

ASAHI

BEARING UNITS

JOINBAL

ROD ENDS

SPHERICAL BEARINGS

Cat. No. BE 01-23



JQA-1973
JQA-EM4783



ASAHI SEIKO CO., LTD.

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ROD ENDS & SPHERICAL BEARINGS

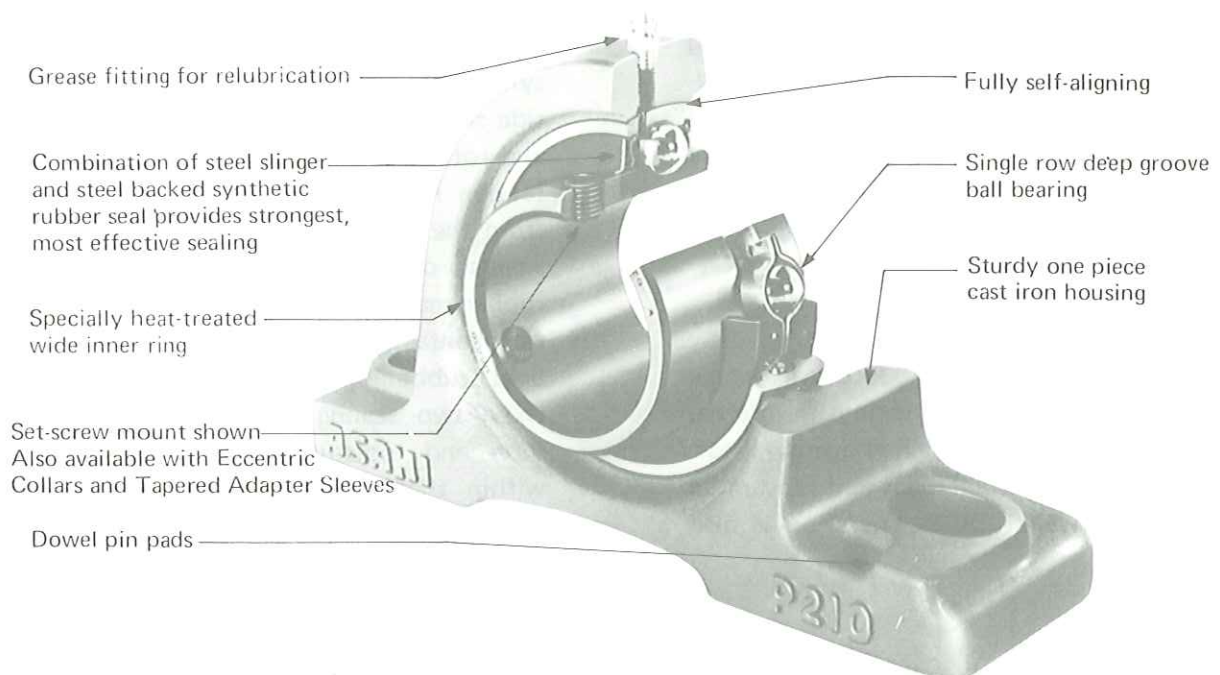
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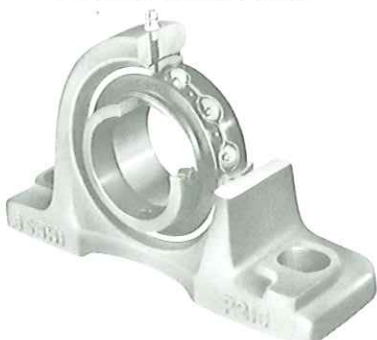
Note) Types and bearing sizes marked (*) including Bearing Units incorporating such bearings are not normally stocked or regularly produced. Check availability when ordering.

ASAHI

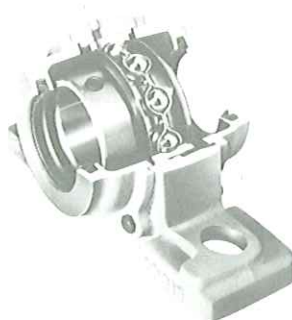
BEARING UNITS



Pillow Block with Internal Eccentric Locking Collar



Pillow Block with Cast Iron Covers



Pillow Block with Pressed Steel Covers



ASAHI BEARING UNITS

CONSTRUCTION OF BEARING UNITS

ASAHI Bearing Units consist of a double sealed single row deep groove ball bearing and any one of cast iron, synthetic rubber or pressed steel housings of various configurations.

The self-contained bearing with spherical ground outside diameter is assembled into a corresponding spherical seat of the housing providing self-alignment of the bearing in the housing at

FEATURES OF BEARING UNITS

Rational self-alignment

The outside diameter of the self-contained bearing is ground spherical to match corresponding spherical inside diameter of the housing providing self-alignment between these two members, which compensates for misalignments of the units resulting from errors in mounting and distortion of the foundation.

Larger load carrying capacity

Being the same as 6200 and 6300 series single row deep groove radial ball bearings in internal construction of the self-contained bearing, Bearing Units can sustain radial loads and substantial thrust loads as well. Quiet operation is also assured.

Longer service life

Bearing Units are often used in severe operating conditions where they are exposed to dirt, moisture or high temperature, and in such applications, the grease inside the self-contained bearing deteriorates in a short period of time. It is required, therefore to relubricate the units at suitable intervals so as to replace deteriorated grease with fresh grease.

ASAHI Bearing Units with cast iron and rubber housings are all relubricable type equipped with grease fittings to secure full performance and longer service life of the units under any operating condition.

Efficient sealing

The self-contained bearing is double sealed with a combination of heat-resistant oil-proof synthetic rubber seal and steel slinger. The outside steel slinger which is fixed to the inner ring and rotates together with it effectively prevents foreign matters from entering into the bearing from the atmosphere and protects the bearing against outside pressure. The steel backed rubber seal on inside which is fixed to the outer ring contacts the land of the inner ring with a light rubbing pressure. The combination of these two sealing elements serve to exclude dirt and moisture and to retain the grease within the bearing chamber insuring full performance of the bearing even in severe operating conditions. Bearing Units with Covers are developed for applications where surroundings and atmospheric conditions are extremely severe such as in steel mills, flour mills, foundries, etc. With the double sealing of the self-contained bearing and dust covers of the housing, sealing ability of the units with covers is perfect.

Solid housing

The cast iron housing is of solid one-piece construction to provide maximum rigidity against deformation at mounting and wear resistance for any operating condition.

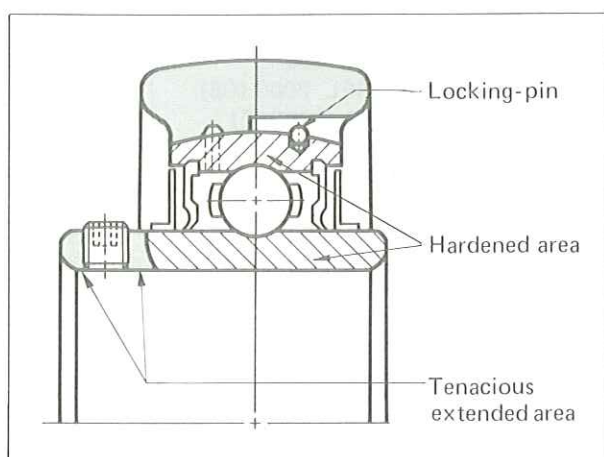
mounting. Set-screw locking is most popular method of mounting to the shaft. Adapter sleeve and eccentric locking collar are also available. For services under more severe operating conditions, Bearing Units with Cast Iron Covers and Pressed Steel Covers are available as standard types.

Easy and positive locking to shaft

There are three methods of locking Bearing Units to the shaft. Locking by means of two set-screws in the extended inner ring is the most common method. Adapter sleeve locking and an eccentric locking collar are also available. All these locking methods offer easy installation of the units and machining of the shafts.

Special heat-treatment on bearing inner ring

As shown in the figure below, the inner ring of the self-contained bearing is hardened in the race-way and surrounding part where hardening is necessary, while the extended part where the set-screws are installed is left metallurgically mild and tenacious. This special heat-treatment ensures full bearing performance and prevents the set-screws from loosening during operation as the set-screws can be tightened hard enough without causing destructive inner ring cracking.



Unique device to prevent bearing outer ring rotation

The bearing outer ring is equipped with a unique locking-pin device which permits free self-alignment of the units, and also prevents outer ring rotation. The result - longer service life.

Complete interchangeability between bearing and housing

Skilled precision workmanship on the self-contained bearing and the housing provides complete interchangeability between them and the bearing can be easily replaced whenever so required.










Easy installation






The self-contained bearing is prelubricated with an adequate quantity of high quality grease. Bearing Units can be mounted on the shaft for immediate operation. The units are, therefore, free from ingress of harmful contaminants into the bearing chamber during mounting procedures.

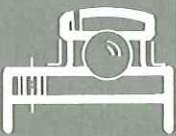
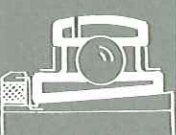
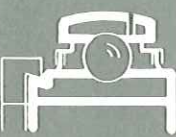
Easy positioning for mounting

Two dowel bases provided on the housing of Pillow Block, Square Flange and Two-Bolt Flange Units serve for easy and accurate positioning of the units when mounting them on the structure.

DIMENSION TABLE INDEX

| | Type of Housing | Material of Housing | Series No. | Page |
|---|-------------------|---|-----------------|------|
|  | Pillow Blocks | Cast Iron | UCP 200 | 6 |
|  | | | UCLP 200 | 6 |
| | | | UCP X00 | 7 |
| UCP 300 | | | 7 | |
| UKP 200+H | | | 8 | |
| UKP X00+H | | | 8 | |
| UKP 300+H | | | 9 | |
| UDP 200 | | | 9 | |
| CUCP 200C (CE) | | | 10 | |
| UCP 200C (E) | | | 10 | |
| UCIP 200 | | | 11 | |
| UCIP 300 | | | 11 | |
| UCPH 200 | | | 12 | |
| UCPA 200 | | 12 | | |
| UCEP 200 | | 13 | | |
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| | Cast Iron | BP 200 | 14 | |
| | | BLLP | 14 | |
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| | | BPR KHPR 200 | 15 | |
| | Cast Steel | UCPK 200 | 16 | |
| Malleable Cast | BPW | 16 | | |
| | KHPW 200 | 16 | | |
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| | | | UCLF 200 | 17 |
| | | | UCF X00 | 18 |
| | | | UCF 300 | 18 |
| | | | UKF 200+H | 19 |
| | | | UKF X00+H | 19 |
| | | | UKF 300+H | 20 |
| | | | UDF 200 | 20 |
| | | | CUCF 200C (CE) | 21 |
| | | | UCF 200C (E) | 21 |
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|  | Three-Bolt Flange | Pressed Steel | BPF | 22 |
| | | | BPFT | 22 |
|  | Flange Cartridge | Cast Iron | UCFC 200 | 23 |
| | | | UCFC X00 | 23 |
| | | | UCFS 300 | 24 |
| | | | UDFC 200 | 24 |
| | | | CUCFC 200C (CE) | 25 |
| | | | UCFC 200C (E) | 25 |
|  | Two-Bolt Flange | Cast Iron | UCFL 200 | 26 |
| | | | UCFT 200 | 26 |
| | | | UCFL X00 | 27 |
| | | | UCFL 300 | 27 |
| | | | UDFL 200 | 28 |
| | | | CUCFL 200C (CE) | 29 |
| | | | UCFL 200C (E) | 29 |
| | | | BFL 200 | 30 |
| | | | BLFL | 30 |
| | |  | Pressed Steel | BPFL |
| Malleable Cast | BFX 200 | | | 31 |
| | KHFX 200 | 31 | | |
|  | Adjustable Flange | Cast Iron | UCFA 200 | 32 |

| | Type of Housing | Material of Housing | Series No. | Page |
|---|--------------------|---------------------|--|--|
|  | Flange Bracket | Cast Iron | UCFK 200 | 32 |
|  | Take-Up | Cast Iron | UCT 200 UCST 200 UCT X00 UCT 300 UDT 200 CUCT 200C (CE) UCT 200C (E) BT 200 | 33 33 34 34 35 36 36 37 |
|  | Take-Up with Frame | Cast Iron | UCT 200+WB UCTU 200+WU UCTL 200+WL | 38 39 39 |
|  | Cartridge | Cast Iron | UCC 200 UCLC 200 UCC X00 UCC 300 | 40 40 41 41 |
|  | Hanger Bearing | Cast Iron | UCECH 200 | 42 |
| | Two-Bolt Flange | | BLCTE 200K | 42 |

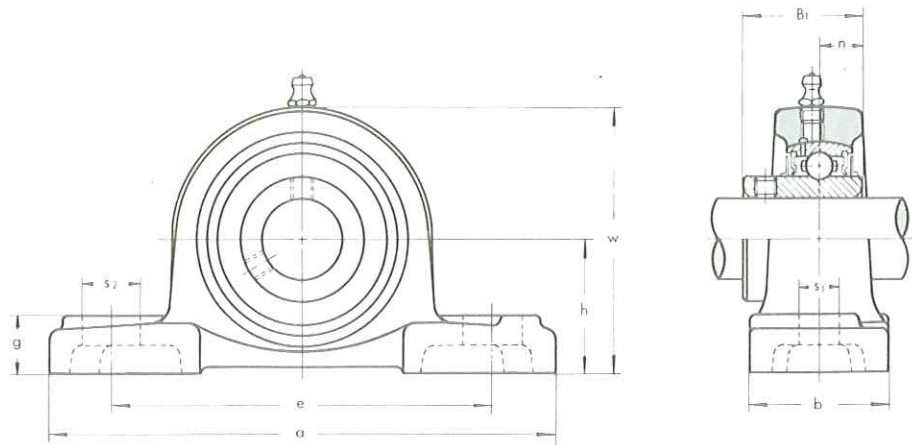
| | | Locking Method | Series No. | Page |
|---|-----------------------|--|----------------------------------|----------------|
|  | Ball Bearings | Set-Screw | UC 200 | 44 |
| | | | UCW 200 | 45 |
| | | | UC X00 | 46 |
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|  | | Adapter Sleeve | UK 200+H UK X00+H UK 300+H | 48 49 50 |
| | | Eccentric Collar | UD 200+EE | 51 |
|  | | Set-Screw | B SER 200 | 52 53 |
| | | Eccentric Collar | UG 200+ER KH 200+AE | 54 55 |
| Silver Series | Pillow Blocks | Material of Housing Special Alloy Locking Method Eccentric Collar | UP 000 MUP 000 | 57 59 |
| Stainless Silver Series | Two-Bolt Flange Units | | UFL 000 MUFL 000 | 58 60 |

Note: For load ratings at various RPM's and life hours in Kilograms (Pounds), see Page 76 and 77.
Basic dynamic and static load ratings of specific bearing size in Newton are shown on Page 78.

PILLOW BLOCKS

UCP 200 type

Normal Duty
Set-screw Locking

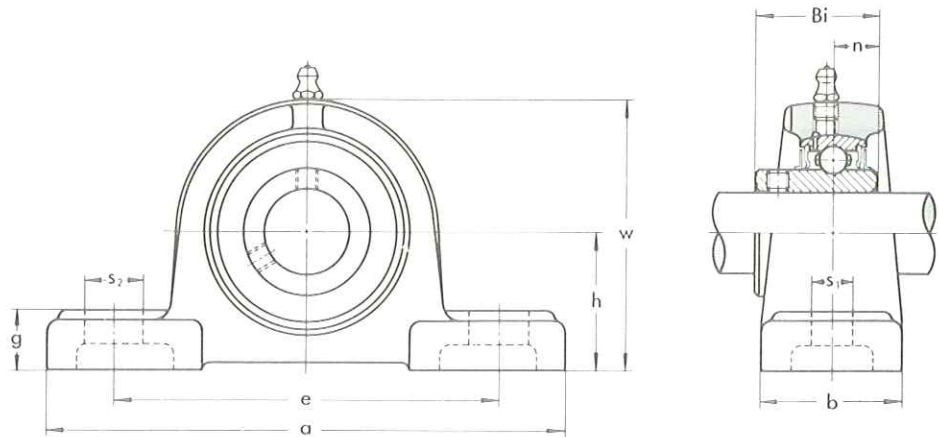


| Unit No. | Shaft Diam. mm | Dimensions mm | | | | | | | | | | Bolt Size mm | Bearing No. | Housing No. | Weight kg |
|----------|-------------------|---------------|-----|-----|----|----------------|----------------|----|-----|------|------|--------------|-------------|-------------|-----------|
| | | h | a | e | b | s ₁ | s ₂ | g | w | Bi | n | | | | |
| UCP 201 | 12 | 30.2 | 127 | 95 | 38 | 13 | 19 | 15 | 62 | 31 | 12.7 | M10 | UC 201 | P 203 | 0.65 |
| UCP 202 | 15 | 30.2 | 127 | 95 | 38 | 13 | 19 | 15 | 62 | 31 | 12.7 | M10 | UC 202 | P 203 | 0.63 |
| UCP 203 | 17 | 30.2 | 127 | 95 | 38 | 13 | 19 | 15 | 62 | 31 | 12.7 | M10 | UC 203 | P 203 | 0.62 |
| UCP 204 | 20 | 33.3 | 127 | 95 | 38 | 13 | 19 | 15 | 65 | 31 | 12.7 | M10 | UC 204 | P 204 | 0.65 |
| UCP 205 | 25 | 36.5 | 140 | 105 | 38 | 13 | 16 | 16 | 70 | 34.1 | 14.3 | M10 | UC 205 | P 205 | 0.79 |
| UCP 206 | 30 | 42.9 | 165 | 121 | 48 | 17 | 21 | 18 | 83 | 38.1 | 15.9 | M14 | UC 206 | P 206 | 1.3 |
| UCP 207 | 35 | 47.6 | 167 | 127 | 48 | 17 | 21 | 19 | 94 | 42.9 | 17.5 | M14 | UC 207 | P 207 | 1.6 |
| UCP 208 | 40 | 49.2 | 184 | 137 | 54 | 17 | 25 | 19 | 100 | 49.2 | 19 | M14 | UC 208 | P 208 | 2.0 |
| UCP 209 | 45 | 54 | 190 | 146 | 54 | 17 | 22 | 20 | 108 | 49.2 | 19 | M14 | UC 209 | P 209 | 2.3 |
| UCP 210 | 50 | 57.2 | 206 | 159 | 60 | 20 | 25 | 22 | 114 | 51.6 | 19 | M16 | UC 210 | P 210 | 2.7 |
| UCP 211 | 55 | 63.5 | 219 | 171 | 60 | 20 | 25 | 22 | 126 | 55.6 | 22.2 | M16 | UC 211 | P 211 | 3.3 |
| UCP 212 | 60 | 69.8 | 241 | 184 | 70 | 20 | 25 | 25 | 138 | 65.1 | 25.4 | M16 | UC 212 | P 212 | 4.7 |
| UCP 213 | 65 | 76.2 | 265 | 203 | 70 | 25 | 29 | 27 | 150 | 65.1 | 25.4 | M20 | UC 213 | P 213 | 5.6 |
| UCP 214 | 70 | 79.4 | 266 | 210 | 72 | 25 | 31 | 27 | 156 | 74.6 | 30.2 | M20 | UC 214 | P 214 | 7.3 |
| UCP 215 | 75 | 82.6 | 275 | 217 | 74 | 25 | 31 | 28 | 163 | 77.8 | 33.3 | M20 | UC 215 | P 215 | 7.9 |
| UCP 216 | 80 | 88.9 | 292 | 232 | 78 | 25 | 31 | 30 | 175 | 82.6 | 33.3 | M20 | UC 216 | P 216 | 10.0 |
| UCP 217 | 85 | 95.2 | 310 | 247 | 83 | 25 | 31 | 32 | 187 | 85.7 | 34.1 | M20 | UC 217 | P 217 | 12.2 |
| UCP 218 | 90 | 101.6 | 327 | 262 | 88 | 27 | 33 | 34 | 200 | 96 | 39.7 | M22 | UC 218 | P 218 | 14.7 |

PILLOW BLOCKS

* UCLP 200 type

Normal Duty
Set-screw Locking
Low Base-to-Center Height

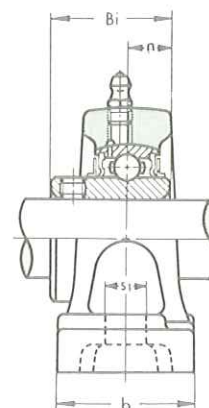
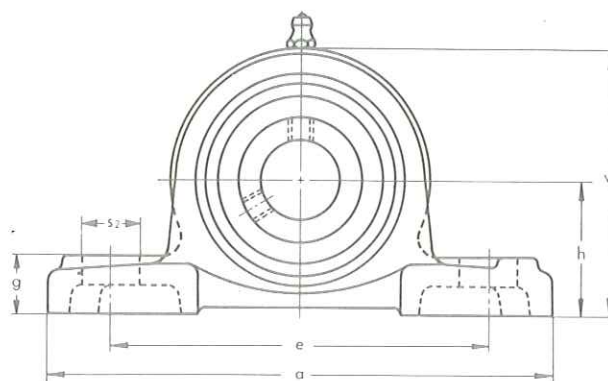


| Unit No. | Shaft Diam. mm | Dimensions mm | | | | | | | | | | Bolt Size mm | Bearing No. | Housing No. | Weight kg |
|----------|-------------------|---------------|-----|-----|----|----------------|----------------|----|-----|------|------|--------------|-------------|-------------|-----------|
| | | h | a | e | b | s ₁ | s ₂ | g | w | Bi | n | | | | |
| UCLP 201 | 12 | 27 | 121 | 89 | 29 | 12 | 16 | 13 | 56 | 26 | 10 | M10 | UCW 201 | LP 203 | 0.50 |
| UCLP 202 | 15 | 27 | 121 | 89 | 29 | 12 | 16 | 13 | 56 | 26 | 10 | M10 | UCW 202 | LP 203 | 0.49 |
| UCLP 203 | 17 | 27 | 121 | 89 | 29 | 12 | 16 | 13 | 56 | 26 | 10 | M10 | UCW 203 | LP 203 | 0.48 |
| UCLP 204 | 20 | 31.8 | 133 | 98 | 32 | 12 | 19 | 13 | 65 | 31 | 12.7 | M10 | UC 204 | LP 204 | 0.67 |
| UCLP 205 | 25 | 33.3 | 140 | 105 | 38 | 12 | 19 | 16 | 68 | 34.1 | 14.3 | M10 | UC 205 | LP 205 | 0.80 |
| UCLP 206 | 30 | 39.7 | 165 | 124 | 41 | 15 | 22 | 17 | 81 | 38.1 | 15.9 | M12 | UC 206 | LP 206 | 1.2 |
| UCLP 207 | 35 | 46 | 178 | 137 | 48 | 15 | 22 | 19 | 94 | 42.9 | 17.5 | M12 | UC 207 | LP 207 | 1.9 |
| UCLP 208 | 40 | 49.2 | 184 | 143 | 51 | 15 | 22 | 21 | 100 | 49.2 | 19 | M12 | UC 208 | LP 208 | 2.2 |
| UCLP 209 | 45 | 52.4 | 197 | 152 | 54 | 15 | 25 | 21 | 106 | 49.2 | 19 | M12 | UC 209 | LP 209 | 2.4 |
| UCLP 210 | 50 | 55.6 | 213 | 165 | 57 | 15 | 25 | 22 | 113 | 51.6 | 19 | M16 | UC 210 | LP 210 | 2.9 |
| UCLP 211 | 55 | 61.9 | 235 | 181 | 64 | 19 | 29 | 25 | 125 | 55.6 | 22.2 | M16 | UC 211 | LP 211 | 4.0 |
| UCLP 212 | 60 | 68.3 | 248 | 194 | 70 | 19 | 29 | 29 | 138 | 65.1 | 25.4 | M16 | UC 212 | LP 212 | 5.3 |
| UCLP 213 | 65 | 68.3 | 248 | 194 | 70 | 19 | 29 | 29 | 138 | 65.1 | 25.4 | M16 | UC 213 | LP 213 | 5.1 |

PILLOW BLOCKS

UCP X00 type

Medium Duty
Set-screw Locking

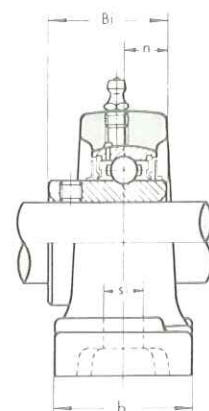
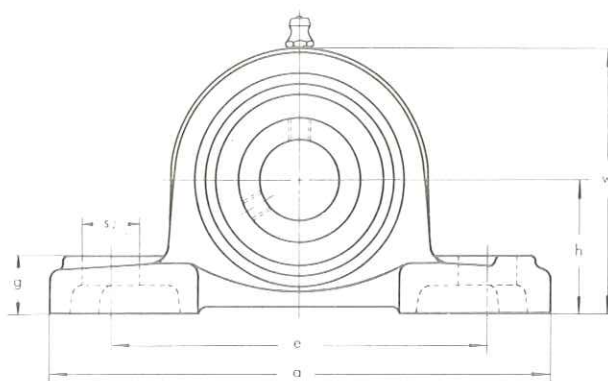


| Unit No. | Shaft Diam. mm | Dimensions mm | | | | | | | | | | Bolt Size mm | Bearing No. | Housing No. | Weight kg |
|----------|-------------------|---------------|-----|-----|-----|----------------|----------------|----|-----|-------|------|-----------------|-------------|-------------|-----------|
| | | h | a | e | b | s ₁ | s ₂ | g | w | Bi | n | | | | |
| UCP X05 | 25 | 44.4 | 159 | 119 | 51 | 17 | 25 | 18 | 85 | 38.1 | 15.9 | M14 | UC X05 | P X05 | 1.5 |
| UCP X06 | 30 | 47.6 | 175 | 127 | 57 | 17 | 25 | 20 | 94 | 42.9 | 17.5 | M14 | UC X06 | P X06 | 1.9 |
| UCP X07 | 35 | 54 | 203 | 144 | 57 | 17 | 30 | 22 | 105 | 49.2 | 19 | M14 | UC X07 | P X07 | 2.7 |
| UCP X08 | 40 | 58.7 | 222 | 156 | 67 | 20 | 32 | 26 | 113 | 49.2 | 19 | M16 | UC X08 | P X08 | 3.5 |
| UCP X09 | 45 | 58.7 | 222 | 156 | 67 | 20 | 33 | 26 | 116 | 51.6 | 19 | M16 | UC X09 | P X09 | 3.5 |
| UCP X10 | 50 | 63.5 | 241 | 171 | 73 | 20 | 36 | 27 | 126 | 55.6 | 22.2 | M16 | UC X10 | P X10 | 4.2 |
| UCP X11 | 55 | 69.8 | 260 | 184 | 79 | 25 | 36 | 30 | 139 | 65.1 | 25.4 | M20 | UC X11 | P X11 | 5.9 |
| UCP X12 | 60 | 76.2 | 286 | 203 | 83 | 25 | 41 | 32 | 151 | 65.1 | 25.4 | M20 | UC X12 | P X12 | 7.2 |
| UCP X13 | 65 | 76.2 | 286 | 203 | 83 | 25 | 41 | 32 | 154 | 74.6 | 30.2 | M20 | UC X13 | P X13 | 7.4 |
| UCP X14 | 70 | 88.9 | 330 | 229 | 89 | 27 | 51 | 35 | 172 | 77.8 | 33.3 | M22 | UC X14 | P X14 | 11.1 |
| UCP X15 | 75 | 88.9 | 330 | 229 | 89 | 27 | 51 | 35 | 177 | 82.6 | 33.3 | M22 | UC X15 | P X15 | 11.4 |
| UCP X16 | 80 | 101.6 | 381 | 283 | 102 | 27 | 59 | 42 | 197 | 85.7 | 34.1 | M22 | UC X16 | P X16 | 17.4 |
| UCP X17 | 85 | 101.6 | 381 | 283 | 102 | 27 | 59 | 42 | 202 | 96 | 39.7 | M22 | UC X17 | P X17 | 17.1 |
| UCP X18 | 90 | 101.6 | 381 | 283 | 111 | 27 | 60 | 45 | 206 | 104 | 42.9 | M22 | UC X18 | P X18 | 17.0 |
| UCP X20 | 100 | 127 | 432 | 337 | 121 | 33 | 64 | 52 | 250 | 117.5 | 49.2 | M27 | UC X20 | P X20 | 33.0 |

PILLOW BLOCKS

UCP 300 type

Heavy Duty
Set-screw Locking



| Unit No. | Shaft Diam. mm | Dimensions mm | | | | | | | | | | Bolt Size mm | Bearing No. | Housing No. | Weight kg |
|----------|-------------------|---------------|-----|-----|-----|----------------|----------------|----|-----|-----|----|-----------------|-------------|-------------|-----------|
| | | h | a | e | b | s ₁ | s ₂ | g | w | Bi | n | | | | |
| UCP 305 | 25 | 45 | 175 | 132 | 45 | 17 | 20 | 16 | 83 | 38 | 15 | M14 | UC 305 | P 305 | 1.6 |
| UCP 306 | 30 | 50 | 180 | 140 | 50 | 17 | 20 | 19 | 94 | 43 | 17 | M14 | UC 306 | P 306 | 1.9 |
| UCP 307 | 35 | 56 | 210 | 160 | 56 | 17 | 25 | 21 | 105 | 48 | 19 | M14 | UC 307 | P 307 | 2.7 |
| UCP 308 | 40 | 60 | 220 | 170 | 60 | 17 | 27 | 23 | 116 | 52 | 19 | M14 | UC 308 | P 308 | 3.3 |
| UCP 309 | 45 | 67 | 245 | 190 | 67 | 20 | 30 | 25 | 128 | 57 | 22 | M16 | UC 309 | P 309 | 4.5 |
| UCP 310 | 50 | 75 | 275 | 212 | 75 | 20 | 35 | 28 | 143 | 61 | 22 | M16 | UC 310 | P 310 | 6.2 |
| UCP 311 | 55 | 80 | 310 | 236 | 80 | 20 | 38 | 31 | 154 | 66 | 25 | M16 | UC 311 | P 311 | 7.7 |
| UCP 312 | 60 | 85 | 330 | 250 | 85 | 25 | 38 | 33 | 165 | 71 | 26 | M20 | UC 312 | P 312 | 9.3 |
| UCP 313 | 65 | 90 | 340 | 260 | 90 | 25 | 38 | 36 | 174 | 75 | 30 | M20 | UC 313 | P 313 | 9.8 |
| UCP 314 | 70 | 95 | 360 | 280 | 90 | 27 | 40 | 40 | 186 | 78 | 33 | M22 | UC 314 | P 314 | 11.4 |
| UCP 315 | 75 | 100 | 380 | 290 | 100 | 27 | 40 | 40 | 197 | 82 | 32 | M22 | UC 315 | P 315 | 13.6 |
| UCP 316 | 80 | 106 | 400 | 300 | 110 | 27 | 40 | 45 | 209 | 86 | 34 | M22 | UC 316 | P 316 | 16.4 |
| UCP 317 | 85 | 112 | 420 | 320 | 110 | 33 | 45 | 45 | 221 | 96 | 40 | M27 | UC 317 | P 317 | 18.6 |
| UCP 318 | 90 | 118 | 430 | 330 | 110 | 33 | 45 | 50 | 233 | 96 | 40 | M27 | UC 318 | P 318 | 20.9 |
| UCP 319 | 95 | 125 | 470 | 360 | 120 | 36 | 50 | 50 | 250 | 103 | 41 | M30 | UC 319 | P 319 | 26.5 |
| UCP 320 | 100 | 140 | 490 | 380 | 120 | 36 | 50 | 55 | 275 | 108 | 42 | M30 | UC 320 | P 320 | 34.3 |
| UCP 321 | 105 | 140 | 490 | 380 | 120 | 36 | 50 | 55 | 278 | 112 | 44 | M30 | UC 321 | P 321 | 36.6 |
| UCP 322 | 110 | 150 | 520 | 400 | 140 | 40 | 55 | 60 | 295 | 117 | 46 | M33 | UC 322 | P 322 | 42.5 |
| UCP 324 | 120 | 160 | 570 | 450 | 140 | 40 | 55 | 70 | 321 | 126 | 51 | M33 | UC 324 | P 324 | 53.5 |
| UCP 326 | 130 | 180 | 600 | 480 | 140 | 40 | 55 | 80 | 354 | 135 | 54 | M33 | UC 326 | P 326 | 72.1 |
| UCP 328 | 140 | 200 | 620 | 500 | 140 | 40 | 55 | 80 | 388 | 145 | 59 | M33 | UC 328 | P 328 | 89.1 |