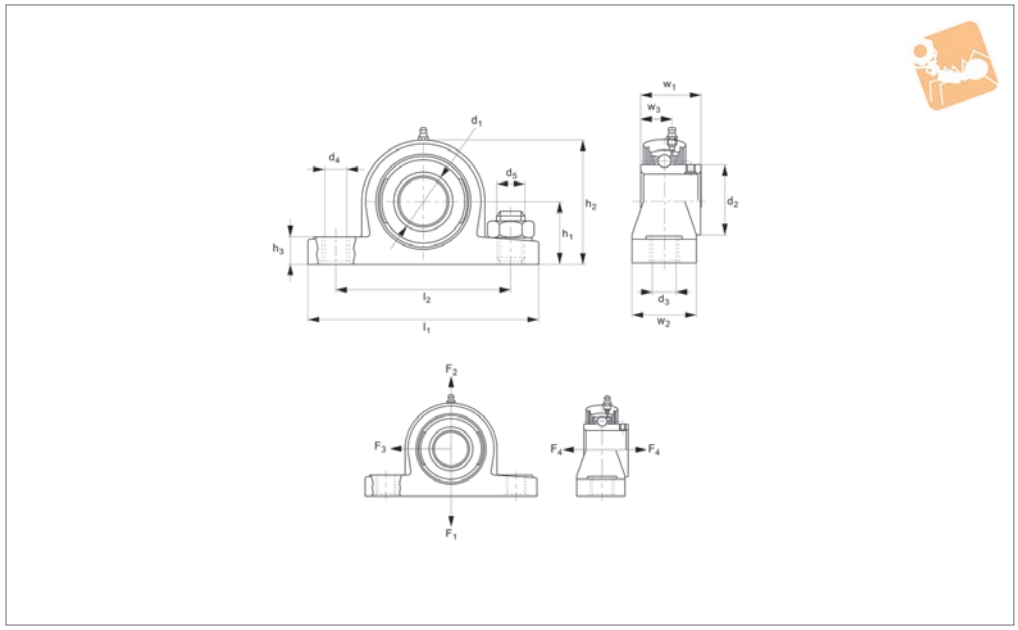
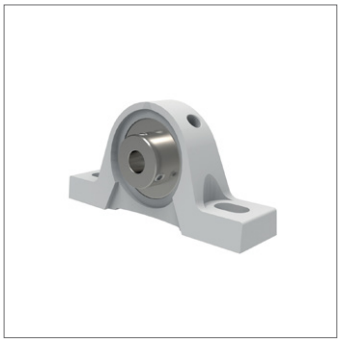




L1876

Material
Thermoplastic (PBT) housing, with smooth surfaces. Stainless steel bearings (440C) with 2RS seals and sleeves for fixing bolts. Bearing lubricated with food grade grease.

Technical Notes
Self-aligning bearing units.

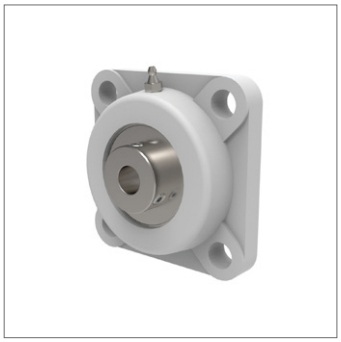
Temperature range for bearings: -15°C to +120°C.
Resistant to a wide range of chemicals.
Provide good protection against bacterial contamination.

Tips
Shaft retention with two set screws (at 120° offset).
Used with h6 tolerance shafts (see our part no.s L1770-L1776).
For protective end caps see L1879.

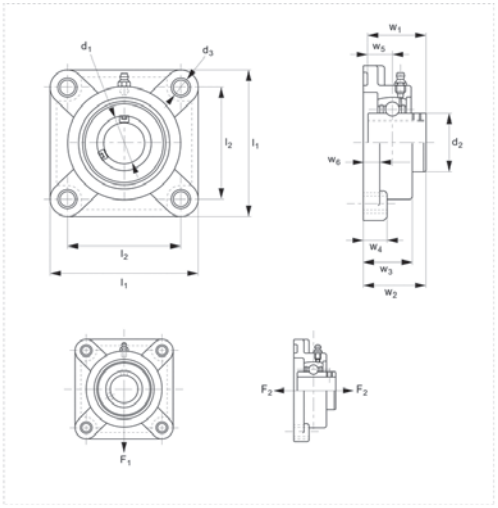
Order No.	d_1 for h6	l_1	w_1	w_2	w_3	d_2	d_3	d_4	d_5	h_1	h_2 +0|-0.8	h_3	l_2	Weight kg
L1876.020	20	127.0	31.0	38.0	12.7	29.0	11.0	14.0	M10	33.3	65.0	14.2	95.0	0.30
L1876.025	25	140.0	34.0	38.0	14.3	34.0	11.0	14.0	M10	36.5	71.0	14.5	105.0	0.35
L1876.030	30	162.0	38.1	46.0	15.9	40.5	14.0	18.0	M12	42.9	83.0	17.8	119.0	0.55
L1876.035	35	167.0	42.9	48.0	17.5	48.0	14.0	18.0	M12	47.6	94.0	18.0	127.0	0.78
L1876.040	40	184.0	49.2	54.0	19.0	53.0	14.0	18.0	M12	49.2	98.0	19.5	137.0	0.98

Order No.	Speed rpm max.	Static radial bearing load C_0 kN max.	Housing load F_1 kN max.	Housing load F_2 kN max.	Housing load F_3 kN max.	Axial load F_4 kN max.	Set screw size	Torque screw to Nm
L1876.020	7400	5.3	1.7	1.4	1.3	0.7	M6x1	3.9
L1876.025	6200	6.3	2.0	1.5	1.3	0.9	M6x1	3.9
L1876.030	5300	9.0	2.5	1.8	2.0	1.3	M6x1	3.9
L1876.035	4500	12.3	3.0	2.1	2.1	1.6	M8x1	8.3
L1876.040	4000	14.3	3.0	2.1	2.1	1.6	M8x1	8.3

Thermoplastic Square Flanged Units
four point flange



L1877



Material
Thermoplastic (PBT) housing, with smooth surfaces. Stainless steel bearings (440C) with 2RS seals and sleeves for fixing bolts. Bearing lubricated with food grade grease.

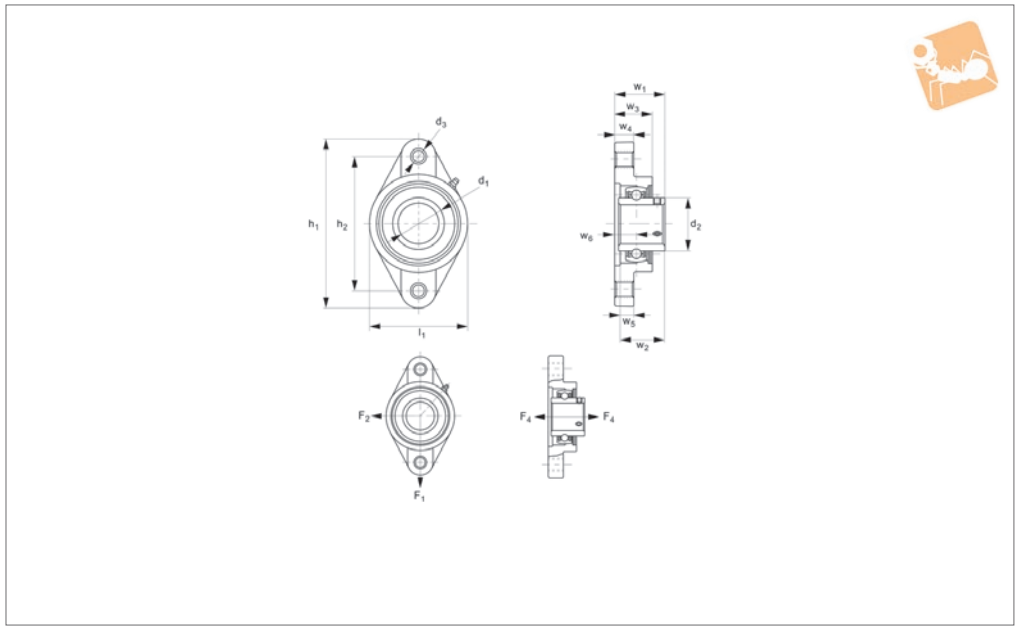
Technical Notes
Self-aligning bearing units.

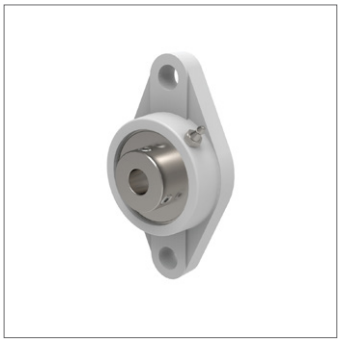
Temperature range for bearings: -15°C to +120°C.
Resistant to a wide range of chemicals.
Provide good protection against bacterial contamination.
Open and closed protection caps available (see our part L1869).

Tips
Shaft retention with two set screws (at 120° offset).
Used with h6 tolerance shafts (see our part no.s L1770-L1776).
For protective end caps see L1879.

Order No.	d_1 for h6	l_1	w_1	w_2	w_3	w_4	w_5	w_6	d_2	Weight kg
L1877.020	20	86	31.0	36.3	27.8	13.4	12.7	18.0	29.0	0.30
L1877.025	25	95	34.0	36.7	28.0	14.3	14.3	17.0	34.0	0.36
L1877.030	30	107	38.1	41.4	31.5	14.3	15.9	19.2	40.5	0.51
L1877.035	35	118	42.9	46.9	34.8	15.5	17.5	21.5	48.0	0.75
L1877.040	40	130	49.2	53.2	37.5	17.0	19.0	23.0	53.0	0.98

Order No.	d_3	l_2	Speed rpm	Static radial bearing load C_0 kN max.	Housing load F_1 kN max.	Axial load F_2 kN max.
L1877.020	11	63.5	7400	5.3	1.6	0.7
L1877.025	11	70.0	6200	6.3	1.7	0.7
L1877.030	11	83.0	5300	9.0	2.3	1.1
L1877.035	13	92.0	4500	12.3	3.1	1.3
L1877.040	14	102.0	4000	14.3	3.1	1.5





L1878

Material
Thermoplastic (PBT) housing, with smooth surfaces. Stainless steel bearings (440C) with 2RS seals and sleeves for fixing bolts. Bearing lubricated with food grade grease.

Technical Notes
Self-aligning bearing units.

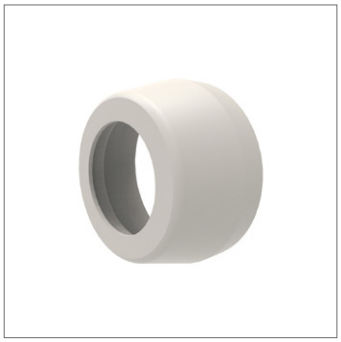
Temperature range for bearings: -15°C to +120°C.
Resistant to a wide range of chemicals.
Provide good protection against bacterial contamination.
Open and closed protection caps available (see our part L1869).

Tips
Shaft retention with two set screws (at 120° offset).
Used with h6 tolerance shafts (see our part no.s L1770-L1776).
For protective end caps see L1879.

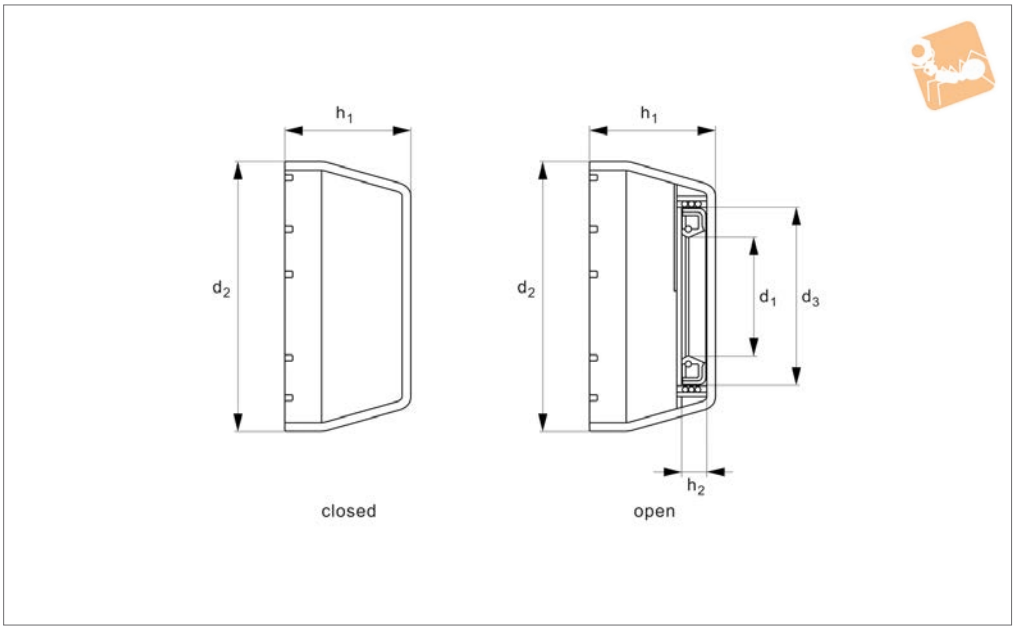
Order No.	d_1 for h6	l_1	w_1	w_2	w_3	w_4	w_5	w_6	d_2	d_3	Weight kg
L1878.020	20	65	33.7	31.0	26.5	11.4	12.7	15.4	29.0	11	0.25
L1878.025	25	70	36.7	34.0	29.7	13.5	14.3	17.0	34.0	11	0.30
L1878.030	30	80	41.2	38.1	30.5	13.3	15.9	19.0	40.5	11	0.45
L1878.035	35	90	43.4	42.9	32.8	16.1	17.5	18.0	48.0	13	0.67
L1878.040	40	100	51.7	49.2	37.5	20.0	19.0	21.5	53.0	14	0.88

Order No.	h_1	h_2 +0|-0.8	Speed rpm max.	Static radial bearing load C_0 kN max.	Housing load F_1 kN max.	Housing load F_2 kN max.	Axial load F_3 kN max.	Set screw size	Torque screw to Nm
L1878.020	130	90	7400	5.3	0.9	2.2	0.7	M6x1	3.9
L1878.025	130	99	6200	6.3	1.5	2.2	0.7	M6x1	3.9
L1878.030	148	117	5300	9.0	1.6	2.9	1.0	M6x1	3.9
L1878.035	163	130	4500	12.3	2.0	3.2	1.4	M8x1	8.3
L1878.040	175	144	4000	14.3	2.0	3.2	1.4	M8x1	8.3

Thermoplastic End Caps
open & closed



L1879



Material
White SR50 polypropene, with smooth surfaces.

Technical Notes
Temperature range: -15°C to +110°C.
Resistant to a wide range of chemicals.

Provide good protection against bacterial contamination.

Order No.	Type	d_1	d_2	d_3	h_1	h_2
L1879.200-CC	Closed	20	50.1	-	23	7
L1879.250-CC	Closed	25	55.0	-	25	7
L1879.300-CC	Closed	30	64.0	-	30	7
L1879.350-CC	Closed	35	74.5	-	32	7
L1879.400-CC	Closed	40	84.0	-	37	7
L1879.200-CO	Open	20	50.1	32	23	7
L1879.250-CO	Open	25	55.0	37	25	7
L1879.300-CO	Open	30	64.0	42	30	7
L1879.350-CO	Open	35	74.5	47	32	7
L1879.400-CO	Open	40	84.0	52	37	7

- Thermoplastic self-aligning unit, with stainless steel insert
- For diameters of shaft 20-40mm
- White PBT resin (prevents retention of dust, mould and bacteria)
- Lubricated with food grade grease (USDA H1 approved)
- Temperature range -15°C to +90°C
- Excellent chemical resistance (acids, bases, organic solvents, salts etc.)

Pillow block | **Four point flange** | **Two point flange**

- Can be used in wet or chemical environments such as bottling lines, food or pharmaceutical production lines, outdoor applications etc.
- Use with h6 tolerance shafts

Installation

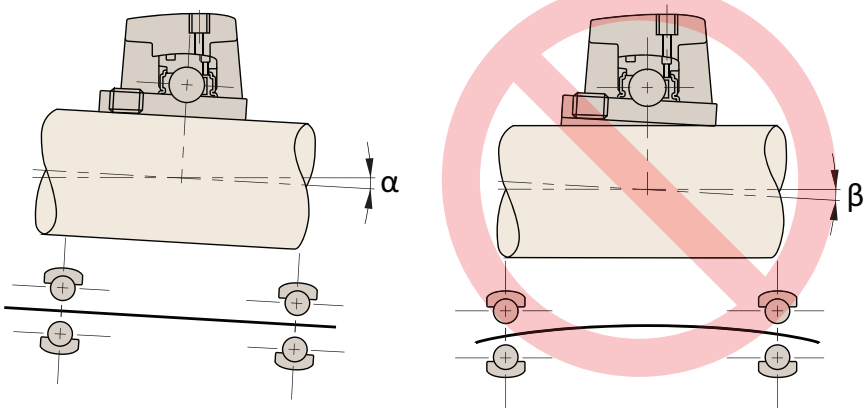
- Check clean and flat surface
- Tighten retaining screws, diagonal method
- Check shaft can be rotated by hand
- Check no distortion

Tightening of stainless steel fitting screws

M6 thread, torque to 3.9 Nm
M8 thread, torque to 8.3 Nm

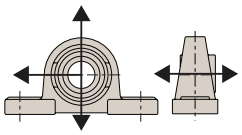
Permissible misalignment

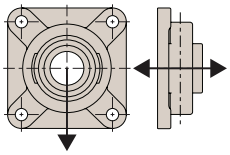
- With provision for re-lubrication, the bearing can swivel inside the housing up to an angle **α** of about 5° (the groove is aligned with the lubricator hole) and 8° without provision for re-lubrication
- Pay attention to the swivelling of the bearing in the bearing unit. Permanent swivelling induced by rotational deflection of the shaft would cause wear of the housing and is therefore not allowable (angle ß)
- The maximum allowable values are those for deep-groove ball bearings corresponding to the same shaft diameter (maximum angle ß < 0.5)

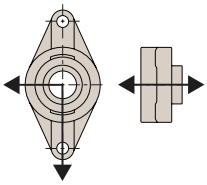


Thermoplastic Pillow Blocks

Technical - Housings

Part no.	Max. rpm (h_6 shaft)	Loads	Max. static bearing radial load C_o kN	Max. housing load capacity at 20°C kN ↓	↑	←	Max. axial load kN ↔	Screw size
L1876.020	7,400		5,3	1,7	1,4	1,3	0,7	M10
L1876.025	6,200		6,3	2,0	1,5	1,3	0,9	M10
L1876.030	5,300		9,0	2,5	1,8	2,0	1,3	M10
L1876.035	4,500		12,3	3,0	2,1	2,1	1,6	M12
L1876.040	4,000		14,3	3,0	2,1	2,1	1,6	M12

Part no.	Max. rpm (h_6 shaft)	Loads	Max. static bearing radial load C_o kN	Max. housing load capacity at 20°C kN ↓	Max. axial load kN ↔	Screw size
L1877.020	7,400		5,3	1,6	0,7	M10
L1877.025	6,200		6,3	1,7	0,7	M10
L1877.030	5,300		9,0	2,3	1,1	M10
L1877.035	4,500		12,3	3,1	1,3	M12
L1877.040	4,000		14,3	3,1	1,5	M12

Part no.	Max. rpm (h_6 shaft)	Loads	Max. static bearing radial load C_o kN	Max. housing load capacity at 20°C kN ←	↓	Max. axial load kN ↔	Screw size
L1877.020	7,400		5,3	2,2	0,9	0,7	M10
L1877.025	6,200		6,3	2,0	1,5	0,7	M10
L1877.030	5,300		9,0	2,9	1,6	1,0	M10
L1877.035	4,500		12,3	3,2	2,0	1,4	M12
L1877.040	4,000		14,3	3,2	2,0	1,4	M12

*at 20° continuous load

Characteristics of thermoplastic PBT

Properties	Unit	
Tensile strength at yield	N/mm²	115
Elongation at yield	%	3
Tensile modulus	N/mm²	8,000
Flexural yield strength	N/mm²	170
Flexural modulus	N/mm²	7,000
Notched impact strength Charpy	k/m²	12
Notched impact strength IZOD	J/m	100
Hardness H358/10	N/mm²	104
Hardness H358/60	N/mm²	101
Hardness Rockwell	-	L102

Thermal	Unit	
Oxygen index	%	19
Flame retardancy (1/6mm thickness)	-	94HB
Heat resistance: Vicat, method B	°C	210-215
Thermal conductivity	W/m²C	0,19
Mould shrinkage flow	%	0,4-0,6
Cross flow direction	%	0,6-0,8

Physical	Unit	
Water absorption: Saturation for 24h at 23°C	%	0,06

For units L1876 - L1878

All data expressed in terms of % retention of tensile strength.

Chemical environment	°C	Immulsion days	% retention of strength
Acids			
10% Hydrochloric	23	30	89
	23	90	85
	23	180	82
10% Sulphuric	23	30	97
	23	90	94
	23	180	90
36% Sulphuric (battery)	23	30	97
	23	180	96
	66	30	84
	66	180	35
10% Acetic	23	30	89
	23	180	88
Bases			
5% Potassium hydroxide	23	30	83
	23	90	10
10% Sodium hydroxide	23	30	2
	23	180	-
10% Ammonium hydroxide	23	30	90
	23	90	87
	23	180	58
Salts			
10% Zinc chloride	25	30	97
	25	90	94
10% Sodium hydroxide	25	30	98
	25	90	98
10% Sodium chloride	25	30	97
	25	90	97
Organic solvents			
Ethyl alcohol	23	30	99
	23	180	94
Methyl alcohol	23	30	91
	23	180	76
Isopropyl-alcohol	23	30	100
	23	180	100
Isopropyl-alcohol & water (50/50)	23	30	93
	23	180	96
Turpentine	23	30	66
	23	180	92
Acetone	23	30	90
	23	180	63