

## Compare table MPR

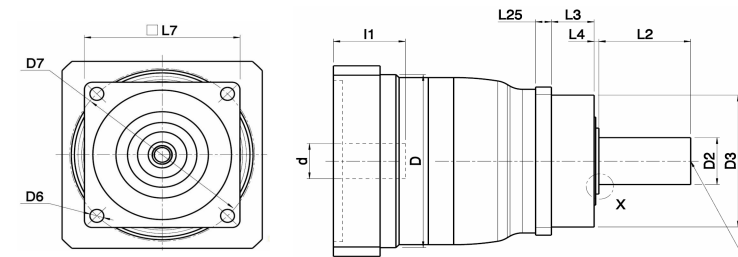
### TECHNICAL INFORMATION

| Manu-<br>facturer | Type           | Gear teeth   | Stages | Gear ratio<br>range | Max.<br>backlash<br>standard /<br>reduced * | max.<br>nominal<br>torque on<br>output | Max.<br>acceleration<br>torque output<br>** | Max. radial load (with<br>reference to shaft<br>centre on output shaft) | Max. axial load (with<br>reference to shaft<br>centre on output shaft) | Connection between<br>motor and gearbox | Lock of the clamping<br>screw - bore |
|-------------------|----------------|--------------|--------|---------------------|---|--|---|---|--|---|--------------------------------------|
|                   |                |              |        | <b>i</b>            | <b>j</b>                                    | <b>T<sub>2Nzul</sub></b>               | <b>T<sub>2bzul</sub></b>                    | <b>F<sub>2rzul</sub></b>  | <b>F<sub>2azul</sub></b>   |   |                                      |
| {-}               | {-}            | {-}          | {-}    | {-}                 | {arcmin}                                    | {Nm}                                   | {Nm}  | {N}   | {N}  | {-}                                     | {-}                                  |
| <b>Vogel</b>      | <b>MPR 050</b> | helical gear | 1-st.  | 3,0 - 10,0          | ≤4 / ≤2                                     | 19 - 29                                | 32 - 44                                     | 2700  | 2400   | 1 clamping<br>screw                     | screw plug                           |
|                   |                |              | 2-st.  | 12,0 - 100,0        | ≤6 / ≤4                                     |  |   |   |  |   |                                      |
| <b>Vogel</b>      | <b>MPR 00</b>  | spur gear    | 1-st.  | 3,0 - 10,0          | ≤6 / ≤3                                     | 15 - 25                                | 32 - 40                                     | 2600  | 2300   | 2 clamping<br>screw                     | plastic cap                          |
|                   |                |              | 2-st.  | 12,0 - 100,0        | ≤8 / ≤5                                     |  |   |   |  |   |                                      |
| <b>Vogel</b>      | <b>MPR 100</b> | helical gear | 1-st.  | 3,0 - 10,0          | ≤4 / ≤2                                     | 56 - 83                                | 90 - 120                                    | 4000  | 3350   | 1 clamping<br>screw                     | screw plug                           |
|                   |                |              | 2-st.  | 12,0 - 100,0        | ≤6 / ≤4                                     |  |   |   |  |   |                                      |
| <b>Vogel</b>      | <b>MPR 01</b>  | spur gear    | 1-st.  | 3,0 - 10,0          | ≤6 / ≤3                                     | 45 - 70                                | 80 - 100                                    | 3800  | 3200   | 2 clamping<br>screw                     | plastic cap                          |
|                   |                |              | 2-st.  | 12,0 - 100,0        | ≤8 / ≤5                                     |  |   |   |  |   |                                      |
| <b>Vogel</b>      | <b>MPR 200</b> | helical gear | 1-st.  | 3,0 - 10,0          | ≤3 / ≤1                                     | 135 - 200                              | 230 - 330                                   | 6300  | 5650   | 1 clamping<br>screw                     | screw plug                           |
|                   |                |              | 2-st.  | 12,0 - 100,0        | ≤5 / ≤3                                     |  |   |   |  |   |                                      |
| <b>Vogel</b>      | <b>MPR 02</b>  | spur gear    | 1-st.  | 3,0 - 10,0          | ≤6 / ≤3                                     | 110 - 170                              | 200 - 250                                   | 6000  | 5400   | 2 clamping<br>screw                     | plastic cap                          |
|                   |                |              | 2-st.  | 12,0 - 100,0        | ≤8 / ≤5                                     |  |   |   |  |   |                                      |
| <b>Vogel</b>      | <b>MPR 300</b> | helical gear | 1-st.  | 3,0 - 10,0          | ≤3 / ≤1                                     | 245 - 390                              | 400 - 660                                   | 9450  | 9870   | 1 clamping<br>screw                     | screw plug                           |
|                   |                |              | 2-st.  | 12,0 - 100,0        | ≤5 / ≤3                                     |  |   |   |  |   |                                      |
| <b>Vogel</b>      | <b>MPR 03</b>  | spur gear    | 1-st.  | 3,0 - 10,0          | ≤6 / ≤3                                     | 220 - 360                              | 400 - 500                                   | 9000  | 9400   | 2 clamping<br>screw                     | plastic cap                          |
|                   |                |              | 2-st.  | 12,0 - 100,0        | ≤8 / ≤5                                     |  |   |   |  |   |                                      |

\* measured with 2% nominal torque on output shaft

\*\* (max. 1000 cycles per hour)

### DIMENSIONS



| <b>D</b> | <b>D3</b> | <b>D6</b> | <b>D7</b> | <b>L3</b> | <b>L4</b> | <b>L7</b> | <b>L25</b> | <b>D2 x L2</b> | <b>D10</b> | <b>Z</b> |
|----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|----------------|------------|----------|
| {mm}     | {mm}      | {mm}      | {mm}      | {mm}      | {mm}      | {mm}      | {mm}       | {mm}           | {mm}       | {mm}     |
| g6       |           |           |           |           |           |           |            | k6             |            | DIN 332  |

|    |    |     |    |    |   |    |   |         |    |      |
|----|----|-----|----|----|---|----|---|---------|----|------|
| 72 | 60 | 5,5 | 68 | 18 | 2 | 62 | 6 | 16 x 28 | 22 | D M5 |
| 70 | 60 | 5,5 | 68 | 18 | 2 | 70 | 6 | 16 x 28 | -  | D M5 |

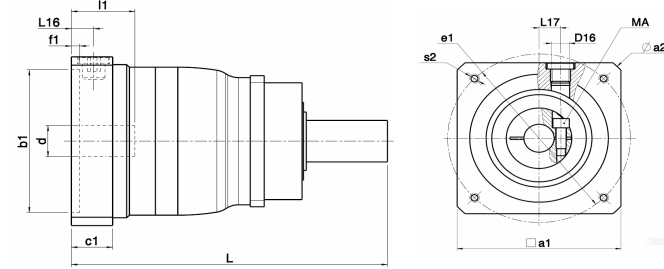
|    |    |     |    |      |     |    |   |         |    |      |
|----|----|-----|----|------|-----|----|---|---------|----|------|
| 94 | 70 | 6,6 | 85 | 17,5 | 2,5 | 76 | 7 | 22 x 36 | 27 | D M8 |
| 90 | 70 | 6,6 | 85 | 18   | 2   | 90 | 8 | 22 x 36 | -  | D M8 |

|     |    |   |     |    |   |     |    |         |    |       |
|-----|----|---|-----|----|---|-----|----|---------|----|-------|
| 120 | 90 | 9 | 120 | 27 | 3 | 101 | 10 | 32 x 58 | 42 | D M12 |
| 120 | 90 | 9 | 120 | 28 | 2 | 120 | 10 | 32 x 58 | -  | D M12 |

|     |     |    |     |    |   |     |    |         |    |       |
|-----|-----|----|-----|----|---|-----|----|---------|----|-------|
| 154 | 130 | 11 | 165 | 27 | 3 | 141 | 12 | 40 x 82 | 61 | D M16 |
| 155 | 130 | 11 | 165 | 28 | 2 | 155 | 12 | 40 x 82 | -  | D M16 |

## Compare table MPR

### DIMENSIONS 1-STAGE



### DIMENSIONS 2-STAGE

| DIMENSIONS 1-STAGE |        |          |       |      |         |      |      |            |            |     | DIMENSIONS 2-STAGE |         |       |      |         |      |      |         |            |      |  |  |
|--------------------|--------|----------|-------|------|---------|------|------|------------|------------|-----|--------------------|---------|-------|------|---------|------|------|---------|------------|------|--|--|
| i                  | d x l1 | L        | L16   | L17  | c1      | f1   | D16  | Screw type | MA         |     | i                  | d x l1  | L     | L16  | L17     | c1   | f1   | D16     | Screw type | MA   |  |  |
| [-]                | [mm]   | [mm]     | [mm]  | [mm] | [mm]    | [mm] | [mm] |            | [Nm]       |     | [-]                | [mm]    | [mm]  | [mm] | [mm]    | [mm] | [mm] | [mm]    |            | [Nm] |  |  |
| F7                 |        |          |       |      |         |      |      |            |            |     | F7                 |         |       |      |         |      |      |         |            |      |  |  |
| MPR 050            | 3 - 10 | 11 x 23  | 137   | 10,5 | 10      | 18,5 | 4,5  | M10x1      | M5 / 12.9  | 9   | 12 - 100           | 11 x 23 | 165,5 | 10,5 | 10      | 18,5 | 4,5  | M10x1   | M5 / 12.9  | 9    |  |  |
|                    |        | 14 x 30  | 137   | 10,5 | 10 - 12 | 18,5 | 4,5  | M10x1      | M5 / 12.9  | 9   |                    | 14 x 30 | 165,5 | 10,5 | 10 - 12 | 18,5 | 4,5  | M10x1   | M5 / 12.9  | 9    |  |  |
|                    |        | 19 x 40  | 146   | 10,5 | 12 - 16 | 18,5 | 4,5  | M10x1      | M6 / 12.9  | 16  |                    |         |       |      |         |      |      |         |            |      |  |  |
| MPR 00             | 3 - 10 | 9 x 20   | 130   | 9,5  | 10      | 16   | 4,5  | 8,5        | M5 / 8.8   | 5   | 12 - 100           | 9 x 20  | 152   | 9,5  | 10      | 16   | 4,5  | 8,5     | M5 / 8.8   | 5    |  |  |
|                    |        | 11 x 23  | 130   | 9,5  | 10      | 16   | 4,5  | 8,5        | M5 / 8.8   | 5   |                    | 11 x 23 | 152   | 9,5  | 10      | 16   | 4,5  | 8,5     | M5 / 8.8   | 5    |  |  |
|                    |        | 14 x 30  | 130   | 9,5  | 10      | 16   | 4,5  | 8,5        | M5 / 8.8   | 5   |                    | 14 x 30 | 152   | 9,5  | 10      | 16   | 4,5  | 8,5     | M5 / 8.8   | 5    |  |  |
|                    |        | 16 x 40  | 150   | 30   | 11      | 36   | 4,5  | 8,5        | M5 / 12.9  | 9   |                    | 16 x 40 | 172   | 30   | 11      | 36   | 4,5  | 8,5     | M5 / 12.9  | 9    |  |  |
| MPR 100            | 3 - 10 | 11 x 23  | 168,5 | 13,5 | 10      | 24,5 | 4,5  | M12x1,5    | M5 / 12.9  | 9   | 12 - 100           | 11 x 23 | 188,5 | 10,5 | 10      | 18,5 | 4,5  | M10x1   | M5 / 12.9  | 9    |  |  |
|                    |        | 14 x 30  | 168,5 | 13,5 | 10 - 12 | 24,5 | 4,5  | M12x1,5    | M5 / 12.9  | 9   |                    | 14 x 30 | 188,5 | 10,5 | 10 - 12 | 18,5 | 4,5  | M10x1   | M5 / 12.9  | 9    |  |  |
|                    |        | 19 x 40  | 168,5 | 13,5 | 12 - 16 | 24,5 | 4,5  | M12x1,5    | M6 / 12.9  | 16  |                    |         |       |      |         |      |      |         |            |      |  |  |
|                    |        | 24 x 50  | 178,5 | 13,5 | 16 - 21 | 24,5 | 4,5  | M12x1,5    | M8 / 12.9  | 40  |                    |         |       |      |         |      |      |         |            |      |  |  |
| MPR 01             | 3-10   | 9 x 20   | 158   | 13   | 13      | 22   | 5    | 10         | M5 / 8.8   | 5   | 12 - 100           | 9 x 20  | 170   | 9,5  | 10      | 16   | 4,5  | 8,5     | M5 / 8.8   | 5    |  |  |
|                    |        | 11 x 23  | 158   | 13   | 13      | 22   | 5    | 10         | M5 / 12.9  | 9   |                    | 11 x 23 | 170   | 9,5  | 10      | 16   | 4,5  | 8,5     | M5 / 8.8   | 5    |  |  |
|                    |        | 14 x 30  | 158   | 13   | 13      | 22   | 5    | 10         | M5 / 12.9  | 9   |                    | 14 x 30 | 170   | 9,5  | 10      | 16   | 4,5  | 8,5     | M5 / 8.8   | 5    |  |  |
|                    |        | 19 x 40  | 158   | 13   | 13      | 22   | 5    | 10         | M5 / 12.9  | 9   |                    | 19 x 40 | 185   | 13   | 13      | 22   | 5    | 10      | M5 / 12.9  | 9    |  |  |
|                    |        | 24 x 50  | 168   | 23   | 15      | 32   | 5    | 10         | M5 / 12.9  | 9   |                    | 24 x 50 | 195   | 23   | 15      | 32   | 5    | 10      | M8 / 12.9  | 40   |  |  |
| MPR 200            | 3-10   | 19 x 40  | 225,8 | 16,0 | 12 - 16 | 29,5 | 6    | M16x1,5    | M6 / 12.9  | 16  | 12 - 100           | 11 x 23 | 239,8 | 13,5 | 10      | 24,5 | 4,5  | M12x1,5 | M5 / 12.9  | 9    |  |  |
|                    |        | 24 x 50  | 225,8 | 16,0 | 16 - 21 | 29,5 | 6    | M16x1,5    | M8 / 12.9  | 40  |                    | 14 x 30 | 239,8 | 13,5 | 10 - 12 | 24,5 | 4,5  | M12x1,5 | M5 / 12.9  | 9    |  |  |
|                    |        | 28 x 60  | 225,8 | 16,0 | 21 - 24 | 29,5 | 6    | M16x1,5    | M10 / 12.9 | 80  |                    | 19 x 40 | 239,8 | 13,5 | 12 - 16 | 24,5 | 4,5  | M12x1,5 | M6 / 12.9  | 16   |  |  |
|                    |        | 32 x 60  | 225,8 | 16,0 | 21 - 24 | 29,5 | 6    | M16x1,5    | M10 / 12.9 | 80  |                    |         |       |      |         |      |      |         |            |      |  |  |
|                    |        | 38 x 80  | 250,8 | 16,0 | 24 - 26 | 29,5 | 6    | M16x1,5    | M10 / 12.9 | 80  |                    |         |       |      |         |      |      |         |            |      |  |  |
| MPR 02             | 3-10   | 14 x 30  | 207   | 15   | 17      | 25   | 6    | 14         | M6 / 12.9  | 16  | 12 - 100           | 9 x 20  | 224   | 13   | 12,5    | 22   | 5    | 10      | M5 / 8.8   | 5    |  |  |
|                    |        | 19 x 40  | 207   | 15   | 17      | 25   | 6    | 14         | M6 / 12.9  | 16  |                    | 11 x 23 | 224   | 13   | 12,5    | 22   | 5    | 10      | M5 / 12.9  | 9    |  |  |
|                    |        | 24 x 50  | 207   | 15   | 17      | 25   | 6    | 14         | M8 / 12.9  | 40  |                    | 14 x 30 | 224   | 13   | 12,5    | 22   | 5    | 10      | M5 / 12.9  | 9    |  |  |
|                    |        | 28 x 60  | 217   | 25   | 19      | 35   | 6    | 14         | M8 / 12.9  | 40  |                    | 19 x 40 | 224   | 13   | 12,5    | 22   | 5    | 10      | M5 / 12.9  | 9    |  |  |
|                    |        | 32 x 60  | 217   | 25   | 19      | 35   | 6    | 14         | M8 / 12.9  | 40  |                    | 24 x 50 | 240   | 15   | 17      | 25   | 5    | 14      | M8 / 12.9  | 40   |  |  |
| MPR 300            | 3-10   | 24 x 50  | 295,5 | 20,5 | 16 - 21 | 36,5 | 6    | M20x1,5    | M8 / 12.9  | 40  | 12 - 100           | 19 x 40 | 314,0 | 16,0 | 12 - 16 | 29,5 | 6,0  | M16x1,5 | M6 / 12.9  | 16   |  |  |
|                    |        | 28 x 60  | 295,5 | 20,5 | 21 - 24 | 36,5 | 6    | M20x1,5    | M10 / 12.9 | 80  |                    | 24 x 50 | 314,0 | 16,0 | 16 - 21 | 29,5 | 6,0  | M16x1,5 | M8 / 12.9  | 40   |  |  |
|                    |        | 32 x 60  | 295,5 | 20,5 | 21 - 24 | 36,5 | 6    | M20x1,5    | M10 / 12.9 | 80  |                    | 28 x 60 | 314,0 | 16,0 | 21 - 24 | 29,5 | 6,0  | M16x1,5 | M10 / 12.9 | 80   |  |  |
|                    |        | 38 x 80  | 295,5 | 20,5 | 24 - 26 | 36,5 | 6    | M20x1,5    | M10 / 12.9 | 80  |                    | 32 x 60 | 314,0 | 16,0 | 16 - 24 | 29,5 | 6,0  | M16x1,5 | M10 / 12.9 | 80   |  |  |
|                    |        | 42 x 110 | 329,5 | 20,5 | 26      | 36,5 | 6    | M20x1,5    | M12 / 12.9 | 135 |                    |         |       |      |         |      |      |         |            |      |  |  |
| MPR 03             | 3-10   | 19 x 40  | 262   | 18   | 24      | 30   | 6    | 17,5       | M6 / 12.9  | 16  | 12 - 100           | 14 x 30 | 285,5 | 15   | 17      | 25   | 5    | 14      | M6 / 12.9  | 16   |  |  |
|                    |        | 24 x 50  | 262   | 18   | 24      | 30   | 6    | 17,5       | M8 / 12.9  | 40  |                    | 19 x 40 | 285,5 | 15   | 17      | 25   | 5    | 14      | M6 / 12.9  | 16   |  |  |
|                    |        | 28 x 60  | 262   | 18   | 24      | 30   | 6    | 17,5       | M10 / 12.9 | 80  |                    | 24 x 50 | 285,5 | 15   | 17      | 25   | 5    | 14      | M8 / 12.9  | 40   |  |  |
|                    |        | 32 x 60  | 262   | 18   | 24      | 30   | 6    | 17,5       | M10 / 12.9 | 80  |                    | 28 x 60 | 303   | 18   | 19      | 30   | 6    | 17,5    | M8 / 12.9  | 40   |  |  |
|                    |        | 38 x 80  | 282   | 38   | 24      | 50   | 6    | 17,5       | M10 / 12.9 | 80  |                    | 32 x 60 | 303   | 18   | 19      | 30   | 6    | 17,5    | M8 / 12.9  | 40   |  |  |
|                    |        |          |       |      |         |      |      |            |            |     | 38 x 80            |         |       |      |         |      |      |         |            |      |  |  |
|                    |        |          |       |      |         |      |      |            |            |     | 323                |         |       |      |         |      |      |         |            |      |  |  |