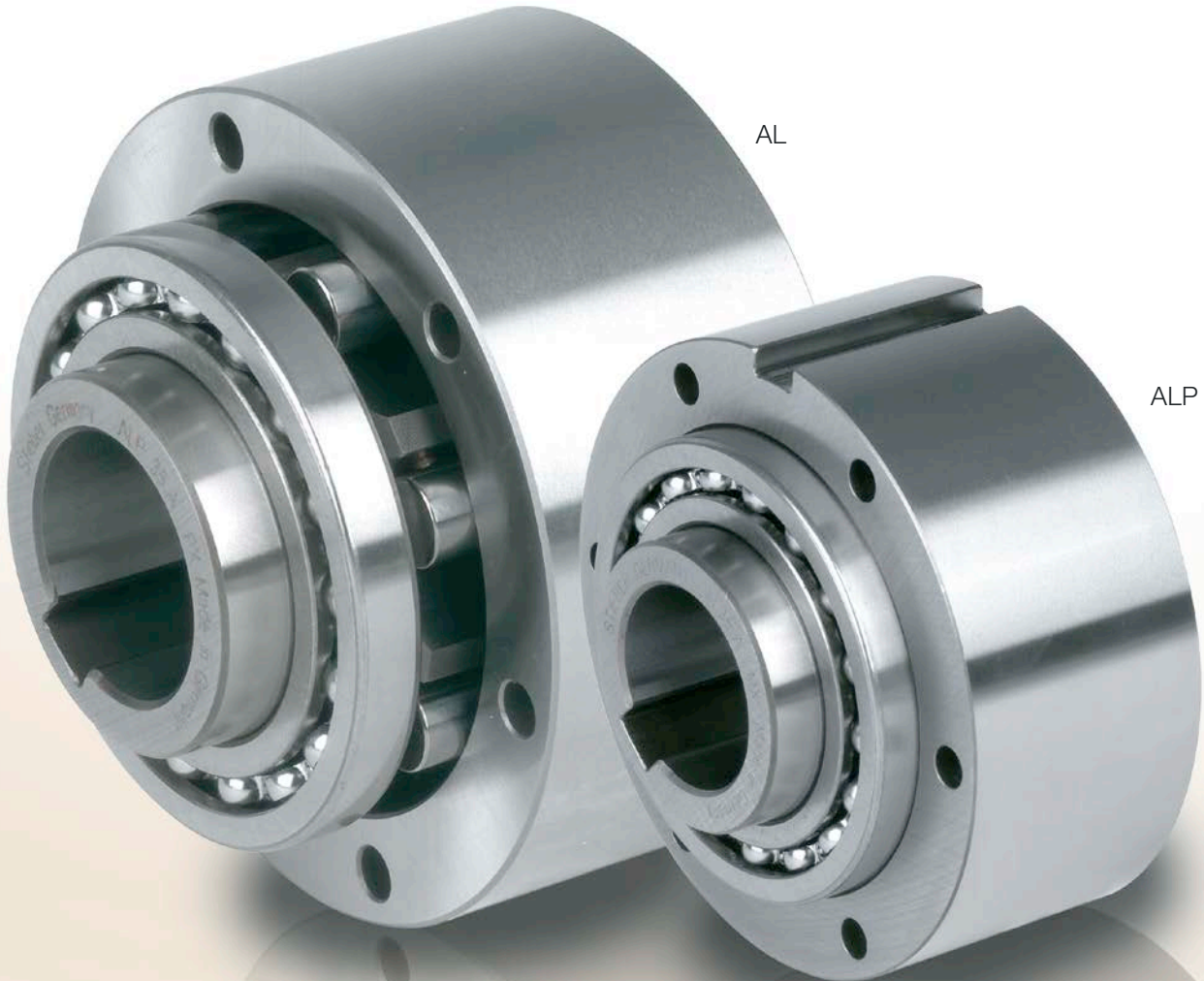


# Self-Contained Freewheels

# AL ALP



TYPE



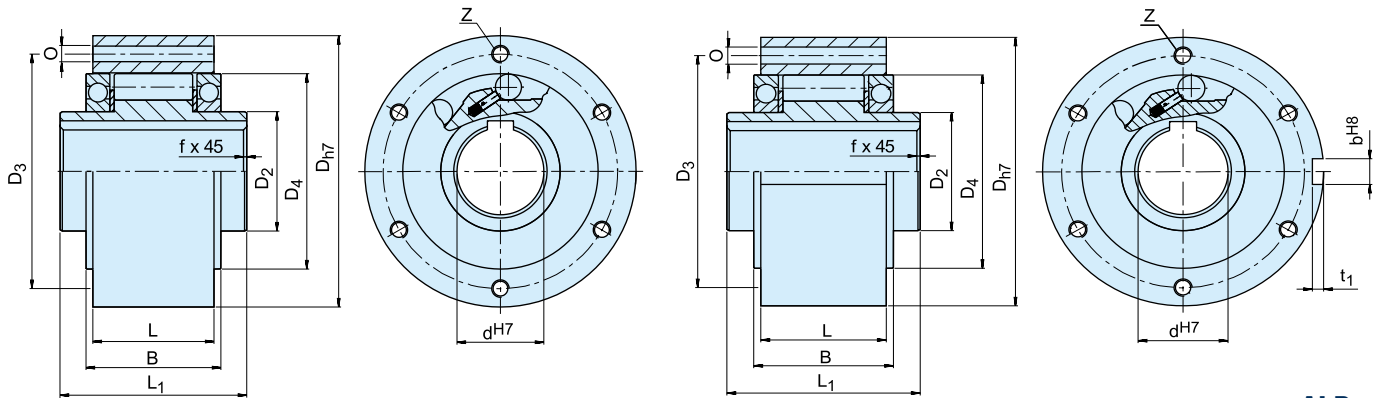
Types AL, ALP are roller type freewheels. These units are part of the Stieber modular system. They are bearing supported, using two 160.. series bearings, and require oil lubrication. These units may be used in designs providing oil lubrication and sealing as on the example overleaf.

The bearings must not be axially stressed. Typically, types AL, ALP are used with standard covers that are designed to transmit torque, and provide oil lubrication

and sealing. Usually these covers are used in pairs according to combinations shown on the following pages. The outer race of the AL model is plain to receive and center any component bored to H7 tolerance. Torque is transmitted by bolts through the cover plate in this case. Types AL, ALP are identical except that type ALP has a keyway on the outside diameter to transmit the torque. Two paper seals are delivered with each unit to be placed between the outer race and cover plates.

# Self-Contained Freewheels

AL, ALP



AL

ALP

| Type      | Size   | Overrunning speeds    |   |   |                  | Number        |               |               |     |     |               |                |             |               |                  | Weight | Drag torque |             |
|-----------|--------|-----------------------|---|---|------------------|---------------|---------------|---------------|-----|-----|---------------|----------------|-------------|---------------|------------------|--------|-------------|-------------|
|           |        | $T_{KN}^{1)}$<br>[Nm] | $n_{imax}^{2)}$<br>[min <sup>-1</sup> ] | $n_{amax}^{3)}$<br>[min <sup>-1</sup> ] | $D_{h7}$<br>[mm] | $D_2$<br>[mm] | $D_4$<br>[mm] | $D_3$<br>[mm] | $O$ | $z$ | $L_1$<br>[mm] | $L^4)$<br>[mm] | $B$<br>[mm] | $t_1$<br>[mm] | $b^{H8}$<br>[mm] |        |             | $f$<br>[mm] |
| AL<br>ALP | 12     | 55                    | 4000                                    | 7200                                    | 62               | 20            | 42            | 51            | 5,5 | 3   | 42            | 20,3           | 27          | 2,4           | 4                | 0,5    | 0,5         | 3,4         |
|           | 15     | 125                   | 3600                                    | 6500                                    | 68               | 25            | 47            | 56            | 5,5 | 3   | 52            | 30,3           | 34,1        | 2,9           | 5                | 0,8    | 0,8         | 4,1         |
|           | 20     | 181                   | 2700                                    | 5600                                    | 75               | 30            | 55            | 64            | 5,5 | 4   | 57            | 34,3           | 39,1        | 3,5           | 6                | 0,8    | 1,0         | 8           |
|           | 25     | 288                   | 2100                                    | 4500                                    | 90               | 40            | 68            | 78            | 5,5 | 6   | 60            | 37,3           | 42,1        | 4,1           | 8                | 1,0    | 1,5         | 14          |
|           | 30     | 500                   | 1700                                    | 4100                                    | 100              | 45            | 75            | 87            | 6,6 | 6   | 68            | 44,3           | 49,1        | 4,1           | 8                | 1,0    | 2,2         | 23          |
|           | 35     | 725                   | 1550                                    | 3800                                    | 110              | 50            | 80            | 96            | 6,6 | 6   | 74            | 48,3           | 54,1        | 4,7           | 10               | 1,0    | 3,0         | 60          |
|           | 40     | 1025                  | 1150                                    | 3400                                    | 125              | 55            | 90            | 108           | 9   | 6   | 86            | 56,3           | 62,1        | 4,9           | 12               | 1,5    | 4,6         | 72          |
|           | 45     | 1125                  | 1000                                    | 3200                                    | 130              | 60            | 95            | 112           | 9   | 8   | 86            | 56,3           | 62,1        | 5,5           | 14               | 1,5    | 4,7         | 140         |
|           | 50     | 2125                  | 800                                     | 2800                                    | 150              | 70            | 110           | 132           | 9   | 8   | 92            | 63,3           | 69,1        | 5,5           | 14               | 1,5    | 7,2         | 180         |
|           | 55     | 2625                  | 750                                     | 2650                                    | 160              | 75            | 115           | 138           | 11  | 8   | 104           | 67             | 73,1        | 6,2           | 16               | 2,0    | 8,6         | 190         |
|           | 60     | 3500                  | 650                                     | 2450                                    | 170              | 80            | 125           | 150           | 11  | 10  | 114           | 78             | 84          | 6,8           | 18               | 2,0    | 10,5        | 240         |
|           | 70     | 5750                  | 550                                     | 2150                                    | 190              | 90            | 140           | 165           | 11  | 10  | 134           | 95             | 103         | 7,4           | 20               | 2,5    | 13,5        | 320         |
|           | 80     | 8500                  | 500                                     | 1900                                    | 210              | 105           | 160           | 185           | 11  | 10  | 144           | 100            | 108         | 8,5           | 22               | 2,5    | 18,2        | 330         |
|           | 90     | 14500                 | 450                                     | 1700                                    | 230              | 120           | 180           | 206           | 14  | 10  | 158           | 115            | 125         | 8,7           | 25               | 3,0    | 28,5        | 650         |
|           | 100    | 20000                 | 350                                     | 1450                                    | 270              | 140           | 210           | 240           | 18  | 10  | 182           | 120            | 131         | 9,9           | 28               | 3,0    | 42,5        | 830         |
|           | 120    | 31250                 | 250                                     | 1250                                    | 310              | 160           | 240           | 278           | 18  | 12  | 202           | 140            | 152         | 11,1          | 32               | 3,0    | 65,0        | 1080        |
| 150       | 70000  | 200                   | 980                                     | 400                                     | 200              | 310           | 360           | 22            | 12  | 246 | 180           | 196            | 12,3        | 36            | 4,0              | 138,0  | 1240        |             |
| 200       | 175000 | 150                   | 750                                     | 520                                     | 260              | 400           | 460           | 26            | 18  | 326 | 240           | 265            | 15          | 45            | 5,0              | 315,0  | 3800        |             |
| 250       | 287500 | 120                   | 620                                     | 610                                     | 320              | 480           | 545           | 33            | 20  | 396 | 300           | 330            | 15          | 45            | 5,0              | 512,0  | 6100        |             |
| ALM       | 25     | 388                   | 2100                                    | 2800                                    | 90               | 40            | 68            | 78            | 5,5 | 6   | 60            | 37,3           | 42,1        | 4,1           | 8                | 1,0    | 1,7         | 22          |
|           | 30     | 588                   | 1700                                    | 2500                                    | 100              | 45            | 75            | 87            | 6,6 | 6   | 68            | 44,3           | 49,1        | 4,1           | 8                | 1,0    | 2,5         | 37          |
|           | 35     | 838                   | 1550                                    | 2400                                    | 110              | 50            | 80            | 96            | 6,6 | 6   | 74            | 48,3           | 54,1        | 4,7           | 10               | 1,0    | 3,2         | 66          |

## NOTES

- $T_{max} = 2 \times T_{KN}$   
» Refer to Selection page 7 to 11
- Inner race overruns, values without lip seals
- Outer race overruns  
Keyway to DIN 6885.1
- The dimension L includes up to size 50 the each 0.25 mm thick paper seals to be located on both faces  
» Refer to mounting and maintenance instructions page 12 to 13

## MOUNTING EXAMPLE

