



MATERIAL

Glass-fibre reinforced polyamide-based (PA) technopolymer, grey colour.

STANDARD EXECUTIONS

- **ZCL-0.5**: module 0.5, non-drilled hub (for number of teeth  $Z \leq 50$ ) or pre-drilled pass-through hole (for number of teeth  $Z \geq 55$ ).
- **ZCL-1.0**: module 1.0, non-drilled hub (for number of teeth  $Z = 10$ ) or pre-drilled pass-through hole.
- **ZCL-1.5**: module 1.5, pre-drilled pass-through hole
- **ZCL-2.0**: module 2.0, pre-drilled pass-through hole
- **ZCL-2.5**: module 2.5, pre-drilled pass-through hole.
- **ZCL-3.0**: module 3.0, pre-drilled pass-through hole.
- **ZCL-1.0-K**: module 1.0, drilled hub with keyway UNI 6604 (see page A-16), D10 tolerance.
- **ZCL-1.5-K**: module 1.5, drilled hub with keyway UNI 6604 (see page A-16), D10 tolerance.
- **ZCL-2.0-K**: module 2.0, drilled hub with keyway UNI 6604 (see page A-16), D10 tolerance.
- **ZCL-2.5-K**: module 2.5, drilled hub with keyway UNI 6604 (see page A-16), D10 tolerance.
- **ZCL-3.0-K**: module 3.0, drilled hub with keyway UNI 6604 (see page A-16), D10 tolerance.

For operations with the pre-drilled pass-through hole, in the table the size "d" of the hole represents the minimum diameter of the hole that can be obtained through machining.

For the -K versions, the keyway machining does not necessarily result in phasing with the gearing.

FEATURES

The torques indicated in the tables are granted with rpm included between 0 and 150. Torque values can vary depending on lubrication, temperature, pairing with different materials and continuous operating hours.

Maximum tolerance on plain pass-through hole: IT 9.

TECHNICAL DATA

See: Transmission elements (on page -).



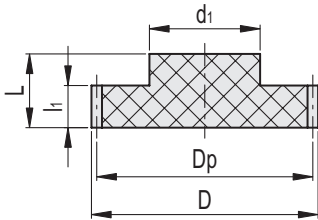
SPECIAL EXECUTIONS ON REQUEST

- Assembly by means of a transversal grub screw.
- Various non-standard gears with hub with keyway according to UNI 6604 tolerance D10.

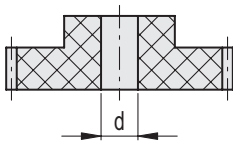
MOUNTING

To pair two spur gears, a positive backlash must be considered. For modules 0.5 - 1.0 - 1.5 is recommended the tolerance (+0.03 +0.1). For modules 2.0 - 2.5 - 3.0 is recommended the tolerance (+0.08 +0.3).

ZCL-0.5 (  $Z \leq 50$  )



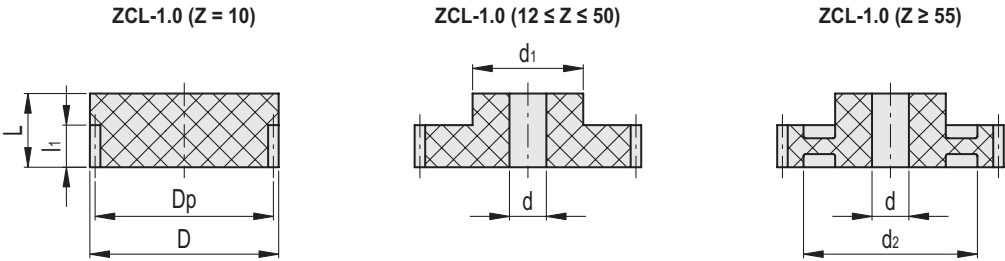
ZCL-0.5 (  $Z \geq 55$  )



ZCL-0.5

| Code   | Description | Module M | No. of teeth Z | Dp*  | D    | L  | d | d1 | l1 | Max. torque [Nm] | ⚖  |
|--------|-------------|----------|----------------|------|------|----|---|----|----|------------------|----|
| 550011 | ZCL-0.5-24  | 0.5      | 24             | 12   | 13   | 16 | - | 10 | 8  | 0.8              | 2  |
| 550013 | ZCL-0.5-25  | 0.5      | 25             | 12.5 | 13.5 | 16 | - | 10 | 8  | 0.8              | 2  |
| 550015 | ZCL-0.5-30  | 0.5      | 30             | 15   | 16   | 16 | - | 10 | 8  | 1.0              | 3  |
| 550017 | ZCL-0.5-32  | 0.5      | 32             | 16   | 17   | 16 | - | 10 | 8  | 1.0              | 3  |
| 550019 | ZCL-0.5-36  | 0.5      | 36             | 18   | 19   | 16 | - | 10 | 8  | 1.2              | 4  |
| 550021 | ZCL-0.5-40  | 0.5      | 40             | 20   | 21   | 16 | - | 10 | 8  | 1.3              | 4  |
| 550023 | ZCL-0.5-45  | 0.5      | 45             | 22.5 | 23.5 | 16 | - | 10 | 8  | 1.5              | 5  |
| 550025 | ZCL-0.5-48  | 0.5      | 48             | 24   | 25   | 16 | - | 10 | 8  | 1.6              | 6  |
| 550027 | ZCL-0.5-50  | 0.5      | 50             | 25   | 26   | 16 | - | 10 | 8  | 1.6              | 6  |
| 550029 | ZCL-0.5-55  | 0.5      | 55             | 27.5 | 28.5 | 16 | 4 | 20 | 8  | 1.8              | 8  |
| 550031 | ZCL-0.5-60  | 0.5      | 60             | 30   | 31   | 16 | 4 | 20 | 8  | 2.0              | 11 |
| 550033 | ZCL-0.5-70  | 0.5      | 70             | 35   | 36   | 16 | 4 | 20 | 8  | 2.3              | 13 |
| 550035 | ZCL-0.5-80  | 0.5      | 80             | 40   | 41   | 16 | 4 | 20 | 8  | 2.6              | 17 |

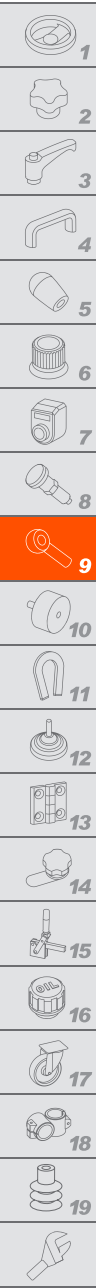
\* Pitch diameter.



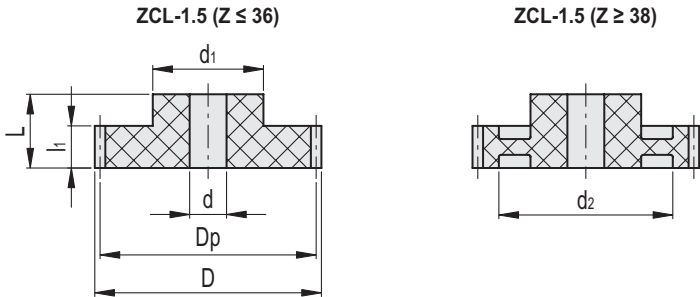
ZCL-1.0

| Code   | Description | Module M | No. of teeth Z | Dp* | D  | L  | d  | d1 | d2 | l1 | Max. torque [Nm] | ⚖  |
|--------|-------------|----------|----------------|-----|----|----|----|----|----|----|------------------|----|
| 550101 | ZCL-1.0-10  | 1.0      | 10             | 10  | 12 | 25 | -  | -  | -  | 15 | 2.5              | 2  |
| 550103 | ZCL-1.0-12  | 1.0      | 12             | 12  | 14 | 25 | 4  | 9  | -  | 15 | 2.9              | 3  |
| 550107 | ZCL-1.0-14  | 1.0      | 14             | 14  | 16 | 25 | 4  | 10 | -  | 15 | 3.4              | 4  |
| 550109 | ZCL-1.0-15  | 1.0      | 15             | 15  | 17 | 25 | 4  | 10 | -  | 15 | 3.7              | 4  |
| 550111 | ZCL-1.0-16  | 1.0      | 16             | 16  | 18 | 25 | 5  | 13 | -  | 15 | 3.9              | 5  |
| 550115 | ZCL-1.0-18  | 1.0      | 18             | 18  | 20 | 25 | 5  | 14 | -  | 15 | 4.4              | 6  |
| 550119 | ZCL-1.0-20  | 1.0      | 20             | 20  | 22 | 25 | 5  | 16 | -  | 15 | 4.9              | 8  |
| 550121 | ZCL-1.0-21  | 1.0      | 21             | 21  | 23 | 25 | 5  | 16 | -  | 15 | 5.2              | 9  |
| 550123 | ZCL-1.0-22  | 1.0      | 22             | 22  | 24 | 25 | 5  | 18 | -  | 15 | 5.4              | 9  |
| 550127 | ZCL-1.0-24  | 1.0      | 24             | 24  | 26 | 25 | 6  | 20 | -  | 15 | 5.9              | 12 |
| 550129 | ZCL-1.0-25  | 1.0      | 25             | 25  | 27 | 25 | 6  | 20 | -  | 15 | 6.1              | 12 |
| 550131 | ZCL-1.0-26  | 1.0      | 26             | 26  | 28 | 25 | 6  | 22 | -  | 15 | 6.4              | 13 |
| 550133 | ZCL-1.0-27  | 1.0      | 27             | 27  | 29 | 25 | 6  | 22 | -  | 15 | 6.6              | 15 |
| 550135 | ZCL-1.0-28  | 1.0      | 28             | 28  | 30 | 25 | 6  | 22 | -  | 15 | 6.9              | 15 |
| 550139 | ZCL-1.0-30  | 1.0      | 30             | 30  | 32 | 25 | 6  | 25 | -  | 15 | 7.4              | 18 |
| 550143 | ZCL-1.0-32  | 1.0      | 32             | 32  | 34 | 25 | 6  | 25 | -  | 15 | 7.9              | 19 |
| 550145 | ZCL-1.0-33  | 1.0      | 33             | 33  | 35 | 25 | 6  | 25 | -  | 15 | 8.1              | 20 |
| 550147 | ZCL-1.0-34  | 1.0      | 34             | 34  | 36 | 25 | 8  | 30 | -  | 15 | 8.4              | 24 |
| 550149 | ZCL-1.0-35  | 1.0      | 35             | 35  | 37 | 25 | 8  | 30 | -  | 15 | 8.6              | 24 |
| 550151 | ZCL-1.0-36  | 1.0      | 36             | 36  | 38 | 25 | 8  | 30 | -  | 15 | 8.8              | 28 |
| 550155 | ZCL-1.0-38  | 1.0      | 38             | 38  | 40 | 25 | 8  | 30 | -  | 15 | 9.3              | 28 |
| 550157 | ZCL-1.0-39  | 1.0      | 39             | 39  | 41 | 25 | 8  | 30 | -  | 15 | 9.6              | 28 |
| 550159 | ZCL-1.0-40  | 1.0      | 40             | 40  | 42 | 25 | 8  | 30 | -  | 15 | 9.8              | 29 |
| 550163 | ZCL-1.0-42  | 1.0      | 42             | 42  | 44 | 25 | 10 | 35 | -  | 15 | 10.3             | 35 |
| 550167 | ZCL-1.0-44  | 1.0      | 44             | 44  | 46 | 25 | 10 | 35 | -  | 15 | 10.8             | 36 |
| 550169 | ZCL-1.0-45  | 1.0      | 45             | 45  | 47 | 25 | 10 | 35 | -  | 15 | 11.1             | 37 |
| 550173 | ZCL-1.0-48  | 1.0      | 48             | 48  | 50 | 25 | 10 | 35 | -  | 15 | 11.8             | 42 |
| 550177 | ZCL-1.0-50  | 1.0      | 50             | 50  | 52 | 25 | 10 | 35 | -  | 15 | 12.3             | 45 |
| 550183 | ZCL-1.0-55  | 1.0      | 55             | 55  | 57 | 25 | 14 | 35 | 44 | 15 | 13.5             | 45 |
| 550187 | ZCL-1.0-58  | 1.0      | 58             | 58  | 60 | 25 | 14 | 35 | 44 | 15 | 14.3             | 49 |
| 550189 | ZCL-1.0-60  | 1.0      | 60             | 60  | 62 | 25 | 14 | 40 | 51 | 15 | 14.7             | 58 |
| 550195 | ZCL-1.0-65  | 1.0      | 65             | 65  | 67 | 25 | 20 | 40 | 51 | 15 | 16.0             | 60 |
| 550197 | ZCL-1.0-70  | 1.0      | 70             | 70  | 72 | 25 | 20 | 40 | 61 | 15 | 17.2             | 71 |
| 550201 | ZCL-1.0-72  | 1.0      | 72             | 72  | 74 | 25 | 20 | 40 | 61 | 15 | 17.7             | 78 |
| 550205 | ZCL-1.0-74  | 1.0      | 74             | 74  | 76 | 25 | 20 | 40 | 61 | 15 | 18.2             | 72 |
| 550207 | ZCL-1.0-75  | 1.0      | 75             | 75  | 77 | 25 | 20 | 50 | 66 | 15 | 18.4             | 74 |
| 550209 | ZCL-1.0-77  | 1.0      | 77             | 77  | 79 | 25 | 20 | 50 | 66 | 15 | 18.9             | 90 |
| 550211 | ZCL-1.0-80  | 1.0      | 80             | 80  | 82 | 25 | 20 | 50 | 66 | 15 | 19.7             | 97 |

\* Pitch diameter.



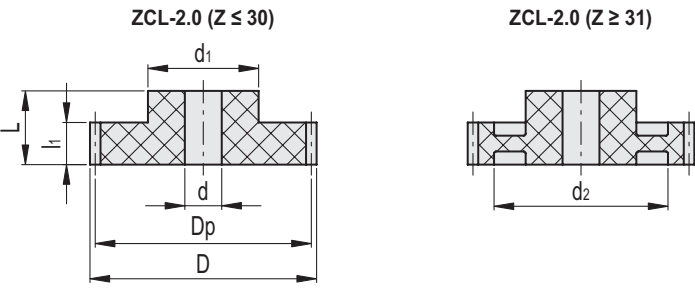
Standard machine parts



ZCL-1.5

| Code   | Description | Module M | No. of teeth Z | Dp*   | D     | L  | d  | d1 | d2  | l1 | Max. torque [Nm] | ⚙️  |
|--------|-------------|----------|----------------|-------|-------|----|----|----|-----|----|------------------|-----|
| 550301 | ZCL-1.5-12  | 1.5      | 12             | 18    | 21    | 30 | 5  | 14 | -   | 17 | 8.2              | 7   |
| 550305 | ZCL-1.5-14  | 1.5      | 14             | 21    | 24    | 30 | 5  | 16 | -   | 17 | 9.6              | 10  |
| 550307 | ZCL-1.5-15  | 1.5      | 15             | 22.5  | 25.5  | 30 | 5  | 18 | -   | 17 | 10.3             | 13  |
| 550309 | ZCL-1.5-16  | 1.5      | 16             | 24    | 27    | 30 | 5  | 18 | -   | 17 | 10.9             | 13  |
| 550313 | ZCL-1.5-18  | 1.5      | 18             | 27    | 30    | 30 | 6  | 20 | -   | 17 | 12.3             | 16  |
| 550317 | ZCL-1.5-20  | 1.5      | 20             | 30    | 33    | 30 | 8  | 25 | -   | 17 | 13.7             | 23  |
| 550319 | ZCL-1.5-21  | 1.5      | 21             | 31.5  | 34.5  | 30 | 8  | 25 | -   | 17 | 14.4             | 25  |
| 550321 | ZCL-1.5-22  | 1.5      | 22             | 33    | 36    | 30 | 8  | 28 | -   | 17 | 15.0             | 25  |
| 550325 | ZCL-1.5-24  | 1.5      | 24             | 36    | 39    | 30 | 8  | 28 | -   | 17 | 16.4             | 28  |
| 550327 | ZCL-1.5-25  | 1.5      | 25             | 37.5  | 40.5  | 30 | 8  | 30 | -   | 17 | 17.1             | 34  |
| 550329 | ZCL-1.5-26  | 1.5      | 26             | 39    | 42    | 30 | 8  | 30 | -   | 17 | 17.8             | 35  |
| 550333 | ZCL-1.5-28  | 1.5      | 28             | 42    | 45    | 30 | 8  | 30 | -   | 17 | 19.1             | 39  |
| 550337 | ZCL-1.5-30  | 1.5      | 30             | 45    | 48    | 30 | 12 | 35 | -   | 17 | 20.5             | 45  |
| 550341 | ZCL-1.5-32  | 1.5      | 32             | 48    | 51    | 30 | 12 | 35 | -   | 17 | 21.9             | 49  |
| 550343 | ZCL-1.5-33  | 1.5      | 33             | 49.5  | 52.5  | 30 | 12 | 35 | -   | 17 | 22.6             | 55  |
| 550345 | ZCL-1.5-34  | 1.5      | 34             | 51    | 54    | 30 | 12 | 35 | -   | 17 | 23.2             | 54  |
| 550347 | ZCL-1.5-35  | 1.5      | 35             | 52.5  | 55.5  | 30 | 12 | 35 | -   | 17 | 23.9             | 61  |
| 550349 | ZCL-1.5-36  | 1.5      | 36             | 54    | 57    | 30 | 12 | 35 | -   | 17 | 24.6             | 48  |
| 550353 | ZCL-1.5-38  | 1.5      | 38             | 57    | 60    | 30 | 16 | 35 | 42  | 17 | 26.0             | 53  |
| 550355 | ZCL-1.5-39  | 1.5      | 39             | 58.5  | 61.5  | 30 | 16 | 35 | 42  | 17 | 26.7             | 61  |
| 550357 | ZCL-1.5-40  | 1.5      | 40             | 60    | 63    | 30 | 16 | 40 | 48  | 17 | 27.4             | 64  |
| 550359 | ZCL-1.5-42  | 1.5      | 42             | 63    | 66    | 30 | 16 | 45 | 53  | 17 | 28.7             | 72  |
| 550363 | ZCL-1.5-44  | 1.5      | 44             | 66    | 69    | 30 | 16 | 45 | 53  | 17 | 30.1             | 84  |
| 550365 | ZCL-1.5-45  | 1.5      | 45             | 67.5  | 70.5  | 30 | 16 | 45 | 53  | 17 | 30.8             | 85  |
| 550367 | ZCL-1.5-46  | 1.5      | 46             | 69    | 72    | 30 | 16 | 45 | 53  | 17 | 31.5             | 86  |
| 550371 | ZCL-1.5-48  | 1.5      | 48             | 75    | 75    | 30 | 16 | 45 | 53  | 17 | 32.8             | 99  |
| 550373 | ZCL-1.5-50  | 1.5      | 50             | 75    | 78    | 30 | 16 | 45 | 53  | 17 | 34.2             | 111 |
| 550375 | ZCL-1.5-51  | 1.5      | 51             | 76.5  | 79.5  | 30 | 20 | 50 | 63  | 17 | 34.9             | 110 |
| 550377 | ZCL-1.5-52  | 1.5      | 52             | 78    | 81    | 30 | 20 | 50 | 63  | 17 | 35.6             | 113 |
| 550381 | ZCL-1.5-54  | 1.5      | 54             | 81    | 84    | 30 | 20 | 50 | 63  | 17 | 36.9             | 122 |
| 550383 | ZCL-1.5-55  | 1.5      | 55             | 82.5  | 85.5  | 30 | 20 | 50 | 63  | 17 | 37.6             | 126 |
| 550385 | ZCL-1.5-60  | 1.5      | 60             | 90    | 93    | 30 | 20 | 55 | 73  | 17 | 41.0             | 147 |
| 550389 | ZCL-1.5-65  | 1.5      | 65             | 97.5  | 100.5 | 30 | 20 | 60 | 81  | 17 | 44.4             | 175 |
| 550391 | ZCL-1.5-70  | 1.5      | 70             | 105   | 108   | 30 | 20 | 60 | 93  | 17 | 47.9             | 137 |
| 550393 | ZCL-1.5-75  | 1.5      | 75             | 112.5 | 115.5 | 30 | 20 | 60 | 93  | 17 | 51.3             | 155 |
| 550395 | ZCL-1.5-80  | 1.5      | 80             | 120   | 123   | 30 | 20 | 60 | 109 | 17 | 54.7             | 170 |

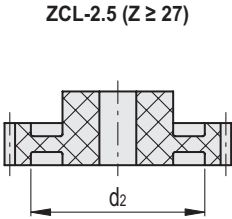
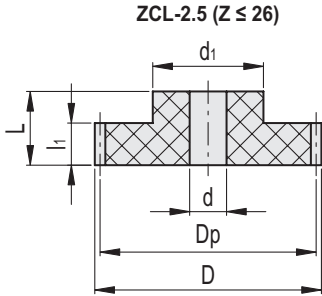
\* Pitch diameter.



ZCL-2.0

| Code   | Description | Module M | No. of teeth Z | Dp* | D   | L  | d  | d1 | d2  | l1 | Max. torque [Nm] | Δ   |
|--------|-------------|----------|----------------|-----|-----|----|----|----|-----|----|------------------|-----|
| 550501 | ZCL-2.0-12  | 2.0      | 12             | 24  | 28  | 35 | 8  | 18 | -   | 20 | 18.6             | 15  |
| 550503 | ZCL-2.0-13  | 2.0      | 13             | 26  | 30  | 35 | 8  | 18 | -   | 20 | 20.1             | 17  |
| 550505 | ZCL-2.0-14  | 2.0      | 14             | 28  | 32  | 35 | 8  | 20 | -   | 20 | 21.7             | 20  |
| 550507 | ZCL-2.0-15  | 2.0      | 15             | 30  | 34  | 35 | 8  | 22 | -   | 20 | 23.2             | 23  |
| 550509 | ZCL-2.0-16  | 2.0      | 16             | 32  | 36  | 35 | 8  | 25 | -   | 20 | 24.8             | 29  |
| 550511 | ZCL-2.0-17  | 2.0      | 17             | 34  | 38  | 35 | 8  | 25 | -   | 20 | 26.3             | 31  |
| 550513 | ZCL-2.0-18  | 2.0      | 18             | 36  | 40  | 35 | 10 | 30 | -   | 20 | 27.9             | 34  |
| 550515 | ZCL-2.0-19  | 2.0      | 19             | 38  | 42  | 35 | 10 | 30 | -   | 20 | 29.4             | 40  |
| 550517 | ZCL-2.0-20  | 2.0      | 20             | 40  | 44  | 35 | 10 | 30 | -   | 20 | 31.0             | 42  |
| 550519 | ZCL-2.0-21  | 2.0      | 21             | 42  | 46  | 35 | 10 | 30 | -   | 20 | 32.5             | 46  |
| 550521 | ZCL-2.0-22  | 2.0      | 22             | 44  | 48  | 35 | 10 | 30 | -   | 20 | 34.1             | 49  |
| 550523 | ZCL-2.0-23  | 2.0      | 23             | 46  | 50  | 35 | 10 | 35 | -   | 20 | 35.6             | 60  |
| 550525 | ZCL-2.0-24  | 2.0      | 24             | 48  | 52  | 35 | 10 | 35 | -   | 20 | 37.2             | 56  |
| 550527 | ZCL-2.0-25  | 2.0      | 25             | 50  | 54  | 35 | 10 | 35 | -   | 20 | 38.7             | 66  |
| 550529 | ZCL-2.0-26  | 2.0      | 26             | 52  | 56  | 35 | 14 | 40 | -   | 20 | 40.3             | 71  |
| 550531 | ZCL-2.0-27  | 2.0      | 27             | 54  | 58  | 35 | 14 | 40 | -   | 20 | 41.8             | 71  |
| 550533 | ZCL-2.0-28  | 2.0      | 28             | 56  | 60  | 35 | 14 | 40 | -   | 20 | 43.4             | 74  |
| 550535 | ZCL-2.0-29  | 2.0      | 29             | 58  | 62  | 35 | 14 | 40 | -   | 20 | 44.9             | 86  |
| 550537 | ZCL-2.0-30  | 2.0      | 30             | 60  | 64  | 35 | 14 | 40 | -   | 20 | 46.5             | 83  |
| 550539 | ZCL-2.0-31  | 2.0      | 31             | 62  | 66  | 35 | 14 | 40 | 48  | 20 | 48.0             | 87  |
| 550541 | ZCL-2.0-32  | 2.0      | 32             | 64  | 68  | 35 | 16 | 45 | 51  | 20 | 49.6             | 95  |
| 550543 | ZCL-2.0-33  | 2.0      | 33             | 66  | 70  | 35 | 16 | 45 | 51  | 20 | 51.1             | 98  |
| 550545 | ZCL-2.0-34  | 2.0      | 34             | 68  | 72  | 35 | 16 | 45 | 51  | 20 | 52.7             | 105 |
| 550547 | ZCL-2.0-35  | 2.0      | 35             | 70  | 74  | 35 | 16 | 45 | 51  | 20 | 54.2             | 113 |
| 550549 | ZCL-2.0-36  | 2.0      | 36             | 72  | 76  | 35 | 16 | 50 | 59  | 20 | 55.8             | 115 |
| 550551 | ZCL-2.0-37  | 2.0      | 37             | 74  | 78  | 35 | 16 | 50 | 59  | 20 | 57.3             | 118 |
| 550553 | ZCL-2.0-38  | 2.0      | 38             | 76  | 80  | 35 | 16 | 50 | 59  | 20 | 58.9             | 125 |
| 550555 | ZCL-2.0-39  | 2.0      | 39             | 78  | 82  | 35 | 16 | 50 | 59  | 20 | 60.4             | 127 |
| 550557 | ZCL-2.0-40  | 2.0      | 40             | 80  | 84  | 35 | 16 | 55 | 66  | 20 | 62.0             | 138 |
| 550561 | ZCL-2.0-42  | 2.0      | 42             | 84  | 88  | 35 | 16 | 55 | 66  | 20 | 65.1             | 156 |
| 550565 | ZCL-2.0-44  | 2.0      | 44             | 88  | 92  | 35 | 16 | 60 | 68  | 20 | 68.2             | 175 |
| 550567 | ZCL-2.0-45  | 2.0      | 45             | 90  | 94  | 35 | 16 | 60 | 68  | 20 | 69.7             | 177 |
| 550569 | ZCL-2.0-46  | 2.0      | 46             | 92  | 96  | 35 | 16 | 60 | 75  | 20 | 71.3             | 181 |
| 550573 | ZCL-2.0-48  | 2.0      | 48             | 96  | 100 | 35 | 16 | 60 | 75  | 20 | 74.4             | 193 |
| 550577 | ZCL-2.0-50  | 2.0      | 50             | 100 | 104 | 35 | 20 | 60 | 84  | 20 | 77.5             | 209 |
| 550581 | ZCL-2.0-52  | 2.0      | 52             | 104 | 108 | 35 | 20 | 60 | 90  | 20 | 80.6             | 203 |
| 550585 | ZCL-2.0-54  | 2.0      | 54             | 108 | 112 | 35 | 20 | 60 | 90  | 20 | 83.7             | 211 |
| 550591 | ZCL-2.0-57  | 2.0      | 57             | 114 | 118 | 35 | 20 | 60 | 90  | 20 | 88.3             | 208 |
| 550597 | ZCL-2.0-60  | 2.0      | 60             | 120 | 124 | 35 | 20 | 60 | 101 | 20 | 93.0             | 238 |
| 550601 | ZCL-2.0-62  | 2.0      | 62             | 124 | 128 | 35 | 20 | 60 | 101 | 20 | 96.1             | 257 |
| 550605 | ZCL-2.0-64  | 2.0      | 64             | 128 | 132 | 35 | 20 | 60 | 101 | 20 | 99.2             | 276 |
| 550607 | ZCL-2.0-65  | 2.0      | 65             | 130 | 134 | 35 | 20 | 60 | 101 | 20 | 100.7            | 226 |
| 550609 | ZCL-2.0-66  | 2.0      | 66             | 132 | 136 | 35 | 20 | 60 | 101 | 20 | 102.3            | 295 |
| 550613 | ZCL-2.0-68  | 2.0      | 68             | 136 | 140 | 35 | 20 | 60 | 101 | 20 | 105.3            | 265 |
| 550617 | ZCL-2.0-70  | 2.0      | 70             | 140 | 144 | 35 | 20 | 60 | 117 | 20 | 108.4            | 274 |
| 550621 | ZCL-2.0-72  | 2.0      | 72             | 144 | 148 | 35 | 20 | 60 | 117 | 20 | 111.5            | 324 |
| 550625 | ZCL-2.0-74  | 2.0      | 74             | 148 | 152 | 35 | 20 | 60 | 117 | 20 | 114.6            | 340 |
| 550627 | ZCL-2.0-75  | 2.0      | 75             | 150 | 154 | 35 | 20 | 60 | 117 | 20 | 116.2            | 349 |
| 550629 | ZCL-2.0-76  | 2.0      | 76             | 152 | 156 | 35 | 20 | 60 | 117 | 20 | 117.7            | 376 |
| 550633 | ZCL-2.0-78  | 2.0      | 78             | 156 | 160 | 35 | 20 | 60 | 117 | 20 | 120.8            | 381 |
| 550637 | ZCL-2.0-80  | 2.0      | 80             | 160 | 164 | 35 | 20 | 60 | 117 | 20 | 123.9            | 292 |
| 550657 | ZCL-2.0-90  | 2.0      | 90             | 180 | 184 | 35 | 20 | 60 | 147 | 20 | 139.4            | 451 |
| 550677 | ZCL-2.0-100 | 2.0      | 100            | 200 | 204 | 35 | 25 | 60 | 183 | 20 | 154.9            | 384 |

\* Pitch diameter.



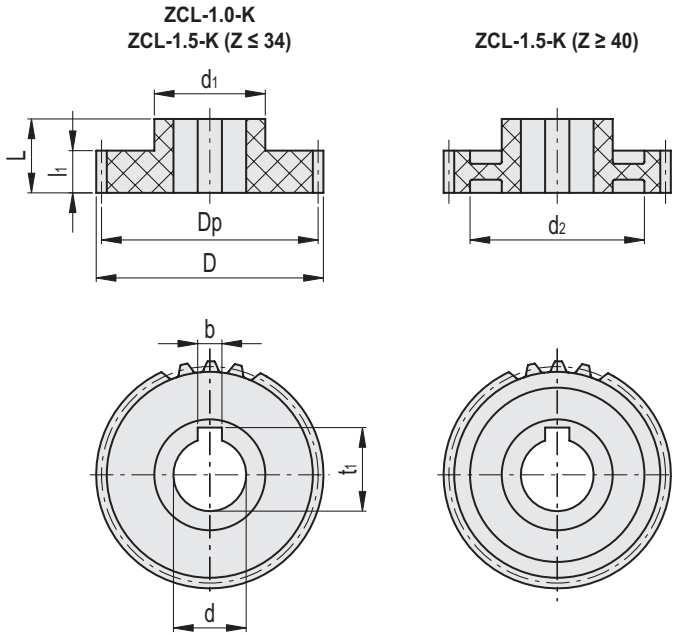
**ZCL-2.5**

| Code   | Description | Module M | No. of teeth Z | Dp*   | D     | L  | d  | d1 | d2  | l1 | Max. torque [Nm] | ⚖   |
|--------|-------------|----------|----------------|-------|-------|----|----|----|-----|----|------------------|-----|
| 550701 | ZCL-2.5-12  | 2.5      | 12             | 30    | 35    | 40 | 8  | 22 | -   | 25 | 36.3             | 26  |
| 550703 | ZCL-2.5-14  | 2.5      | 14             | 35    | 40    | 40 | 8  | 22 | -   | 25 | 42.4             | 38  |
| 550705 | ZCL-2.5-15  | 2.5      | 15             | 37.5  | 42.5  | 40 | 10 | 30 | -   | 25 | 45.4             | 45  |
| 550707 | ZCL-2.5-16  | 2.5      | 16             | 40    | 45    | 40 | 10 | 30 | -   | 25 | 48.4             | 46  |
| 550711 | ZCL-2.5-18  | 2.5      | 18             | 45    | 50    | 40 | 10 | 35 | -   | 25 | 54.5             | 61  |
| 550715 | ZCL-2.5-20  | 2.5      | 20             | 50    | 55    | 40 | 10 | 35 | -   | 25 | 60.5             | 73  |
| 550719 | ZCL-2.5-22  | 2.5      | 22             | 55    | 60    | 40 | 16 | 40 | -   | 25 | 66.6             | 90  |
| 550721 | ZCL-2.5-23  | 2.5      | 23             | 57.5  | 62.5  | 40 | 16 | 40 | -   | 25 | 69.6             | 90  |
| 550723 | ZCL-2.5-24  | 2.5      | 24             | 60    | 65    | 40 | 16 | 40 | -   | 25 | 72.6             | 96  |
| 550725 | ZCL-2.5-25  | 2.5      | 25             | 62.5  | 67.5  | 40 | 16 | 40 | -   | 25 | 75.6             | 109 |
| 550727 | ZCL-2.5-26  | 2.5      | 26             | 65    | 70    | 40 | 16 | 40 | -   | 25 | 78.7             | 75  |
| 550729 | ZCL-2.5-27  | 2.5      | 27             | 67.5  | 72.5  | 40 | 16 | 40 | 50  | 25 | 81.7             | 121 |
| 550731 | ZCL-2.5-28  | 2.5      | 28             | 70    | 75    | 40 | 16 | 40 | 50  | 25 | 84.7             | 131 |
| 550733 | ZCL-2.5-29  | 2.5      | 29             | 72.5  | 77.5  | 40 | 16 | 45 | 56  | 25 | 87.8             | 141 |
| 550735 | ZCL-2.5-30  | 2.5      | 30             | 75    | 80    | 40 | 16 | 45 | 56  | 25 | 90.8             | 147 |
| 550739 | ZCL-2.5-32  | 2.5      | 32             | 80    | 85    | 40 | 16 | 50 | 61  | 25 | 96.8             | 171 |
| 550745 | ZCL-2.5-35  | 2.5      | 35             | 87.5  | 92.5  | 40 | 16 | 50 | 61  | 25 | 105.9            | 172 |
| 550755 | ZCL-2.5-40  | 2.5      | 40             | 100   | 105   | 40 | 18 | 50 | 73  | 25 | 121.0            | 233 |
| 550761 | ZCL-2.5-45  | 2.5      | 45             | 112.5 | 117.5 | 40 | 18 | 60 | 85  | 25 | 136.2            | 298 |
| 550763 | ZCL-2.5-50  | 2.5      | 50             | 125   | 130   | 40 | 20 | 60 | 105 | 25 | 151.3            | 299 |

**ZCL-3.0**

| Code   | Description | Module M | No. of teeth Z | Dp* | D   | L  | d  | d1 | d2  | l1 | Max. torque [Nm] | ⚖   |
|--------|-------------|----------|----------------|-----|-----|----|----|----|-----|----|------------------|-----|
| 550801 | ZCL-3.0-12  | 3.0      | 12             | 36  | 42  | 45 | 12 | 25 | -   | 30 | 62.7             | 43  |
| 550805 | ZCL-3.0-14  | 3.0      | 14             | 42  | 48  | 45 | 12 | 30 | -   | 30 | 73.2             | 61  |
| 550807 | ZCL-3.0-15  | 3.0      | 15             | 45  | 51  | 45 | 12 | 30 | -   | 30 | 78.4             | 70  |
| 550809 | ZCL-3.0-16  | 3.0      | 16             | 48  | 54  | 45 | 12 | 35 | -   | 30 | 83.7             | 82  |
| 550813 | ZCL-3.0-18  | 3.0      | 18             | 54  | 60  | 45 | 12 | 40 | -   | 30 | 94.1             | 109 |
| 550817 | ZCL-3.0-20  | 3.0      | 20             | 60  | 66  | 45 | 12 | 45 | -   | 30 | 104.6            | 135 |
| 550821 | ZCL-3.0-22  | 3.0      | 22             | 66  | 72  | 45 | 16 | 45 | -   | 30 | 115.0            | 156 |
| 550823 | ZCL-3.0-23  | 3.0      | 23             | 69  | 75  | 45 | 16 | 45 | -   | 30 | 120.3            | 169 |
| 550825 | ZCL-3.0-24  | 3.0      | 24             | 72  | 78  | 45 | 16 | 45 | -   | 30 | 125.5            | 180 |
| 550827 | ZCL-3.0-25  | 3.0      | 25             | 75  | 81  | 45 | 16 | 45 | -   | 30 | 130.7            | 175 |
| 550829 | ZCL-3.0-26  | 3.0      | 26             | 78  | 84  | 45 | 16 | 45 | -   | 30 | 135.9            | 205 |
| 550831 | ZCL-3.0-27  | 3.0      | 27             | 81  | 87  | 45 | 16 | 45 | -   | 30 | 141.2            | 224 |
| 550833 | ZCL-3.0-28  | 3.0      | 28             | 84  | 90  | 45 | 16 | 50 | 65  | 30 | 146.4            | 207 |
| 550835 | ZCL-3.0-29  | 3.0      | 29             | 87  | 93  | 45 | 16 | 50 | 65  | 30 | 151.6            | 220 |
| 550837 | ZCL-3.0-30  | 3.0      | 30             | 90  | 96  | 45 | 16 | 50 | 65  | 30 | 156.9            | 236 |
| 550841 | ZCL-3.0-32  | 3.0      | 32             | 96  | 102 | 45 | 16 | 50 | 73  | 30 | 167.3            | 243 |
| 550845 | ZCL-3.0-35  | 3.0      | 35             | 105 | 111 | 45 | 20 | 60 | 80  | 30 | 183.0            | 315 |
| 550855 | ZCL-3.0-40  | 3.0      | 40             | 120 | 126 | 45 | 20 | 60 | 85  | 30 | 209.1            | 322 |
| 550865 | ZCL-3.0-45  | 3.0      | 45             | 135 | 141 | 45 | 20 | 60 | 101 | 30 | 235.3            | 434 |
| 550875 | ZCL-3.0-50  | 3.0      | 50             | 150 | 156 | 45 | 20 | 60 | 127 | 30 | 261.4            | 400 |

\* Pitch diameter.



ZCL-1.0-K

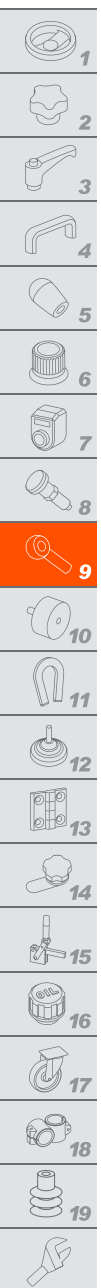
| Code     | Description      | Module M | No. of teeth Z | Dp* | D  | L  | dH9 | bD10 | t1        | d1 | l1 | Max. torque [Nm] |    |
|----------|------------------|----------|----------------|-----|----|----|-----|------|-----------|----|----|------------------|----|
| 550119-K | ZCL-1.0-20-A8-K  | 1.0      | 20             | 20  | 22 | 25 | 8   | 2    | 9 +0.1    | 16 | 15 | 4.9              | 8  |
| 550123-K | ZCL-1.0-22-A10-K | 1.0      | 22             | 22  | 24 | 25 | 10  | 3    | 11.4 +0.1 | 18 | 15 | 5.4              | 9  |
| 550127-K | ZCL-1.0-24-A10-K | 1.0      | 24             | 24  | 26 | 25 | 10  | 3    | 11.4 +0.1 | 20 | 15 | 5.9              | 12 |
| 550129-K | ZCL-1.0-25-A10-K | 1.0      | 25             | 25  | 27 | 25 | 10  | 3    | 11.4 +0.1 | 20 | 15 | 6.1              | 12 |
| 550139-K | ZCL-1.0-30-A12-K | 1.0      | 30             | 30  | 32 | 25 | 12  | 4    | 13.8 +0.1 | 25 | 15 | 7.4              | 18 |
| 550143-K | ZCL-1.0-32-A12-K | 1.0      | 32             | 32  | 34 | 25 | 12  | 4    | 13.8 +0.1 | 25 | 15 | 7.9              | 19 |
| 550147-K | ZCL-1.0-34-A12-K | 1.0      | 34             | 34  | 36 | 25 | 12  | 4    | 13.8 +0.1 | 30 | 15 | 8.4              | 24 |
| 550149-K | ZCL-1.0-35-A12-K | 1.0      | 35             | 35  | 37 | 25 | 12  | 4    | 13.8 +0.1 | 30 | 15 | 8.6              | 24 |
| 550159-K | ZCL-1.0-40-A12-K | 1.0      | 40             | 40  | 42 | 25 | 12  | 4    | 13.8 +0.1 | 30 | 15 | 9.8              | 29 |
| 550169-K | ZCL-1.0-45-A15-K | 1.0      | 45             | 45  | 47 | 25 | 15  | 5    | 17.3 +0.1 | 35 | 15 | 11.1             | 37 |

ZCL-1.5-K

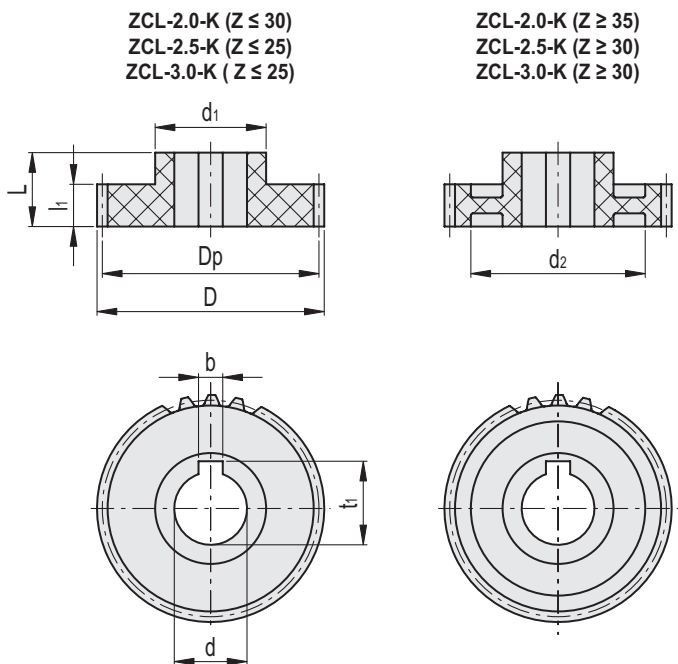
| Code     | Description      | Module M | No. of teeth Z | Dp*  | D    | L  | dH9 | bD10 | t1        | d1 | d2 | l1 | Max. torque [Nm] |     |
|----------|------------------|----------|----------------|------|------|----|-----|------|-----------|----|----|----|------------------|-----|
| 550317-K | ZCL-1.5-20-A12-K | 1.5      | 20             | 30   | 33   | 30 | 12  | 4    | 13.8 +0.1 | 25 | -  | 17 | 11.4             | 23  |
| 550321-K | ZCL-1.5-22-A12-K | 1.5      | 22             | 33   | 36   | 30 | 12  | 4    | 13.8 +0.1 | 28 | -  | 17 | 12.5             | 25  |
| 550325-K | ZCL-1.5-24-A12-K | 1.5      | 24             | 36   | 39   | 30 | 12  | 4    | 13.8 +0.1 | 28 | -  | 17 | 13.7             | 28  |
| 550327-K | ZCL-1.5-25-A12-K | 1.5      | 25             | 37.5 | 40.5 | 30 | 12  | 4    | 13.8 +0.1 | 30 | -  | 17 | 14.2             | 34  |
| 550337-K | ZCL-1.5-30-A15-K | 1.5      | 30             | 45   | 48   | 30 | 15  | 5    | 17.3 +0.1 | 35 | -  | 17 | 17.1             | 45  |
| 550341-K | ZCL-1.5-32-A15-K | 1.5      | 32             | 48   | 51   | 30 | 15  | 5    | 17.3 +0.1 | 35 | -  | 17 | 18.2             | 49  |
| 550345-K | ZCL-1.5-34-A15-K | 1.5      | 34             | 51   | 54   | 30 | 15  | 5    | 17.3 +0.1 | 35 | -  | 17 | 19.4             | 54  |
| 550357-K | ZCL-1.5-40-A20-K | 1.5      | 40             | 60   | 63   | 30 | 20  | 6    | 22.8 +0.1 | 40 | 48 | 17 | 22.8             | 64  |
| 550373-K | ZCL-1.5-50-A20-K | 1.5      | 50             | 75   | 78   | 30 | 20  | 6    | 22.8 +0.1 | 45 | 53 | 17 | 28.5             | 111 |

\* Pitch diameter.





Standard machine parts



ZCL-2.0-K (Z ≤ 30)  
ZCL-2.5-K (Z ≤ 25)  
ZCL-3.0-K (Z ≤ 25)

ZCL-2.0-K (Z ≥ 35)  
ZCL-2.5-K (Z ≥ 30)  
ZCL-3.0-K (Z ≥ 30)

| ZCL-2.0-K |                  |          |                |      |      |    |     |      |           |    |     |    |                  |     |
|-----------|------------------|----------|----------------|------|------|----|-----|------|-----------|----|-----|----|------------------|-----|
| Code      | Description      | Module M | No. of teeth Z | Dp*  | D    | L  | dH9 | bD10 | t1        | d1 | d2  | l1 | Max. torque [Nm] |     |
| 550507-K  | ZCL-2.0-15-A10-K | 2.0      | 15             | 30   | 34   | 35 | 10  | 3    | 11.4 +0.1 | 22 | -   | 20 | 19.4             | 23  |
| 550509-K  | ZCL-2.0-16-A12-K | 2.0      | 16             | 32   | 36   | 35 | 12  | 4    | 13.8 +0.1 | 25 | -   | 20 | 20.7             | 29  |
| 550513-K  | ZCL-2.0-18-A12-K | 2.0      | 18             | 36   | 40   | 35 | 12  | 4    | 13.8 +0.1 | 30 | -   | 20 | 23.2             | 34  |
| 550517-K  | ZCL-2.0-20-A12-K | 2.0      | 20             | 40   | 44   | 35 | 12  | 4    | 13.8 +0.1 | 30 | -   | 20 | 25.8             | 42  |
| 550521-K  | ZCL-2.0-22-A12-K | 2.0      | 22             | 44   | 48   | 35 | 12  | 4    | 13.8 +0.1 | 30 | -   | 20 | 28.4             | 49  |
| 550525-K  | ZCL-2.0-24-A15-K | 2.0      | 24             | 48   | 52   | 35 | 15  | 5    | 17.3 +0.1 | 35 | -   | 20 | 31.0             | 56  |
| 550527-K  | ZCL-2.0-25-A15-K | 2.0      | 25             | 50   | 54   | 35 | 15  | 5    | 17.3 +0.1 | 35 | -   | 20 | 32.3             | 66  |
| 550537-K  | ZCL-2.0-30-A15-K | 2.0      | 30             | 60   | 64   | 35 | 15  | 5    | 17.3 +0.1 | 40 | -   | 20 | 38.7             | 83  |
| 550547-K  | ZCL-2.0-35-A20-K | 2.0      | 35             | 70   | 74   | 35 | 20  | 6    | 22.8 +0.1 | 45 | 51  | 20 | 45.2             | 113 |
| 550557-K  | ZCL-2.0-40-A20-K | 2.0      | 40             | 80   | 84   | 35 | 20  | 6    | 22.8 +0.1 | 55 | 66  | 20 | 51.6             | 138 |
| 550577-K  | ZCL-2.0-50-A25-K | 2.0      | 50             | 100  | 104  | 35 | 25  | 8    | 28.3 +0.2 | 60 | 84  | 20 | 64.6             | 209 |
| 550597-K  | ZCL-2.0-60-A25-K | 2.0      | 60             | 120  | 124  | 35 | 25  | 8    | 28.3 +0.2 | 60 | 101 | 20 | 77.5             | 238 |
| ZCL-2.5-K |                  |          |                |      |      |    |     |      |           |    |     |    |                  |     |
| 550701-K  | ZCL-2.5-12-A10-K | 2.5      | 12             | 30   | 35   | 40 | 10  | 3    | 11.4 +0.1 | 22 | -   | 25 | 30.3             | 26  |
| 550707-K  | ZCL-2.5-16-A12-K | 2.5      | 16             | 40   | 45   | 40 | 12  | 4    | 13.8 +0.1 | 30 | -   | 25 | 40.3             | 46  |
| 550715-K  | ZCL-2.5-20-A15-K | 2.5      | 20             | 50   | 55   | 40 | 15  | 5    | 17.3 +0.1 | 35 | -   | 25 | 50.4             | 73  |
| 550719-K  | ZCL-2.5-22-A20-K | 2.5      | 22             | 55   | 60   | 40 | 20  | 6    | 22.8 +0.1 | 40 | -   | 25 | 55.5             | 90  |
| 550723-K  | ZCL-2.5-24-A20-K | 2.5      | 24             | 60   | 65   | 40 | 20  | 6    | 22.8 +0.1 | 40 | -   | 25 | 60.5             | 96  |
| 550725-K  | ZCL-2.5-25-A20-K | 2.5      | 25             | 62.5 | 67.5 | 40 | 20  | 6    | 22.8 +0.1 | 40 | -   | 25 | 63.0             | 109 |
| 550735-K  | ZCL-2.5-30-A20-K | 2.5      | 30             | 75   | 80   | 40 | 20  | 6    | 22.8 +0.1 | 45 | 56  | 25 | 75.6             | 147 |
| 550755-K  | ZCL-2.5-40-A20-K | 2.5      | 40             | 100  | 105  | 40 | 20  | 6    | 22.8 +0.1 | 50 | 73  | 25 | 100.9            | 233 |
| ZCL-3.0-K |                  |          |                |      |      |    |     |      |           |    |     |    |                  |     |
| 550801-K  | ZCL-3.0-12-A12-K | 3.0      | 12             | 36   | 42   | 45 | 12  | 4    | 13.8 +0.1 | 25 | -   | 30 | 52.3             | 43  |
| 550807-K  | ZCL-3.0-15-A12-K | 3.0      | 15             | 45   | 51   | 45 | 12  | 4    | 13.8 +0.1 | 30 | -   | 30 | 65.4             | 70  |
| 550809-K  | ZCL-3.0-16-A15-K | 3.0      | 16             | 48   | 54   | 45 | 15  | 5    | 17.3 +0.1 | 35 | -   | 30 | 69.7             | 82  |
| 550817-K  | ZCL-3.0-20-A20-K | 3.0      | 20             | 60   | 66   | 45 | 20  | 6    | 22.8 +0.1 | 45 | -   | 30 | 87.1             | 135 |
| 550827-K  | ZCL-3.0-25-A20-K | 3.0      | 25             | 75   | 81   | 45 | 20  | 6    | 22.8 +0.1 | 45 | -   | 30 | 108.9            | 175 |
| 550837-K  | ZCL-3.0-30-A20-K | 3.0      | 30             | 90   | 96   | 45 | 20  | 6    | 22.8 +0.1 | 50 | 65  | 30 | 130.7            | 236 |
| 550855-K  | ZCL-3.0-40-A25-K | 3.0      | 40             | 120  | 126  | 45 | 25  | 8    | 28.3 +0.2 | 60 | 85  | 30 | 174.3            | 322 |
| 550875-K  | ZCL-3.0-50-A25-K | 3.0      | 50             | 150  | 156  | 45 | 25  | 8    | 28.3 +0.2 | 60 | 127 | 30 | 217.9            | 400 |

\* Pitch diameter.