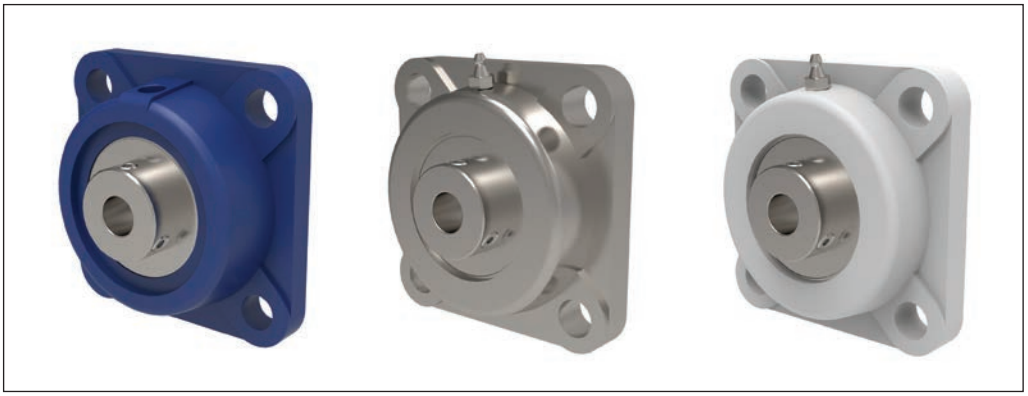
Housing material options

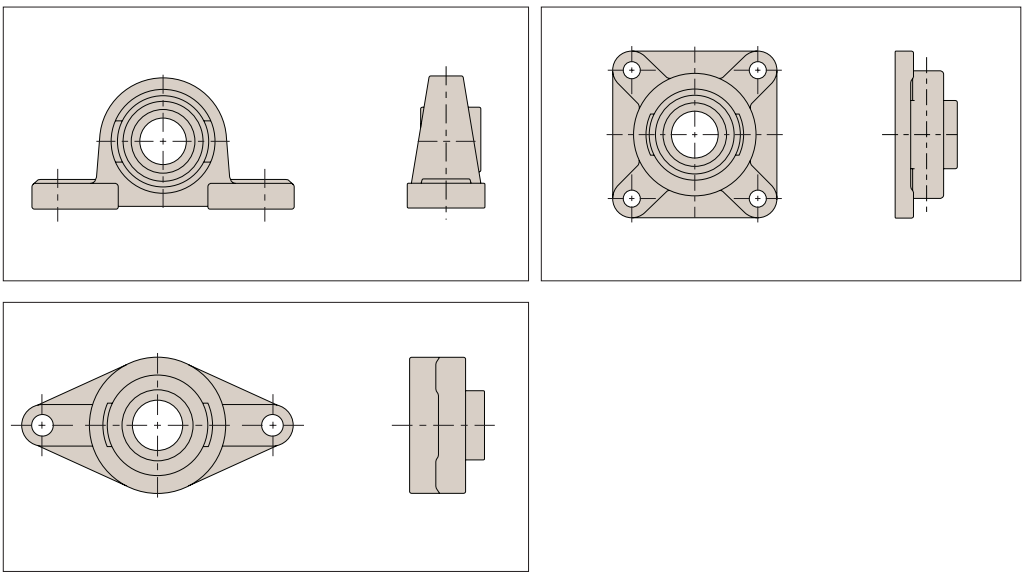


Cast iron housing
Standard version, passivated and painted Ø12-120mm.

Stainless steel housing
Stainless AISI 304, Ø12-60mm.

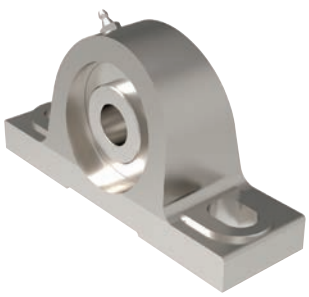
Thermoplastic housing
Food grade applications, smooth PBT resin material, Ø20-40mm.

Pillow Bearings



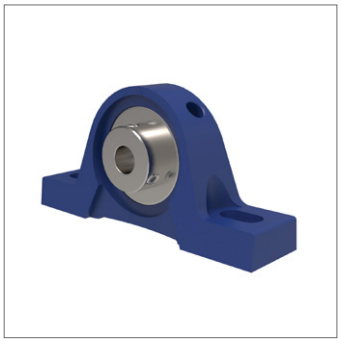
Use with Automotion linear shafts L1770-L1774

Options

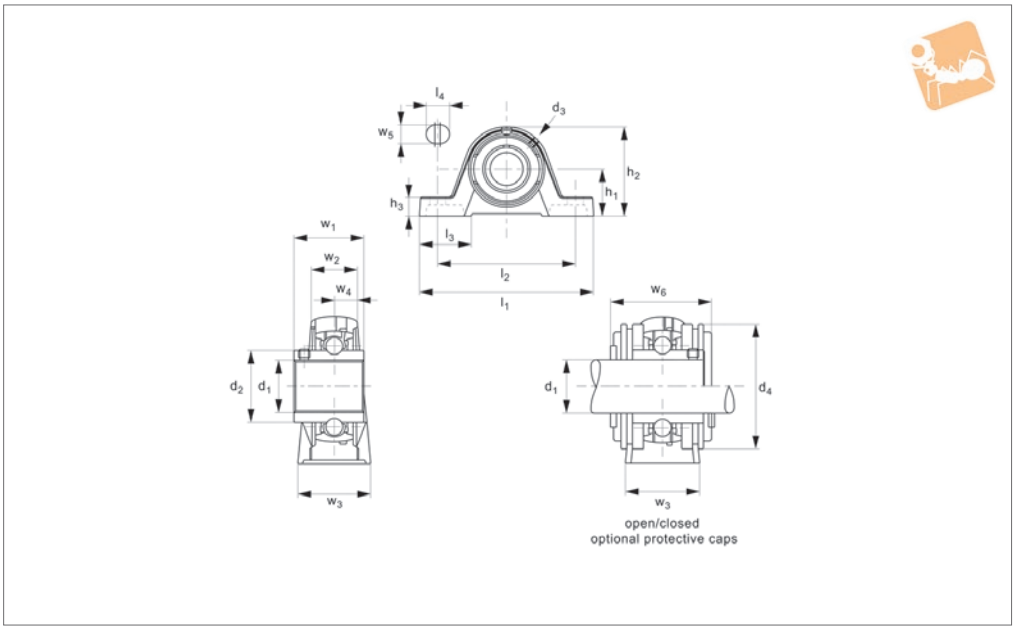
Pillow block	Four point flange	Two point flange
		

Bearing Supports from Automotion Components

Pillow Block Bearing Units
cast iron



L1860



Material
Cast iron (FG20 or FG25), passivated and painted blue (RAL 5010). Steel, self-aligning bearing units with double seals, lubricated for life.

Technical Notes
Self-aligning bearings, relubricatable.
Temperature range: -20°C to +120°C.

The max. axial load is 0.5 x radial static load.
The housings are rated to take the maximum bearing loads.
For optional shaft end caps add suffixes:
-CO for two open protective caps (with seals) for through shafts.
-CC for one open and one closed protective caps for shaft ends.

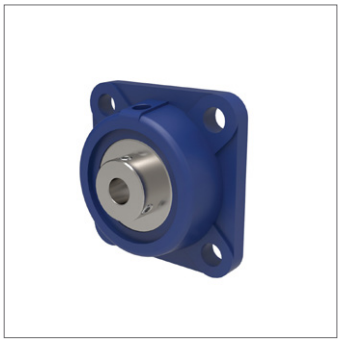
Tips
Shaft retention with two set screws (at 120° offset).
Used with h6 tolerance shafts (see our part no.s L1770-L1776).

Order No.	d_1 for h6	l_1	h_1 ±0.2	l_2 ±1.0	d_2	d_3	d_4	h_2	h_3	Weight kg
L1860.012	12	130	33.3	97	29.0	R1/8“	54	64.0	14.5	0.5
L1860.015	15	130	33.3	97	29.0	R1/8“	54	64.0	14.5	0.5
L1860.017	17	130	33.3	97	29.0	R1/8“	54	64.0	14.5	0.5
L1860.020	20	130	33.3	97	29.0	R1/8“	54	64.0	14.5	0.5
L1860.025	25	130	36.5	103	34.0	R1/8“	60	70.0	14.5	0.7
L1860.030	30	158	42.9	118	40.3	R1/8“	70	82.0	17.0	1.1
L1860.035	35	163	47.6	126	48.0	R1/8“	80	93.0	19.0	1.5
L1860.040	40	179	49.2	138	53.0	R1/8“	88	99.0	19.0	1.8
L1860.045	45	192	54.0	150	57.2	R1/8“	95	107.0	21.5	2.2
L1860.050	50	200	57.2	158	61.8	R1/8“	100	115.0	21.5	2.7
L1860.055	55	222	63.5	176	69.0	R1/8“	110	124.5	22.5	3.4
L1860.060	60	240	69.9	190	74.9	R1/8“	120	140.0	25.0	4.8
L1860.065	65	260	79.4	203	82.0	R1/8“	132	140.0	27.5	6.1
L1860.070	70	260	79.4	203	86.5	R1/8“	-	156.0	27.5	6.1
L1860.075	75	265	82.5	210	91.5	R1/8“	-	156.0	27.5	6.9
L1860.080	80	290	89.0	232	98.0	R1/8“	-	175.0	30.0	9.0

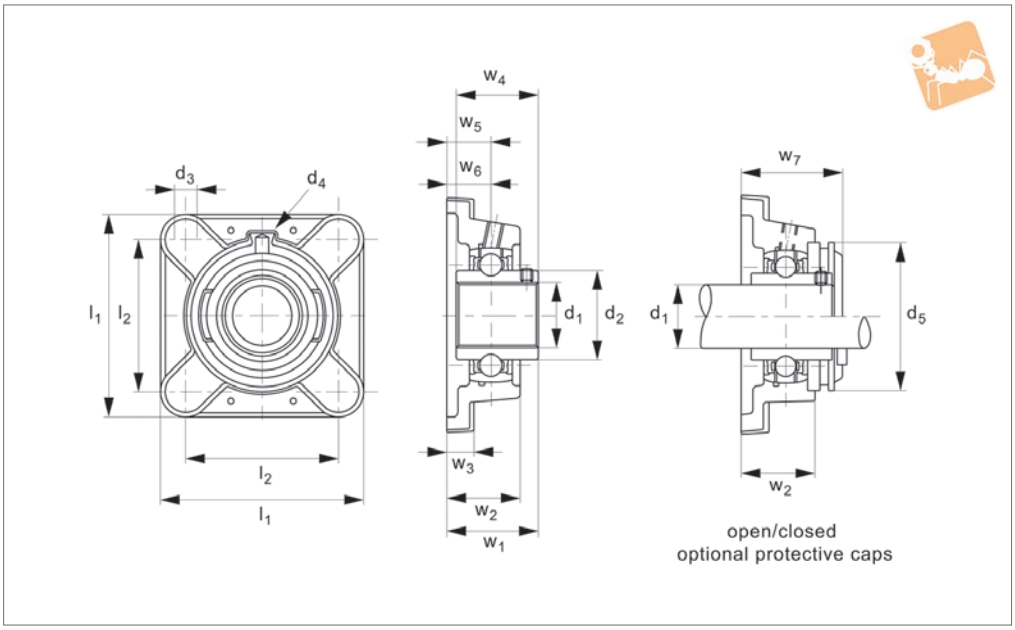
Order No.	l_3	l_4	w_1	w_2	w_3	w_4	w_5	w_6	Dyn. radial load C kN max.	Static radial load C_0 kN max.	Speed rpm max.
L1860.012	40.0	19	31.0	19	32	12.7	11	44.6	12.80	6.65	6500
L1860.015	40.0	19	31.0	19	32	12.7	11	44.6	12.80	6.65	6500
L1860.017	40.0	19	31.0	19	32	12.7	11	44.6	12.80	6.65	6500
L1860.020	40.0	19	31.0	19	32	12.7	11	44.6	12.80	6.65	6500
L1860.025	39.0	19	34.0	21	36	14.3	11	47.8	14.00	7.88	6500
L1860.030	47.0	22	38.1	25	40	15.9	14	52.8	19.50	11.20	4500
L1860.035	49.0	21	42.9	27	45	17.5	14	57.4	25.70	15.20	4500
L1860.040	53.0	26	49.2	30	48	19.0	14	66.8	26.90	18.20	3500
L1860.045	54.5	29	49.2	32	48	19.0	14	67.8	31.85	20.80	3500

Order No.	l_3	l_4	w_1	w_2	w_3	w_4	w_5	w_6	Dyn. radial load C kN max.	Static radial load C_0 kN max.	Speed rpm max.
L1860.050	61.0	23	51.6	34	54	19.0	18	74.6	35.10	23.20	3000
L1860.055	68.0	30	55.6	35	60	22.2	18	75.2	43.55	29.20	3000
L1860.060	71.0	28	65.1	42	60	25.4	18	87.8	52.50	32.80	2500
L1860.065	77.0	28	65.1	44	65	25.4	22	88.8	57.20	40.00	2500
L1860.070	77.0	28	74.6	44	65	30.2	22	-	62.00	45.00	2500
L1860.075	78.0	30	77.8	48	66	33.3	22	-	66.00	49.50	2500
L1860.080	90.0	34	82.6	55	78	33.3	26	-	72.50	54.20	2500

Square Flanged Bearing Units
cast iron



L1862



Material
Cast iron (FG20 or FG25), passivated and painted blue (RAL 5010). Steel, self-aligning bearing units with double seals, lubricated for life.

Technical Notes
Self-aligning bearings, relubricatable.
Temperature range: -20°C to +120°C.
The max. axial load is 0.5 x radial static load.
The housings are rated to take the maximum bearing loads.
For optional shaft end caps add suffixes:
-CO for one open protective cap (with seal) for through shafts
-CC for closed protective cap for shaft ends.

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

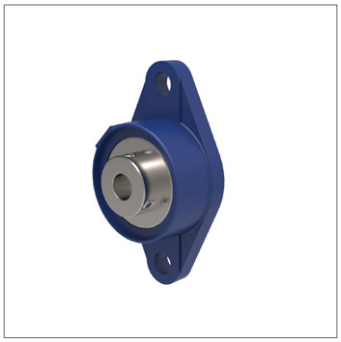
Important Notes
For precise positioning of the flanged units they are provided with a rear centring bore and dowel pin location - please see technical pages for these dimensions.

Order No.	d_1 for h6	l_1	l_2 ±0.7	d_2	d_3	d_4	d_5	w_1	w_2	Weight kg
L1862.012	12	86	63.5	29.0	11.5	R1/8“	54	37.3	29.5	0.7
L1862.015	15	86	63.5	29.0	11.5	R1/8“	54	37.3	29.5	0.7
L1862.017	17	86	63.5	29.0	11.5	R1/8“	54	37.3	29.5	0.5
L1862.020	20	86	63.5	29.0	11.5	R1/8“	54	37.3	29.5	0.7
L1862.025	25	95	70.0	34.0	11.5	R1/8“	60	38.7	30.0	0.8
L1862.030	30	108	82.5	40.3	11.5	R1/8“	70	42.2	33.5	1.2
L1862.035	35	118	92.0	48.0	14.0	R1/8“	80	46.4	36.0	1.6
L1862.040	40	130	101.5	53.0	14.0	R1/8“	88	54.2	39.5	2.1
L1862.045	45	137	105.0	57.2	14.0	R1/8“	95	54.2	40.0	2.2
L1862.050	50	143	111.0	61.8	18.0	R1/8“	100	60.6	44.0	2.6
L1862.055	55	162	130.0	69.0	18.0	R1/8“	110	64.4	48.5	3.7
L1862.060	60	175	143.0	74.9	18.0	R1/8“	120	73.7	53.5	4.9
L1862.065	65	188	150.0	82.0	18.0	R1/8“	132	77.7	56.0	6.0
L1862.070	70	188	150.0	86.5	18.0	R1/8“	-	82.4	56.0	6.2
L1862.075	75	197	153.0	91.5	23.0	R1/8“	-	85.8	59.0	6.3
L1862.080	80	197	153.0	98.0	23.0	R1/8“	-	90.6	61.0	7.1
L1862.090	90	235	187.0	111.0	23.0	R1/8“	-	80.1	45.0	10.4

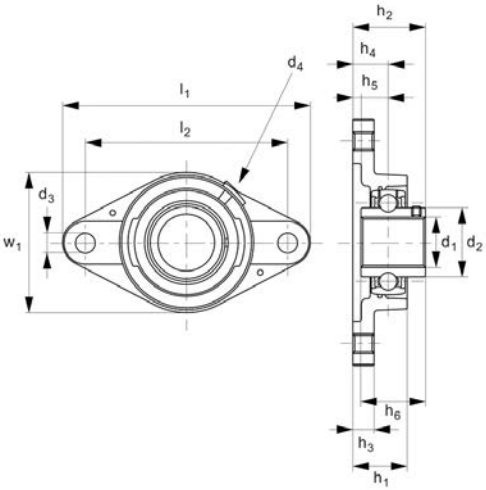
Order No.	w_3	w_4	w_5 ±0.5	w_6	w_7	Dyn. radial load C kN max.	Static radial load C_0 kN max.	Speed rpm max.
L1862.012	10.0	31.0	19.0	12.7	42.8	12.80	6.65	6500
L1862.015	10.0	31.0	19.0	12.7	42.8	12.80	6.65	6500
L1862.017	10.0	31.0	19.0	12.7	42.8	12.80	6.65	6500
L1862.020	10.0	31.0	19.0	12.7	42.8	12.80	6.65	6500
L1862.025	11.0	32.0	19.0	14.3	42.9	14.00	7.88	6500
L1862.030	12.0	38.1	20.0	15.9	46.9	19.50	11.20	4500

Order No.	w_3	w_4	w_5 ±0.5	w_6	w_7	Dyn. radial load C kN max.	Static radial load C_0 kN max.	Speed rpm max.
L1862.035	12.5	42.9	21.0	17.5	50.2	25.70	15.20	4500
L1862.040	13.0	49.2	24.0	19.0	57.9	29.60	18.20	3500
L1862.045	13.0	49.2	24.0	19.0	58.4	31.85	20.80	3500
L1862.050	13.0	51.6	28.0	19.0	65.8	35.10	23.20	3000
L1862.055	15.0	55.6	31.0	22.2	69.1	43.55	29.20	3000
L1862.060	16.0	65.1	34.0	25.4	78.4	52.50	32.80	2500
L1862.065	18.0	95.1	38.0	25.4	77.4	57.20	40.00	2500
L1862.070	18.0	74.6	38.0	30.2	-	62.00	45.00	2500
L1862.075	20.0	77.8	41.3	33.3	-	66.00	49.50	2500
L1862.080	20.0	82.6	41.3	33.3	-	72.50	54.20	2500
L1862.090	22.0	96.0	23.8	39.7	-	96.00	71.50	2500

Oval Flanged Bearing Unit
cast iron



L1864



Material
Cast iron (FG20 or FG25), passivated and painted blue (RAL 5010). Steel, self-aligning bearing units with double seals, lubricated for life.

Technical Notes
Self-aligning bearings, relubricatable.
Temperature range: -20°C to +120°C.
The max. axial load is 0.5 x radial static load.
The housings are rated to take the maximum bearing loads.
For optional shaft end caps add suffixes:
-CO for one open protective cap (with seal) for through shafts
-CC for closed protective cap for shaft ends.

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

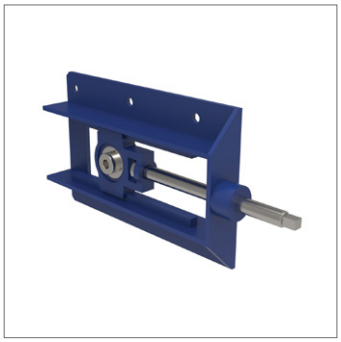
Important Notes
For precise positioning of the flanged units they are provided with a rear centring bore and dowel pin location - please see technical pages fro these dimensions.

Order No.	d_1 for h6	l_1 ±0.7	h_1	l_2	d_2	d_3	d_4	d_5	h_2	h_3	Weight kg
L1864.012	12	112	30.3	90.0	29.0	11.5	R1/8“	54	37.3	10.0	0.5
L1864.015	15	112	30.3	90.0	29.0	11.5	R1/8“	54	37.3	10.0	0.5
L1864.017	17	112	30.3	90.0	29.0	11.5	R1/8“	54	37.3	10.0	0.5
L1864.020	20	112	30.3	90.0	29.0	11.5	R1/8“	54	37.3	10.0	0.5
L1864.025	25	124	29.3	99.0	34.0	11.5	R1/8“	60	38.7	11.0	0.6
L1864.030	30	142	32.1	116.5	40.3	11.5	R1/8“	70	42.2	12.0	0.8
L1864.035	35	155	33.7	130.0	48.0	14.0	R1/8“	80	46.4	12.5	1.1
L1864.040	40	172	37.5	143.5	53.0	14.0	R1/8“	88	54.2	13.0	1.6
L1864.045	45	180	37.5	148.5	57.2	14.0	R1/8“	95	54.2	13.0	1.8
L1864.050	50	190	41.6	157.0	61.8	18.0	R1/8“	100	60.6	13.0	2.1
L1864.055	55	222	45.8	184.0	69.0	18.0	R1/8“	110	64.4	15.0	3.4
L1864.060	60	238	50.4	202.0	74.9	18.0	R1/8“	120	73.7	16.0	3.7
L1864.065	65	258	57.0	216.0	82.0	21.0	R1/8“	132	77.7	18.0	4.0
L1864.070	70	258	57.0	216.0	86.5	21.0	R1/8“	-	82.4	18.0	5.4
L1864.075	75	258	57.0	216.0	91.5	21.0	R1/8“	-	82.5	18.0	5.2

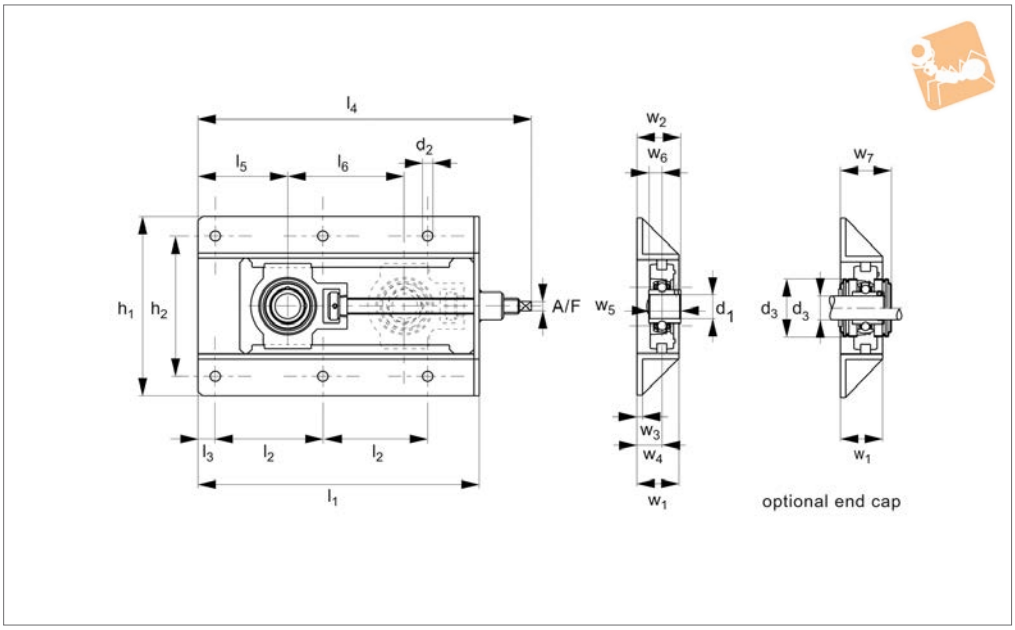
Order No.	h_4	h_5 ±0.5	h_6	w_1	w_2	Dyn. radial load C kN max.	Static radial load C_0 kN max.	Speed rpm max.
L1864.012	19	12.7	31.0	61	41.8	12.80	6.65	6500
L1864.015	19	12.7	31.0	61	41.8	12.80	6.65	6500
L1864.017	19	12.7	31.0	61	41.8	12.80	6.65	6500
L1864.020	19	12.7	31.0	61	41.8	12.80	6.65	6500
L1864.025	19	14.3	34.0	70	43.9	14.00	7.88	6500
L1864.030	20	15.9	38.1	80	46.9	19.50	11.20	4500
L1864.035	21	17.5	42.9	92	50.2	25.70	15.20	4500
L1864.040	24	19.0	49.2	105	57.9	29.60	18.20	3500

Order No.	h_4	h_5 ±0.5	h_6	w_1	w_2	Dyn. radial load C kN max.	Static radial load C_0 kN max.	Speed rpm max.
L1864.045	24	19.0	49.2	111	58.4	31.85	20.80	3500
L1864.050	28	19.0	51.6	116	65.8	35.10	23.20	3000
L1864.055	31	22.2	55.6	134	69.1	43.55	29.20	3000
L1864.060	34	25.4	65.1	138	82.4	52.50	32.80	2500
L1864.065	38	25.4	65.1	160	82.9	57.20	40.00	2500
L1864.070	38	30.2	74.6	160	-	62.00	45.00	2500
L1864.075	38	33.3	77.8	160	-	66.00	49.50	2500

Take-up Units & Frame
with stretcher frame



L1865



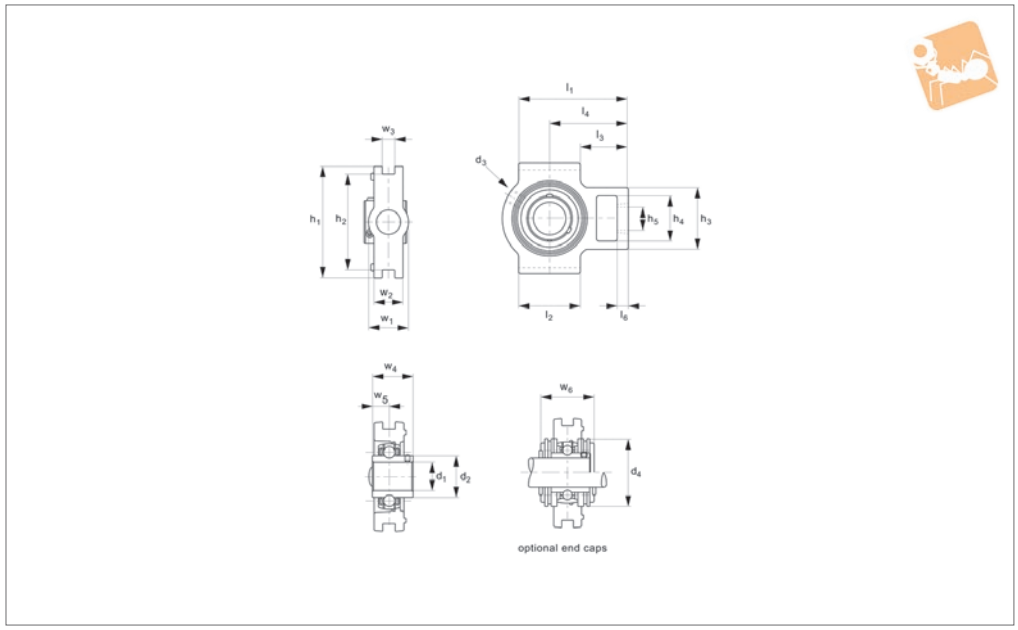
Material
Cast iron (FG20 or FG25), passivated and painted blue (RAL 5010). Steel stretcher frame.

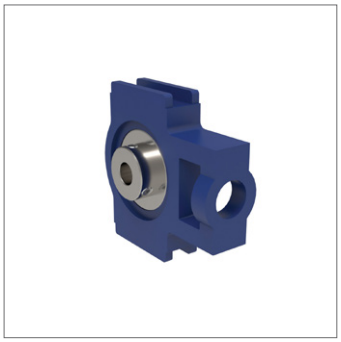
Technical Notes
Shaft retention with set screw.

Used with h6 tolerance shafts (see our part no.s L1770-L1776.
For optional shaft end caps add suffixes:
-CO for two open protective caps (with seala) for through shafts.
-CC for one open and one closed protective caps for shaft ends.
Stretcher frame allows easy access and adjustment.

Order No.	d_1 for h6	l_1	h_1	l_2	d_2	d_3	h_2	l_3	l_4	l_5	Weight kg
L1865.012	12	317	199	117	12	54	154	19	367	83	5.2
L1865.015	15	317	199	117	12	54	154	19	367	83	5.2
L1865.017	17	317	199	117	12	54	154	19	367	83	5.2
L1865.020	20	317	199	117	12	54	154	19	367	83	5.2
L1865.025	25	317	199	117	12	60	154	19	368	83	5.2
L1865.030	30	337	212	127	12	70	166	19	396	95	6.2
L1865.035	35	429	212	173	12	80	166	19	490	99	8.4
L1865.040	40	520	233	219	15	88	192	22	591	108	11.7
L1865.045	45	520	233	219	15	95	192	22	590	108	11.8
L1865.050	50	520	233	219	15	100	192	22	593	108	12.0
L1865.055	55	542	301	230	15	110	240	22	631	114	18.4
L1865.060	60	568	301	243	15	120	240	22	651	127	20.2
L1865.065	65	606	322	260	15	132	260	22	699	144	25.3

Order No.	l_6	w_1	w_2	w_3	w_4	w_5	w_6	w_7	Dyn. radial load C kN max.	Static radial load C_0 kN max.	Speed rpm max.	A/F
L1865.012	150	50	47.3	6	29	31.0	12.7	43.7	12.8	6.6	6500	11
L1865.015	150	50	47.3	6	29	31.0	12.7	43.7	12.8	6.6	6500	11
L1865.017	150	50	47.3	6	29	31.0	12.7	43.7	12.8	6.6	6500	11
L1865.020	150	50	47.3	6	29	31.0	12.7	43.7	12.8	6.6	6500	11
L1865.025	150	50	48.7	6	29	34.0	14.3	47.5	14.0	7.8	6500	11
L1865.030	150	50	52.2	6	30	38.1	15.9	52.5	19.5	11.2	4500	11
L1865.035	230	50	55.4	6	30	42.9	17.5	59.1	25.7	15.2	4500	11
L1865.040	300	50	60.2	6	30	49.2	19.0	68.6	29.6	18.2	3500	15
L1865.045	300	50	60.2	6	30	49.2	19.0	68.6	31.8	20.8	3500	15
L1865.050	300	50	631	6	30	51.6	19.0	74.1	35.1	23.2	3000	15
L1865.055	300	65	71.4	6	38	55.6	22.2	75.3	43.5	29.2	3000	19
L1865.060	300	65	77.7	6	38	65.1	25.4	88.6	52.5	32.8	2500	19
L1865.065	300	65	77.7	6	38	65.1	25.4	88.6	57.2	40.0	2500	24





L1866

Material
Cast iron (FG20 or FG25), passivated and painted blue (RAL 5010).

Technical Notes
Shaft retention with set screw.

Used with h6 tolerance shafts (see our part no.s L1770-L1776.
For optional shaft end caps add suffixes:
-CO for two open protective caps (with seal) for through shafts.
-CC for one open and one closed protective caps for shaft ends.

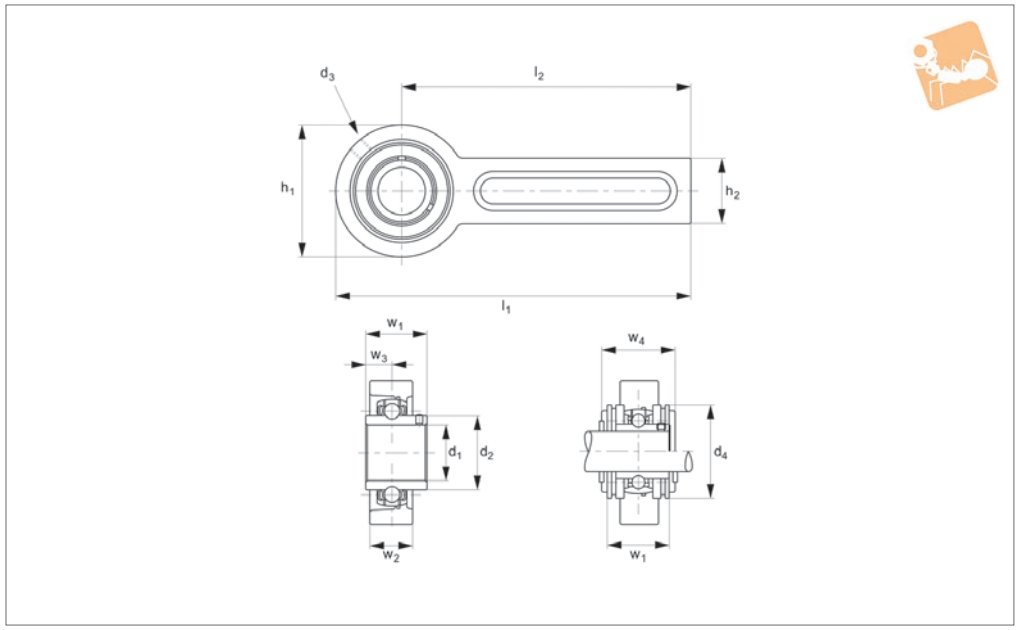
Order No.	d_1 for h6	l_1	h_1	l_2	d_2	d_3	d_4	h_2 +0|-0.8	h_3	h_4	Weight kg
L1866.012	12	94	89	51	29.0	M 6x1	54	76	51	32	0.8
L1866.015	15	94	89	51	29.0	M 6x1	54	76	51	32	0.8
L1866.017	17	94	89	51	29.0	M 6x1	54	76	51	32	0.7
L1866.020	20	94	89	51	29.0	M 6x1	54	76	51	32	0.7
L1866.025	25	97	89	51	34.0	M 6x1	60	76	51	32	0.8
L1866.030	30	113	102	57	40.3	M 6x1	70	89	56	37	1.2
L1866.035	35	129	102	64	48.0	M 6x1	80	89	64	37	1.6
L1866.040	40	144	114	83	53.0	M 6x1	88	102	83	49	2.3
L1866.045	45	144	117	83	57.2	M 6x1	95	102	83	49	2.3
L1866.050	50	149	117	86	61.8	M 6x1	100	102	83	49	2.5
L1866.055	55	171	146	95	69.0	M 6x1	110	130	102	64	3.9
L1866.060	60	194	146	102	74.9	M 6x1	120	130	102	64	4.7
L1866.065	65	224	167	121	82.0	M 6x1	132	151	111	70	6.8
L1866.070	70	224	167	121	86.5	M10x1	-	151	111	70	6.9
L1866.075	75	232	167	121	91.5	M10x1	-	151	111	70	7.2
L1866.080	80	235	184	121	98.0	M10x1	-	165	111	70	8.2
L1866.085	85	260	198	157	105.1	M10x1	-	173	124	73	10.8

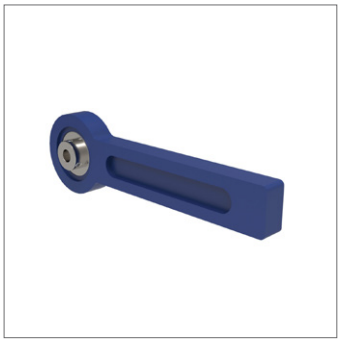
Order No.	h_5	l_3	l_4	l_5	w_1	w_2	w_3 +0.3|-0	w_4	w_5	w_6	Dyn. radial load C kN max.	Static radial load C_0 kN max.	Speed rpm max.
L1866.012	19	35.5	61	10	32	21	12	31.0	12.7	43.7	12.80	6.65	6500
L1866.015	19	35.5	61	10	32	21	12	31.0	12.7	43.7	12.80	6.65	6500
L1866.017	19	35.5	61	10	32	21	12	31.0	12.7	43.7	12.80	6.65	6500
L1866.020	19	35.5	61	10	32	21	12	31.0	12.7	43.7	12.80	6.65	6500
L1866.025	19	36.5	62	10	32	24	12	34.0	14.3	47.5	14.00	7.88	6500
L1866.030	22	41.5	70	10	37	28	12	38.1	15.9	52.5	19.50	11.20	4500
L1866.035	22	46.0	78	13	37	30	12	42.9	17.5	59.1	25.70	15.20	4500
L1866.040	29	46.5	88	16	49	33	16	49.2	19.0	68.6	29.60	18.20	3500
L1866.045	29	45.5	87	16	49	35	16	49.2	19.0	68.6	31.85	20.80	3500
L1866.050	29	47.0	90	16	49	37	16	51.6	19.0	74.1	35.10	23.20	3000
L1866.055	35	58.5	106	19	64	38	22	55.6	22.2	75.3	43.55	29.20	3000

Take-up Units

set screw type

Order No.	h_5	l_3	l_4	l_5	w_1	w_2	w_3 +0.3|-0	w_4	w_5	w_6	Dyn. radial load C kN max.	Static radial load C_0 kN max.	Speed rpm max.
L1866.060	35	68.0	119	19	64	42	22	65.1	25.4	88.6	52.50	32.80	2500
L1866.065	41	76.5	137	21	70	44	26	65.1	25.4	88.6	57.20	40.00	2500
L1866.070	41	76.5	137	21	70	46	26	74.6	30.2	-	62.00	45.00	2500
L1866.075	41	79.5	140	21	70	48	26	77.8	33.3	-	66.00	49.50	2500
L1866.080	41	79.5	140	21	70	51	26	82.6	33.3	-	72.50	54.20	2500
L1866.085	48	83.5	162	29	73	54	30	85.7	34.1	-	83.20	63.80	2500





L1867

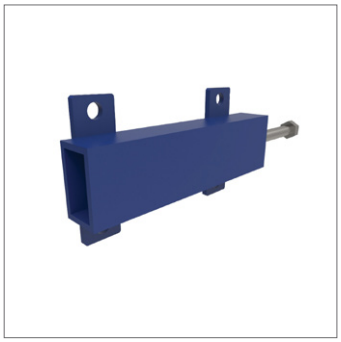
Material
Housings made from cold rolled sheet steel with zinc-plated surfaces.

Technical Notes
Re-lubricatable. For use with stretcher frame (see our part L1868).
For optional shaft end caps add suffixes:
-CO for two open protective caps (with seal) for through shafts.
-CC for one open and one closed protective caps for shaft ends.

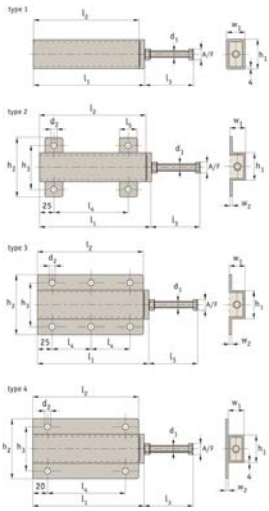
Order No.	d_1 for h6	l_1	h_1	l_2	d_2	d_3	d_4	h_2	w_1	Weight kg
L1867.012	12	264	78	225	29.0	R1/8“	60	41	31.0	1.7
L1867.015	15	264	78	225	29.0	R1/8“	60	41	31.0	1.7
L1867.017	17	264	78	225	29.0	R1/8“	60	41	31.0	1.7
L1867.020	20	264	78	225	29.0	R1/8“	60	41	31.0	1.7
L1867.025	25	264	78	225	34.0	R1/8“	60	41	34.0	1.7
L1867.030	30	264	78	225	40.3	R1/8“	80	41	38.1	1.9
L1867.035	35	264	78	225	48.0	R1/8“	80	41	42.9	2.1
L1867.040	40	274	98	225	53.0	R1/8“	100	41	49.2	4.2
L1867.045	45	274	98	225	57.2	R1/8“	100	41	49.2	4.2
L1867.050	50	274	98	225	61.8	R1/8“	100	41	51.6	4.2

Order No.	w_2	w_3	w_4	Dyn. radial load C kN max.	Static radial load C_0 kN max.	Speed rpm max.
L1867.012	21	12.7	48.8	12.8	6.6	6500
L1867.015	21	12.7	48.8	12.8	6.6	6500
L1867.017	21	12.7	48.8	12.8	6.6	6500
L1867.020	21	12.7	48.8	12.8	6.6	6500
L1867.025	21	14.3	48.8	14.0	7.8	6500
L1867.030	21	15.9	58.4	19.5	11.2	4500
L1867.035	21	17.5	58.4	25.7	15.2	4500
L1867.040	21	19.0	75.6	29.6	18.2	3500
L1867.045	21	19.0	45.6	31.8	20.8	3500
L1867.050	21	19.0	75.6	35.1	23.2	3000

Stretcher Units
for conveyor belt tensioner



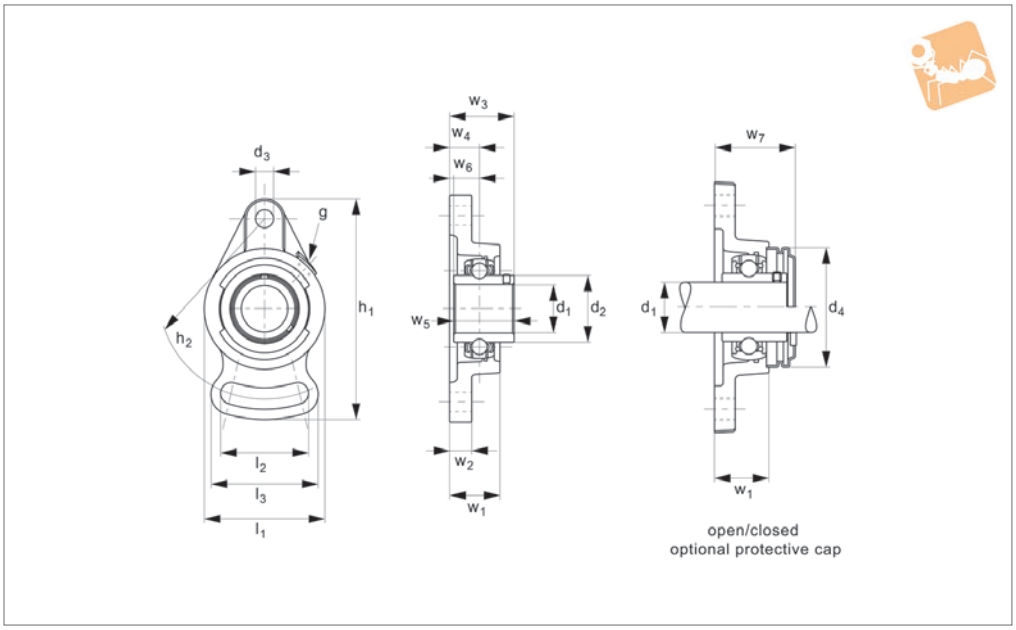
L1868

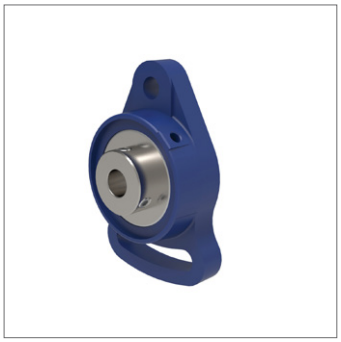


Material
Quality grey cast iron (FG20 or FG25), passivated and painted (RAL 5010).

Technical Notes
Stretcher frame for use with conveyor belt tensioner, part L1867.

Order No.	For shaft dia.	Type	d_1	l_1	h_1	l_2	d_2	h_2	h_3	l_3	l_4	l_5	w_1	w_2	A/F
L1868.010	12-35	1	M12x 90	190	50	180	-	-	-	85	-	-	30	4	18
L1868.020	40-50	1	M16x110	225	70	210	-	-	-	105	-	-	40	4	24
L1868.011	12-35	2	M12x 90	190	50	180	11.0	100	80	85	130	30	30	5	18
L1868.021	40-50	2	M16x110	225	70	210	14.0	140	100	105	160	40	40	6	24
L1868.012	12-35	3	M12x 90	190	48	180	10.0	100	75	85	65	-	25	3	18
L1868.022	40-50	3	M16x110	225	68	210	12.0	130	100	105	80	-	35	3	24
L1868.014	12-35	4	M12x100	190	48	180	11.5	103	80	97	140	-	25	3	18
L1868.024	40-50	4	M16x120	235	68	220	14.0	130	100	111	180	-	35	3	24





L1869

Material
Quality grey cast iron (FG20 or FG25), passivated and painted (RAL 5010).

Technical Notes
Self-aligning bearings, relubricatable.
Temperature range: -20°C to +120°C.
The max. axial load is 0.5 x radial static load.
The housings are rated to take the maximum bearing loads.
For optional shaft end caps add suffixes:
-C0 for one open protective cap (with seal)
for through shafts
-CC for closed protective cap for shaft ends.

Tips
Shaft retention with set screw.
Used with h6 tolerance shafts (see our part no.s L1770-L1776.

Order No.	d_1 for h6	l_1	h_1	l_2	d_2	d_3	d_4	d_5	h_2	l_3	Weight kg
L1869.012	12	60	102	40	29.0	10	M6x1	54	78	54	0.5
L1869.015	15	60	102	40	29.0	10	M6x1	54	78	54	0.5
L1869.017	17	60	102	40	29.0	10	M6x1	54	78	54	0.5
L1869.020	20	60	102	40	29.0	10	M6x1	54	78	54	0.5
L1869.025	25	68	125	51	34.0	12	M6x1	60	98	65	0.7
L1869.030	30	80	144	58	40.3	12	M6x1	70	117	72	1.2
L1869.035	35	90	161	66	48.0	15	M6x1	80	130	82	1.6
L1869.040	40	100	175	71	53.0	15	M6x1	88	144	87	2.0
L1869.045	45	108	181	72	57.2	15	M6x1	95	148	90	2.3
L1869.050	50	115	190	76	61.8	15	M6x1	100	157	94	2.7
L1869.055	55	130	219	86	69.0	16	M6x1	110	184	104	3.5
L1869.060	60	140	250	92	74.9	23	M6x1	120	202	118	4.2

Order No.	w_1	w_2	w_3	w_4	w_5	w_6	w_7	Dyn. radial load C kN max.	Static radial load C_0 kN max.	Speed rpm max.
L1869.012	25.5	12	33.3	15	31.0	12.7	36.5	12.8	6.6	6500
L1869.015	25.5	12	33.3	15	31.0	12.7	36.5	12.8	6.6	6500
L1869.017	25.5	12	33.3	15	31.0	12.7	33.0	12.8	6.6	6500
L1869.020	25.5	12	33.3	15	31.0	12.7	36.5	12.8	6.6	6500
L1869.025	27.0	14	35.7	16	34.0	14.3	39.1	14.0	7.8	6500
L1869.030	31.0	14	40.2	18	38.1	15.9	44.1	19.5	11.2	4500
L1869.035	34.0	16	44.4	19	42.9	17.5	48.3	25.7	15.2	4500
L1869.040	36.0	16	51.2	21	49.2	19.0	55.1	29.6	18.2	3500
L1869.045	38.0	18	52.2	22	49.2	19.0	56.3	31.8	20.8	3500
L1869.050	40.0	18	54.6	22	51.6	19.0	59.3	35.1	23.2	3000
L1869.055	43.0	20	58.4	25	55.6	22.2	62.8	43.5	29.2	3000
L1869.060	48.0	20	68.7	29	65.1	25.4	73.3	52.5	32.8	2500

Self-Aligning Bearing Units

Technical

For cast iron housings

- Single row radial contact self-aligning bearings (steel 100Cr6).
- Re-lubricatable.
- Fixing to shaft via set screw.
- Operating temperature range -20° to +100°.

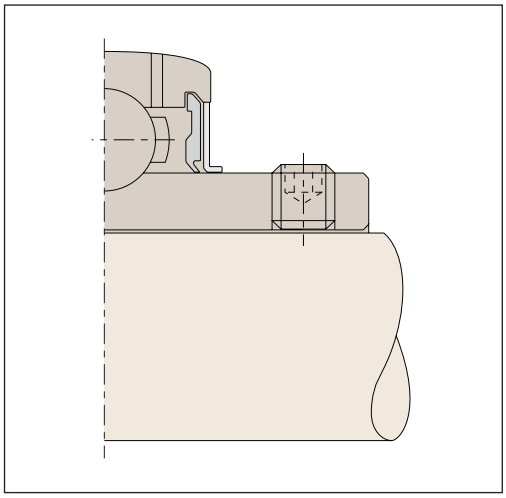
For stainless & thermoplastic housings

- Single row radial contact self-aligning bearings (stainless steel AISI 440C), stainless steel cage.
- Lubricated with food grade grease.
- Fixing to shaft via set screw.

Shaft fixing set screw

2 set screws at 120° with hexagon socket and knurled cup point, recommended shaft tolerance h6/h7.

Set screw	Max. tightening torque (Nm)	Hexagon socket A/F
M5 x 0,8	3,5	2,5
M6 x 1	5,5	3,0
M8 x 1	11,5	4,0
M10 x 1,25	22,0	5,0
M12 x 1,25	33,0	6,0
M14 x 1,5	42,0	7,0
M16 x 1,5	64,0	8,0
M18 x 1,5	75,0	9,0
M20 x 1,5	120,0	10,0

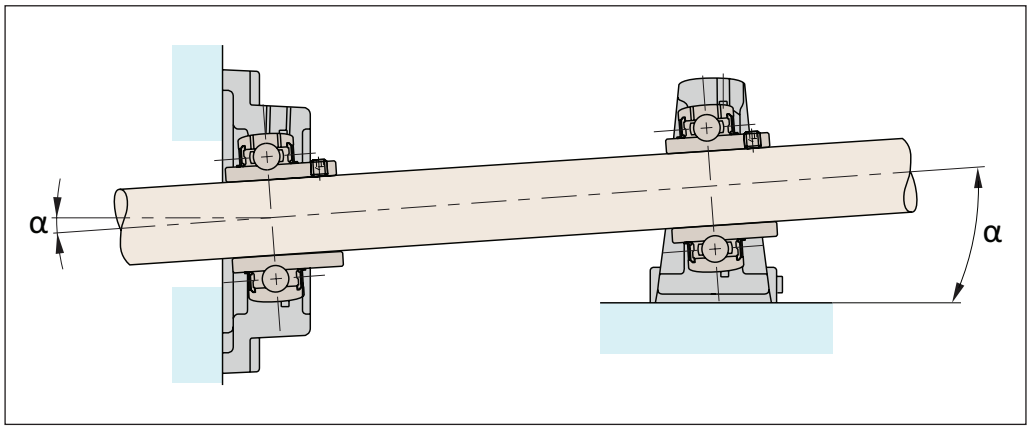


Lubrication

Our units are lubricated for life. If re-lubrication is necessary (because of severe operating conditions), use a lithium soap base with a viscosity of 100mm²/s at 40°C.

Installation

Shaft misalignment is compensated to a certain degree by the shaft-aligning bearings.



If re-lubrication required

α = ± 2°

If no re-lubrication

α = ± 5°

When using protective end caps

α = ± 5°

ov-bearing-support-units-technical-lnh-Updated-01-03-2023

The radial loads of the cast iron bearing supports are limited by the bearings themselves – the housings can withstand the maximum loads.

Please see the part numbers for dynamic and static radial loads. The maximum axial loads are 50% of the maximum static radial loads. The standard bearing have a C3 clearance.

Bore nominal size (mm)		Radial bearing clearance (µ) C3	
Above	Up to	Min.	Max.
10	18	11	25
18	24	13	28
24	30	13	28
30	40	15	33
40	50	18	36
50	65	23	43
65	80	25	51
80	100	30	58
100	120	36	66
120	140	41	81

When choosing a suitable bearing size – this depends on the load and speed required.

If the load acts mainly whilst the bearing rotates, then it is a dynamic load, if it acts mainly during no movement or low speeds, then it is a static load.

The maximum for both of these, for each bearing, is shown in the part tables.

Dynamic equivalent loads:

For some situations the bearing will have to withstand both radial and axial loads and we then need to calculate an equivalent dynamic load using the following equation:

$$L = X \bullet F_r + Y \bullet F_a \ (kN)$$

P = Dynamic equivalent load (kN)
F_r = Actual radial load (kN)
F_a = Actual axial load (kN)
X = Radial factor
Y = Axial factor

Load ratio table 1:

$\frac{F_a}{C_{0r}}$	e	$\frac{F_a}{F_r} \le e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
0,014	0,19				2,30
0,028	0,22				1,99
0,056	0,26				1,71
0,084	0,28				1,55
0,110	0,30	1	0	0,56	1,45
0,170	0,34				1,31
0,280	0,38				1,15
0,420	0,42				1,04
0,560	0,44				1,00

e = Limiting value
C_{0r} = Radial static load rating (see dimension tables for ball bearing units)

Bearing Supports from Automotion Components

Bearing Supports from Automotion Components

Static equivalent loads

For situations where there are radial and axial loads on the static or slow moving bearings:

$$P_0 = X_0 \bullet F_r + Y_0 \bullet F_a \ (kN)$$

$$P_0 = F_r \quad \text{if} \quad \frac{F_a}{F_r} \leq 0.8$$

P_0 = Static equivalent load (kN)
X_0 = Static radial factor
Y_0 = Static axial factor

For all bearing inserts the following applies:
X_0 = 0.6
Y_0 = 0.5

Using the ratio ***fs,*** it can be checked if sufficient static dimensioning for the insert has been ensured:

$$fs = \frac{C_{0r}}{P_0}$$

Some standard values are:

fs = 0.7 Minimal demands for running smoothness and rotating movement
fs = 1.0 occasional rotating bearing, normal demands for running
fs = 2.0 smoothness, high demands for running smoothness

It should be noted that this ratio does not provide any assurance against a break or similar, but instead it is assurance against excessive local deformation in the rolling contact (ball/raceway).

Calculating bearing life

When calculating bearing life for bearing units, the following applies:

$$L_{10} = \left(\frac{C_r}{p}\right)^3 \qquad (10^6 \text{ revolutions})$$

If the bearing life should be specified in hours, the following applies:

$$L_{10h} = \left(\frac{C_r}{p}\right)^3 \bullet \frac{10^6}{60n} \quad (h)$$

n = speed (min^{-1})

Bearing life calculation

The bearing life of a UCP210 ball bearing unit under the following conditions:

Radial load:	F_r	=	2 kN
Axial load:	F_a	=	1.7 kN
Normal operating condition speed:	n	=	1800 min^{-1}
UCP210 ball bearing unit data:	C_r	=	35.1 kN
	C_{0r}	=	23.2 kN

Dynamic equivalent bearing load:

$$P = X \bullet F_r + Y \bullet F_a \quad (kN)$$

$$\frac{F_a}{C_{0r}} = \frac{1.7\ kN}{23.2\ kN} = 0.073 \quad \text{and} \quad \frac{F_a}{F_r} = \frac{1.7\ kN}{2\ kN} = 0.85$$

From load ratio table 1:

with $F_a/C_{0r} = 0.073$, e is determined to be ≈ 0.28

with $F_a/F_r = 0.85 > e = 0.28$

X = 0.56 Y = 1.55

$$P = 0.56 \bullet 2\ kN + 1.7\ kN = 3.76\ kN$$

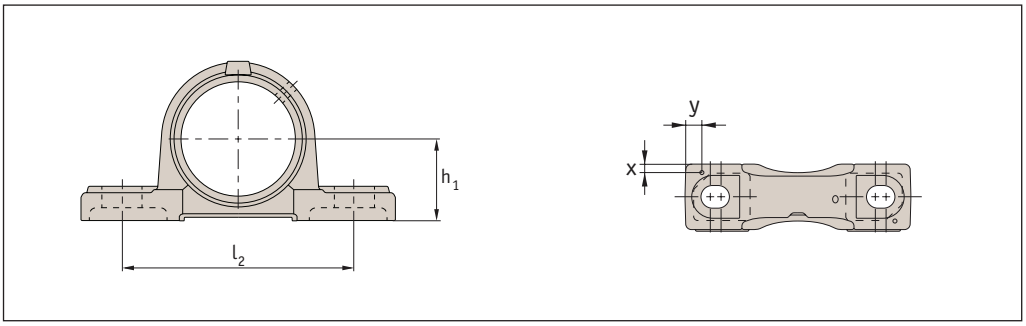
$$L_{10h} = \left(\frac{C_r}{p}\right)^3 \bullet \frac{10^6}{60n} \quad (h)$$

$$L_{10h} = \left(\frac{35.1}{3.76}\right)^3 \bullet \left(\frac{10^6}{60 \times 1800}\right) = 7532\ h$$

The theoretical bearing life of the bearing unit, under normal operating conditions, is 7532 hours.

Bearing Supports from Automotion Components

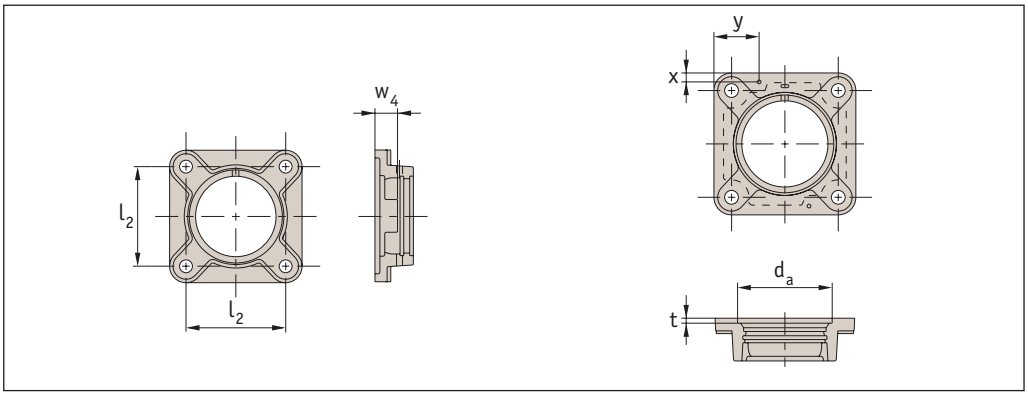
L1860 Pillow block housing



For shaft i/d d_1	h_1 ±	l_2 ±
12-20	±0,15	±0,70
25		
30		
35		
40		
45		
50		
55	±0,20	±1,00
60		
65		
70		
75		
80		
90	±0,30	

x	y	Dowel Ø
10,0	59,0	3
12,0	59,0	
13,0	72,0	
14,5	73,0	4
16,0	81,5	
16,0	88,0	5
18,0	91,0	
20,0	101,0	6
20,0	110,0	
-	-	-
21,5	119,0	6
22,0	121,5	
26,0	132,0	8
28,5	151,0	10

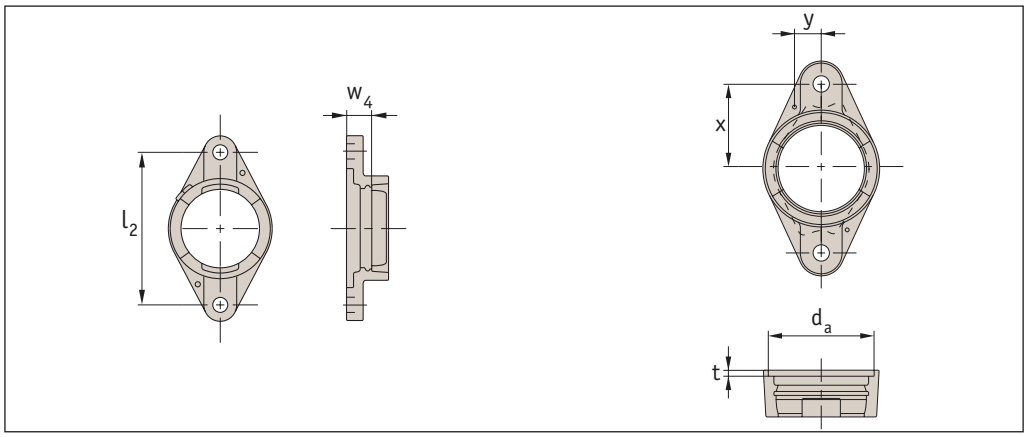
L1862 Square flanged bearing housing



For shaft i/d d_1	l_2 ±	w_4 ±	Radial runout
12-20	±0,70	±0,50	0,20
25			
30			
35			
40			
45			
50			
55	±1,00	±0,80	0,30
60			
65			
70			
75			
80			
90			

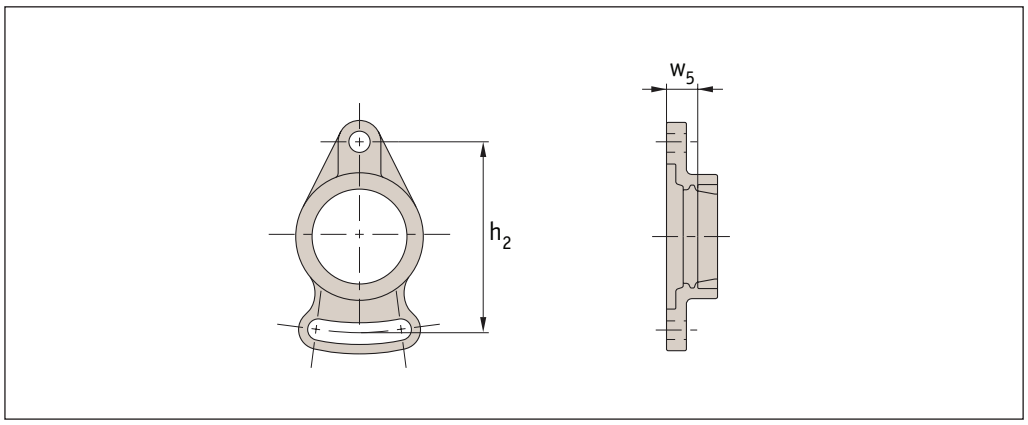
x	y	Dowel Ø	d_a	t
36,0	13,0	3	50,80	3,2
40,5	15,0		63,50	
46,0	17,0		76,20	4,0
51,0	18,0	4	88,90	
57,0	20,0		88,90	
60,5	21,0	5	98,42	
63,5	22,0		101,60	
71,0	25,0	6	107,95	
77,5	27,0		125,40	
85,0	29,0		161,92	
85,0	29,0		161,92	
88,5	30,0		161,92	
88,5	30,0		161,92	
103,5	36,0		179,37	

L1864 Oval flanged bearing housing



For shaft i/d d_1	l_2 ±	w_4 ±	Radial runout	x	y	Dowel Ø	d_a	t
12-20	±0,70	±0,50	0,20	31,0	14,5	3	50,80	3,2
25				35,0	16,0		63,50	
30				42,5	17,0		73,00	4,0
35				50,0	17,0	4	82,50	
40				55,0	19,0		88,90	
45				58,0	21,0	5	98,42	
50				60,0	22,5		101,60	
55	±1,00	±0,80	0,30	70,0	26,0	6	107,95	
60				75,0	26,0		125,40	
65				85,0	28,0		142,00	
70				85,0	28,0		142,00	
75				85,0	30,0		142,00	

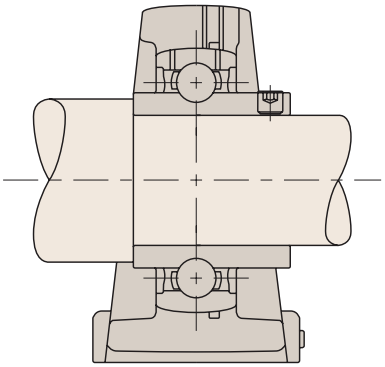
L1869 Take up unit housing



For shaft i/d	h_2 ±	w_5 ±
12-20	±0,70	±0,50
25		
30		
35		
40		
45		
50		
55	±1,00	±0,80
60		

Bearing Supports from Automotion Components

Axial load capacity



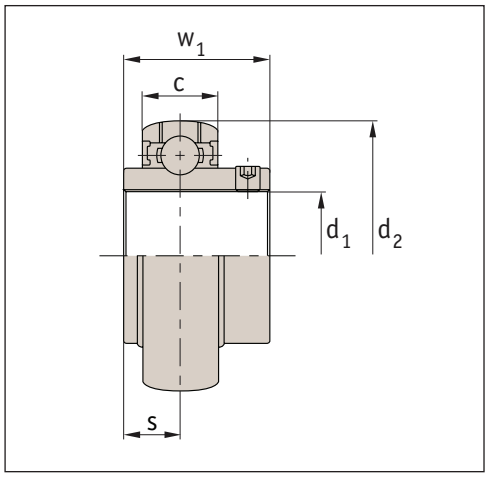
shaft shoulder recommended
for axial loads

The axial load capacity of the inserts depends largely on the type of fixing on the shaft. The inner design of the raceways and balls is of little importance in most cases. A further factor is the shaft tolerance used.

In order to attain the largest possible axial load capacity for the respective type of fixing, it is necessary that the fixing element (e.g. set screw, adapter sleeve) is secured at the specified tightening torque.

For applications with strong vibrations or shock loads, it is recommended to set the inner ring against a shaft shoulder and to secure with a groove nut and lock washer as necessary. In this case, the axial load carrying capacity of the inserts can be fully utilised. The axial load rating can be up to 0.5 times the radial static load rating C_{0r}.

Bearing tolerances



For shaft i/d	w_1	d_2 µ
12-20	±0,020	+0,0 -11
25		
30		
35		
40		
45		
50	±0,025	+0,0 -11
55		
60		
65		
70		
75		
80	±0,035	+0,0 -15
90		