83	110	11	26	19	44	66	80	78	65	Type A	0,88	600882		
Grub screws shaft locking • Open unit																	
40*	SUCF 208 CL	61829L	83	110	11	26	19	44	66	80	78	65	Type A	0,88	600892		
Eccentric collar shaft locking • Closed unit																	
40*	SHCF 208 CL	62439L	83	110	11	26	19	51,7	66	80	78	65	Type D	1,07	600882		
Eccentric collar shaft locking • Open unit																	
40*	SHCF 208 CL	62449L	83	110	11	26	19	51,7	66	80	78	65	Type D	1,07	600892		

* = Version with special fixing holes.

Packaging: 4 pieces.

Square flange bearing units

UCF - SUCF - HCF - SHCF



Accessories

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Ball type nickel plated brass greasing nipple
- Reinforcing bushings on mounting holes and washers in stainless steel AISI 304.

Continuous operating temperature

in air: - 20 to + 60°C.

Maximum allowed misalignment: 2°.

Bearing

- Type B (grub screws shaft locking, chrome alloy steel, Superagriseal unit plus centrifuging ring)
- Type C (grub screws shaft locking, stainless steel AISI 420, Superagriseal unit plus rubberised centrifuging ring)
- Type A (grub screws shaft locking, chrome alloy steel, Superagriseal unit)
- Type D (eccentric collar shaft locking, chrome alloy steel, Superagriseal unit)
- Prelubricated with lithium / calcium grease
- Can be relubricated.

Grub screws or eccentric collar shaft locking

Version with bearing Type B

The double ring guarantees maximum protection against dust and non-corrosive substances.

Version with stainless steel bearing Type C

AISI 420 stainless steel bearing with 2 rubberised rings, provides excellent seal against humidity, steams, liquids, medium corrosive chemical agents. Maximum load ability is inferior.

Version with bearing Type A

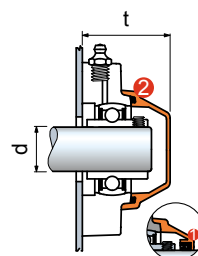
The rubberised ring guarantees maximum protection against dusts.

Material

Polyamide PA FV guarantees maximum strength and high-temperature resistance.

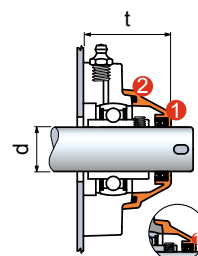
Protection covers (accessories)

Closed cover



Dia 45/50 supplied without o-ring

Open cover



Dia 45/50 supplied without o-ring

① Seals.

② Seals O-Ring.

Accessories

Cover orange

dia.
d
mm

Code

t
mm

Closed cover supplied with seals

25	681952	49,5
25*	681952	54
30	63154	56
35	682022	59
35* Standard	63154	54,6
40*	600882	66

Open cover supplied with seals

25	681972	49,5
25*	681972	54
30	69965	56
35	682032	59
35* Solid	615692	61
40	63549	65,5

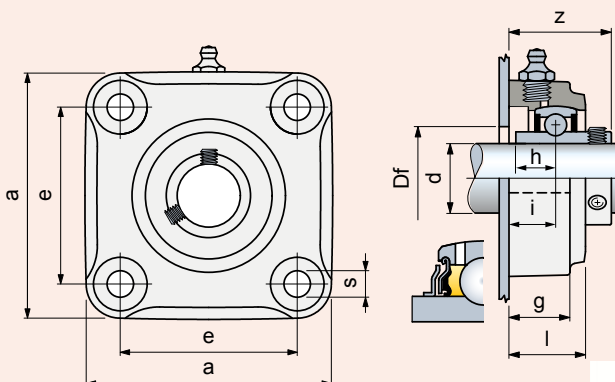
* = Version with special fixing holes.

• Series UCF • Type B Grub screws shaft locking

• Series UCF • Type C Grub screws shaft locking

• Series UCF • Type A Grub screws shaft locking

• Series HCF • Type D Eccentric collar shaft locking



dia. d mm	Series	Housing material										Bore in frame Df mm	Bearing	Weight Kg
		Polyamide PA FV Standard Flange (black)	Dimensions in mm											
			Code	e	a	s	g	i	h	l	z			
Grub screws shaft locking • Version with bearing Type B														
25	UCF 205	64533	70	98	11	22,5	16,8	14,3	27,5	36,5	29	Type B	0,44	
30	UCF 206	60722	83	110	11	26	20	15,9	32,5	42,2	34	Type B	0,57	
35	UCF 207	64058	92	120	11	26	19,5	17,5	32	44,9	39	Type B	0,72	
Grub screws shaft locking • Version with stainless steel bearing Type C														
25	UCF 205	646592	70	98	11	22,5	16,8	14,3	27,5	36,6	29	Type C	0,44	
30	UCF 206	646602	83	110	11	26	20	15,9	32,5	42,2	34	Type C	0,57	
Grub screws shaft locking • Version with bearing Type A														
25	UCF 205	656752	70	98	11	22,5	16,8	-	27,5	36,3	29	Type A	0,39	
30	UCF 206	666442	83	110	11	26	20	-	32,5	42	34	Type A	0,54	
35	UCF 207	666452	92	120	11	26	19,5	-	32	43	39	Type A	0,69	
40	UCF 208	666462	102	131	11	30	22	-	36	47	44	Type A	0,92	
40*	SUCF 208	681552	83	110	11	26	19	-	36	44	44	Type A	0,85	
Eccentric collar shaft locking • Version with bearing Type D														
40*	SHCF 208	62349	83	110	11	26	19	-	36	51,7	44	Type D	1,04	

Item code for order = B0000 + Code

*** = Version with special fixing holes.**

¹⁾ = Solid flange.

• = Solid flange 19,5.

Packaging: 4 pieces.

Square flange bearing units

UCFS/C - SUCFS/C - HCFS/C - SHCFS/C

Austenitic stainless steel surface

Waterproof housing

Grub screws or eccentric collar shaft locking

Solid flange

Closed surface structure.



Material

- Housing in reinforced polyamide PA FV resin (black)
- Austenitic stainless steel surface
- Protection cover in polypropylene PP (orange)
- Seal and O-Ring in NBR rubber (black)
- Ball type nickel plated brass greasing nipple.

Continuous operating temperature

in air: - 20 to + 60°C.

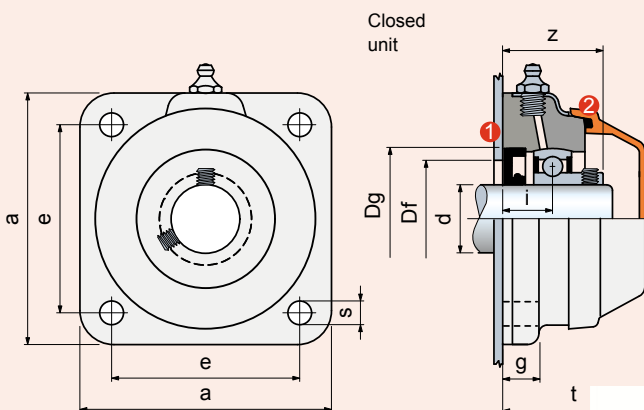
Maximum allowed misalignment: 2°.

Bearing

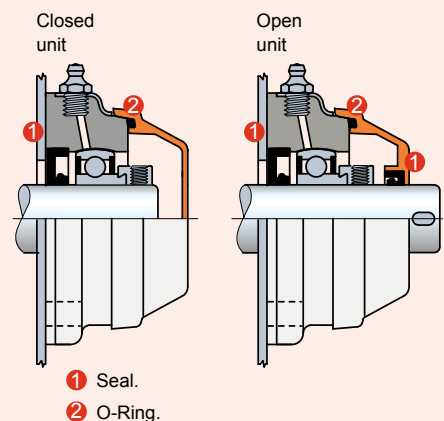


- Type A (grub screws shaft locking)
- Type D (eccentric collar shaft locking)
- Chrome alloy steel
- Superagriseal unit
- Prelubricated with lithium / calcium grease
- Can be relubricated.

• Series UCFS/C • Type A Grub screws shaft locking



• Series HCFS/C • Type D Eccentric collar shaft locking



UCFS/C - SUCFS/C - HCFS/C - SHCFS/C

		Housing material												Bore in frame ¹⁾ Df		Spare parts Cover orange	
dia. d mm	Series	Polyamide PA FV with austenitic stainless steel surface Solid Flange Cover (orange) Code	e	a	s	g	i	z	t	Dg	max.	min.	Bearing	Weight Kg	Code		
Grub screws shaft locking • Closed unit																	
30	UCFS 206 C	647613	83	111	10,5	15,9	22	44	65,8	62	60	50	Type A	0,73	63539		
35*	SUCFS 207 C	647623	83	111	10,5	15,9	22	45,5	65,8	72	70	55	Type A	0,84	63539		
40*	SUCFS 208 C	647633	83	111	10,5	15,9	22	47	65,8	80	78	65	Type A	0,94	63539		
Grub screws shaft locking • Open unit																	
30	UCFS 206 C	647643	83	111	10,5	15,9	22	44	65,8	62	60	50	Type A	0,73	615682		
35*	SUCFS 207 C	647653	83	111	10,5	15,9	22	45,5	65,8	72	70	55	Type A	0,84	615692		
40*	SUCFS 208 C	647663	83	111	10,5	15,9	22	47	65,8	80	78	65	Type A	0,94	63549		
Eccentric collar shaft locking • Closed unit																	
40*	SHCFS 208 C	647693	83	111	10,5	15,9	19	51,7	65,8	80	78	65	Type D	1,00	63539		
Eccentric collar shaft locking • Open unit																	
40*	SHCFS 208 C	647723	83	111	10,5	15,9	19	51,7	65,8	80	78	65	Type D	1,00	63549		

* = Version with special fixing holes.

¹⁾ = Dimensions Df max / Df min must be respected to ensure positive retention of the seals and to allow air bleeding during lubrication.

Packaging: 4 pieces.

Square flange bearing units

F - SF



Waterproof housing

Shaft shoulders locking

High axial load capacity.

PA FV polyamide housing

High mechanical and heat resistance. Proof to dust, humidity, washouts, steam, average aggressive chemical agents.

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Seal and O-Ring in NBR rubber (black)
- Ball type nickel plated brass greasing nipple
- Reinforcing bushings on mounting holes and washers in stainless steel AISI 304.

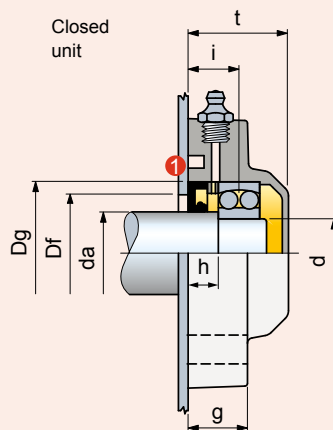
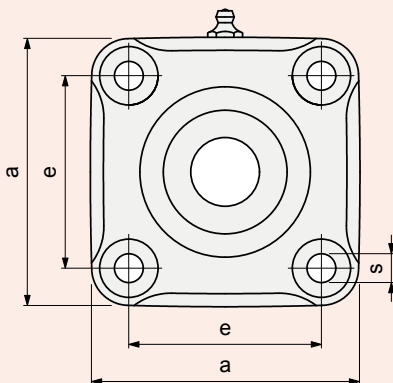
Continuous operating temperature

in air: - 20 to + 60°C.

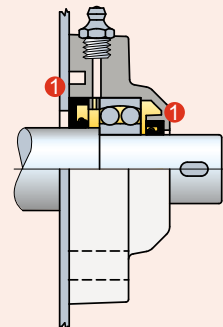
Maximum allowed misalignment: 2°.

Bearing

- Type 1200 self aligning ball bearing
- Chrome alloy steel
- Supplied without grease
- To be prelubricated with lithium / calcium grease during first installation.



Open unit



1 Seal.

Shaft dia. da mm	Bearing dia. d mm	Series	Housing material										Bore in frame ¹⁾ Df		Bearing	Weight Kg	
			Polyamide PA FV Standard Flange (black)	Dimensions in mm										max.			min.
				Code	e	a	s	g	i	h	t	Dg					
Closed unit																	
30	25	F 1205	64433	70	98	11	22,5	18,5	11	36,5	52	50	47	Type 1200	0,36		
Open unit																	
30	25	F 1205	64483	70	98	11	22,5	18,5	11	36,5	52	50	47	Type 1200	0,36		

Item code for order = B0000 + Code

¹⁾ = Dimensions Df max / Df min must be respected to ensure positive retention of the seals and to allow air bleeding during lubrication.

Packaging: 6 pieces.

Oval flange bearing units

UCFLN/C - SUCFLN/C - HCFLN/C - SHCFLN/C



Waterproof housing

Grub screws or eccentric collar shaft locking

PA FV polyamide housing

High mechanical and heat resistance. Proof to dust, humidity, washouts, steam, average aggressive chemical agents.

Solid flange bearings

Closed surface structure, ideal for sanification.

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Protection cover in polypropylene PP (orange)
- Seal and O-Ring in NBR rubber (black)
- Ball type nickel plated brass greasing nipple
- Reinforcing bushings on mounting holes and washers in stainless steel AISI 304

Continuous operating temperature

in air: - 20 to + 60°C.

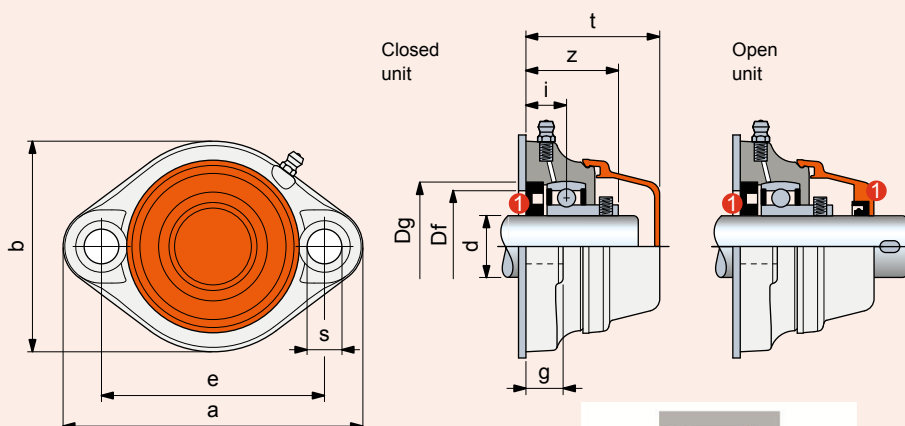
Maximum allowed misalignment: 2°.

Bearing



- Type A (grub screws shaft locking)
- Chrome alloy steel
- Superagriseal unit
- Prelubricated with lithium / calcium grease
- Can be relubricated.

• Series UCFLN/C • Type A Grub screws shaft locking



UCFLN/C - SUCFLN/C - HCFLN/C - SHCFLN/C

dia. d mm	Series	Housing material		Dimensions in mm										Bore in frame ¹⁾ Df		Bearing	Weight Kg	Spare parts Cover orange	
		Polyamide PA FV Solid Flange (black) Cover (orange)	Code	e	a	b	s	g	i	z	t	Dg	max.	min.	Code				
Grub screws shaft locking • Closed unit																			
30*	SUCFLN 206 C	625933		90	122	85	11	15	15	37	54	62	60	50	Type A	0,37	626203		
Grub screws shaft locking • Open unit																			
30*	SUCFLN 206 C	625953		90	122	85	11	15	15	37	54	62	60	50	Type A	0,37	626223		

* = Version with special fixing holes.

¹⁾ = Dimensions Df max / Df min must be respected to ensure positive retention of the seals and to allow air bleeding during lubrication.

Packaging: 4 pieces.

Oval flange bearing units

UCFLN - SUCFLN - HCFLN - SHCFLN



Accessories

- Material**
PA FV polyamide housing
 - Housing in reinforced polyamide PA FV resin (black)
 - Ball type nickel plated brass greasing nipple
 - Reinforcing bushings on mounting holes and washers in stainless steel AISI 304.
- Continuous operating temperature**
 in air: - 20 to + 60°C.
- Maximum allowed misalignment:** 2°.
- Bearing**
 - Type B (grub screws shaft locking, chrome alloy steel, Superagriseal unit plus centrifuging ring)
 - Type C (grub screws shaft locking, stainless steel AISI 420, Superagriseal unit plus rubberised centrifuging ring)
 - Type A (grub screws shaft locking, chrome alloy steel, Superagriseal unit)
 - Prelubricated with lithium / calcium grease
 - Can be relubricated.

Grub screws or eccentric collar shaft locking

Version with bearing Type B

The double ring guarantees maximum protection against dust and non-corrosive substances.

Version with stainless steel bearing Type C

AISI 420 stainless steel bearing with 2 rubberised rings, provides excellent seal against humidity, steams, liquids, medium corrosive chemical agents. Maximum load ability is inferior.

Version with bearing Type A

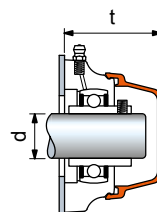
The rubberised ring guarantees maximum protection against dusts.

Material

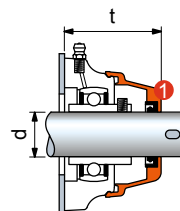
Polyamide PA FV guarantees maximum strength and high-temperature resistance.

Protection covers (accessories)

Closed cover



Open cover



① Seals.

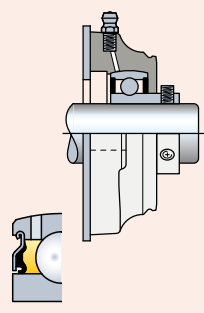
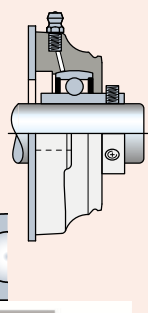
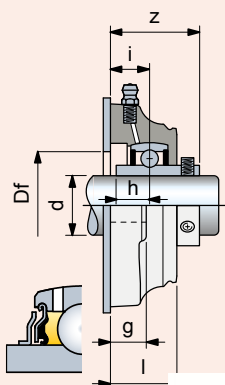
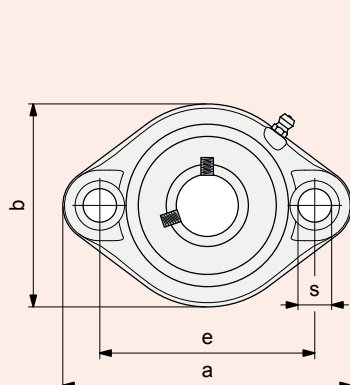
dia. d mm	Accessories Cover orange	t mm	
	Code	UCFL	HCFL
Closed cover supplied			
30	63154	55	55
Open cover supplied with seals			
30*	626203/626223	54	54

* = Version with special fixing holes.

• Series UCFLN • Type B
Grub screws shaft locking

• Series UCFLN • Type C
Grub screws shaft locking

• Series UCFLN • Type A
Grub screws shaft locking



UCFLN - SUCFLN - HCFLN - SHCFLN

dia. d mm	Series	Housing material										Bore in frame Df mm	Bearing	Weight Kg
		Polyamide PA FV Solid Flange (black)	Dimensions in mm											
		Code	e	a	b	s	g	i	h	l	z			
Grub screws shaft locking • Version with bearing Type B														
30*	SUCFLN 206	633603	90	122	85	11	15	15	15,9	28	37,2	45	Type B	0,29
Grub screws shaft locking • Version with stainless steel bearing Type C														
30*	SUCFLN 206	633643	90	122	85	11	15	15	15,9	28	37,2	45	Type C	0,29
Grub screws shaft locking • Version with bearing Type A														
30*	SUCFLN 206	633693	90	122	85	11	15	15	-	28	37	34	Type A	0,29

Item code for order = B0000 + Code

* = Version with special fixing holes.

Packaging: 4 pieces.

Oval flange bearing units

UCFL/C - SUCFL/C - HCFL/C - SHCFL/C



Waterproof housing

Grub screws or eccentric collar shaft locking

PA FV polyamide housing

High mechanical and heat resistance. Proof to dust, humidity, washouts, steam, average aggressive chemical agents.

Solid flange bearings

They differ from standard flange versions for their closed surface structure, ideal for sanification.

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Protection cover in polypropylene PP (orange)
- Seal and O-Ring in NBR rubber (black)
- Ball type nickel plated brass greasing nipple
- Reinforcing bushings on mounting holes and washers in stainless steel AISI 304

Continuous operating temperature

in air: - 20 to + 60°C.

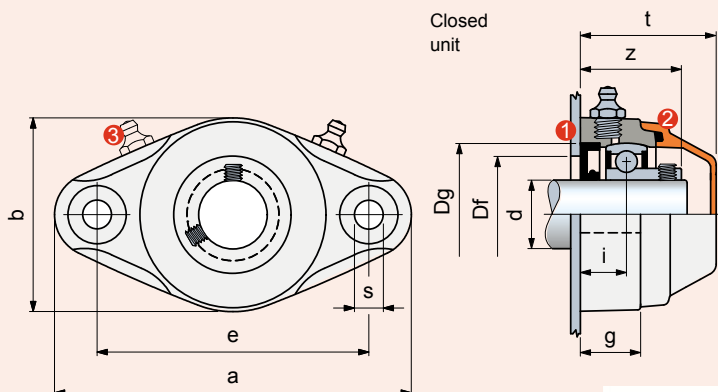
Maximum allowed misalignment: 2°.

Bearing

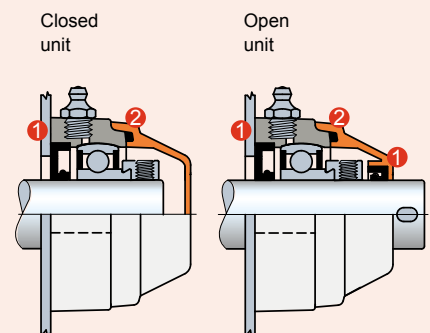


- Type A (grub screws shaft locking)
- Type D (eccentric collar shaft locking)
- Chrome alloy steel
- Superagriseal unit
- Prelubricated with lithium / calcium grease
- Can be relubricated.

• Series UCFL/C • Type A Grub screws shaft locking



• Series HCFL/C • Type D Eccentric collar shaft locking



1 Seal.

2 O-Ring.

3 Only for series 206

UCFL/C - SUCFL/C - HCFL/C - SHCFL/C

		Housing material															
dia. d mm	Series	Polyamide PA FV Standard Flange (black) Cover (orange)	Dimensions in mm										Bore in frame ²⁾ Df		Bearing	Weight Kg	Spare parts Cover orange
		Code	e	a	b	s	g	i	z	t	Dg	max.	min.	Code			
Grub screws shaft locking • Closed unit																	
20	UCFL 204 C	69016	90	116	62	11	20	15,2	33,2	46	47	45	40	Type A	0,25	681942	
25	UCFL 205 C	68523	99	130	71	11	22,5	16,8	36,3	49,5	52	50	45	Type A	0,33	681952	
30	UCFL 206 C	68399	117	148	85	11	26	20	42	56	62	60	50	Type A	0,42	63154	
35	UCFL 207 C	648131	130	162	93	11	26	19,5	43	59	72	70	55	Type A	0,65	682022	
40	UCFL 208 C	672411	144	176	102	11	30	22	47	65,5	80	78	65	Type A	0,90	63539	
40*	SUCFL 208 C	697712 ¹⁾	117	148	112	11	26	19	44	62	80	78	65	Type A	0,74	63539	
Grub screws shaft locking • Open unit																	
20	UCFL 204 C	69026	90	116	62	11	20	15,2	33,2	46	47	45	40	Type A	0,25	681962	
25	UCFL 205 C	68533	99	130	71	11	22,5	16,8	36,3	49,5	52	50	45	Type A	0,33	681972	
30	UCFL 206 C	68409	117	148	85	11	26	20	42	56	62	60	50	Type A	0,42	69965	
35	UCFL 207 C	648141	130	162	93	11	26	19,5	43	59	72	70	55	Type A	0,65	682032	
40	UCFL 208 C	672421	144	176	102	11	30	22	47	65,5	80	78	65	Type A	0,90	63549	
40*	SUCFL 208 C	697732 ¹⁾	117	148	112	11	26	19	44	62	80	78	65	Type A	0,74	63549	
Eccentric collar shaft locking • Closed unit																	
40*	SHCFL 208 C	697752 ¹⁾	117	148	112	11	26	19	51,7	68	80	78	65	Type D	0,93	600882	
Eccentric collar shaft locking • Open unit																	
40*	SHCFL 208 C	697772	117	148	112	11	26	19	51,7	68	80	78	65	Type D	0,93	600892	

* = Version with special fixing holes.

SUCFL206C/SHCFL206C: Assembly with cylindrical head screws.

¹⁾ = Solid flange.

²⁾ = Dimensions Df max / Df min must be respected to ensure positive retention of the seals and to allow air bleeding during lubrication.

Packaging: 4 pieces.

Oval flange bearing units

UCFL - SUCFL - HCFL - SHCFL



Accessories

- Material**
PA FV polyamide housing
 - Housing in reinforced polyamide PA FV resin (black)
 - Ball type nickel plated brass greasing nipple
 - Reinforcing bushings on mounting holes and washers in stainless steel AISI 304.
- Continuous operating temperature**
 in air: - 20 to + 60°C.
- Maximum allowed misalignment:** 2°.
- Bearing**
 - Type B (grub screws shaft locking, chrome alloy steel, Superagriseal unit plus centrifuging ring)
 - Type C (grub screws shaft locking, stainless steel AISI 420, Superagriseal unit plus rubberised centrifuging ring)
 - Type A (grub screws shaft locking, chrome alloy steel, Superagriseal unit)
 - Type D (eccentric collar shaft locking, chrome alloy steel, Superagriseal unit)
 - Prelubricated with lithium / calcium grease
 - Can be relubricated.

Grub screws or eccentric collar shaft locking

Version with bearing Type B

The double ring guarantees maximum protection against dust and non-corrosive substances.

Version with stainless steel bearing Type C

AISI 420 stainless steel bearing with 2 rubberised rings, provides excellent seal against humidity, steams, liquids, medium corrosive chemical agents. Maximum load ability is inferior.

Version with bearing Type A

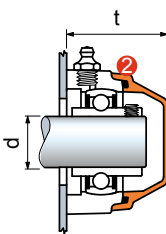
The rubberised ring guarantees maximum protection against dusts.

Material

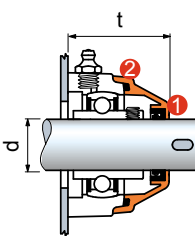
Polyamide PA FV guarantees maximum strength and high-temperature resistance.

Protection covers (accessories)

Closed cover



Open cover



dia. d mm	Accessories Cover orange	t mm	
	Code	UCFL	HCFL
Closed cover supplied with seals			
17*	681942	46	49
20	681942	46	49
25	681952	49,5	49,5
25*	681952	49,5	49,5
30	63154	55	55
30*	63154	55	55
35	682022	59	59
40 ²⁾	600882	-	71
Open cover supplied with seals			
17*	696162	46	49
25	681972	49,5	49,5
25*	681972	49,5	49,5
30	69965	55	55
30*	69965	55	55
35	682032	59	59
35*	615692	62	62
40 ¹⁾	63549	65,5	-

- 1 Seals.
- 2 Seals O-Ring.
- 3 Only for series 206

* = Version with special fixing holes.

¹⁾ = Protection cover for bearing unit with grub screws shaft locking.

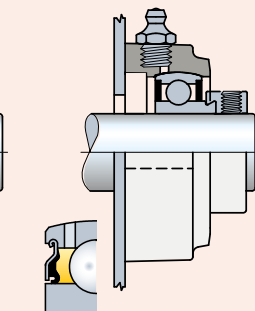
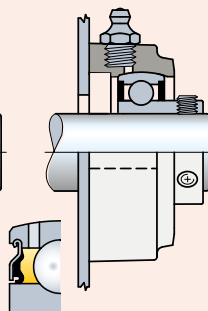
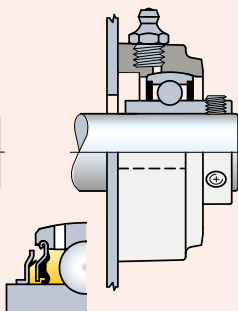
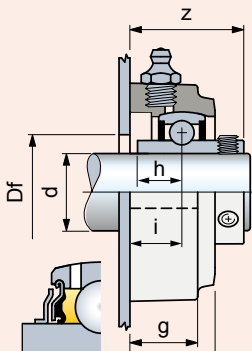
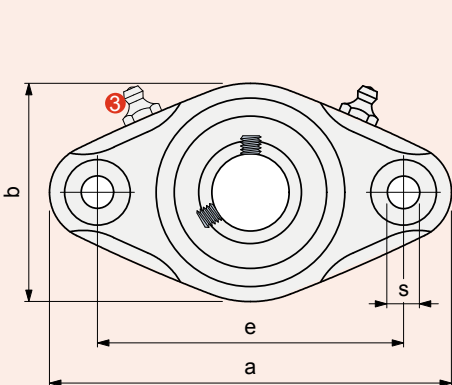
²⁾ = Protection cover for bearing unit with eccentric collar shaft locking.

• Series UCFL • Type B
Grub screws shaft locking

• Series UCFL • Type C
Grub screws shaft locking

• Series UCFL • Type A
Grub screws shaft locking

• Series HCFL • Type D
Eccentric collar shaft locking



UCFL - SUCFL - HCFL - SHCFL

dia. d mm	Series	Housing material		Dimensions in mm									Bore in frame Df mm	Bearing	Weight Kg
		Polyamide PA FV Standard Flange (black)													
		Code	e	a	b	s	g	i	h	l	z				
Grub screws shaft locking • Version with bearing Type B															
20	UCFL 204	69056	90	116	62	11	20	15,2	12,7	25	33,5	24	Type B	0,25	
25	UCFL 205	68563	99	130	71	11	22,5	16,8	14,3	27,5	36,5	29	Type B	0,31	
30	UCFL 206	68439	117	148	85	11	26	19	15,9	32,5	42,2	34	Type B	0,44	
Grub screws shaft locking • Version with stainless steel bearing Type C															
20	UCFL 204	646542	90	116	62	11	20	15,2	12,7	25	33,5	24	Type C	0,25	
25	UCFL 205	646552	99	130	71	11	22,5	16,8	14,3	27,5	36,6	29	Type C	0,31	
30	UCFL 206	646562	117	148	85	11	26	19	15,9	32,5	42,2	34	Type C	0,44	
Grub screws shaft locking • Version with bearing Type A															
20	UCFL 204	655482	90	116	62	11	20	15,2	-	25	33,2	24	Type A	0,23	
25	UCFL 205	655472	99	130	71	11	22,5	16,8	-	27,5	36,3	29	Type A	0,31	
30	UCFL 206	666412	117	148	85	11	26	20	-	32,5	42	34	Type A	0,39	
40*	SUCFL 208	602193 ¹⁾	117	148	112	11	26	19	-	33	44	44	Type A	0,91	
Eccentric collar shaft locking • Version with bearing Type D															
40*	SHCFL 208	602213 ¹⁾	117	148	112	11	26	19	-	33	51,7	44	Type D	0,91	

* = Version with special fixing holes.

SUCFL/SHCFL: Assembly with cylindrical head screws.

¹⁾ = Solid flange.

Packaging: 4 pieces.

Pillow block type bearing units

UCP/C - HCP/C



Waterproof housing

Grub screws or eccentric collar shaft locking

PA FV polyamide housing

High mechanical and heat resistance. Proof to dust, humidity, washouts, steam, average aggressive chemical agents.

PP FV polypropylene housing

Proof to highly aggressive chemical agents. Inferior loading ability.

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Protection cover in polypropylene PP (orange)
- Seal and O-Ring in NBR rubber (black)
- Ball type nickel plated brass greasing nipple
- Reinforcing bushings on mounting holes and washers in stainless steel AISI 304
- Stainless steel AISI 303 safety ring.

Continuous operating temperature

in air: - 20 to + 60°C.

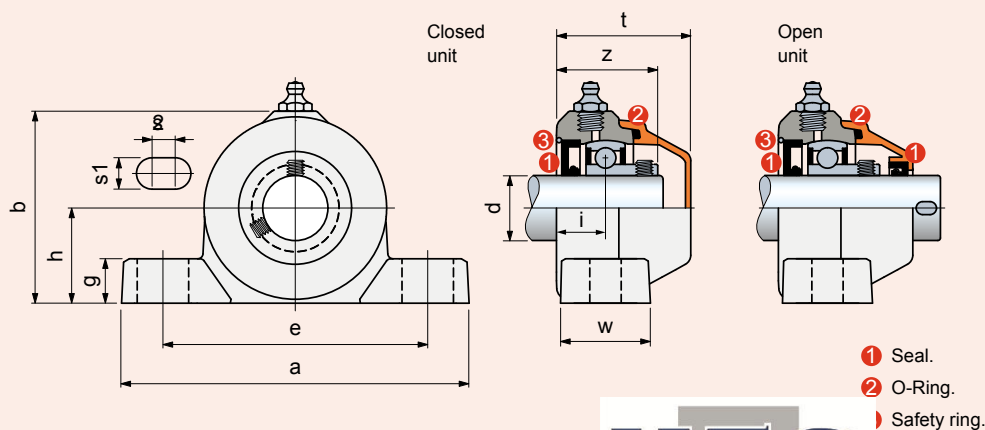
Maximum allowed misalignment: 2°.

Bearing



- Type A (grub screws shaft locking)
- Type D (eccentric collar shaft locking)
- Chrome alloy steel
- Superagriseal unit
- Prelubricated with lithium / calcium grease
- Can be relubricated.

• Series UCP/C • Type A Grub screws shaft locking



dia. d mm	Series	Housing material												Bearing	Weight Kg	Spare parts	
		Polyamide PA FV Flange (black) Cover (orange)	Dimensions in mm													Cover orange	Code
			e	a	h	b	s1	s2	g	w	i	z	t				
Code																Code	
Grub screws shaft locking • Closed unit																	
20	UCP 204 C	682941	96	128	33,3	67	12	10	17	30	18,9	36,9	49,7	Type A	0,27	681942	
25	UCP 205 C	646511	106	140	36,5	75	12	10	17	34,5	18,8	38,3	51,5	Type A	0,33	681952	
Grub screws shaft locking • Open unit																	
20	UCP 204 C	682931	96	128	33,3	67	12	10	17	30	18,9	36,9	49,7	Type A	0,27	681962	
25	UCP 205 C	646521	106	140	36,5	75	12	10	17	34,5	18,8	38,3	51,5	Type A	0,33	681972	

Packaging: 4 pieces.

Pillow block type bearing units

UCP - HCP



Accessories

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Ball type nickel plated brass greasing nipple
- Reinforcing bushings on mounting holes and washers in stainless steel AISI 304.

Continuous operating temperature

in air: - 20 to + 60°C.

Maximum allowed misalignment: 2°.

Bearing

- Type B (grub screws shaft locking, chrome alloy steel, Superagriseal unit plus centrifuging ring)
- Type C (grub screws shaft locking, stainless steel AISI 420, Superagriseal unit plus rubberised centrifuging ring)
- Type A (grub screws shaft locking, chrome alloy steel, Superagriseal unit)
- Type D (eccentric collar shaft locking, chrome alloy steel, Superagriseal unit)
- Prelubricated with lithium / calcium grease
- Can be relubricated.

Grub screws or eccentric collar shaft locking

Version with bearing Type B

The double ring guarantees maximum protection against dust and non-corrosive substances.

Version with stainless steel bearing Type C

AISI 420 stainless steel bearing with 2 rubberised rings, provides excellent seal against humidity, steams, liquids, medium corrosive chemical agents. Maximum load ability is inferior.

Version with bearing Type A

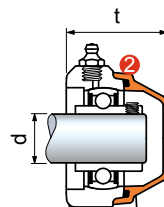
The rubberised ring guarantees maximum protection against dusts.

Material

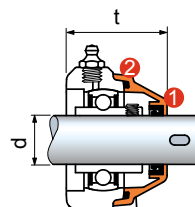
Polyamide PA FV guarantees maximum strength and high-temperature resistance.

Protection covers (accessories)

Closed cover



Open cover



① Seals.

② Seals O-Ring.

dia. d mm	Accessories Cover orange	t mm	
	Code	UCFL	HCFL
Closed cover supplied with seals			
20	681942	49,7	52
25	681952	51,5	51,5
30	63154	55	55
35	682022	61	61
40 ²⁾	600882	-	72
Open cover supplied with seals			
25	681972	51,5	51,5
30	69965	55	55
35	682032	61	61
40 ¹⁾	63549	66,5	-

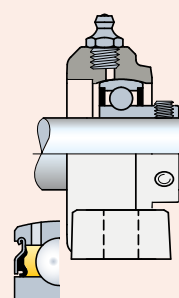
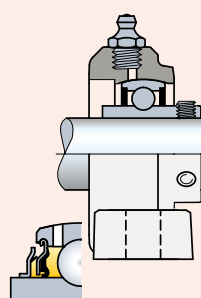
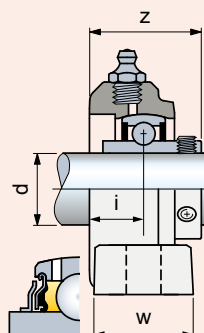
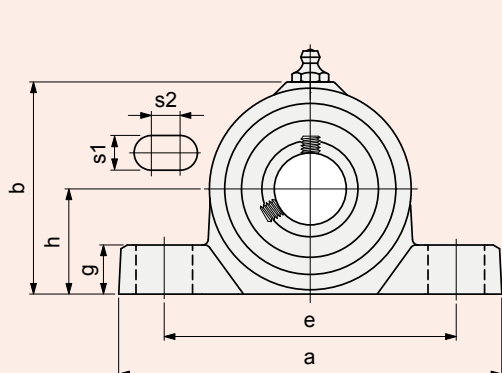
¹⁾ = Protection cover for bearing unit with grub screws shaft locking.

²⁾ = Protection cover for bearing unit with eccentric collar shaft locking.

• Series UCP • Type B
Grub screws shaft
locking

• Series UCP • Type C
Grub screws shaft
locking

• Series UCP • Type A
Grub screws shaft
locking



dia. d mm	Series	Housing material		Dimensions in mm										Bearing	Weight Kg
		Polyamide PA FV Flange (black)		e	a	h	b	s1	s2	g	w	i	z		
		Code													
Grub screws shaft locking • Version with bearing Type B															
25	UCP 205	648781		106	140	36,5	75	12	10	17	34,5	18,8	38,5	Type B	0,33
Grub screws shaft locking • Version with stainless steel bearing Type C															
25	UCP 205	646502		106	140	36,5	75	12	10	17	34,5	18,8	38,6	Type C	0,33
Grub screws shaft locking • Version with bearing Type A															
25	UCP 205	678562		106	140	36,5	75	12	10	17	34,5	18,8	38,3	Type A	0,30

Packaging: 4 pieces.

Compact pillow block

UCPA/C - HCPA/C



Waterproof housing

Grub screws or eccentric collar shaft locking

PA FV polyamide housing

High mechanical and heat resistance. Proof to dust, humidity, washouts, steam, average aggressive chemical agents.

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Protection cover in polypropylene PP (orange)
- Seal and O-Ring in NBR rubber (black)
- Ball type nickel plated brass greasing nipple
- Nickel plated brass threaded bushings.

Continuous operating temperature

in air: - 20 to + 60°C.

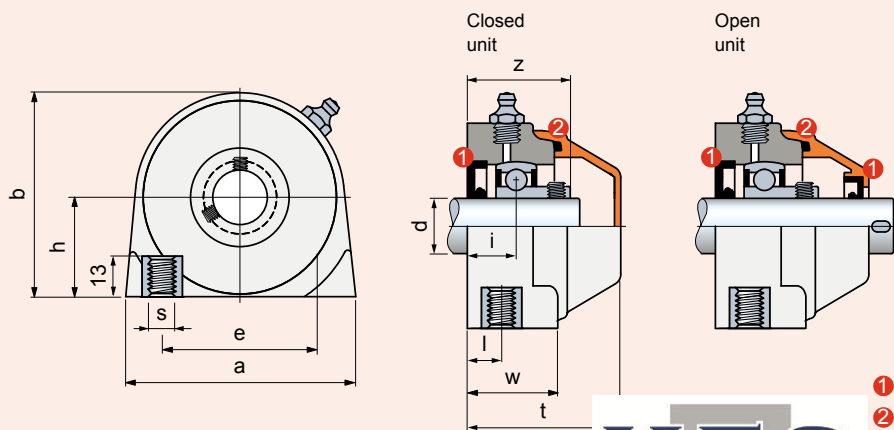
Maximum allowed misalignment: 2°.

Bearing



- Type A (grub screws shaft locking)
- Chrome alloy steel
- Superagriseal unit
- Prelubricated with lithium / calcium grease
- Can be relubricated.

• Series UCPA/C • Type A Grub screws shaft locking



- ① Seal.
- ② O-Ring.

UCPA/C - HCPA/C

dia. d mm	Series	Housing material											Bearing	Weight Kg	Spare parts Cover orange	
		Polyamide PA FV Flange (black) Cover (orange)	Code	e	a	h	b	Dimensions in mm							Code	Code
								s	w	i	l	z				
Grub screws shaft locking • Closed unit																
25	UCPA 205 C	696202		50,8	75	36,5	72	M10	30	16,8	12	36,3	52	Type A	0,29	681952
Grub screws shaft locking • Open unit																
25	UCPA 205 C	696232		50,8	75	36,5	72	M10	30	16,8	12	36,3	52	Type A	0,29	681972

Packaging: 4 pieces.

Side flange bearing units

UCFB/C - HCFB/C



Waterproof housing

Grub screws or eccentric collar shaft locking

PA FV polyamide housing

High mechanical and heat resistance. Proof to dust, humidity, washouts, steam, average aggressive chemical agents.

Solid flange bearings

They differ from standard flange versions for their closed surface structure, ideal for sanification.

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Protection cover in polypropylene PP (orange)
- Seal and O-Ring in NBR rubber (black)
- Ball type nickel plated brass greasing nipple
- Reinforcing bushings on mounting holes and washers in stainless steel AISI 304

Continuous operating temperature

in air: - 20 to + 60°C.

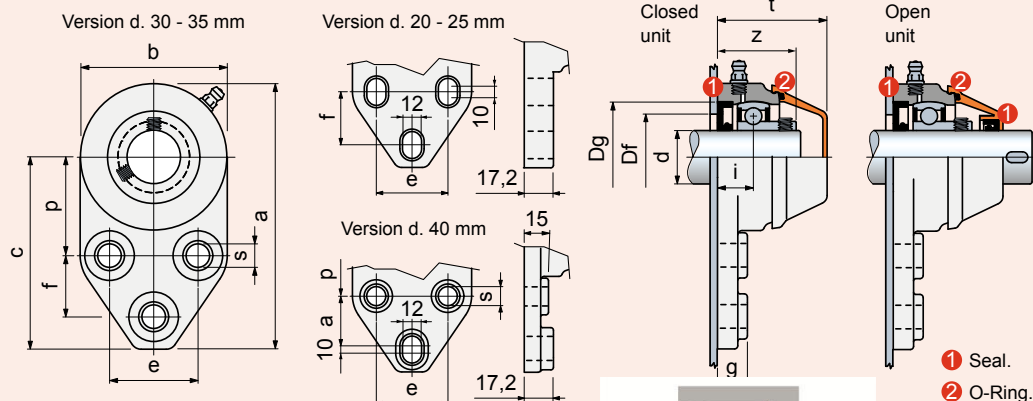
Maximum allowed misalignment: 2°.

Bearing



- Type A (grub screws shaft locking)
- Chrome alloy steel
- Superagriseal unit
- Prelubricated with lithium / calcium grease
- Can be relubricated.

• Series UCFB/C • Type A Grub screws shaft locking



dia. d mm	Series	Housing material														Bore in frame ¹⁾ Df		Bearing	Weight Kg	Spare parts Cover orange	
		Polyamide PA FV Standard Flange (black) Cover (orange)	Dimensions in mm																	Code	
			a	b	c	p	e	f	s	g	i	z	t	Dg	max.						min.
		Code																			Code
Grub screws shaft locking • Closed unit																					
25	UCFB 205 C	656542N	124,2	68,8	89,8	46	41,3	28,6	11	17,2	17,8	37,3	52	52	50	45	Type A	0,32	681952		
30	UCFB 206 C	656562	138,6	81,3	97,9	52,4	47,6	31,7	11	14	20	42	55	62	60	50	Type A	0,47	63154		
Grub screws shaft locking • Open unit																					
25	UCFB 205 C	656552N	124,2	68,8	89,8	46	41,3	28,6	11	17,2	17,8	37,3	52	52	50	45	Type A	0,32	681972		
30	UCFB 206 C	656572	138,6	81,3	97,9	52,4	47,6	31,7	11	14	20	42	55	62	60	50	Type A	0,47	69965		

¹⁾ = Dimensions Df max / Df min must be respected to ensure positive retention of the seals and to allow air bleeding during lubrication.
Packaging: 4 pieces.

Side flange bearing units

UCFB - HCFB



The picture shows
d. 20 - 25 version.

For other versions please
see the technical drawing.



Accessories

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Ball type nickel plated brass greasing nipple
- Reinforcing bushings on mounting holes in stainless steel AISI 304.

Continuous operating temperature

in air: - 20 to + 60°C.

Maximum allowed misalignment: 2°.

Bearing

- Type B (grub screws shaft locking, chrome alloy steel, Superagriseal unit plus centrifuging ring)
- Type C (grub screws shaft locking, stainless steel AISI 420, Superagriseal unit plus rubberised centrifuging ring)
- Type A (grub screws shaft locking, chrome alloy steel, Superagriseal unit)
- Prelubricated with lithium / calcium grease
- Can be relubricated.

Grub screws or eccentric collar shaft locking

Version with bearing Type B

The double ring guarantees maximum protection against dust and non-corrosive substances.

Version with stainless steel bearing Type C

AISI 420 stainless steel bearing with 2 rubberised rings, provides excellent seal against humidity, steams, liquids, medium corrosive chemical agents. Maximum load ability is inferior.

Version with bearing Type A

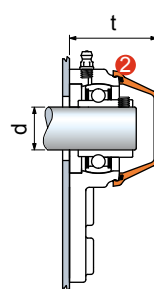
The rubberised ring guarantees maximum protection against dusts.

Material

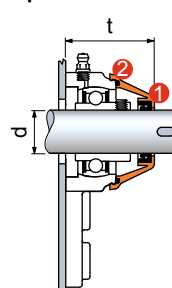
Polyamide PA FV guarantees maximum strength and high-temperature resistance.

Protection covers (accessories)

Closed cover



Open cover



① Seals.

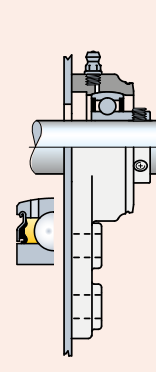
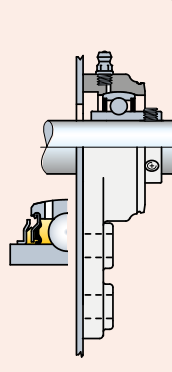
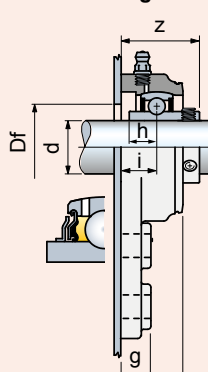
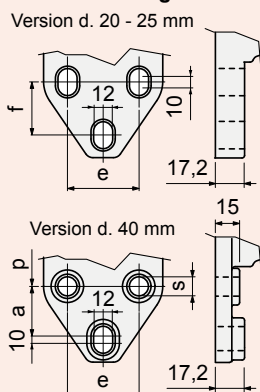
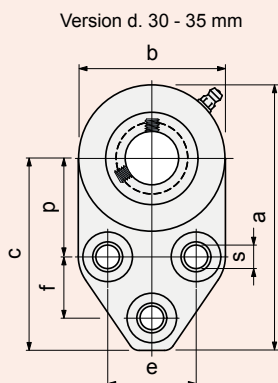
② Seals O-Ring.

dia. d mm	Accessories Cover orange	t mm	
	Code	UCFL	HCFL
Closed cover supplied with seals			
20	681942	49	49
25	681952	52	57
30	63154	55	60
35	682022	59	64,5
40	600882	72	72
Open cover supplied with seals			
25	681972	52	57
30	69965	55	60
35	682032	59	64,5

• Series UCFB • Type B Grub screws shaft locking

• Series UCFB • Type C Grub screws shaft locking

• Series UCFB • Type A Grub screws shaft locking



dia. d mm	Series	Housing material													Bore in frame Df mm	Bearing	Weight Kg
		Polyamide PA FV Solid Flange (black)	Dimensions in mm														
			Code	a	b	c	p	e	f	s	g	i	h	l			
Grub screws shaft locking • Version with bearing Type B																	
25	UCFB 205	663912N	124,2	68,8	89,8	46	41,3	28,6	11	17,2	17,8	14,3	29	37,5	29	Type B	0,33
30	UCFB 206	663922	138,6	81,3	97,9	52,4	47,6	31,7	11	14	20	15,9	31,5	42,2	34	Type B	0,50
Grub screws shaft locking • Version with stainless steel bearing Type C																	
25	UCFB 205	663942N	124,2	68,8	89,8	46	41,3	28,6	11	17,2	17,8	14,3	29	37,6	29	Type C	0,33
30	UCFB 206	663952	138,6	81,3	97,9	52,4	47,6	31,7	11	14	20	15,9	31,5	42,2	34	Type C	0,50
Grub screws shaft locking • Version with bearing Type A																	
25	UCFB 205	663672N	124,2	68,8	89,8	46	41,3	28,6	11	17,2	17,8	-	29	37,3	29	Type A	0,30
30	UCFB 206	663682	138,6	81,3	97,9	52,4	47,6	31,7	11	14	20	-	31,5	42	34	Type A	0,45

Packaging: 4 pieces.

Side flange bearing units

SQL/C



Grub screws shaft locking

PP FV polypropylene housing

Proof to highly aggressive chemical agents.

Inferior loading ability.

Solid flange bearings

Closed surface structure, ideal for sanification.

Material

PP FV polypropylene housing

- Housing in reinforced polypropylene PP FV resin (black)
- Protection cover in polypropylene PP (orange)
- Seal and O-Ring in NBR rubber (black)
- Ball type stainless steel AISI 316 greasing nipple
- Washers in stainless steel AISI 304.

Continuous operating temperature

in air: - 20 to + 60°C.

Maximum allowed misalignment: 2°.

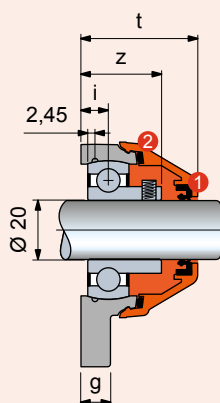
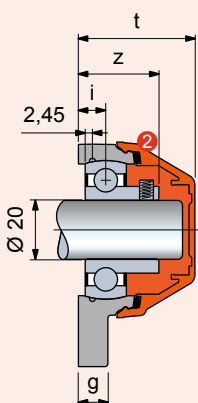
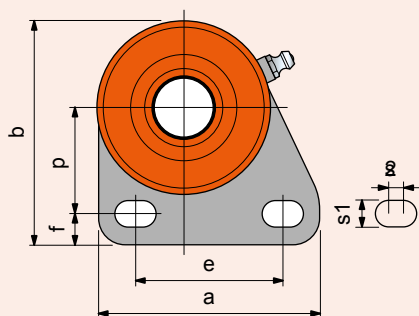
Bearing



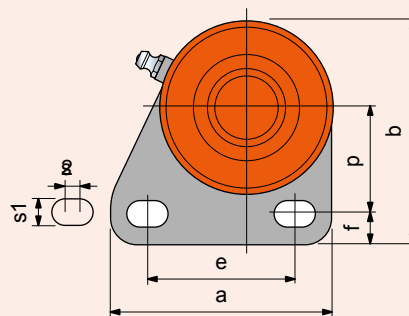
- Grub screws shaft locking
- Chrome alloy steel
- Superagriseal unit
- Prelubricated with lithium / calcium grease
- Can be relubricated.

• Series SQL/C • Type A Grub screws shaft locking

Closed unit Right



Open unit Left



- 1 Seal.
- 2 O-Ring.

dia. d mm	Series	Housing material	Dimensions in mm												Bearing	Weight Kg	Spare parts Cover orange
		Polypropylene PP FV Solid Flange (black) Cover (orange)	e	a	b	s1	s2	g	i	z	t	f	p	Code			
		Code															
Closed unit Left																	
20	SQL 204 C	656263	50	75	76	9	5	10	9,3	27,3	39,5	10,5	36	Type A	0,20	681942	
Open unit Left																	
20	SQL 204 C	656273	50	75	76	9	5	10	9,3	27,3	39,5	10,5	36	Type A	0,20	681962	
Closed unit Right																	
20	SQL 204 C	656283	50	75	76	9	5	10	9,3	27,3	39,5	10,5	36	Type A	0,20	681942	
Open unit Right																	
20	SQL 204 C	656293	50	75	76	9	5	10	9,3	27,3	39,5	10,5	36	Type A	0,20	681962	

Packaging: 4 pieces.

Side flange bearing units

SQL



Accessories

Material

PP FV polypropylene housing

- Housing in reinforced polypropylene PP FV resin (black)
- Ball type stainless steel AISI 316 greasing nipple
- Washers in stainless steel AISI 304.

Continuous operating temperature

in air: - 20 to + 60°C.

Maximum allowed misalignment: 2°.

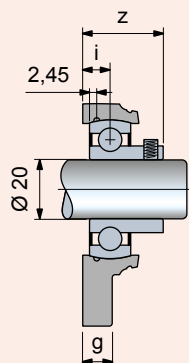
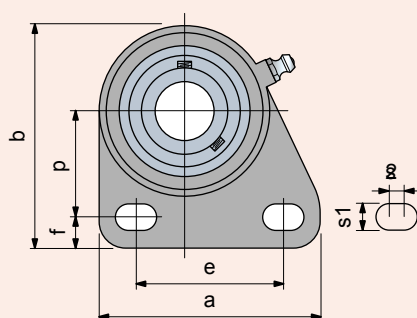
Bearing



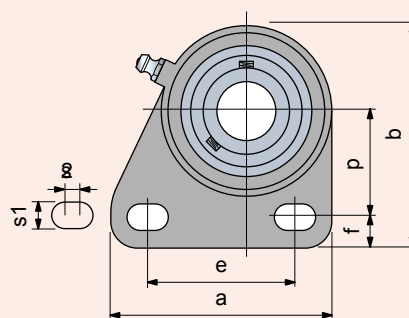
- Grub screws shaft locking
- Chrome alloy steel
- Superagriseal unit
- Prelubricated with lithium / calcium grease
- Can be relubricated.

• Series SQL • Type A Grub screws shaft locking

Right unit



Left unit



dia. d mm	Series	Housing material	Dimensions in mm											Weight Kg
		Polypropylene PP FV Solid Flange (black)	e	a	b	s1	s2	g	i	z	f	p	Bearing	
		Code												
Left unit														
20	SQL 204	656303	50	75	76	9	5	10	9,3	27,3	10,5	36	Type A	0,18
Right unit														
20	SQL 204	656313	50	75	76	9	5	10	9,3	27,3	10,5	36	Type A	0,18

Packaging: 6 pieces.

Take-up bearing units

UCT/C - HCT/C



Waterproof housing

Grub screws or eccentric collar shaft locking

PA FV polyamide housing

High mechanical and heat resistance. Proof to dust, humidity, washouts, steam, average aggressive chemical agents.

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Protection cover in polypropylene PP (orange)
- Seal and O-Ring in NBR rubber (black)
- Ball type nickel plated brass greasing nipple
- Threaded insert in nickel plated brass.

Continuous operating temperature

in air: - 20 to + 60°C.

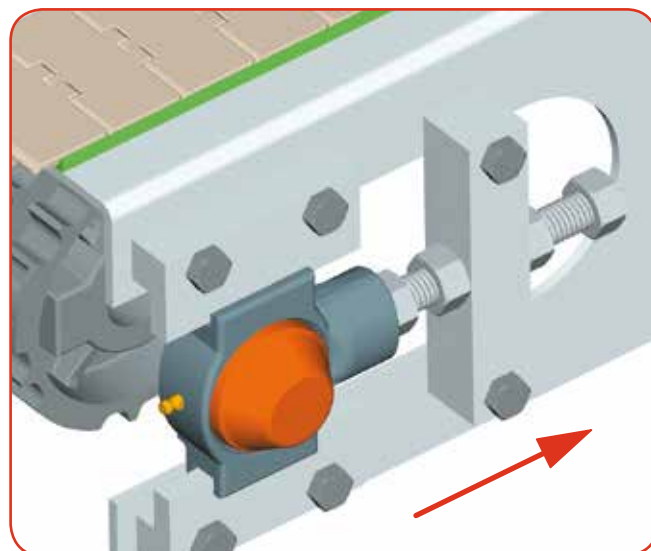
Maximum allowed misalignment: 2°.

Bearing



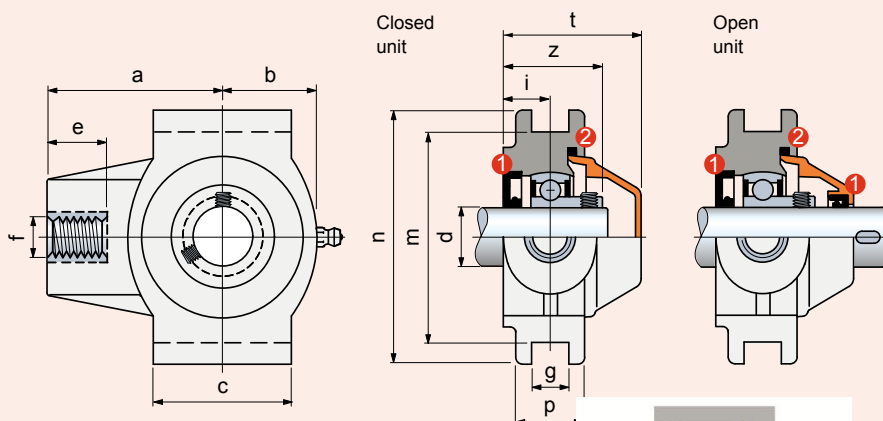
- Type A (grub screws shaft locking)
- Chrome alloy steel
- Superagriseal unit
- Prelubricated with lithium / calcium grease
- Can be relubricated.

Assembly



Working load allowed only in this direction.

• Series UCT/C • Type A Grub screws shaft locking



- 1 Seal.
- 2 O-Ring.

dia. d mm	Series	Housing material														Bearing	Weight Kg	Spare parts Cover orange
		Polyamide PA FV Flange (black) Cover (orange)	Dimensions in mm															
		Code	a	b	c	e	f	g	i	m	n	p	z	t	Code			
Grub screws shaft locking • Closed unit																		
25	UCT 205 C	666962	68,5	39,5	50	28	M20	13,5	17	76,2	92	25	36,5	52	Type A	0,39	681872	
Grub screws shaft locking • Open unit																		
25	UCT 205 C	666992	68,5	39,5	50	28	M20	13,5	17	76,2	92	25	36,5	52	Type A	0,39	681892	

Packaging: 4 pieces.

Round flange bearing units

UCFC/C



Waterproof housing

Grub screws shaft locking

PA FV polyamide housing

High mechanical and heat resistance. Proof to dust, humidity, washouts, steam, average aggressive chemical agents.

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Protection cover in polypropylene PP (orange)
- Seal and O-Ring in NBR rubber (black)
- Ball type nickel plated brass greasing nipple
- Reinforcing bushings on mounting holes and washers in stainless steel AISI 304

Continuous operating temperature

in air: - 20 to + 60°C.

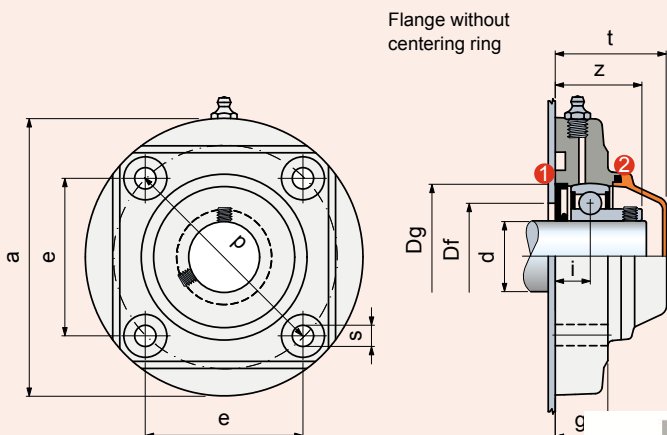
Maximum allowed misalignment: 2°.

Bearing

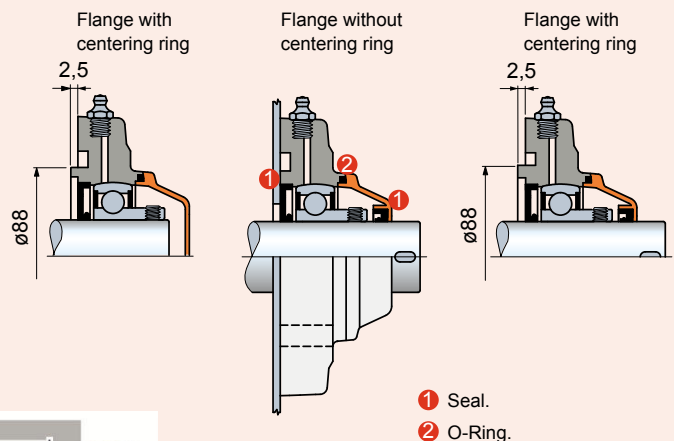


- Type A (grub screws shaft locking)
- Chrome alloy steel
- Superagriseal unit
- Prelubricated with lithium / calcium grease
- Can be relubricated.

• Closed unit



• Open unit



Housing material

dia. d mm	Flange	Series	Polyamide PA FV Standard Flange (black) Cover (orange)	Dimensions in mm										Bore in frame ¹⁾ Df		Bearing	Weight Kg	Spare parts Cover orange
			Code	e	a	p	s	g	i	z	t	Dg	max.	min.	Code			
Closed unit																		
35	Without centering ring	UCFC 207 C	683921	77,8	137	110	11	26	17,3	40,8	55	72	70	55	Type A	0,75	603772	
	With centering ring	UCFC 207 C	624772	77,8	137	110	11	26	17,3	40,8	55	72	-	-	Type A	0,75	603772	
Open unit																		
35	Without centering ring	UCFC 207 C	683931	77,8	137	110	11	26	17,3	40,8	55	72	70	55	Type A	0,75	603792	
	With centering ring	UCFC 207 C	624782	77,8	137	110	11	26	17,3	40,8	55	72	-	-	Type A	0,75	603792	

¹⁾ = Dimensions Df max / Df min must be respected to ensure positive retention of the seals and to allow air bleeding during lubrication.

Packaging: 4 pieces.

Round flange bearing units

UCFC



Grub screws shaft locking

Version with bearing Type B

The double ring guarantees maximum protection against dust and non-corrosive substances.

Version with stainless steel bearing Type C

AISI 420 stainless steel bearing with 2 rubberised rings, provides excellent seal against humidity, steams, liquids, medium corrosive chemical agents. Maximum load ability is inferior.

Version with bearing Type A

The rubberised ring guarantees maximum protection against dusts.

Material

Polyamide PA FV guarantees maximum strength and high-temperature resistance.

Material

PA FV polyamide housing

- Housing in reinforced polyamide PA FV resin (black)
- Ball type nickel plated brass greasing nipple
- Reinforcing bushings on mounting holes and washers in stainless steel AISI 304.

Continuous operating temperature

in air: - 20 to + 60°C.

Maximum allowed misalignment: 2°.

Bearing

- Type B (grub screws shaft locking, chrome alloy steel, Superagriseal unit plus centrifuging ring)
- Type C (grub screws shaft locking, stainless steel AISI 420, Superagriseal unit plus rubberised centrifuging ring)
- Type A (grub screws shaft locking, chrome alloy steel, Superagriseal unit)
- Prelubricated with lithium / calcium grease
- Can be relubricated.

Accessories

Cover
orange

dia.
d
mm

Code

t
mm

Closed cover supplied without seals

35

63232

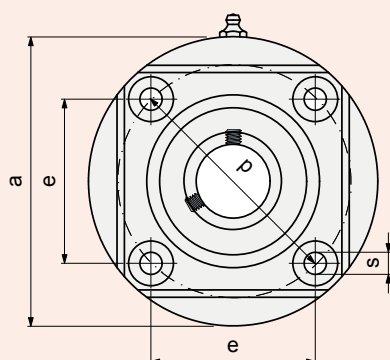
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Open cover supplied with seals

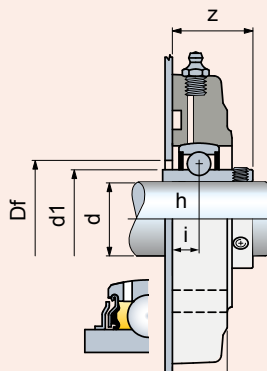
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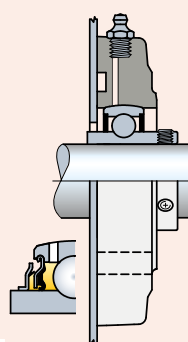
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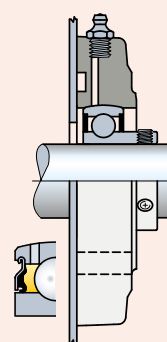
Version with
bearing **Type B**



Version with
bearing **Type C**



Version with
bearing **Type A**



dia. d mm	Series	Housing material										Bore in frame Df mm	Bearing	Weight Kg
		Polyamide PA FV Standard Flange (black)												
		Code	e	a	p	s	g	i	h	z	d1			
Version with bearing Type B														
35	UCFC 207	60752	77,8	137	110	11	26	12,3	17,5	37,7	46,1	50	Type B	0,75
Version with stainless steel bearing Type C														
35	UCFC 207	646652	77,8	137	110	11	26	12,3	17,5	37,7	46,1	50	Type C	0,75
Version with bearing Type A														
35	UCFC 207	681822	77,8	137	110	11	26	17,3	17,5	40,8	46,1	50	Type A	0,75

Item code for order = B0000 + Code

Packaging: 6 pieces.

Round flange bearing units

SBF



Stainless steel AISI 304 flange

Stainless steel bearing Type C

AISI 420 stainless steel bearing with 2 rubberised rings, provides excellent seal against humidity, steams, liquids, medium corrosive chemical agents.

Load capacity

The pressed steel flanged support is suitable for light duties.

Material

Pressed stainless steel AISI 304 flanges.

Continuous operating temperature

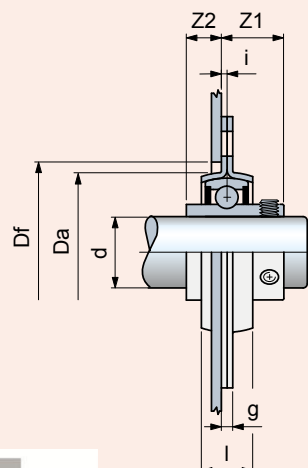
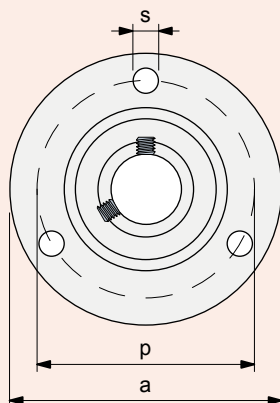
in air: - 20 to + 60°C.

Maximum allowed misalignment: 5°.

Bearing



- Type C (grub screws shaft locking)
- stainless steel AISI 420
- Superagriseal unit plus rubberised centrifuging ring
- Prelubricated with lithium / calcium grease
- Can be relubricated.



dia. d mm	Series	Housing material										Bore in frame Df mm	Bearing	Weight Kg
		Stainless Steel AISI 304												
		Dimensions in mm												
		Code	p	a	s	g	i	l	Z1	Z2	Da			
25	SBF 205	604562	76	95	8,7	4	2	18	21,8	12,3	56	60	Type C	0,35

Packaging: 4 pieces.

Lined area for notes.

Technical information

Bearing unit max. static load

B68

Bearings

• Bearings with grub screw locking system	B72
• Bearings with self locking eccentric collar	B72
• Seals	B73
• Maximum velocities	B73
• Axial load capacities	B73
• Self aligning ball bearings, holding by shoulders on shaft	B73

Calculation data

• Definition of bearing dimensions	B74
• Calculation method for self-aligning bearings	B74
• Life	B74
• Life expectation calculation	B74
• Equivalent dynamic load calculation	B75
• Static load capacity control	B76
• Equivalent static load calculation	B76

Lubrication

• Prelubrication	B77
• Lubrication grease	B77
• Relubrication	B77
• Relubrication intervals	B77

Grease life in bearings lubricated for life

• Formula to calculate grease life	B78
• Diagram 1 grease nominal life	B78
• Diagram 2 correction factor	B79
• Example of calculation	B79

Shaft tolerances

• Shaft tolerances for bearings with grub screws or eccentric collar locking system	B80
• Shaft tolerances for bearings with shoulders type holding system	B80



Mounting

• Mounting recommendations	B81
• Bearing locking by grub screws	B81
• Bearing locking by eccentric collar	B81
• Installation/removal of covers	B81

Bearing unit max. static load

**UCF/C - SUCF/C - HCF/C - SHCF/C - UCF/CL - SUCF/CL
HCF/CL - SHCF/CL - UCF - SUCF - HCF - SHCF**





Shaft dia. d mm				
	PA FV N	PP FV N	PA FV N	PP FV N
25	19550	13800	20700	11500
30	19550	13800	20700	11500
35	20700	13800	25300	13800
35*	19550	13800	20700	11500
40	20700	14375	25300	13800
40*	19550	13800	20700	11500
45*	32000	24000	35000	26000
50*	32000	24000	35000	26000

* = Version with special fixing holes

UCFS/C - SUCFS/C - HCFS/C - SHCFS/C






Shaft dia. d mm				
	PA FV N	PP FV N	PA FV N	PP FV N
30	20700	25300		
35*	20700	25300		
40*	20700	25300		

* = Version with special fixing holes

F - SF





Shaft dia. d mm						
	PA FV N	PP FV N	PA FV N	PP FV N	PA FV N	PP FV N
30	21850	16100	17250	13800	8050	5750
35	21850	16100	17250	13800	18400	10350
40	21850	17250	17250	13800	19550	13800
40*	21850	16100	17250	13800	18400	10350
45	23000	17250	18400	14350	19550	13800
45*	21850	16100	17250	13800	18400	10350

* = Version with special fixing holes

Bearing unit max. static load

UCFLN/C - SUCFLN/C - HCFLN/C - SHCFLN/C
UCFLN/CL - SUCFLN/CL - HCFLN/CL - SHCFLN/CL





Shaft dia. d mm				
	PA FV N	PP FV N	PA FV N	PP FV N
17	9775	6325	9775	6900
20*	9775	6325	9775	6900
25*	10925	7475	11500	7475
30	14950	9200	14375	11500
30*	14950	9200	14375	11500

* = Version with special fixing holes

UCFLN - SUCFLN - HCFLN - SHCFLN





Shaft dia. d mm				
	PA FV N	PP FV N	PA FV N	PP FV N
17	9775	6325	9775	6900
20*	9775	6325	9775	6900
25*	10925	7475	11500	7475
30	14950	9200	14375	11500
30*	14950	9200	14375	11500

* = Version with special fixing holes

UCFL/C - SUCFL/C - HCFL/C - SHCFL/C - UCFL/CL - SUCFL/CL
HCFL/CL - SHCFL/CL - UCFL - SUCFL - HCFL - SHCFL





Shaft dia. d mm				
	PA FV N	PP FV N	PA FV N	PP FV N
17	9775	6325	9775	6900
20	9775	6325	9775	6900
25	10925	7475	11500	7475
25*	10925	7475	11500	7475
30	14950	9200	14375	11500
30*	14950	9200	14375	11500
35	14950	9200	13225	10925
35*	14950	9200	14375	11500
40	14950	9775	14950	10925
40*	14950	9200	14375	11500

* = Version with special fixing holes

UCFLS/C - SUCFLS/C - HCFLS/C - SHCFLS/C






Shaft dia. d mm				
	PA FV N	PP FV N	PA FV N	PP FV N
30	14950	14375		
35*	14950	13225		
40*	14950	14950		

* = Version with special fixing holes

FL



Shaft dia. d mm						
	PA FV N	PP FV N	PA FV N	PP FV N	PA FV N	PP FV N
25	9200	6900	11500	8625	12650	5750
30	11500	6900	12650	9200	13800	5750
35	11500	9200	12650	9200	9200	4600
40	12650	9200	12650	9200	13800	6900
45	12650	9200	13800	9775	17250	12650

Bearing unit max. static load

UCFX/T - SUCFX/T - HCFX/T- SHCFX/T



Shaft dia. d mm	PA FV N	PA FV N
30	45000	45000
35	45000	45000
40	45000	45000

UCP/C - HCP/C - UCP - HCP



Shaft dia. d mm	PA FV N	PP FV N	PA FV N	PP FV N	PA FV N	PP FV N
20	4600	2070	20700	5750	5750	3450
25	6900	2070	20700	5750	6900	3450
30	8050	2300	28750	8050	9200	4600
35	9200	2530	31050	8625	11500	4830
40	9200	2530	31050	8625	11500	4830

UCPA/C - HCPA/C - UCPA - HCPA



Shaft dia. d mm	PA FV N	PP FV N	PA FV N	PP FV N	PA FV N	PP FV N	PA FV N	PP FV N
17	2500	1500	8000	3750	1500	1100	1250	1000
20	2500	1700	6750	4300	2300	1200	1100	750
25	3000	1700	10500	5200	2600	1750	1100	900

UCFB/C - HCFB/C - UCFB - HCFB



Shaft dia. d mm	PA FV N	PP FV N	PA FV N	PP FV N
20	3000	1700	1000	650
25	3500	2000	1000	650
30	3500	2000	1000	650
35	4000	2500	1000	650
40	5200	3000	1000	650

UCT/C - HCT/C - UCT - HCT





Shaft dia. d mm	PA FV N
20	16000
25	24000
30	27000

Bearing unit max. static load




UCFC/C - UCFC



Shaft dia. d mm		
	PA FV N	PP FV N
35	19550	12650

FC

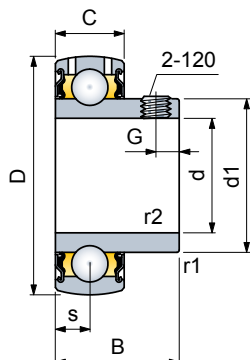


Shaft dia. d mm			
	PA FV N	PP FV N	PA FV N
35	17250	11500	17250

Bearings

Bearings with grub screw locking system

Type A



Prelubricated with long lasting lithium/calcium grease • Can be rilubricated

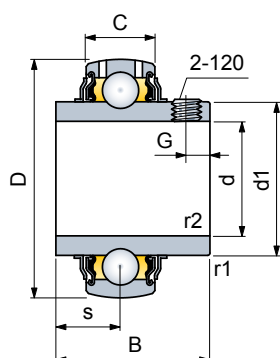
d mm	Dimensions in mm							Grub screws	Load coefficient		Weight Kg
	d1	D	B	C	s	G	r1, r2 min.		dyn. ¹⁾ C N	stat. Co N	
17	24,6	40	22	12	6	4	0,3	M5x0,8	9500	4750	0,07
20	29	47	25	14	7	5	0,6	M6x1	12700	6550	0,11
25	34	52	27	15	7,5	5,5	0,6	M6x1	14000	7800	0,14
30	40,3	62	30	16	8	6	0,6	M6x1	19500	11200	0,23
35	48	72	32	17	8,5	6,5	1	M6x1	25500	15300	0,31
40	53	80	34	18	9	7	1	M8x1	30700	19000	0,43
45	57,2	85	41,2	19	10,2	8,2	1	M8x1	33200	21600	0,48
50	61,8	90	43,5	20	10,9	9,2	1	M8x1	35100	23200	0,54

Chrome alloy steel.

¹⁾ = Values are valid for applications with ≤ h 6 shaft tolerance.

Time 0.77 values must be considered in all other cases.

Type B



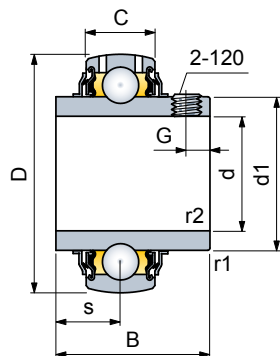
d mm	Dimensions in mm							Grub screws	Load coefficient		Weight Kg
	d1	D	B	C	s	G	r1, r2 min.		dyn. ¹⁾ C N	stat. Co N	
17	24,2	40	27,4	12	11,5	3,5	0,3	M6x0,75	9500	4750	0,09
20	29	47	31	16	12,7	4,7	0,6	M6x1	12700	6550	0,14
25	34	52	34,1	17	14,3	5,5	0,6	M6x1	14000	7800	0,17
30	40,3	62	38,1	19	15,9	5,5	0,6	M6x1	19500	11200	0,28
35	48	72	42,9	20	17,5	6,5	1	M8x1	25500	15300	0,41
40	53	80	49,2	21	19	8	1	M8x1	30700	19000	0,55
45	57,2	85	49,2	22	19	8	1	M8x1	33200	21600	0,60
50	61,8	90	51,6	23	19	9	1	M10x1	35100	23200	0,69

Chrome alloy steel.

¹⁾ = Values are valid for applications with ≤ h 6 shaft tolerance.

Time 0.77 values must be considered in all other cases.

Type C stainless steel



d mm	Dimensions in mm							Grub screws	Load coefficient		Weight Kg
	d1	D	B	C	s	G	r1, r2 min.		dyn. ¹⁾ C N	stat. Co N	
20	29	47	31	17	12,7	5	0,6	M6x1	10800	6550	0,14
25	34	52	34,1	17	14,3	5	0,6	M6x1	11900	7800	0,18
30	40,3	62	38,1	19	15,9	6	0,6	M6x1	16250	11200	0,29
35	48	72	42,9	20	17,5	6	1	M6x1	21600	15300	0,42
40	53	80	49,2	21	19	8	1	M8x1	26000	19000	0,56

Stainless steel AISI 420.

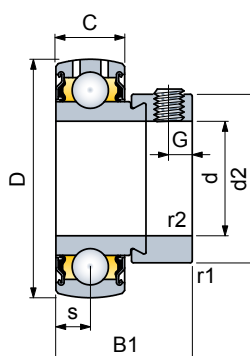
¹⁾ = Values are valid for applications with ≤ h 6 shaft tolerance.

Time 0.77 values must be considered in all other cases.

Bearings with self locking eccentric collar

Prelubricated with long lasting lithium/calcium grease • Can be rilubricated • Higher resistance to vibrations • Suitable for single directional travel (cannot reverse the sense of rotation) • Locking of the bearing is achieved by rotating the eccentric collar. The grub screw holds the collar and avoids rotation.

Type D



d mm	Dimensions in mm							Grub screws	Load coefficient		Weight Kg
	d2	D	B1	C	s	G	r1, r2 min.		dyn. ¹⁾ C N	stat. Co N	
17	28,6	40	28,6	12	6,5	4,75	0,3	M6x0,75	9500	4750	0,10
20	33,3	47	30,9	14	7,5	5	0,6	M6x1	12700	6550	0,16
25	38,1	52	30,9	15	7,5	5	0,6	M6x1	14000	7800	0,18
30	44,5	62	35,7	16	9	6	0,6	M6x1	19500	11200	0,30
35	51,9	72	38,9	17	9,5	6,5	1	M8x1	25500	15300	0,49
40	60,3	80	43,7	18	11	6,5	1	M8x1	30700	19000	0,62
45	63,5	85	43,7	19	11	6,5	1	M8x1	33200	21600	0,65
50	69,9	90	43,7	20	11	6,5	1	M8x1	35100	23200	0,70

Chrome alloy steel.

¹⁾ = Value

Time 0.77

; with ≤ h 6 shaft tolerance.

ed in all other cases.

Bearings

Seals

Type A - D. The system consists of a metallic ring fitted with a low friction rubber sealing lip.

Type B. The system is further equipped with a metallic protection ring providing a centrifugal sealing action.

Type C inox. The upper lip of the centrifuging ring together with the grease trapped between the base seal and the ring it self guarantees maximum sealing capacity.

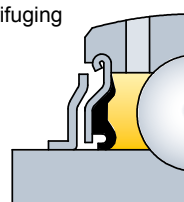
Type A - D

Metal ring with sealing lip



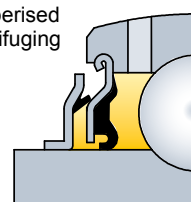
Type B

Centrifuging ring



Type C Inox

Rubberised centrifuging ring



Maximum velocities

The table indicates the values for **A, D, B** series bearings • Stainless steel bearings of the **C** Type (rubberised centrifuging ring) must not be operated at velocities in excess of 60% of the values indicated • The maximum velocity is dependant of the shaft tolerances. Higher tolerances require lower speed

Int. dia. bearing d mm	Shaft tolerance				
	h6	h7	h8	h9	h11
	Speed (RPM)				
17	9500	6000	4300	1500	950
20	8500	5300	3800	1300	850
25	7000	4500	3200	1000	700
30	6300	4000	2800	900	630
35	5300	3400	2200	750	530
40	4800	3000	1900	670	480
45	4300	2600	1700	600	430
50	4000	2400	1600	560	400

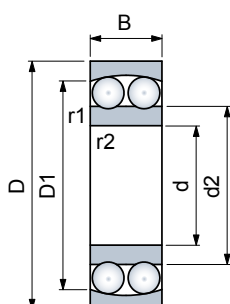
Axial load capacities

The bearing locking systems by grub screws/eccentric collars, allow axial loads up to 20% of the dynamic load coefficient (only with non hardened shafts and grub screws tightened as recommended) • For bearings of the **A, D, B, C**, series it is not recommended to exceed the value of: 0,25•C

Self aligning ball bearing holding by shoulders on shaft

The bearings have double row of balls running on a spherical outer race This configuration renders the bearing self aligning • The bearings are supplied without sealing units • They are held into position by shoulders on the shaft.

Type 1200



d mm	Bearing type	Dimensions in mm					Load coefficient		Revolutions RPM	Weight Kg
		D	B	d2	D1	r1, r2 min.	dyn. C N	stat. Co N		
20	1204	47	14	28,9	41	1	12700	3400	15000	0,12
25	1205	52	15	33,3	45,6	1	14300	4000	13000	0,14
30	1206	62	16	40,1	53	1	15600	4650	10000	0,22
35	1207	72	17	47	62,3	1,1	19000	6000	9000	0,32
40	1208	82	18	53,6	68,8	1,1	19900	6950	8500	0,42

Calculation data

Bearing dimensioning

The bearing dimensions, for a given application, should be chosen on the basis of the loads to be supported, expected service life and reliability. In most cases the reason for choosing a bearing is the fact that the shaft has already been sized during the design of the plant.

Calculation procedures for self-aligning bearings

The calculation procedure for self-aligning bearings consists in ensuring a satisfactory operating life of the unit:

- 1) The nominal service life is calculated using the formulas indicated below, keeping in mind the type of stress on the bearing (dynamic or static).
- 2) The nominal life of the bearing should reflect the expected service life of the plant as indicated in Table 1 hereunder.

Service life

The dimensioning of the bearing requires the knowledge of the appropriate life expectancy of the project in relation to the specific application. This depends on the type of plant, daily/yearly working hours and on the required reliability. In the absence of practical experience Table 1 gives our recommendations of the average expected plant life under various conditions.

Table 1 - Recommended plant expected life L_{10h} for MB support bearings

Plant type	Plant expected life L_{10h} hours
Seasonal Operation plants	4000 ÷ 8000
Daily operated plant, 8 hours/day, not completely utilised	10000 ÷ 20000
Daily operated plant, 8 hours/day, completely utilised	20000 ÷ 30000
Daily operated plant, 24 hours/day	40000 ÷ 80000

Dynamically stressed bearings

Bearings which rotate under load are considered dynamically stressed (one ring of the bearing makes one full rotation against the other). In most cases, self-aligning supports are dynamically stressed.

Expected life calculation formula

The service life of a bearing is expressed in the number of revolutions or hours of operations which can be expected without breakdown (erosion or laminations of the bearing revolving parts).

The calculating procedure for nominal duration is valid whatever the type of bearing:

$$L_{10} = \left(\frac{C}{P}\right)^3 \text{ Life in Millions revolutions.}$$

When bearings rotate at constant speed it is more practical to calculate the life in number of hours:

$$L_{10h} = \frac{16666}{n} \cdot \left(\frac{C}{P}\right)^3 \text{ Life in hours.}$$

L_{10} = life in millions of revolutions.

L_{10h} = life in hours.

C = dynamic load coefficient (N). Values are indicated in the support dimensional tables.

P = equivalent dynamic load (N). See calculation formula on Table 2.

n = revolutions (RPM).

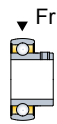
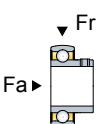
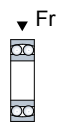
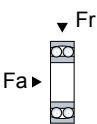
Correct expected life

In the majority of cases, for self aligning MB bearings, it is sufficient to calculate L_{10} , L_{10h} using the formula indicated above. The new theory of life calculation permits to establish the correct life expectancy keeping into consideration the effects of lubrication, pollution of solid particles and of the fatigue limit load P_u (values are reported in the bearing tables). The calculation of the correct expected life requires therefore technical commercial staff.

Calculation data

Equivalent dynamic load P calculation

Table 2 - Equivalent dynamic load P calculation

Bearing Type	Load direction on the bearing	Equivalent dynamic load P (N) calculation formula
A B C D		$P = Fr$
		$P = X \cdot Fr + Y \cdot Fa$
		$P = Fr$
		$P = Fr + Y1 \cdot Fa$ with $\frac{Fa}{Fr} \leq e1$ $P = 0,65 \cdot Fr + Y2 \cdot Fa$ with $\frac{Fa}{Fr} > e1$

P = equivalent dynamic load (N).
Fr = radial load acting on the bearing (N).
Fa = axial load acting on the bearing (N).
x, Y = load factors. See Table 3.
e1, Y1, Y2 = factors. See Table 4.

Table 3 - Load factors x, y

Ratio $\frac{Fa}{Co}$	e	With: $\frac{Fa}{Fr} \leq e$		With: $\frac{Fa}{Fr} > e$	
		x	y	x	y
0,025	0,22	1	0	0,56	2
0,04	0,24	1	0	0,56	1,8
0,07	0,27	1	0	0,56	1,6
0,13	0,31	1	0	0,56	1,4
0,25	0,37	1	0	0,56	1,2
0,5	0,44	1	0	0,56	1

Table 4 - Factors e1, Y1, Y2, Yo

Int. dia. bearing mm	e1	Y1	Y2	Yo
20	0,30	2,1	3,3	2,2
25	0,28	2,2	3,5	2,5
30	0,25	2,5	3,9	2,5
35	0,23	2,7	4,2	2,8
40	0,22	2,9	4,5	2,8

Co = Static load coefficient (N).
 The values are indicated in the support dimensional tables.

Operating conditions coefficients

It should be common practice to include operational factors when calculating bearing dimensions to allow for load variations which may happen during running of the plant. The coefficients given here under are indicative only and are based on actual operational experience.

With
 With
 

multiply the equivalent dynamic load P by: 1,2 ÷ 1,5
 multiply the equivalent dynamic load P by: 1,7 ÷ 2,0

Calculation data

Static load capacity control

Statically stressed bearings

In rolling-contact bearing technology the condition of static load is considered to exist when:

- The bearing does not rotate and is subjected to permanent loads or intermittent ones (impacts).
- The bearing is subjected to loads and slow oscillating movements.
- The bearing rotates under load at a very low speed and for short periods.
- The bearing rotates under load and must withstand strong impacts acting in the course of one revolution.

The static safety coefficient f_s must not exceed the recommended values given in Table 5 in order to obtain a satisfactory performance of the bearings. Coefficient f_s gives the safety margin against excessive permanent deformation of the revolving parts of the bearing.

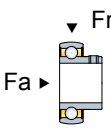
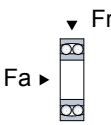
$$f_s = \frac{C_o}{P_o}$$

f_s = static safety coefficient.
 C_o = static load coefficient (N). The values are given in the support dimensional tables.
 P_o = equivalent static load (N). See calculation formula given below.

Table 5 - Static safety coefficient f_s for MB bearings

Type of operation	Revolving bearings			Non revolving bearings
	Noise level not important	Normal noise level operation	Low noise level operation	
Smooth operation without vibration	5	1	2	0,4
Normal operation	0,5	1	2	0,5
Impact loads operation	$\geq 1,5$	$\geq 1,5$	≥ 2	≥ 1

Equivalent static load P_o calculation

Bearing type	Load direction on the bearing	Equivalent dynamic load P (N) calculation formula
A B C D		$P_o = 0,6 \cdot Fr + 0,5 \cdot Fa$ If $P_o < Fr$, then assume $P_o = Fr$.
1200		$P_o = Fr + Y_o \cdot Fa$

P_o = equivalent static load (N).
 Fr = radial load on the bearing (N).
 Fa = axial load on the bearing (N).
 Y_o = see table 4.

Lubrication

■ Prelubrication

All self-aligning bearings are supplied factory lubricated.

Warning

The first lubrication must be carried out only for bearings of the series FL - F - FC held by the shaft shoulders.

■ Lubricating grease

Bearings are prelubricated with long lasting lithium/calcium grease.

Technical data	NLGI consistency:	2
	Emulsifier:	lithium/calcium
	Base oil:	mineral
	Base oil viscosity:	165 mm ² /s at 40°C
	Operating temperature:	- 20°C to +120°C
	Water resistance:	Recommended
	Antioxidant properties:	Recommended

■ Relubrication

All self-aligning bearing units are equipped with a grease nipple of the ball type to allow periodical relubrication of the bearing.

Warning

- Do not grease at first assembly.
- The first lubrication must be carried out only for bearings of the series FL - F - FC held by the shaft shoulders.
- Stainless steel pressed metal supports of the series SBF are not relubricatable.
- Use only grease of same characteristics as indicated.
- Clean greasing nipple before each greasing operation.
- Inject grease slowly until it comes out from the bearing.
Keep the bearing rotating and do not apply excessive pressure which could damage the sealing units.
- More frequent greasing operations with smaller quantities of grease are to be preferred.

■ Relubrication intervals

Relubrication intervals vary according to actual operating conditions. Very often during operation, load, speed, temperature and ambient conditions (humidity, dust) may vary making it difficult to establish exact rules. Experience once again gives the best answer:

- Light operating conditions: relubricate every 6 months.
- Normal operating conditions: relubricate every 1÷3 months.
- Heavy operating conditions: relubricate every 2 weeks.

Grease life in bearings lubricated for life

(dry use recommended)

Formula to calculate grease life in bearings lubricated for life

This procedure allows to calculate the grease life as a function of its quality and bearing type, dimension, rotating speed, applied loads and working temperature.

$$L_h = L_{10} \times F_c \quad \text{Grease life (hours)}$$

L_h = Grease life (hours).

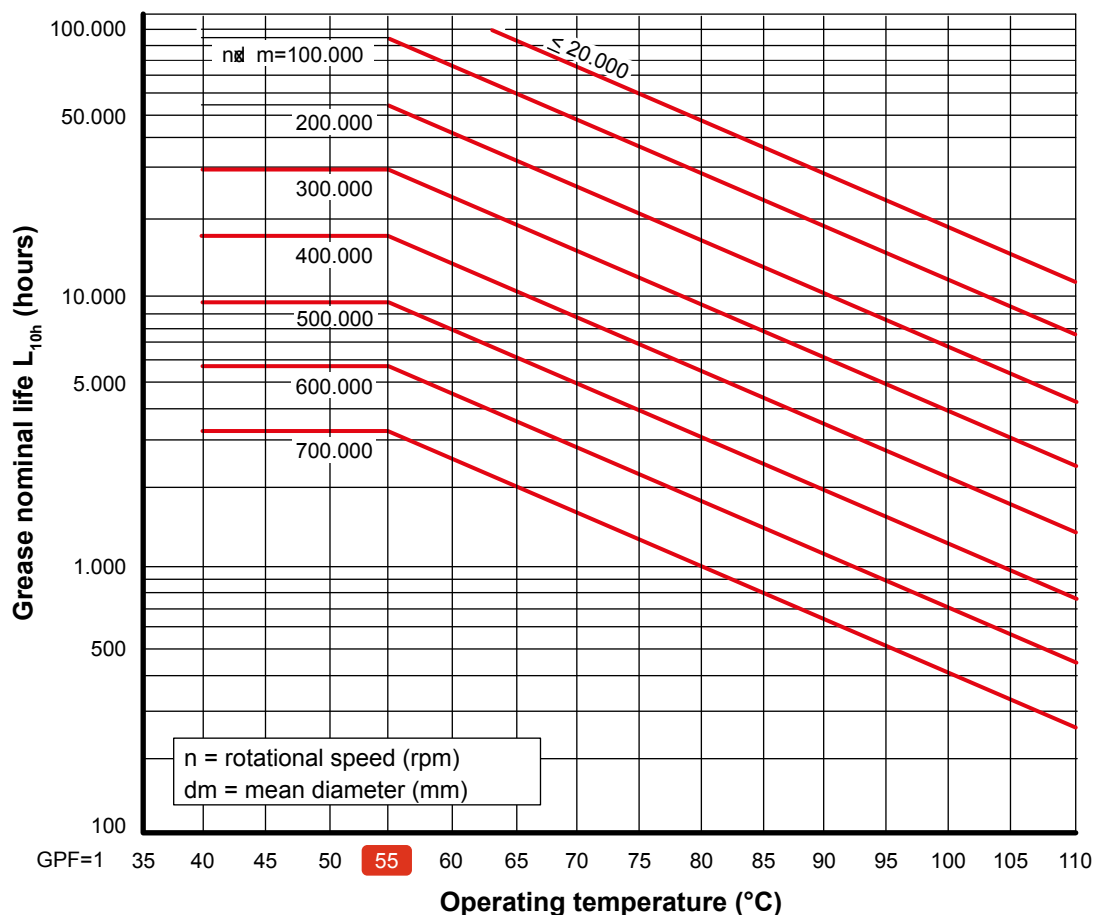
L_{10} = Grease nominal life (hours). See Diagram 1.

F_c = Correction factor. See Diagram 2.

Diagram 1

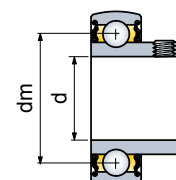
- Grease nominal life L_{10h}

This diagram allows to determine the nominal grease life L_{10h} (hours), as a function of rotating speed n (rpm), mean diameter dm (mm), bearing working temperature ($^{\circ}\text{C}$). Greases are classified by a factor GPF (Grease Performance Factor), related to their temperature performance. In this table we consider a grease with $\text{GPF} = 1$, which is the grease used in all Marbette LifeLube bearings.

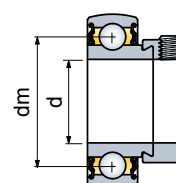


dm (mm) = mean diameter.

Type A



Type D



dia. d mm	dia. dm mm
17	28,5
20	33,5
25	38,5
30	46
35	53,5
40	60
45	65
50	70

55 = At room temperature, with normal working conditions

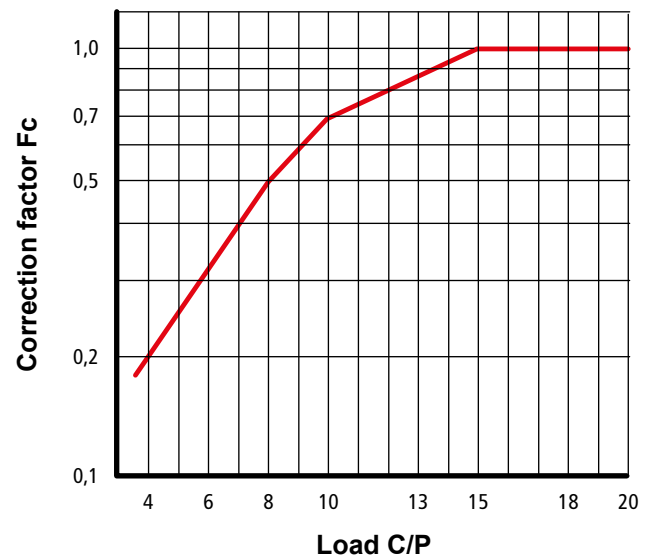
at a temperature lower than 55 $^{\circ}\text{C}$.

Grease life in bearings lubricated for life

(dry use recommended)

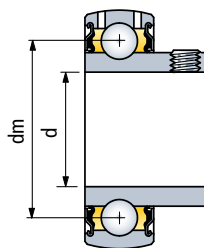
Diagram 2 - Correction factor Fc

The corrective factor Fc, keeps into consideration the influence of load applied on bearings as a function of load ratio C/P.
With low loads ($C/P \geq 15$) the duration of the grease is not influenced by load values.



C = Dynamic load coefficient (N).
Values are indicated in the bearings dimensional tables.
P = Equivalent dynamic load (N).
See Table 2.

Example of calculation



Data:

- Bearing Type **A**.
- $d = 40$ mm (shaft dia.).
- $dm = 60$ mm. (bearing mean dia.).
- $n = 300$ rpm. (rotational speed).
- 55 °C (grease operating temperature).
- $C = 23600$ N (Dynamic load coefficient).
- $P = 3000$ N (equivalent dynamic load).

- From Diagram 1, as a function of:
 $n \times dm = 300 \text{ rpm} \times 60 \text{ mm} = 18000$
we read a nominal grease life of:
 $L_{10h} = 100000$ hours.

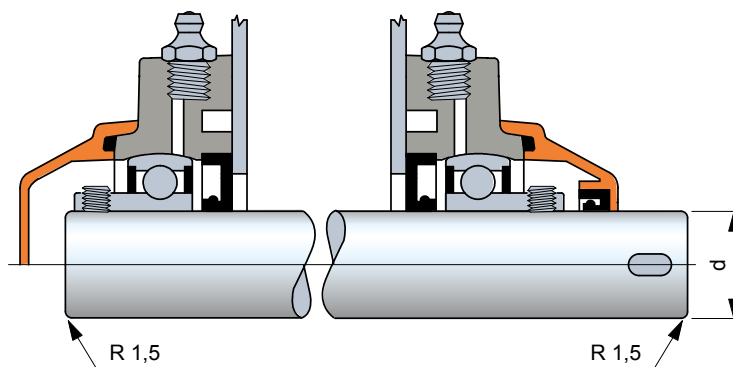
- From Diagram 2, as a function of:
 $C/P = 23600 \text{ N} : 3000 \text{ N} = 7,8$
we read a corrective factor of:
 $F_c = 0,5$.

- Calculation of estimated grease life:
 $L_h = L_{10h} \times F_c = 100000 \text{ hours} \times 0,5 = 50000 \text{ hours}$.

Shaft tolerances

Tolerances for grub screws/ eccentric collar locked bearings

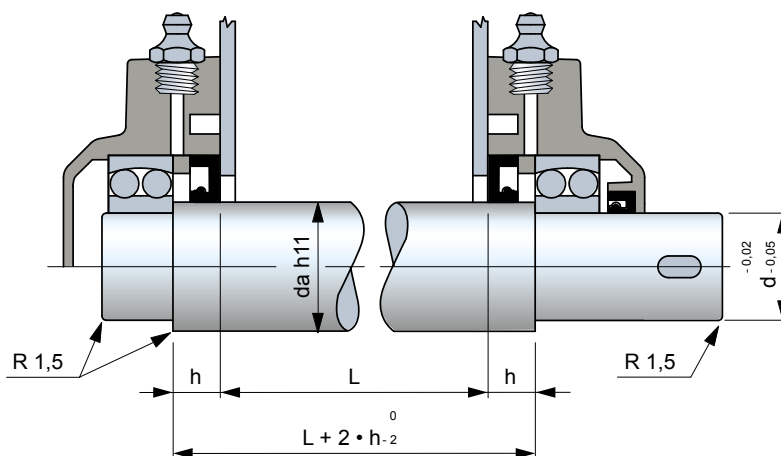
- The tables indicate shaft diameter tolerances.
- Shaft ends must be rounded off in order to:
 - ease assembly and avoid bearing jamming.
 - avoid damages to the rubber parts of the sealing units.
- The shaft surface for the portion in contact with the sealing gaskets must be smooth and free of defects (scratches etc.).



ISO shaft tolerance

Shaft dia. d mm	Heavy loads High speed		Normal operation		Light loads Low speed		Simple applications					
	h 6		h 7		h 8		h 9		h 10		h 11	
	plus	min.	plus	min.	plus	min.	plus	min.	plus	min.	plus	min.
17	0	-11	0	-18	0	-27	0	-43	0	-70	0	-110
20 ÷ 30	0	-13	0	-21	0	-33	0	-52	0	-84	0	-130
35 ÷ 50	0	-16	0	-25	0	-39	0	-62	0	-100	0	-160

Tolerances in μm



h values are given in the support dimensional tables

Tolerances for shaft shoulders locked bearings

- Shaft ends must be rounded off in order to:
 - ease assembly and avoid bearing jamming.
 - avoid damages to the rubber parts of the sealing units.
- The shaft surface for the portion in contact with the sealing gaskets must be smooth and free of defects (scratches etc.).
- The mounting shaft/bearing is free to facilitate assembly.
- For heavy radial loads conditions it is recommended a slightly tight mounting.

Mounting

Assembly instructions

1 - With waterproof bearings the rubber sealing units must be greased before mounting to avoid initial dry running on the shaft. The grease must fill only the space in between the two sealing lips.

2 - The bearing must be locked onto the shaft after the support mounting flange has been fully tightened. This is necessary to allow the bearing to assume its correct alignment on the shaft without undue axial stresses. Always tighten the screws diagonally.



Locking of the bearing by grub screws

3 - The table gives the recommended maximum tightening couples for the grub screws and the size of the hexagonal to use.



Int. dia. bearing mm	Sc. driver size mm			Max. tightening couple Nm		
	Bearings		Bearings	Bearings		Bearings
	A	A C		A	A C	
17	2,5	3	3	3,5	4	4
20	3	3	3	4	4	4
25	3	3	3	4	4	4
30	3	3	3	4	4	4
35	3	4	4	4	6,5	6,5
40	4	4	4	6,5	6,5	6,5
45	4	4	4	6,5	6,5	6,5
50	4	5	4	6,5	16,5	6,5

Locking of the bearings by eccentric collar

4 - Tighten the collar by turning it with a punch in the same direction as the rotation of the shaft.

5 - Hand tighten the grub screw. The screw driver dimension and the tightening couple are given in the table above (Ref. D series bearings).



Assembly / removal of the protection cover

6 - Assembly. The sealing unit of open end covers must be greased to avoid initial dry running on the shaft. The grease must fill only the space in between the two sealing lips.

7 - Removal. Insert a screw driver into the groove provided for and force the cover out.

