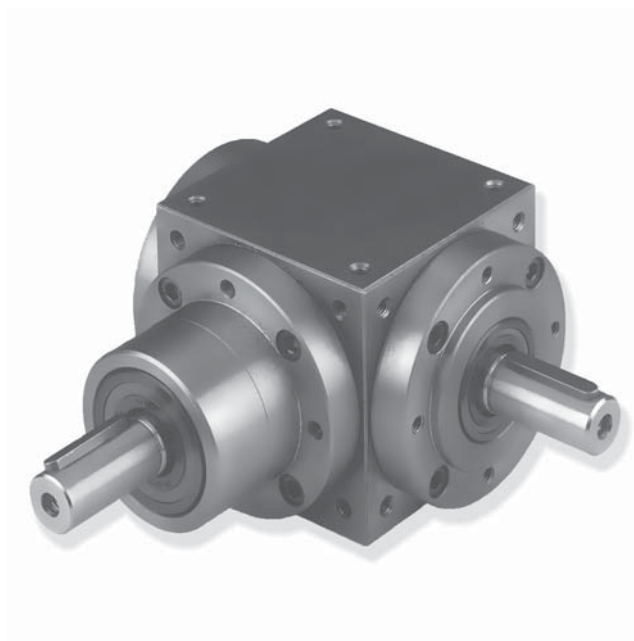


**1.0 ОРТОГОНАЛЬНЫЕ РЕДУКТОРЫ И МОТОР-РЕДУКТОРЫ****Z**

| | | |
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**E**

1.1 Технические характеристики

Данная серия ортогональных редукторов представляет собой жёсткую монолитную конструкцию, что позволяет использовать их при больших нагрузках.

Выпускается восемь типоразмеров данных редукторов с выходными валами трёх типов: с полым, цилиндрическими односторонним и двухсторонним. С противоположной от входного вала стороны может быть установлен второй выходной вал.

Данные редукторы могут поставляться в различных исполнениях, различных размеров, различной мощности, с различным передаточным отношением. Они характеризуются бесшумностью при работе, а также могут эксплуатироваться при высоких скоростях.

Корпус редуктора изготавливается из чугуна марки G20 UNI5007, и все его поверхности подвергаются механической обработке для облегчения монтажа. Единая смазочная камера позволяет гарантировать повышенную теплоотдачу и обеспечивает лучшую смазку всех внутренних деталей.

Механическая обработка корпуса осуществляется на современных многоцелевых станках с ЧПУ, которые обеспечивают получение максимальной точности изготовления.

Механизм данных редукторов состоит из двух конических геликоидальных шестерней GLEASON с точно шлифованным профилем, изготовленных из стали 16CrNi4 или 18NiCrMo5 UNI7846, подвергнутой поверхностному упрочнению и упрочнению закалкой.

1.2 Обозначение

| Размер | Модели | ir | IEC (B5) | Выходной вал | Дополнительный входной вал | Пример |
|---|--|---------------|-------------------|--|--|------------------------|
| Z 12 19 24 32 38 42 55 75 | A-AS-AD-AP C-DR-B-BS BD-AH-BH AX-DX* | 1-1.5-2-3-4-5 | | FC 1 FC 2 FC 3 FP 1 FP 2 FP 3 | A 90-A 180-A 270 AS 90-AS 180-AS 270 AD 90-AD 180-AD 270 C 90 DR 90 AH 90-AH 180-AH 270 | Z19 A 1.5 FC 1 A 90 |
| | MA-MAS-MAD MC-MDR-MB MBS-MBD MAH-MBH | 1-1.5-2-3-4-5 | 63 160 | | (Не используется, если передаточное число ir = 1) | Z19 MA 1.5 PAM 80 FC 1 |

* Модели - мультипликаторы

Другие характеристики, которые должны быть специфицированы:

Положение клеммной коробки, если оно отличается от стандартного (1).

Монтажное положение с указанием заглушек для контроля уровня смазки и заправочных заглушек. Если данные положения не указаны, то стандартным считается положение M1.

1.3 Модели

Размеры: 12-19-24-32-38-42-55-75, $i = 1-1.5-2-3-4-5$

| | | | | |
|----------|-----------|------------|-------------|-------------|
| | | | | |
| A | MA | A90 | A180 | A270 |

Размеры: 12-19-24-32-38-42-55-75, $i = 1-1.5-2-3-4-5$

| | | | | |
|-----------|------------|-------------|--------------|--------------|
| | | | | |
| AS | MAS | AS90 | AS180 | AS270 |

Размеры: 12-19-24-32-38-42-55-75, $i = 1-1.5-2-3-4-5$

| | | | | |
|-----------|------------|-------------|--------------|--------------|
| | | | | |
| AD | MAD | AD90 | AD180 | AD270 |

Размеры: 19-24-32-38-42-55-75, $i = 1.5-2$
 Модель повышающей передачи

| |
|-----------|
| |
| AX |

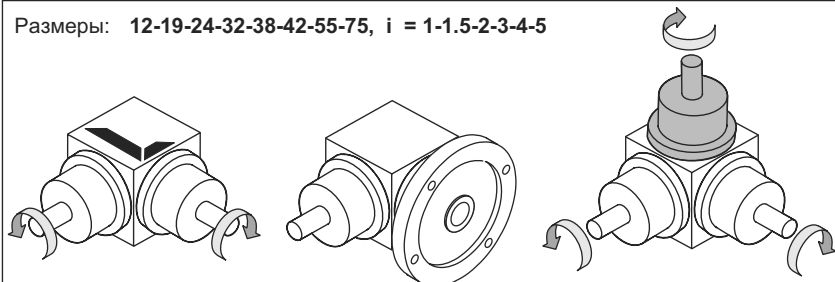
Размеры: 12-19-24-32-38-42-55-75, $i = 1-1.5-2-3-4-5$

| |
|-----------|
| |
| AP |



1.3 Модели

Размеры: 12-19-24-32-38-42-55-75, $i = 1-1.5-2-3-4-5$

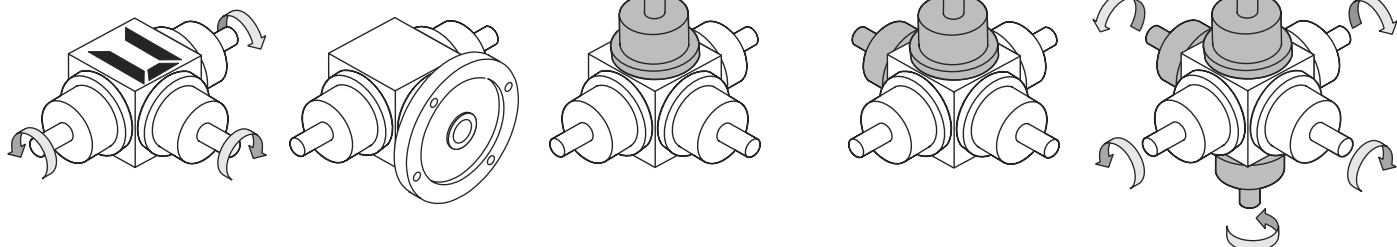


C

MC

C90

Размеры: 12-19-24-32-38-42-55-75, $i = 1-1.5-2-3-4-5$
 Два выходных вала



DR

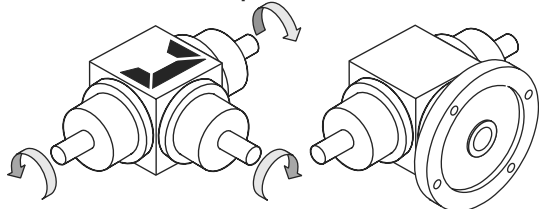
MDR

DR90

DR180

DR270

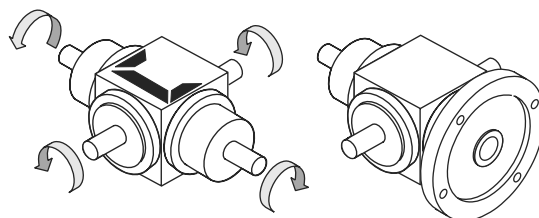
Размеры: 12-19-24-32-38-42-55-75, $i = 1-1.5-2-3-4-5$
 Два выходных вала
 Модель повышающей передачи



DX

MDX

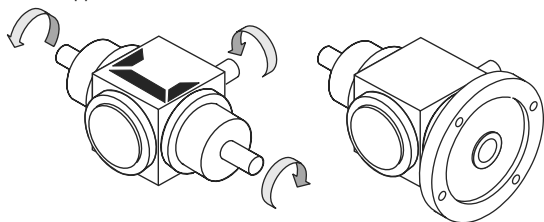
Размеры: 12-19-24-32-38-42-55-75, $i = 1-1.5-2-3-4-5$
 Два выходных вала



B

MB

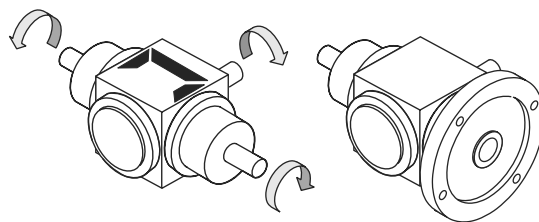
Размеры: 12-19-24-32-38-42-55-75, $i = 1-1.5-2-3-4-5$
 Два выходных вала



BS

MBS

Размеры: 12-19-24-32-38-42-55-75, $i = 1-1.5-2-3-4-5$
 Два выходных вала



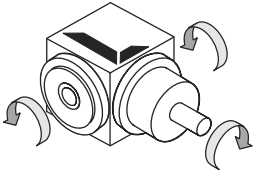
BD

MBD

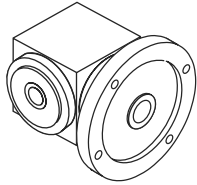


1.3 Модели

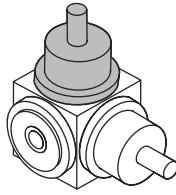
Размеры: 12-19-24-32-38-42-55-75, $i = 1-1.5-2-3-4-5$



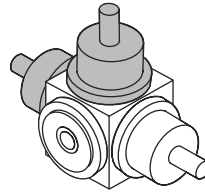
AH



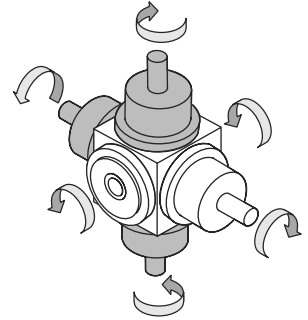
MAH



AH90

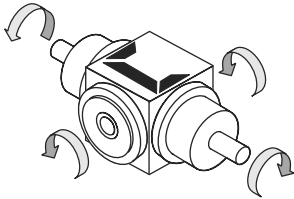


AH180

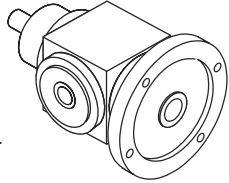


AH270

Размеры: 12-19-24-32-38-42-55-75, $i = 1-1.5-2-3-4-5$
 Два выходных вала

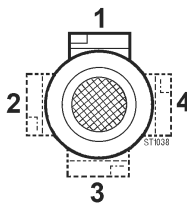


BH



MBH

1- СТАНДАРТ



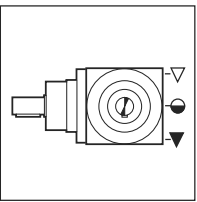
Положение клемной коробки

1.4 Смазка

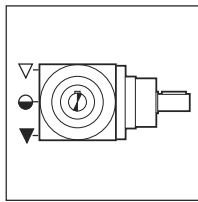
Ортогональные редукторы серии Z поставляются заправленными смазкой и снабжены заправочными, контрольными и сливными пробками.

При заказе необходимо указать монтажное положение. Иначе, редуктор будет поставлен с пробками, позиция которых характерна для положения M1.

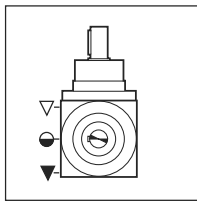
Монтажные положения и объём смазки (в литрах)



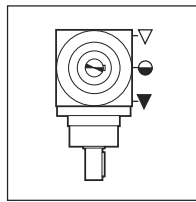
M1



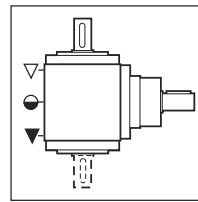
M2



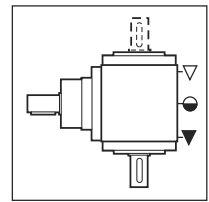
M3



M4



M6



M5



Tab. 4.1

| ⚠ Z4 | | | | | | | |
|------|------|------|------|-----|-----|-----|-----|
| 12 | 19 | 24 | 32 | 38 | 42 | 55 | 75 |
| 0.1 | 0.15 | 0.22 | 0.60 | 1.1 | 2.2 | 3.6 | 9.0 |

⚠ Только для Z4.
 Для получения более подробной информации обращайтесь в технический отдел нашей компании.



1.5 Радиальные и осевые нагрузки

Передачи, осуществляемые посредством звёздочек, зубчатых колес или шкивов, создают радиальную нагрузку (F_r) на валы редуктора.

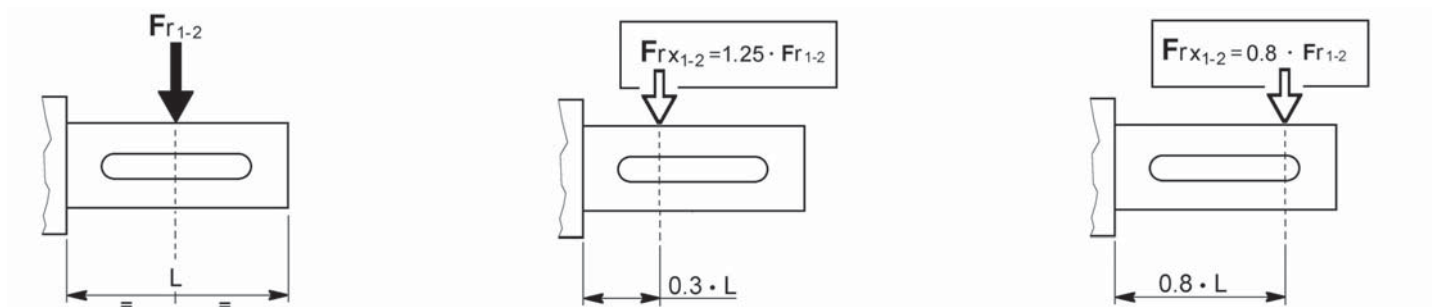
Значения радиальных и осевых нагрузок должны равняться или не должны превышать допустимых пределов, указанных в таблице.

Радиальные нагрузки

Таблица. 4.2

| i | F_{r1} [N] | | | | | | | |
|-------|--------------|-----|------|------|------|------|-------|-------|
| | Z. | | | | | | | |
| | 12 | 19 | 24 | 32 | 38 | 42 | 55 | 75 |
| 1-2-3 | 550 | 850 | 1400 | 2000 | 4000 | 6000 | 10000 | 25000 |
| 4-5 | — | 600 | 850 | 1400 | 2000 | 4000 | 6000 | 10000 |

| i | F_{r2} [N] | | | | | | | |
|-----|--------------|------|------|------|------|-------|-------|-------|
| | Z. | | | | | | | |
| | 12 | 19 | 24 | 32 | 38 | 42 | 55 | 75 |
| Все | 900 | 1500 | 2200 | 3500 | 7000 | 10000 | 15000 | 35000 |



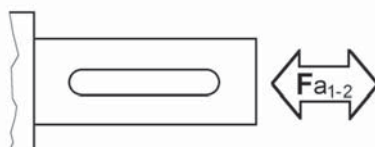
Радиальные нагрузки, указанные в таблице, приложены вертикально посередине стандартного выступающего конца вала и соответствуют редукторам, работающим с эксплуатационным коэффициентом, равным 1.

Величина нагрузки, прилагаемой не посередине выступающего конца выходного или входного вала, рассчитывается по следующей формуле:

на расстоянии 0,3 длины выступающего конца вала: $F_{rx} = 1.25 \times F_{r1-2}$

на расстоянии 0,8 длины выступающего конца вала: $F_{rx} = 0.8 \times F_{r1-2}$

Осевые нагрузки





Осевые нагрузки

Таблица. 4.3

| i | F_{a1} [N] | | | | | | | |
|-------|--|------|------|------|------|------|-------|-------|
| | Z. | | | | | | | |
| | 12 | 19 | 24 | 32 | 38 | 42 | 55 | 75 |
| | На шарикоподшипниках (кроме модели AP) | | | | | | | |
| 1-2-3 | 300 | 450 | 700 | 1100 | 1700 | 2700 | 5000 | 10000 |
| 4-5 | — | 400 | 450 | 700 | 1100 | 1700 | 2700 | 5000 |
| | На роликоподшипниках (модель AP) | | | | | | | |
| 1-2-3 | — | 650 | 1000 | 1500 | 2400 | 4000 | 7800 | 16000 |
| 4-5 | — | 450 | 650 | 1000 | 1500 | 2400 | 4000 | 7800 |
| i | F_{a2} [N] | | | | | | | |
| | Z. | | | | | | | |
| | 12 | 19 | 24 | 32 | 38 | 42 | 55 | 75 |
| | На шарикоподшипниках (кроме модели AP) | | | | | | | |
| Все | 500 | 700 | 1300 | 1700 | 3400 | 4800 | 6800 | 15000 |
| | На роликоподшипниках (модель AP) | | | | | | | |
| Все | — | 1000 | 1800 | 2500 | 5000 | 7000 | 10000 | 22000 |

1.6 Максимальный крутящий момент, передаваемый при последовательном соединении редукторов

При последовательном соединении нескольких ортогональных редукторов серии A и AH необходимо убедиться в том, что требуемый максимальный крутящий момент не превышает значение, указанное в таблице ниже.

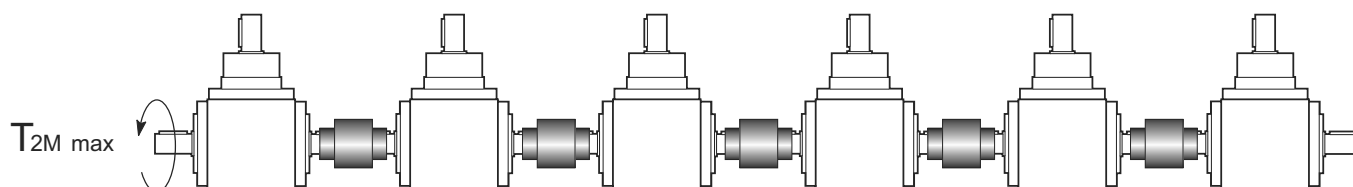


Таблица. 4.4

| | Z. | | | | | | |
|-------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | 19 A 19 AH | 24 A 24 AH | 32 A 32 AH | 38 A 38 AH | 42 A 42 AH | 55 A 55 AH | 75 A 75 AH |
| T_{2M} max (Nm) | 60 | 120 | 300 | 500 | 700 | 1600 | 4000 |

Если же рабочие условия являются более тяжелыми, чем упомянутые выше, то следует использовать ортогональные редукторы серии AP со сквозным валом большего диаметра.

Таблица. 4.5

| | Z. | | | | | | |
|-------------------|-------|-------|-------|-------|-------|-------|-------|
| | 19 AP | 24 AP | 32 AP | 38 AP | 42 AP | 55 AP | 75 AP |
| T_{2M} max (Nm) | 120 | 300 | 500 | 700 | 1000 | 3000 | 6500 |



1.7 Эксплуатационные показатели редукторов серии Z

Z 12 (A-AS-AD-AP-C-DR-B-BD-BS)



2.5

| ir | $n_1 = 2800 \text{ min}^{-1}$ | | | | $n_1 = 1400 \text{ min}^{-1}$ | | | | $n_1 = 900 \text{ min}^{-1}$ | | | | $n_1 = 500 \text{ min}^{-1}$ | | | | IEC |
|-----|-------------------------------|----------------|---------|---------|-------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|---------------------|
| | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | |
| 1 | 2800 | 13.1 | 4.0 | 95 | 1400 | 14.9 | 2.3 | 95 | 900 | 16.2 | 1.6 | 95 | 500 | 18.7 | 1.0 | 95 | 71 (B14) 63 (B5) |
| 1.5 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 2 | 1400 | 13.7 | 2.1 | 95 | 700 | 14.9 | 1.1 | 95 | 450 | 16.2 | 0.80 | 95 | 250 | 18.7 | 0.52 | 95 | |
| 3 | 933 | 7.5 | 0.77 | 95 | 467 | 8.9 | 0.46 | 95 | 300 | 9.7 | 0.32 | 95 | 167 | 11.1 | 0.20 | 95 | |
| 4 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | |
| 5 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

Z 12 (DX) Модель повышающей передачи



2.5

| ir | $n_1 = 1400 \text{ min}^{-1}$ | | | | $n_1 = 900 \text{ min}^{-1}$ | | | | $n_1 = 500 \text{ min}^{-1}$ | | | | IEC | |
|-----|-------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|-----|---|
| | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | | |
| 1.5 | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2 | 2800 | 7.5 | 2.3 | 95 | 1800 | 8.1 | 1.6 | 95 | 1000 | 9.4 | 1.0 | 95 | | |

Z 19 (A-AS-AD-AP-C-DR-B-BD-BS-AH-BH)



6.0

| ir | $n_1 = 2800 \text{ min}^{-1}$ | | | | $n_1 = 1400 \text{ min}^{-1}$ | | | | $n_1 = 900 \text{ min}^{-1}$ | | | | $n_1 = 500 \text{ min}^{-1}$ | | | | IEC |
|-----|-------------------------------|----------------|---------|---------|-------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|--------------------|
| | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | |
| 1 | 2800 | 69 | 21 | 95 | 1400 | 73 | 11.3 | 95 | 900 | 75 | 7.4 | 95 | 500 | 76 | 4.2 | 95 | 71 (B5) 63 (B5) |
| 1.5 | 1867 | 47 | 9.7 | 95 | 933 | 49 | 5.0 | 95 | 600 | 50 | 3.3 | 95 | 333 | 51 | 1.9 | 95 | |
| 2 | 1400 | 55 | 8.5 | 95 | 700 | 57 | 4.4 | 95 | 450 | 59 | 2.9 | 95 | 250 | 60 | 1.7 | 95 | |
| 3 | 933 | 31 | 3.2 | 95 | 467 | 32 | 1.6 | 95 | 300 | 32 | 1.1 | 95 | 167 | 33 | 0.61 | 95 | |
| 4 | 700 | 35 | 2.7 | 95 | 350 | 28 | 1.1 | 95 | 225 | 28 | 0.7 | 95 | 125 | 29 | 0.40 | 95 | |
| 5 | 560 | 28 | 1.7 | 95 | 280 | 29 | 0.90 | 95 | 180 | 29 | 0.6 | 95 | 100 | 30 | 0.33 | 95 | |

Z 19 (AX-DX) Модель повышающей передачи



6.0

| ir | $n_1 = 1400 \text{ min}^{-1}$ | | | | $n_1 = 900 \text{ min}^{-1}$ | | | | $n_1 = 500 \text{ min}^{-1}$ | | | | IEC |
|-----|-------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|-----|
| | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | |
| 1.5 | 2100 | 25 | 5.7 | 95 | 1350 | 25 | 3.7 | 95 | 750 | 26 | 2.1 | 95 | — |
| 2 | 2800 | 29 | 8.8 | 95 | 1800 | 30 | 5.9 | 95 | 1000 | 30 | 3.3 | 95 | |

Z 24 (A-AS-AD-AP-C-DR-B-BD-BS-AH-BH)



12.0

| ir | $n_1 = 2800 \text{ min}^{-1}$ | | | | $n_1 = 1400 \text{ min}^{-1}$ | | | | $n_1 = 900 \text{ min}^{-1}$ | | | | $n_1 = 500 \text{ min}^{-1}$ | | | | IEC |
|-----|-------------------------------|----------------|---------|---------|-------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|-------------------------------|
| | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | |
| 1 | 2800 | 76 | 23 | 95 | 1400 | 82 | 12.7 | 95 | 900 | 86 | 8.5 | 95 | 500 | 90 | 4.9 | 95 | 90 (B5) 80 (B5) 71 (B5) |
| 1.5 | 1867 | 78 | 16.0 | 95 | 933 | 81 | 8.3 | 95 | 600 | 83 | 5.5 | 95 | 333 | 85 | 3.1 | 95 | |
| 2 | 1400 | 69 | 10.7 | 95 | 700 | 72 | 5.6 | 95 | 450 | 74 | 3.6 | 95 | 250 | 75 | 2.1 | 95 | |
| 3 | 933 | 45 | 4.6 | 95 | 467 | 47 | 2.4 | 95 | 300 | 48 | 1.6 | 95 | 167 | 49 | 0.89 | 95 | |
| 4 | 700 | 66 | 5.1 | 95 | 350 | 69 | 2.6 | 95 | 225 | 70 | 1.7 | 95 | 125 | 71 | 1.0 | 95 | |
| 5 | 560 | 57 | 3.5 | 95 | 280 | 61 | 1.9 | 95 | 180 | 62 | 1.2 | 95 | 100 | 64 | 0.71 | 95 | 80 (B5) 71 (B5) |

Z 24 (AX-DX) Модель повышающей передачи



12.0

| ir | $n_1 = 1400 \text{ min}^{-1}$ | | | | $n_1 = 900 \text{ min}^{-1}$ | | | | $n_1 = 500 \text{ min}^{-1}$ | | | | IEC |
|-----|-------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|-----|
| | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | |
| 1.5 | 2100 | 40 | 9.4 | 95 | 1350 | 42 | 6.2 | 95 | 750 | 43 | 3.5 | 95 | — |
| 2 | 2800 | 36 | 11.2 | 95 | 1800 | 37 | 7.3 | 95 | 1000 | 38 | 4.1 | 95 | |



1.7 Эксплуатационные показатели редукторов серии Z

Z 32 (A-AS-AD-AP-C-DR-B-BD-BS-AH-BH)



22

| ir | n ₁ = 2800 min ⁻¹ | | | | n ₁ = 1400 min ⁻¹ | | | | n ₁ = 900 min ⁻¹ | | | | n ₁ = 500 min ⁻¹ | | | | IEC |
|-----|---|--------------------|------|------|---|--------------------|------|------|--|--------------------|------|------|--|--------------------|------|------|--|
| | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | |
| 1 | 2800 | 173 | 54 | 95 | 1400 | 187 | 29 | 95 | 900 | 195 | 19.3 | 95 | 500 | 203 | 11.2 | 95 | 112 (B5) 100 (B5) 90 (B5) 80 (B5) |
| 1.5 | 1867 | 150 | 31 | 95 | 933 | 163 | 16.7 | 95 | 600 | 159 | 10.5 | 95 | 333 | 178 | 6.5 | 95 | |
| 2 | 1400 | 132 | 20 | 95 | 700 | 140 | 10.8 | 95 | 450 | 142 | 7.1 | 95 | 250 | 147 | 4.1 | 95 | |
| 3 | 933 | 94 | 9.6 | 95 | 467 | 105 | 5.4 | 95 | 300 | 107 | 3.5 | 95 | 167 | 111 | 2.0 | 95 | |
| 4 | 700 | 92 | 7.1 | 95 | 350 | 100 | 3.9 | 95 | 225 | 101 | 2.5 | 95 | 125 | 104 | 1.4 | 95 | |
| 5 | 560 | 75 | 4.6 | 95 | 280 | 80 | 2.5 | 95 | 180 | 81 | 1.6 | 95 | 100 | 84 | 0.93 | 95 | |

Z 32 (AX-DX) Модель повышающей передачи



22

| ir | n ₁ = 1400 min ⁻¹ | | | | n ₁ = 900 min ⁻¹ | | | | n ₁ = 500 min ⁻¹ | | | | IEC |
|-----|---|--------------------|------|------|--|--------------------|------|------|--|--------------------|------|------|-----|
| | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | |
| 1.5 | 2100 | 81 | 18.8 | 95 | 1350 | 80 | 11.9 | 95 | 750 | 89 | 7.3 | 95 | — |
| 2 | 2800 | 70 | 22 | 95 | 1800 | 71 | 14.1 | 95 | 1000 | 74 | 8.1 | 95 | |

Z 38 (A-AS-AD-AP-C-DR-B-BD-BS-AH-BH)



37

| ir | n ₁ = 2800 min ⁻¹ | | | | n ₁ = 1400 min ⁻¹ | | | | n ₁ = 900 min ⁻¹ | | | | n ₁ = 500 min ⁻¹ | | | | IEC |
|-----|---|--------------------|------|------|---|--------------------|------|------|--|--------------------|------|------|--|--------------------|------|------|---|
| | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | |
| 1 | 2800 | 371 | 115 | 95 | 1400 | 393 | 61 | 95 | 900 | 403 | 40 | 95 | 500 | 420 | 23 | 95 | 132 (B5) 112 (B5) 100 (B5) 90 (B5) |
| 1.5 | 1867 | 356 | 73 | 95 | 933 | 374 | 39 | 95 | 600 | 382 | 25 | 95 | 333 | 397 | 14.6 | 95 | |
| 2 | 1400 | 255 | 39 | 95 | 700 | 268 | 21 | 95 | 450 | 476 | 13.7 | 95 | 250 | 283 | 7.8 | 95 | |
| 3 | 933 | 192 | 19.8 | 95 | 467 | 200 | 10.3 | 95 | 300 | 205 | 6.8 | 95 | 167 | 211 | 3.9 | 95 | |
| 4 | 700 | 209 | 16.1 | 95 | 350 | 217 | 8.4 | 95 | 225 | 221 | 5.5 | 95 | 125 | 226 | 3.1 | 95 | |
| 5 | 560 | 211 | 13.0 | 95 | 280 | 219 | 6.8 | 95 | 180 | 222 | 4.4 | 95 | 100 | 228 | 2.5 | 95 | |

Z 38 (AX-DX) Модель повышающей передачи



37

| ir | n ₁ = 1400 min ⁻¹ | | | | n ₁ = 900 min ⁻¹ | | | | n ₁ = 500 min ⁻¹ | | | | IEC |
|-----|---|--------------------|------|------|--|--------------------|------|------|--|--------------------|------|------|-----|
| | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | |
| 1.5 | 2100 | 187 | 43 | 95 | 1350 | 191 | 28 | 95 | 750 | 198 | 16.4 | 95 | — |
| 2 | 2800 | 134 | 41 | 95 | 1800 | 138 | 27 | 95 | 1000 | 142 | 15.6 | 95 | |

Z 42 (A-AS-AD-AP-C-DR-B-BD-BS-AH-BH)



57

| ir | n ₁ = 2800 min ⁻¹ | | | | n ₁ = 1400 min ⁻¹ | | | | n ₁ = 900 min ⁻¹ | | | | n ₁ = 500 min ⁻¹ | | | | IEC |
|-----|---|--------------------|------|------|---|--------------------|------|------|--|--------------------|------|------|--|--------------------|------|------|----------------------------------|
| | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | |
| 1 | 2800 | 437 | 135 | 95 | 1400 | 461 | 71 | 95 | 900 | 474 | 47 | 95 | 500 | 494 | 27 | 95 | 160 (B5) 132 (B5) 112 (B5) |
| 1.5 | 1867 | 339 | 70 | 95 | 933 | 421 | 43 | 95 | 600 | 434 | 29 | 95 | 333 | 447 | 16.4 | 95 | |
| 2 | 1400 | 299 | 46 | 95 | 700 | 316 | 24 | 95 | 450 | 324 | 16.1 | 95 | 250 | 334 | 9.2 | 95 | |
| 3 | 933 | 228 | 23 | 95 | 467 | 235 | 12.1 | 95 | 300 | 242 | 8.0 | 95 | 167 | 248 | 4.6 | 95 | |
| 4 | 700 | 234 | 18.1 | 95 | 350 | 243 | 9.4 | 95 | 225 | 248 | 6.2 | 95 | 125 | 254 | 3.5 | 95 | |
| 5 | 560 | 211 | 13.0 | 95 | 280 | 219 | 6.8 | 95 | 180 | 2220 | 4.4 | 95 | 100 | 228 | 2.5 | 95 | |

Z 42 (AX-DX) Модель повышающей передачи



57

| ir | n ₁ = 1400 min ⁻¹ | | | | n ₁ = 900 min ⁻¹ | | | | n ₁ = 500 min ⁻¹ | | | | IEC |
|-----|---|--------------------|------|------|--|--------------------|------|------|--|--------------------|------|------|-----|
| | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | n ₂ min ⁻¹ | T _{2M} Nm | P kW | RD % | |
| 1.5 | 2100 | 211 | 49 | 95 | 1350 | 217 | 32 | 95 | 750 | 224 | 18.5 | 95 | — |
| 2 | 2800 | 158 | 49 | 95 | 1800 | 162 | 32 | 95 | 1000 | 167 | 18.4 | 95 | |



1.7 Эксплуатационные показатели редукторов серии Z

Z 55 (A-AS-AD-AP-C-DR-B-BD-BS-AH-BH)

87

| ir | $n_1 = 2800 \text{ min}^{-1}$ | | | | $n_1 = 1400 \text{ min}^{-1}$ | | | | $n_1 = 900 \text{ min}^{-1}$ | | | | $n_1 = 500 \text{ min}^{-1}$ | | | | IEC |
|-----|-------------------------------|----------------|---------|---------|-------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|----------------------------------|
| | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | |
| 1 | — | — | — | — | 1400 | 992 | 153 | 95 | 900 | 1023 | 101 | 95 | 500 | 1053 | 58 | 95 | 160 (B5) 132 (B5) 112 (B5) |
| 1.5 | — | — | — | — | 933 | 1057 | 109 | 95 | 600 | 1086 | 72 | 95 | 333 | 1123 | 41 | 95 | |
| 2 | — | — | — | — | 700 | 706 | 54 | 95 | 450 | 729 | 36 | 95 | 250 | 749 | 21 | 95 | |
| 3 | — | — | — | — | 467 | 481 | 25 | 95 | 300 | 497 | 16.4 | 95 | 167 | 508 | 9.3 | 95 | |
| 4 | — | — | — | — | 350 | 621 | 24 | 95 | 225 | 636 | 15.8 | 95 | 125 | 651 | 9.0 | 95 | |
| 5 | — | — | — | — | 280 | 595 | 18.4 | 95 | 180 | 607 | 12.0 | 95 | 100 | 621 | 6.8 | 95 | 132 (B5) 112 (B5) |

Z 55 (AX-DX) Модель повышающей передачи

87

| ir | $n_1 = 1400 \text{ min}^{-1}$ | | | | $n_1 = 900 \text{ min}^{-1}$ | | | | $n_1 = 500 \text{ min}^{-1}$ | | | | IEC |
|-----|-------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|-----|
| | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | |
| 1.5 | 2100 | 529 | 122 | 95 | 1350 | 543 | 81 | 95 | 750 | 562 | 46 | 95 | — |
| 2 | 2800 | 353 | 109 | 95 | 1800 | 365 | 72 | 95 | 1000 | 375 | 41 | 95 | |

Z 75 (A-AS-AD-AP-C-DR-B-BD-BS-AH-BH)

255

| ir | $n_1 = 2800 \text{ min}^{-1}$ | | | | $n_1 = 1400 \text{ min}^{-1}$ | | | | $n_1 = 900 \text{ min}^{-1}$ | | | | $n_1 = 500 \text{ min}^{-1}$ | | | | IEC |
|-----|-------------------------------|----------------|---------|---------|-------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|-----|
| | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | |
| 1 | — | — | — | — | 1400 | 2109 | 325 | 95 | 900 | 2202 | 218 | 95 | 500 | 2301 | 127 | 95 | — |
| 1.5 | — | — | — | — | 933 | 1754 | 180 | 95 | 600 | 1817 | 120 | 95 | 333 | 1888 | 69 | 95 | |
| 2 | — | — | — | — | 700 | 1723 | 133 | 95 | 450 | 1778 | 88 | 95 | 250 | 1841 | 51 | 95 | |
| 3 | — | — | — | — | 467 | 1772 | 91 | 95 | 300 | 1823 | 60 | 95 | 167 | 1881 | 35 | 95 | |
| 4 | — | — | — | — | 350 | 1466 | 57 | 95 | 225 | 1505 | 37 | 95 | 125 | 1547 | 21 | 95 | |
| 5 | — | — | — | — | 280 | 1278 | 39 | 95 | 180 | 1309 | 26 | 95 | 100 | 1342 | 14.8 | 95 | |

Z 75 (AX-DX) Модель повышающей передачи

255

| ir | $n_1 = 1400 \text{ min}^{-1}$ | | | | $n_1 = 900 \text{ min}^{-1}$ | | | | $n_1 = 500 \text{ min}^{-1}$ | | | | IEC |
|-----|-------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|------------------------------|----------------|---------|---------|-----|
| | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | n_2 min^{-1} | T_{2M} Nm | P kW | RD % | |
| 1.5 | 2100 | 877 | 203 | 95 | 1350 | 909 | 135 | 95 | 750 | 944 | 78 | 95 | — |
| 2 | 2800 | 862 | 266 | 95 | 1800 | 889 | 176 | 95 | 1000 | 921 | 101 | 95 | |

Вес указан для базовой модели (версии А) с передаточным отношением $ir = 1$.



В таблице 4.6 указаны размеры двигателя IEC, а также возможные комбинации вал/фланец для присоединения двигателя к редуктору.

Таблица. 4.6

| <i>Возможные варианты соединения с двигателями IEC</i> | | | | | | | |
|--|---------|--------------|-----|---|---|---|---|
| | IEC | ir | | | | | |
| | | 1 | 1.5 | 2 | 3 | 4 | 5 |
| Z 12 | 71 | 14/105 (B14) | | | | | |
| | 63 | 11/140 (B5) | | | | | |
| Z 19 | 71 | 14/160 (B5) | | | | | |
| | 63 | 11/140 (B5) | | | | | |
| Z 24 | 90 | 24/200 (B5) | | | | | |
| | 80 | 19/200 (B5) | | | | | |
| | 71 | 14/160 (B5) | | | | | |
| Z 32 | 100/112 | 28/250 (B5) | | | | | |
| | 90 | 24/200 (B5) | | | | | |
| | 80 | 19/200 (B5) | | | | | |
| Z 38 | 132 | 38/300 (B5) | | | | | |
| | 100/112 | 28/250 (B5) | | | | | |
| | 90 | 24/200 (B5) | | | | | |
| Z 42 | 160 | 42/350 (B5) | | | | | |
| | 132 | 38/300 (B5) | | | | | |
| | 100/112 | 28/250 (B5) | | | | | |
| Z 55 | 160 | 42/350 (B5) | | | | | |
| | 132 | 38/300 (B5) | | | | | |
| | 100/112 | 28/250 (B5) | | | | | |

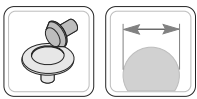
Пример расшифровки обозначений:

11/140 (B5)

11/140: стандартная комбинация вал/фланец
(B5) : конструкция двигателя IEC

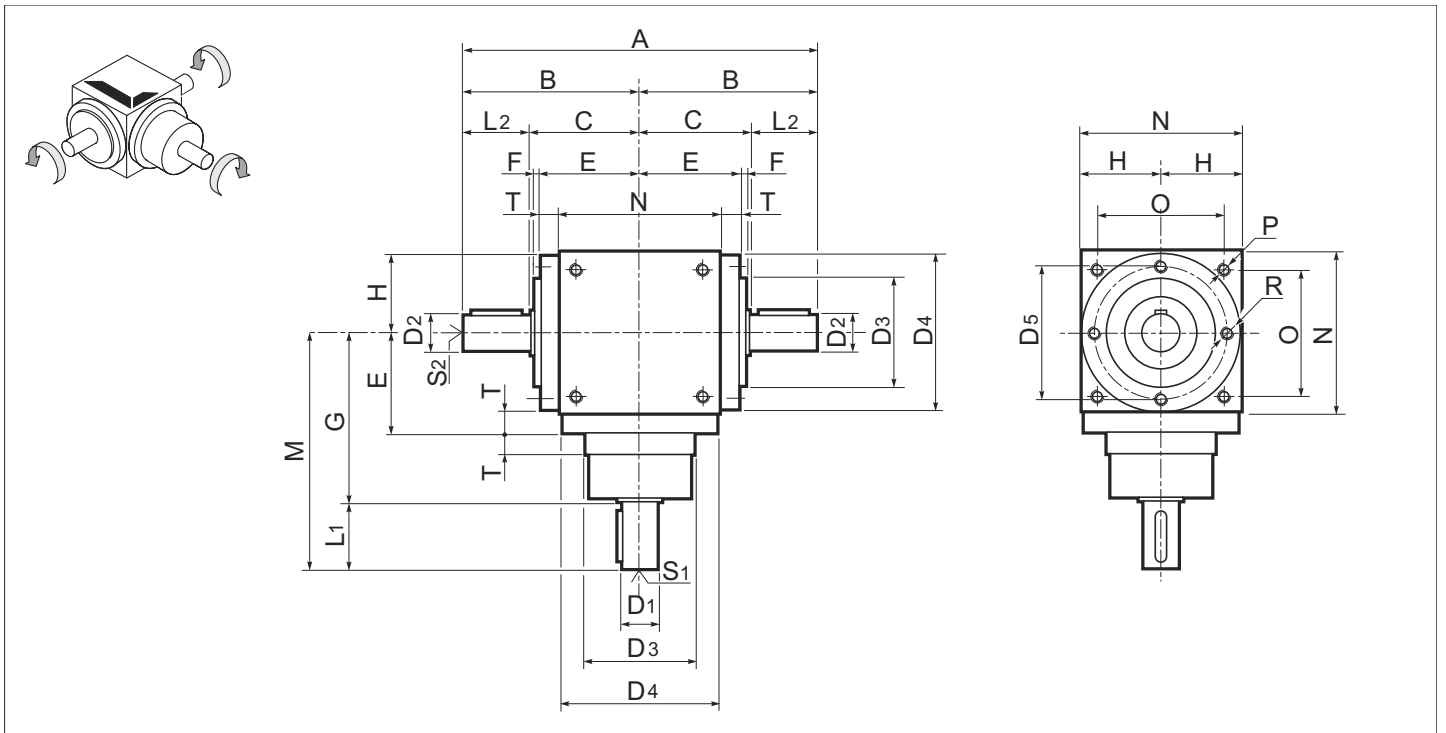
E



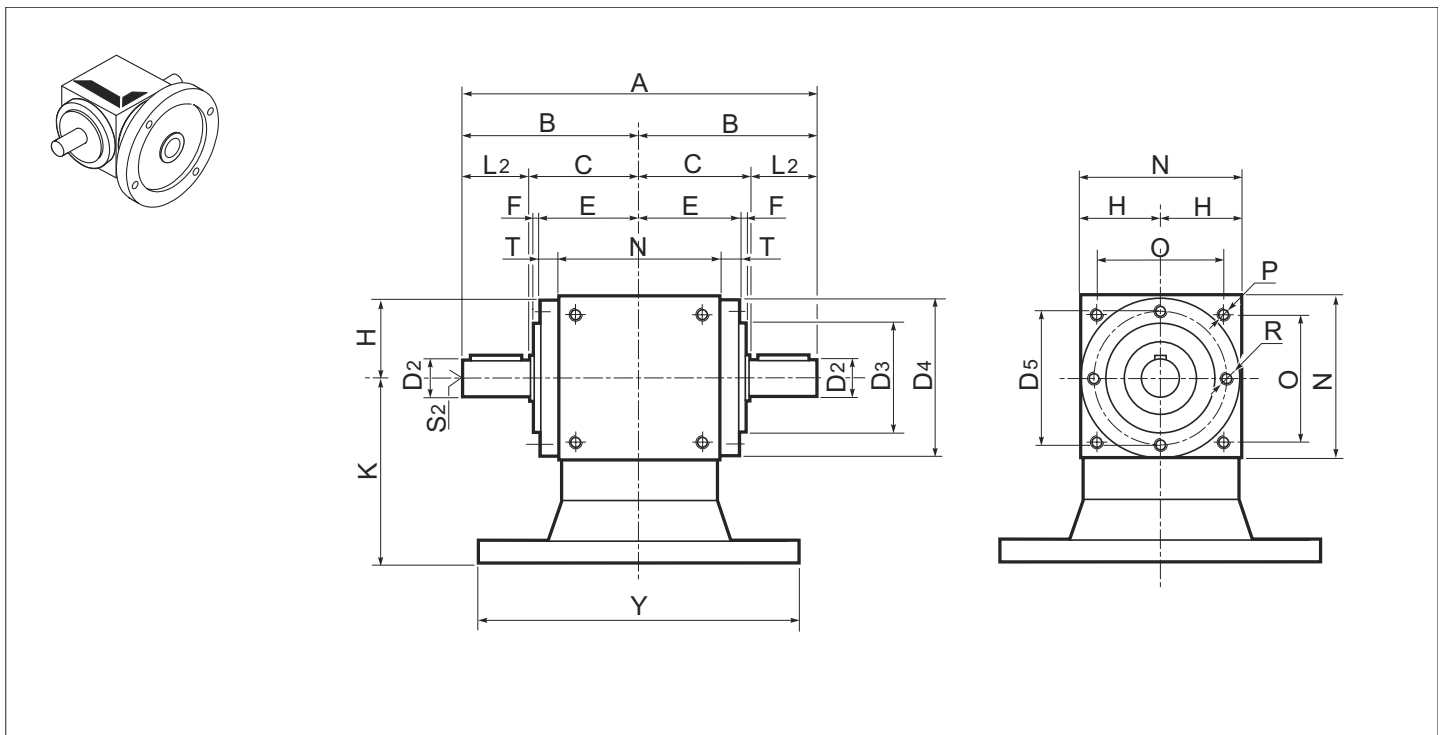


1.8 Размеры

Z.A



Z.MA

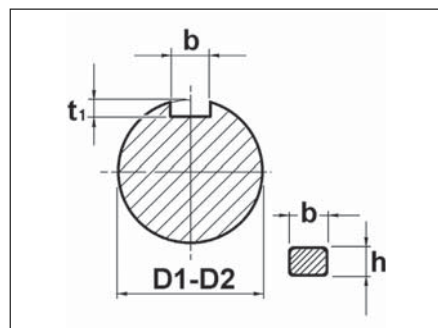




1.8 Размеры

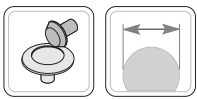
| Z.A | C | D3 h8 | D4 | D5 | E | F | G | H | N | O | P | R | T |
|-----|-----|----------|-----|-----|-----|---|-----|------|-----|-----|-----|-----|----|
| 12 | 46 | 44 | - | 54 | 42 | 2 | 74 | 32.5 | 65 | 45 | M6 | M6 | - |
| 19 | 65 | 60 | 86 | 72 | 59 | 4 | 100 | 45 | 90 | 70 | M6 | M6 | 14 |
| 24 | 80 | 70 | 105 | 88 | 73 | 5 | 115 | 55 | 110 | 88 | M8 | M8 | 18 |
| 32 | 95 | 95 | 135 | 115 | 88 | 5 | 145 | 70 | 140 | 110 | M10 | M10 | 18 |
| 38 | 110 | 120 | 165 | 145 | 103 | 5 | 170 | 85 | 170 | 136 | M12 | M12 | 18 |
| 42 | 125 | 135 | 190 | 165 | 118 | 5 | 195 | 100 | 200 | 155 | M12 | M12 | 18 |
| 55 | 150 | 170 | 230 | 205 | 143 | 5 | 245 | 120 | 240 | 190 | M14 | M14 | 23 |
| 75 | 225 | - | 300 | - | 195 | - | 350 | 165 | 330 | 248 | M16 | M16 | 30 |

| Z.A | ir | A | B | M | Albero entrata / Input shaft / Antriebswelle | | | Albero uscita / Output shaft / Abtriebswelle | | |
|-----|-------|-----|-----|-----|--|--------|--------|--|-----|--------|
| | | | | | D1 j6 | L1 | S1 | D2 j6 | L2 | S2 |
| 12 | 1-2-3 | 144 | 72 | 100 | 12 | 26 | M4x8 | 12 | 26 | M4x8 |
| 19 | 1-2-3 | 210 | 105 | 140 | 19 | 40 | M6x12 | 19 | 40 | M6x12 |
| | 4-5 | | | 130 | 30 | M5x10 | | | | |
| 24 | 1-2-3 | 260 | 130 | 165 | 24 | 50 | M8x16 | 24 | 50 | M8x16 |
| | 4-5 | | | 155 | 40 | M6x12 | | | | |
| 32 | 1-2-3 | 310 | 155 | 205 | 32 | 60 | M10x20 | 32 | 60 | M10x20 |
| | 4-5 | | | 195 | 50 | M8x16 | | | | |
| 38 | 1-2-3 | 360 | 180 | 240 | 38 | 70 | M12x24 | 38 | 70 | M12x24 |
| | 4-5 | | | 230 | 60 | M10x20 | | | | |
| 42 | 1-2-3 | 410 | 205 | 275 | 42 | 80 | M12x24 | 42 | 80 | M12x24 |
| | 4-5 | | | 255 | 60 | M10x20 | | | | |
| 55 | 1-2-3 | 520 | 260 | 355 | 55 | 110 | M14x28 | 55 | 110 | M14x28 |
| | 4-5 | | | 325 | 80 | M12x24 | | | | |
| 75 | 1-2-3 | 750 | 375 | 500 | 75 | 150 | M16x32 | 75 | 150 | M16x32 |
| | 4-5 | | | 460 | 110 | M14x28 | | | | |



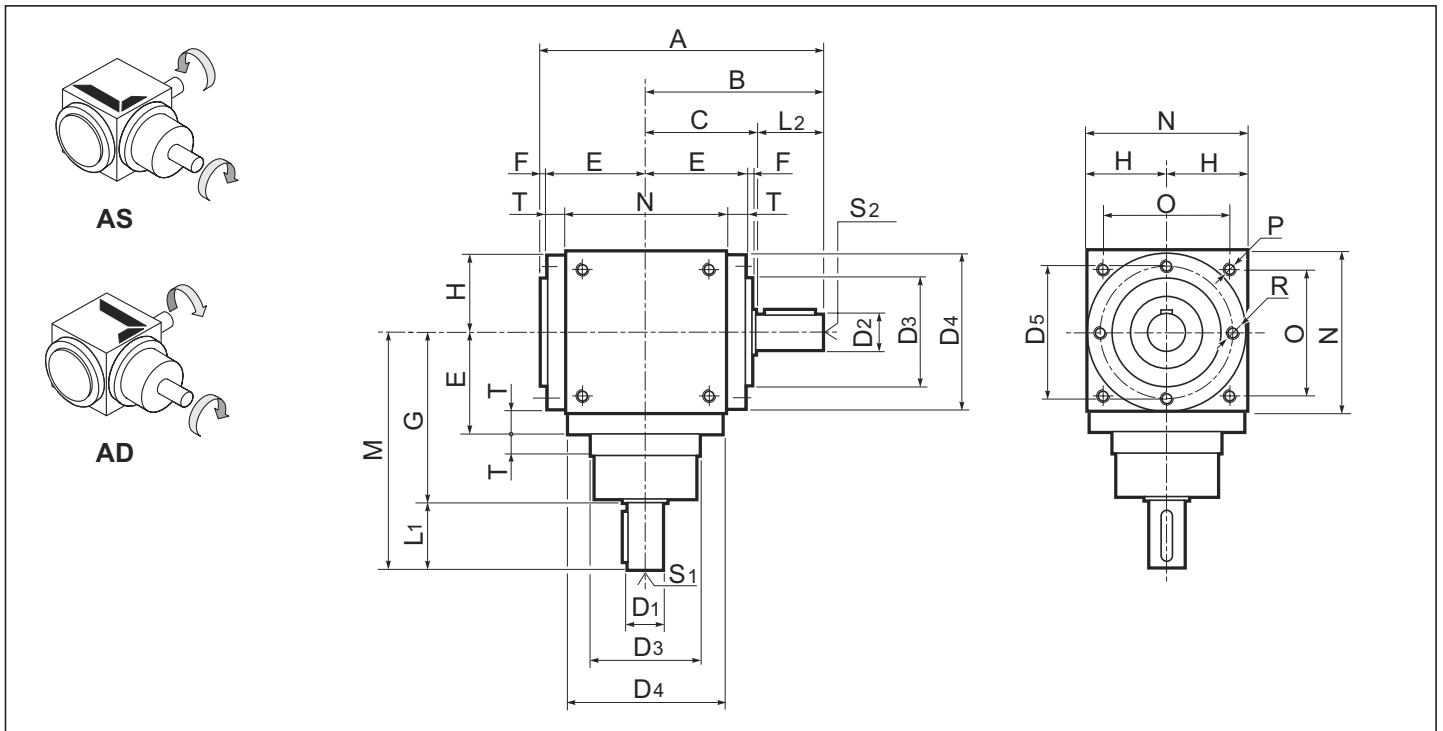
| D1 - D2 | b x h | t ₁ |
|---------|---------|----------------|
| 12 | 4 x 4 | 2.5 |
| 14 | 5 x 5 | 3.0 |
| 19 | 6 x 6 | 3.5 |
| 24 | 8 x 7 | 4.0 |
| 28 | 8 x 7 | 4.0 |
| 32 | 8 x 7 | 4.0 |
| 38 | 10 x 8 | 5.0 |
| 42 | 12 x 8 | 5.0 |
| 55 | 16 x 10 | 6.0 |
| 75 | 22 x 14 | 9.0 |

| Z.MA | IEC | 12 | | 19 | | 24 | | 32 | | 38 | | 42 | | 55 | |
|------|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K |
| | B5 | 105 (B14) | 90 | 140 | 90 | 160 | 120 | 200 | 140 | 200 | 155 | 250 | 200 | 250 | 220 |
| | 140 | 90 | 160 | 90 | 200 | 120 | 250 | 140 | 250 | 155 | 300 | 200 | 300 | 220 | |
| | | | | | | | | | 300 | 155 | 350 | 200 | 350 | 220 | |

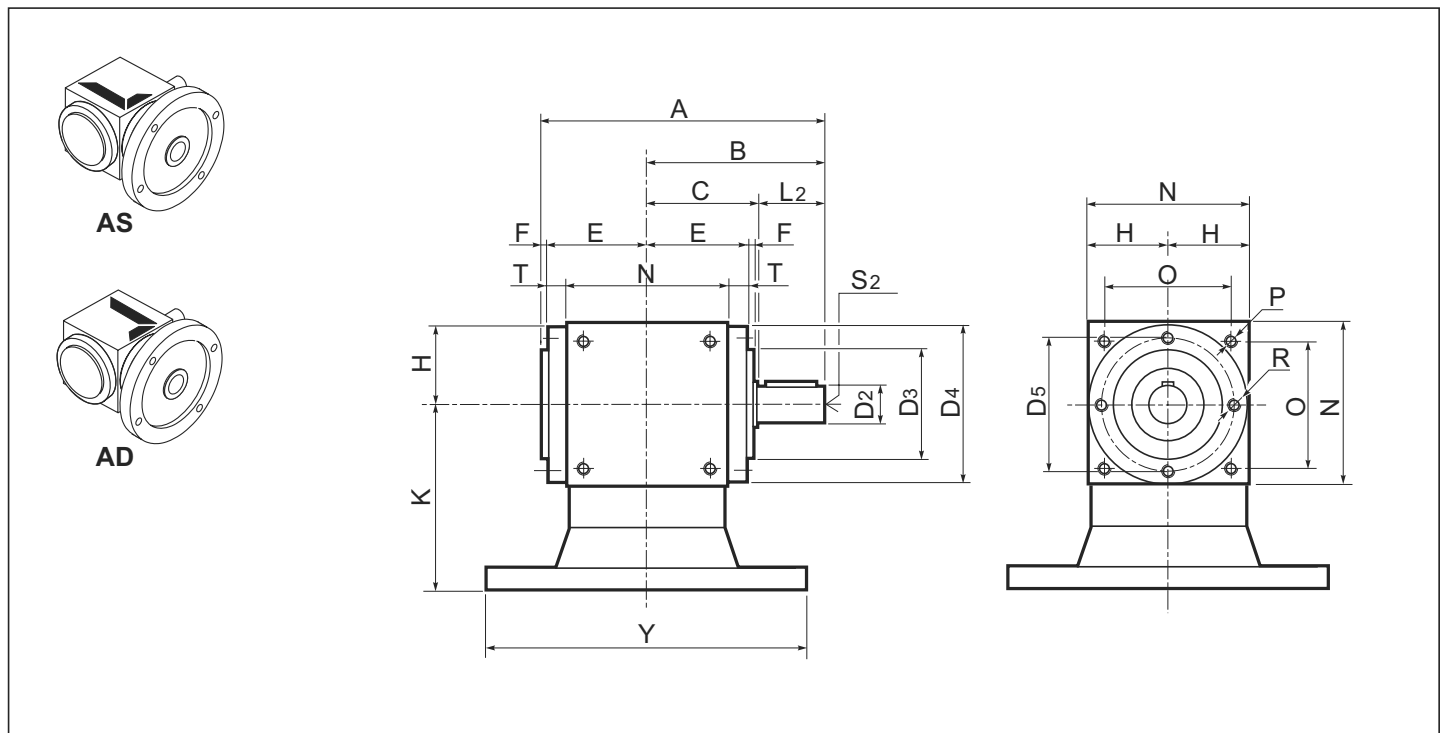


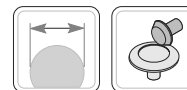
1.8 Размеры

Z.AS - Z.AD



Z.MAS - Z.MAD



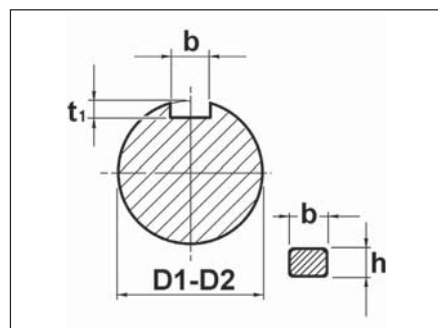


1.8 Размеры

| Z.AS Z.AD | C | D3 h8 | D4 | D5 | E | F | G | H | N | O | P | R | T |
|--------------|-----|----------|-----|-----|-----|---|-----|------|-----|-----|-----|-----|----|
| 12 | 46 | 44 | - | 54 | 42 | 2 | 74 | 32.5 | 65 | 45 | M6 | M6 | - |
| 19 | 65 | 60 | 86 | 72 | 59 | 4 | 100 | 45 | 90 | 70 | M6 | M6 | 14 |
| 24 | 80 | 70 | 105 | 88 | 73 | 5 | 115 | 55 | 110 | 88 | M8 | M8 | 18 |
| 32 | 95 | 95 | 135 | 115 | 88 | 5 | 145 | 70 | 140 | 110 | M10 | M10 | 18 |
| 38 | 110 | 120 | 165 | 145 | 103 | 5 | 170 | 85 | 170 | 136 | M12 | M12 | 18 |
| 42 | 125 | 135 | 190 | 165 | 118 | 5 | 195 | 100 | 200 | 155 | M12 | M12 | 18 |
| 55 | 150 | 170 | 230 | 205 | 143 | 5 | 245 | 120 | 240 | 190 | M14 | M14 | 23 |
| 75 | 225 | - | 300 | - | 195 | - | 350 | 165 | 330 | 248 | M16 | M16 | 30 |

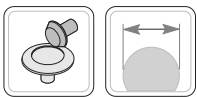
| Z.AS Z.AD | ir | A | B | M | Albero entrata / Input shaft / Antriebswelle | | | Albero uscita / Output shaft / Abtriebswelle | | |
|--------------|-------|-----|-----|-----|--|-----|--------|--|-----|--------|
| | | | | | D1 j6 | L1 | S1 | D2 j6 | L2 | S2 |
| 12 | 1-2-3 | 116 | 72 | 100 | 12 | 26 | M4x8 | 12 | 26 | M4x8 |
| 19 | 1-2-3 | 168 | 105 | 140 | 19 | 40 | M6x12 | 19 | 40 | M6x12 |
| | 4-5 | | | 130 | 14 | 30 | M5x10 | | | |
| 24 | 1-2-3 | 208 | 130 | 165 | 24 | 50 | M8x16 | 24 | 50 | M8x16 |
| | 4-5 | | | 155 | 19 | 40 | M6x12 | | | |
| 32 | 1-2-3 | 248 | 155 | 205 | 32 | 60 | M10x20 | 32 | 60 | M10x20 |
| | 4-5 | | | 195 | 24 | 50 | M8x16 | | | |
| 38 | 1-2-3 | 288 | 180 | 240 | 38 | 70 | M12x24 | 38 | 70 | M12x24 |
| | 4-5 | | | 230 | 28 | 60 | M10x20 | | | |
| 42 | 1-2-3 | 328 | 205 | 275 | 42 | 80 | M12x24 | 42 | 80 | M12x24 |
| | 4-5 | | | 255 | 32 | 60 | M10x20 | | | |
| 55 | 1-2-3 | 408 | 260 | 355 | 55 | 110 | M14x28 | 55 | 110 | M14x28 |
| | 4-5 | | | 325 | 42 | 80 | M12x24 | | | |
| 75 | 1-2-3 | 598 | 375 | 500 | 75 | 150 | M16x32 | 75 | 150 | M16x32 |
| | 4-5 | | | 460 | 55 | 110 | M14x28 | | | |

E



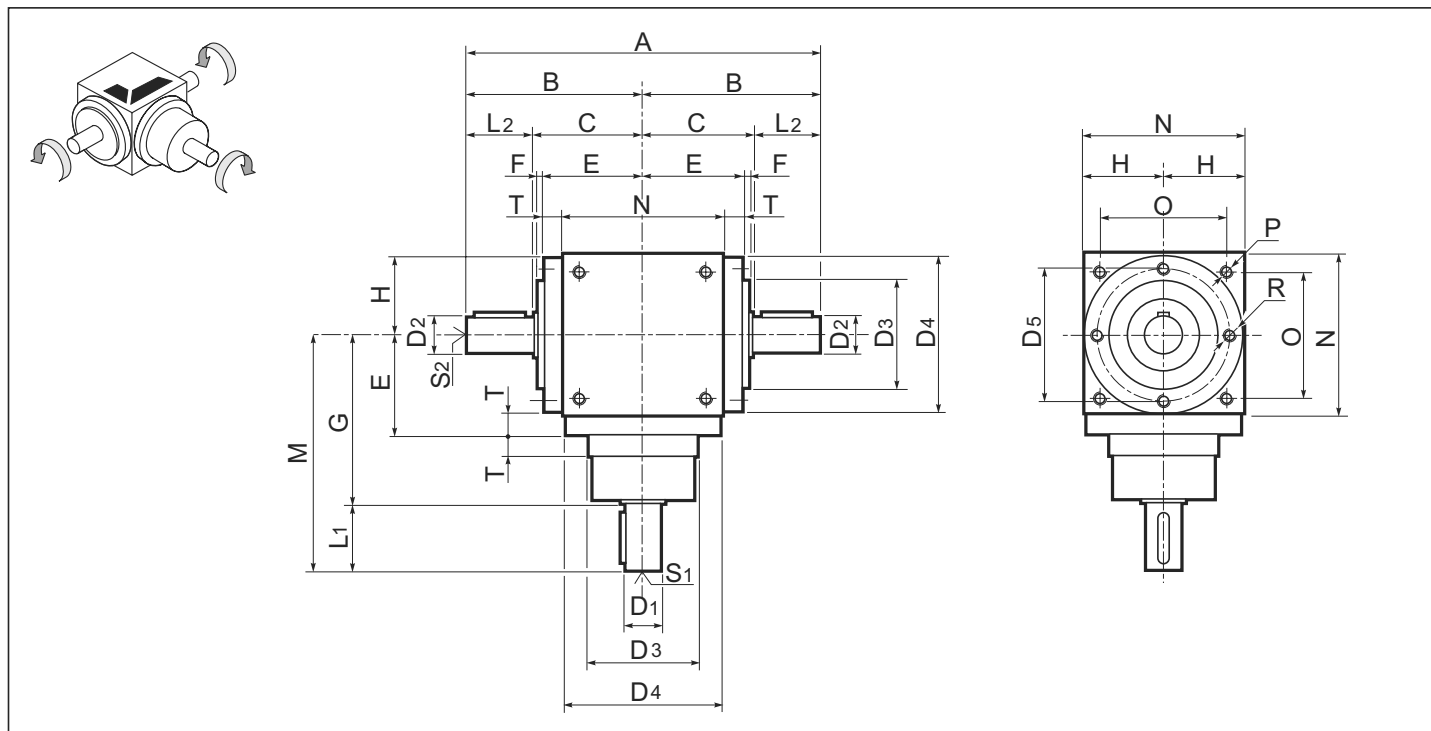
| D1 - D2 | b x h | t ₁ | |
|---------|---------|----------------|-----------|
| 12 | 4 x 4 | 2.5 | |
| 14 | 5 x 5 | 3.0 | +0.1 0 |
| 19 | 6 x 6 | 3.5 | |
| 24 | 8 x 7 | 4.0 | |
| 28 | 8 x 7 | 4.0 | +0.2 0 |
| 32 | 8 x 7 | 4.0 | |
| 38 | 10 x 8 | 5.0 | |
| 42 | 12 x 8 | 5.0 | |
| 55 | 16 x 10 | 6.0 | |
| 75 | 22 x 14 | 9.0 | |

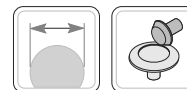
| Z.MAS Z.MAD | IEC | 12 | | 19 | | 24 | | 32 | | 38 | | 42 | | 55 | |
|----------------|-----|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K |
| | | B5 | 105 (B14) | 90 | 140 | 90 | 160 | 120 | 200 | 140 | 200 | 155 | 250 | 200 | 250 |
| | | 140 | 90 | 160 | 90 | 200 | 120 | 250 | 140 | 250 | 155 | 300 | 200 | 300 | 220 |
| | | | | | | | | | | 300 | 155 | 350 | 200 | 350 | 220 |



1.8 Размеры

Z.AX

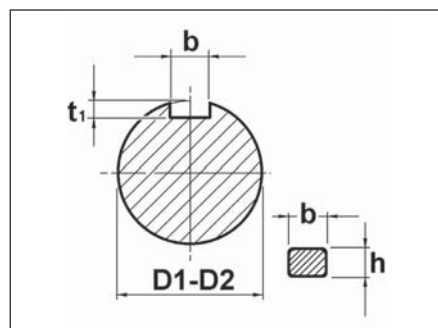




1.8 Размеры

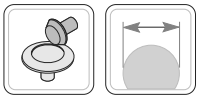
| Z.AX | C | D3 h8 | D4 | D5 | E | F | G | H | N | O | P | R | T |
|------|-----|----------|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|----|
| 12 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 19 | 65 | 60 | 86 | 72 | 59 | 4 | 100 | 45 | 90 | 70 | M6 | M6 | 14 |
| 24 | 80 | 70 | 105 | 88 | 73 | 5 | 115 | 55 | 110 | 88 | M8 | M8 | 18 |
| 32 | 95 | 95 | 135 | 115 | 88 | 5 | 145 | 70 | 140 | 110 | M10 | M10 | 18 |
| 38 | 110 | 120 | 165 | 145 | 103 | 5 | 170 | 85 | 170 | 136 | M12 | M12 | 18 |
| 42 | 125 | 135 | 190 | 165 | 118 | 5 | 195 | 100 | 200 | 155 | M12 | M12 | 18 |
| 55 | 150 | 170 | 230 | 205 | 143 | 5 | 245 | 120 | 240 | 190 | M14 | M14 | 23 |
| 75 | 225 | — | 300 | — | 195 | — | 350 | 165 | 330 | 248 | M16 | M16 | 30 |

| Z.AX | ir | A | B | M | Входной вал | | | Выходной вал | | | |
|------|-----|-----|-----|-----|-------------|-----|--------|--------------|-----|--------|---|
| | | | | | D1 j6 | L1 | S1 | D2 j6 | L2 | S2 | |
| 12 | — | — | — | — | — | — | — | — | — | — | — |
| 19 | 1.5 | 190 | 95 | 140 | 19 | 40 | M6x12 | 14 | 30 | M5x10 | |
| | 2 | | | | | | | | | | |
| 24 | 1.5 | 240 | 120 | 165 | 24 | 50 | M8x16 | 19 | 40 | M6x12 | |
| | 2 | | | | | | | | | | |
| 32 | 1.5 | 290 | 145 | 205 | 32 | 60 | M10x20 | 24 | 50 | M8x16 | |
| | 2 | 270 | 135 | | | | | 19 | 40 | M6x12 | |
| 38 | 1.5 | 340 | 170 | 240 | 38 | 70 | M12x24 | 28 | 60 | M10x20 | |
| | 2 | | | | | | | | | | |
| 42 | 1.5 | 390 | 195 | 275 | 42 | 80 | M12x24 | 38 | 70 | M10x20 | |
| | 2 | 370 | 185 | | | | | 32 | 60 | | |
| 55 | 1.5 | 460 | 230 | 355 | 55 | 110 | M14x28 | 42 | 80 | M12x24 | |
| | 2 | 440 | 220 | | | | | 38 | 70 | M12x24 | |
| 75 | 1.5 | 670 | 335 | 500 | 75 | 150 | M16x32 | 55 | 110 | M14x28 | |
| | 2 | | | | | | | | | | |



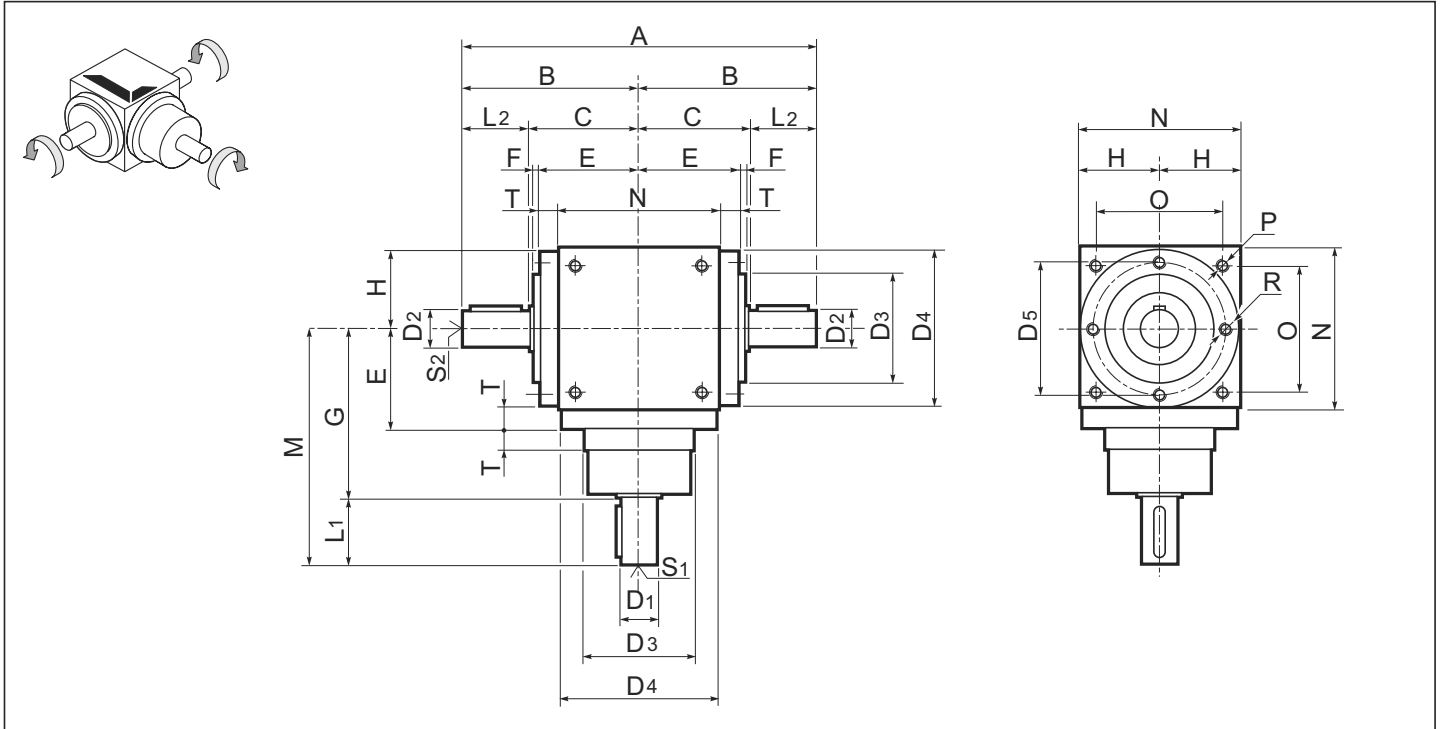
| D1 - D2 | b x h | t ₁ | |
|---------|---------|----------------|-----------|
| 12 | 4 x 4 | 2.5 | |
| 14 | 5 x 5 | 3.0 | +0.1 0 |
| 19 | 6 x 6 | 3.5 | |
| 24 | 8 x 7 | 4.0 | |
| 28 | 8 x 7 | 4.0 | +0.2 0 |
| 32 | 8 x 7 | 4.0 | |
| 38 | 10 x 8 | 5.0 | |
| 42 | 12 x 8 | 5.0 | |
| 55 | 16 x 10 | 6.0 | |
| 75 | 22 x 14 | 9.0 | |

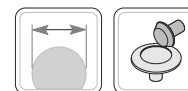




1.8 Размеры

Z.AP

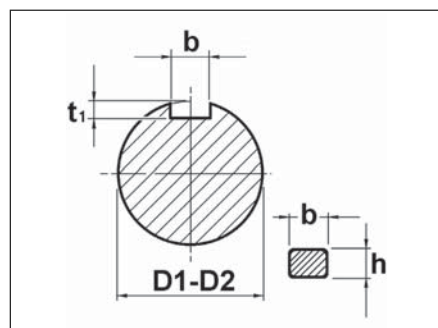




1.8 Размеры

| Z.AP | C | D3 h8 | D4 | D5 | E | F | G | H | N | O | P | R | T |
|------|-----|----------|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|----|
| 12 | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 19 | 65 | 60 | 86 | 72 | 59 | 4 | 100 | 45 | 90 | 70 | M6 | M6 | 14 |
| 24 | 80 | 70 | 105 | 88 | 73 | 5 | 115 | 55 | 110 | 88 | M8 | M8 | 18 |
| 32 | 95 | 95 | 135 | 115 | 88 | 5 | 145 | 70 | 140 | 110 | M10 | M10 | 18 |
| 38 | 110 | 120 | 165 | 145 | 103 | 5 | 170 | 85 | 170 | 136 | M12 | M12 | 18 |
| 42 | 125 | 135 | 190 | 165 | 118 | 5 | 195 | 100 | 200 | 155 | M12 | M12 | 18 |
| 55 | 150 | 170 | 230 | 205 | 143 | 5 | 245 | 120 | 240 | 190 | M14 | M14 | 23 |
| 75 | 225 | — | 300 | — | 195 | — | 350 | 165 | 330 | 248 | M16 | M16 | 30 |

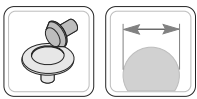
| Z.AP | ir | A | B | M | Входной вал | | | Выходной вал | | | |
|------|-------|-----|-----|-----|-------------|--------|--------|--------------|-----|--------|---|
| | | | | | D1 j6 | L1 | S1 | D2 j6 | L2 | S2 | |
| 12 | 1-2-3 | — | — | — | — | — | — | — | — | — | — |
| 19 | 1-2-3 | 230 | 115 | 140 | 19 | 40 | M6x12 | 24 | 50 | M8x16 | |
| | 130 | | | 14 | 30 | M5x10 | | | | | |
| 24 | 1-2-3 | 280 | 140 | 165 | 24 | 50 | M8x16 | 32 | 60 | M10x20 | |
| | 155 | | | 19 | 40 | M6x12 | | | | | |
| 32 | 1-2-3 | 330 | 165 | 205 | 32 | 60 | M10x20 | 38 | 70 | M12x24 | |
| | 195 | | | 24 | 50 | M8x16 | | | | | |
| 38 | 1-2-3 | 380 | 190 | 240 | 38 | 70 | M12x24 | 42 | 80 | M12x24 | |
| | 230 | | | 28 | 60 | M10x20 | | | | | |
| 42 | 1-2-3 | 430 | 215 | 275 | 42 | 80 | M12x24 | 48 | 90 | M14x28 | |
| | 255 | | | 32 | 60 | M10x20 | | | | | |
| 55 | 1-2-3 | 520 | 260 | 355 | 55 | 110 | M14x28 | 70 | 110 | M14x28 | |
| | 325 | | | 42 | 80 | M12x24 | | | | | |
| 75 | 1-2-3 | 750 | 375 | 500 | 75 | 150 | M16x32 | 90 | 150 | M16x32 | |
| | 460 | | | 55 | 110 | M14x28 | | | | | |



| D1 - D2 | b x h | t ₁ |
|---------|---------|----------------|
| 12 | 4 x 4 | 2.5 |
| 14 | 5 x 5 | 3.0 |
| 19 | 6 x 6 | 3.5 |
| 24 | 8 x 7 | 4.0 |
| 28 | 8 x 7 | 4.0 |
| 32 | 8 x 7 | 4.0 |
| 38 | 10 x 8 | 5.0 |
| 42 | 12 x 8 | 5.0 |
| 48 | 14 x 9 | 5.5 |
| 55 | 16 x 10 | 6.0 |
| 70 | 20 x 12 | 7.5 |
| 75 | 22 x 14 | 9.0 |
| 90 | 25 x 14 | 9.0 |

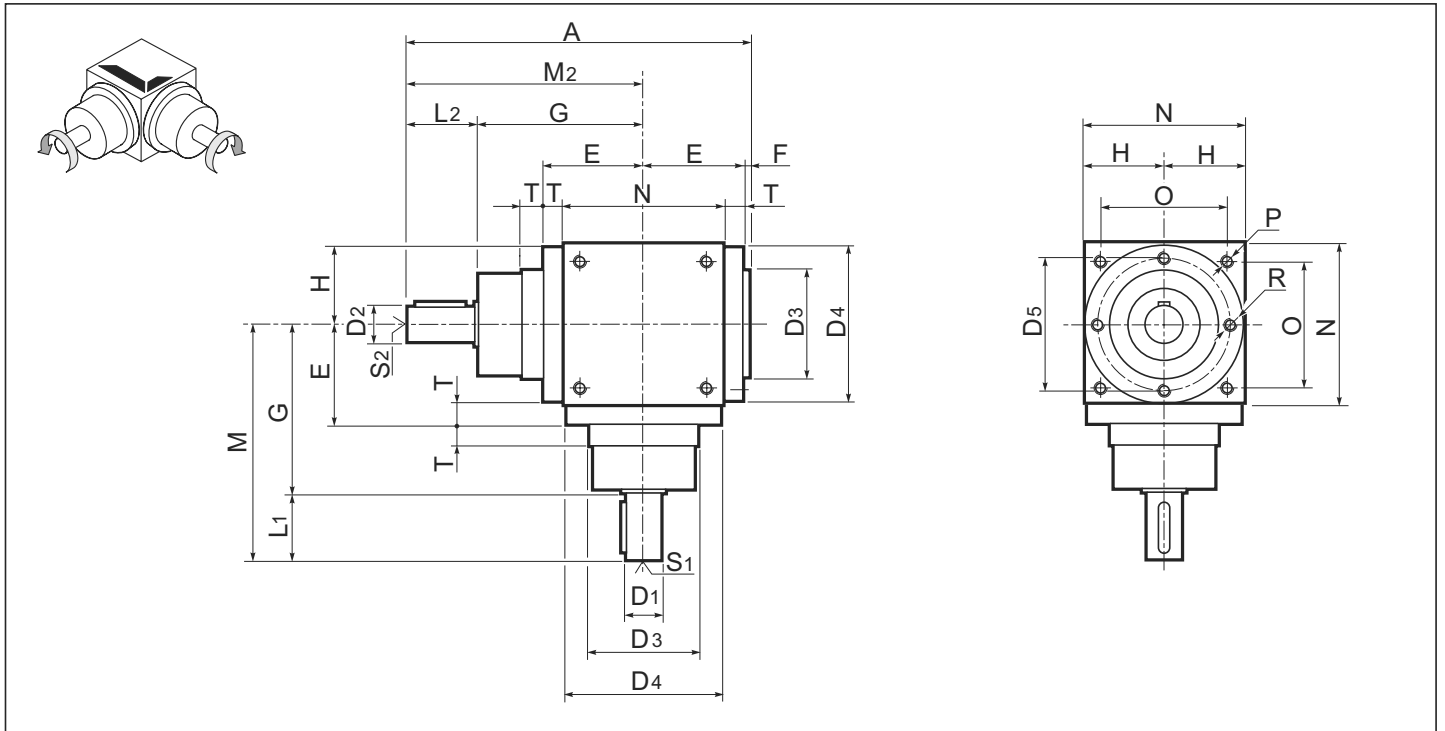
E



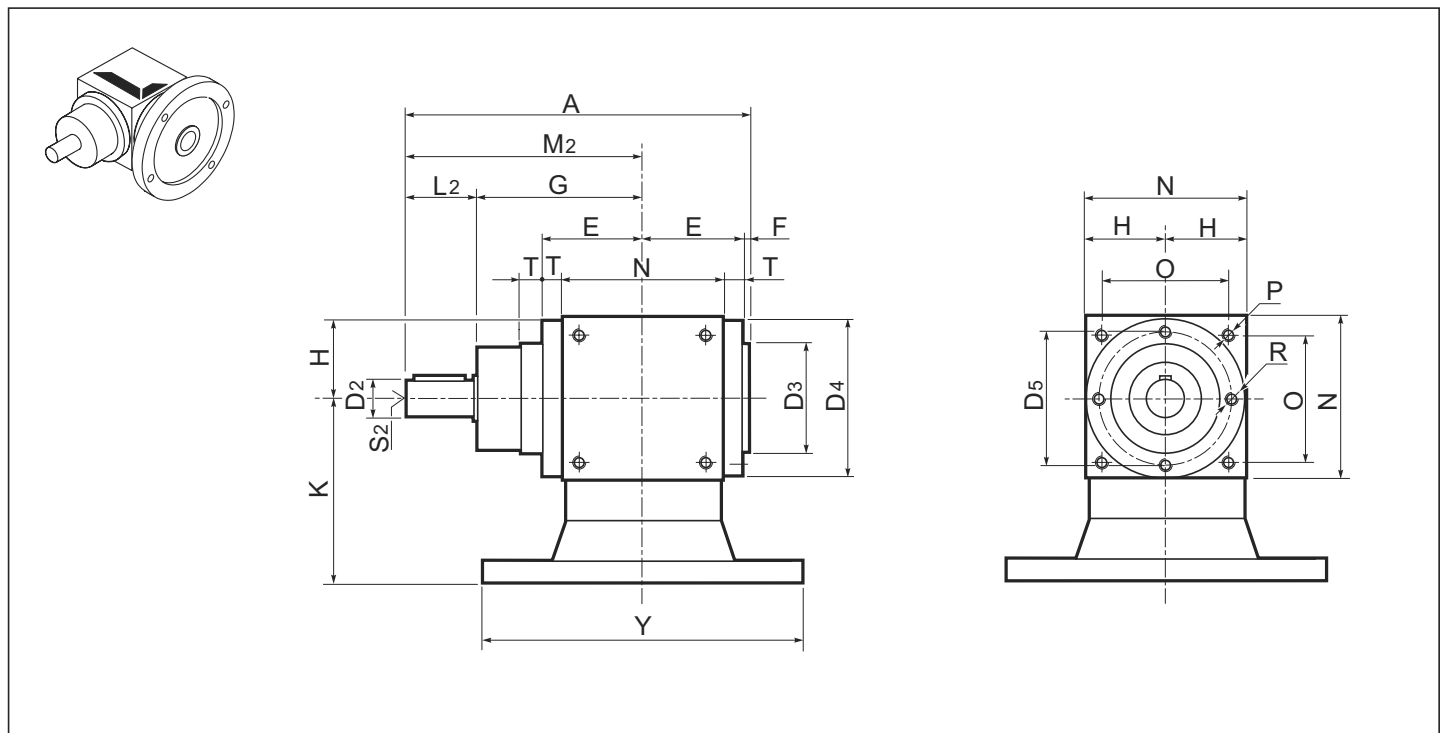


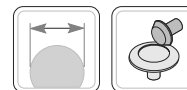
1.8 Размеры

Z.C



Z.MC

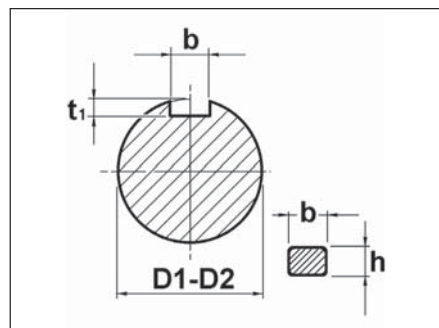




1.8 Размеры

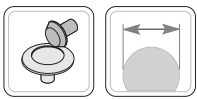
| Z.C | D3 h8 | D4 | D5 | E | F | G | H | N | O | P | R | T |
|-----|----------|-----|-----|-----|---|-----|------|-----|-----|-----|-----|----|
| 12 | 44 | - | 54 | 42 | 2 | 74 | 32.5 | 65 | 45 | M6 | M6 | - |
| 19 | 60 | 86 | 72 | 59 | 4 | 100 | 45 | 90 | 70 | M6 | M6 | 14 |
| 24 | 70 | 105 | 88 | 73 | 5 | 115 | 55 | 110 | 88 | M8 | M8 | 18 |
| 32 | 95 | 135 | 115 | 88 | 5 | 145 | 70 | 140 | 110 | M10 | M10 | 18 |
| 38 | 120 | 165 | 145 | 103 | 5 | 170 | 85 | 170 | 136 | M12 | M12 | 18 |
| 42 | 135 | 190 | 165 | 118 | 5 | 195 | 100 | 200 | 155 | M12 | M12 | 18 |
| 55 | 170 | 230 | 205 | 143 | 5 | 245 | 120 | 240 | 190 | M14 | M14 | 23 |
| 75 | - | 300 | - | 195 | - | 350 | 165 | 330 | 248 | M16 | M16 | 30 |

| Z.C | ir | A | M | M2 | Входной вал | | | Выходной вал | | |
|-----|-------|-----|-----|-----|-------------|-----|--------|--------------|-----|--------|
| | | | | | D1 j6 | L1 | S1 | D2 j6 | L2 | S2 |
| 12 | 1-2-3 | 144 | 100 | 100 | 12 | 26 | M4x8 | 12 | 26 | M4x8 |
| 19 | 1-2-3 | 203 | 140 | 140 | 19 | 40 | M6x12 | 19 | 40 | M6x12 |
| | 4-5 | | 130 | | 14 | 30 | M5x10 | | | |
| 24 | 1-2-3 | 243 | 165 | 165 | 24 | 50 | M8x16 | 24 | 50 | M8x16 |
| | 4-5 | | 155 | | 19 | 40 | M6x12 | | | |
| 32 | 1-2-3 | 298 | 205 | 205 | 32 | 60 | M10x20 | 32 | 60 | M10x20 |
| | 4-5 | | 195 | | 24 | 50 | M8x16 | | | |
| 38 | 1-2-3 | 348 | 240 | 240 | 38 | 70 | M12x24 | 38 | 70 | M12x24 |
| | 4-5 | | 230 | | 28 | 60 | M10x20 | | | |
| 42 | 1-2-3 | 398 | 275 | 275 | 42 | 80 | M12x24 | 42 | 80 | M12x24 |
| | 4-5 | | 255 | | 32 | 60 | M10x20 | | | |
| 55 | 1-2-3 | 503 | 355 | 355 | 55 | 110 | M14x28 | 55 | 110 | M14x28 |
| | 4-5 | | 325 | | 42 | 80 | M12x24 | | | |
| 75 | 1-2-3 | 723 | 500 | 500 | 75 | 150 | M16x32 | 75 | 150 | M16x32 |
| | 4-5 | | 460 | | 55 | 110 | M14x28 | | | |



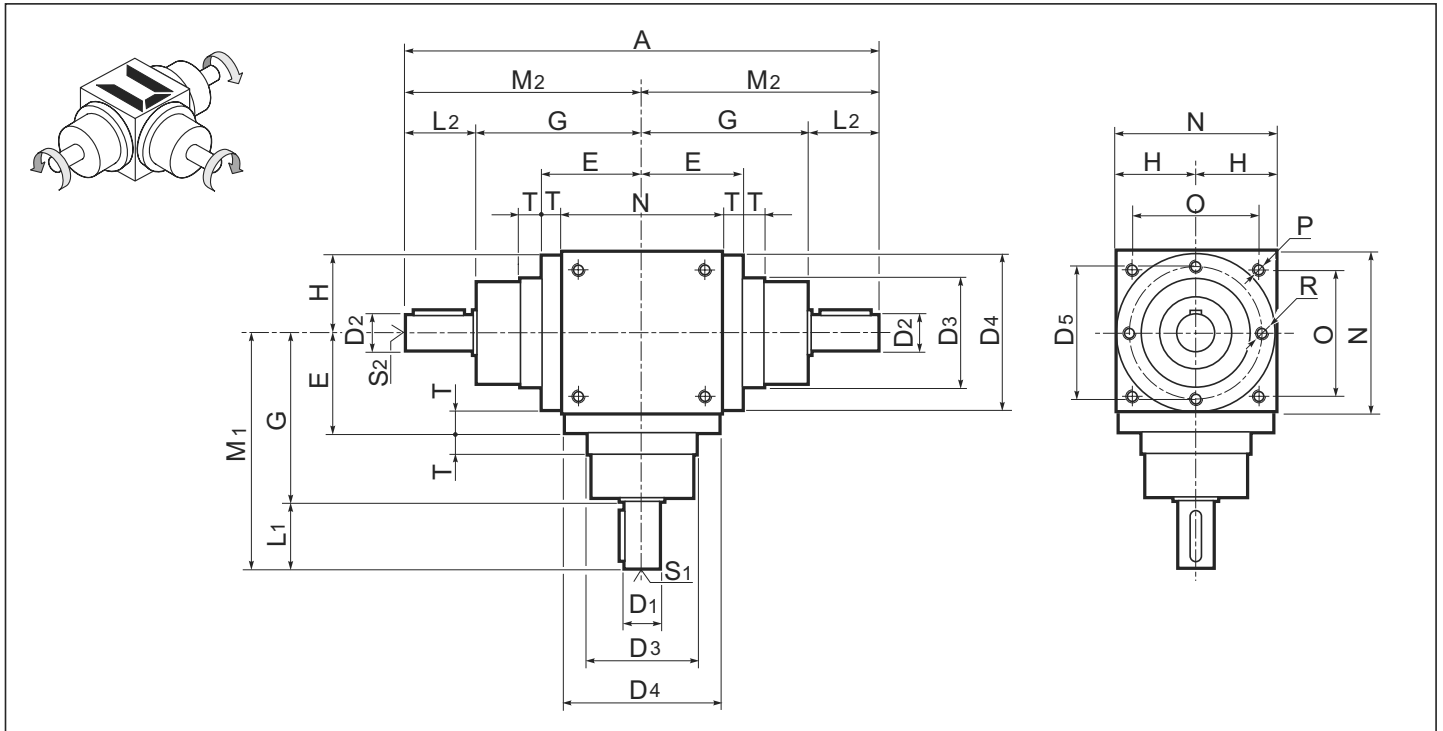
| D1 - D2 | b x h | t ₁ | |
|---------|---------|----------------|------|
| 12 | 4 x 4 | 2.5 | |
| 14 | 5 x 5 | 3.0 | +0.1 |
| 19 | 6 x 6 | 3.5 | 0 |
| 24 | 8 x 7 | 4.0 | |
| 28 | 8 x 7 | 4.0 | |
| 32 | 8 x 7 | 4.0 | |
| 38 | 10 x 8 | 5.0 | +0.2 |
| 42 | 12 x 8 | 5.0 | 0 |
| 55 | 16 x 10 | 6.0 | |
| 75 | 22 x 14 | 9.0 | |

| Z.MC | IEC | 12 | | 19 | | 24 | | 32 | | 38 | | 42 | | 55 | |
|------|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K |
| | B5 | 105 (B14) | 90 | 140 | 90 | 160 | 120 | 200 | 140 | 200 | 155 | 250 | 200 | 250 | 220 |
| | 140 | 90 | 160 | 90 | 200 | 120 | 250 | 140 | 250 | 155 | 300 | 200 | 300 | 220 | |
| | | | | | | | | | 300 | 155 | 350 | 200 | 350 | 220 | |

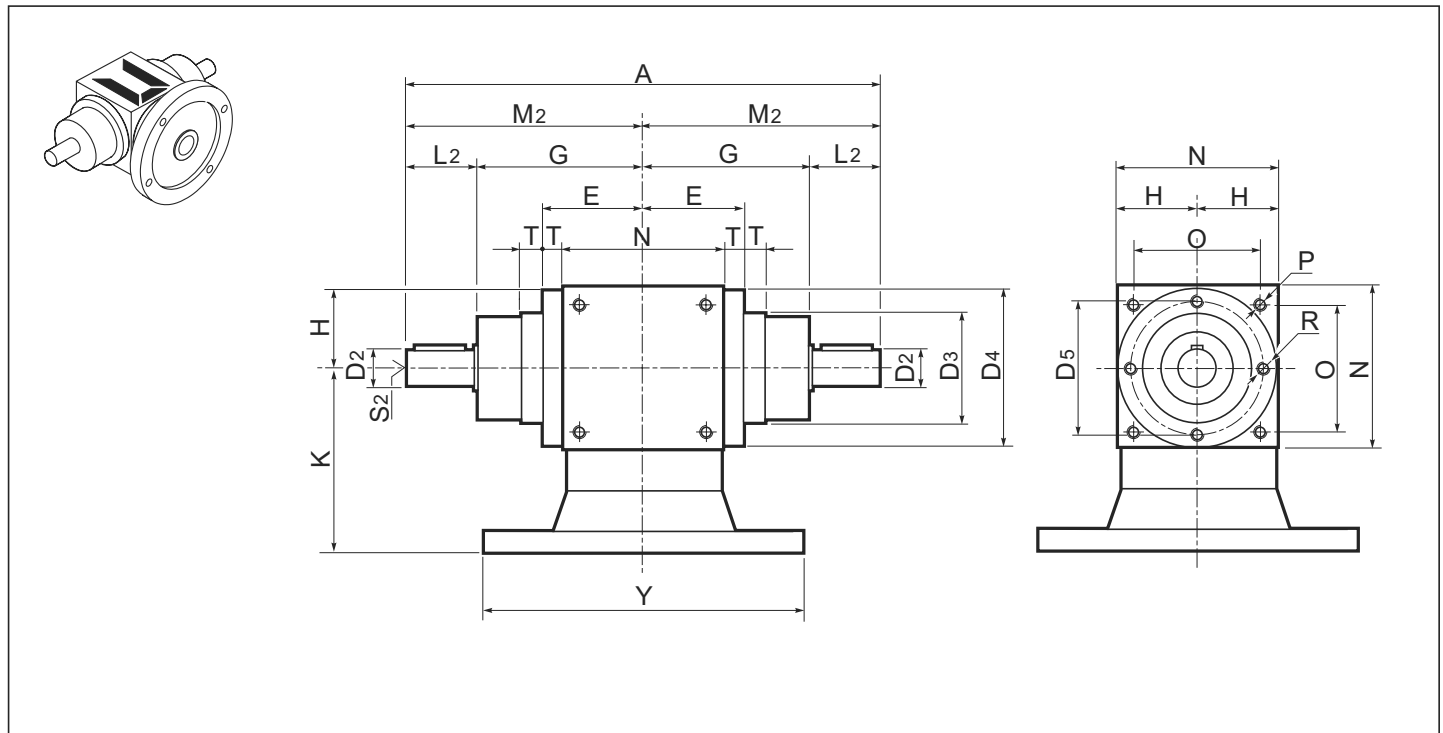


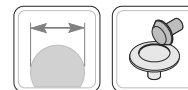
1.8 Размеры

Z.DR



Z.MDR

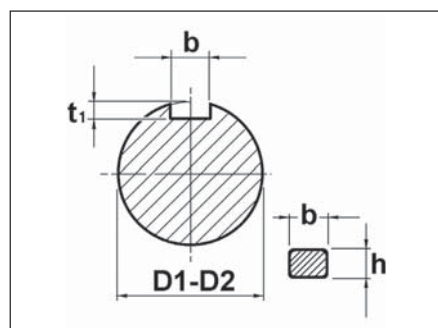




1.8 Размеры

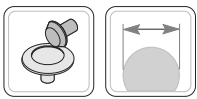
| Z.DR | D3 h8 | D4 | D5 | E | F | G | H | N | O | P | R | T |
|------|----------|-----|-----|-----|---|-----|------|-----|-----|-----|-----|----|
| 12 | 44 | — | 54 | 42 | 2 | 74 | 32.5 | 65 | 45 | M6 | M6 | — |
| 19 | 60 | 86 | 72 | 59 | 4 | 100 | 45 | 90 | 70 | M6 | M6 | 14 |
| 24 | 70 | 105 | 88 | 73 | 5 | 115 | 55 | 110 | 88 | M8 | M8 | 18 |
| 32 | 95 | 135 | 115 | 88 | 5 | 145 | 70 | 140 | 110 | M10 | M10 | 18 |
| 38 | 120 | 165 | 145 | 103 | 5 | 170 | 85 | 170 | 136 | M12 | M12 | 18 |
| 42 | 135 | 190 | 165 | 118 | 5 | 195 | 100 | 200 | 155 | M12 | M12 | 18 |
| 55 | 170 | 230 | 205 | 143 | 5 | 245 | 120 | 240 | 190 | M14 | M14 | 23 |
| 75 | — | 300 | — | 195 | — | 350 | 165 | 330 | 248 | M16 | M16 | 30 |

| Z.DR | ir | A | M1 | M2 | Входной вал | | | Выходной вал | | |
|------|-------|------|-----|-----|-------------|-----|--------|--------------|-----|--------|
| | | | | | D1 j6 | L1 | S1 | D2 j6 | L2 | S2 |
| 12 | 1-2-3 | 200 | 100 | 100 | 12 | 26 | M4x8 | 12 | 26 | M4x8 |
| 19 | 1-2-3 | 280 | 140 | 140 | 19 | 40 | M6x12 | 19 | 40 | M6x12 |
| | 4-5 | | 130 | | 14 | 30 | M5x10 | | | |
| 24 | 1-2-3 | 330 | 165 | 165 | 24 | 50 | M8x16 | 24 | 50 | M8x16 |
| | 4-5 | | 155 | | 19 | 40 | M6x12 | | | |
| 32 | 1-2-3 | 410 | 205 | 205 | 32 | 60 | M10x20 | 32 | 60 | M10x20 |
| | 4-5 | | 195 | | 24 | 50 | M8x16 | | | |
| 38 | 1-2-3 | 480 | 240 | 240 | 38 | 70 | M12x24 | 38 | 70 | M12x24 |
| | 4-5 | | 230 | | 28 | 60 | M10x20 | | | |
| 42 | 1-2-3 | 550 | 275 | 275 | 42 | 80 | M12x24 | 42 | 80 | M12x24 |
| | 4-5 | | 255 | | 32 | 60 | M10x20 | | | |
| 55 | 1-2-3 | 710 | 355 | 355 | 55 | 110 | M14x28 | 55 | 110 | M14x28 |
| | 4-5 | | 325 | | 42 | 80 | M12x24 | | | |
| 75 | 1-2-3 | 1000 | 500 | 500 | 75 | 150 | M16x32 | 75 | 150 | M16x32 |
| | 4-5 | | 460 | | 55 | 110 | M14x28 | | | |



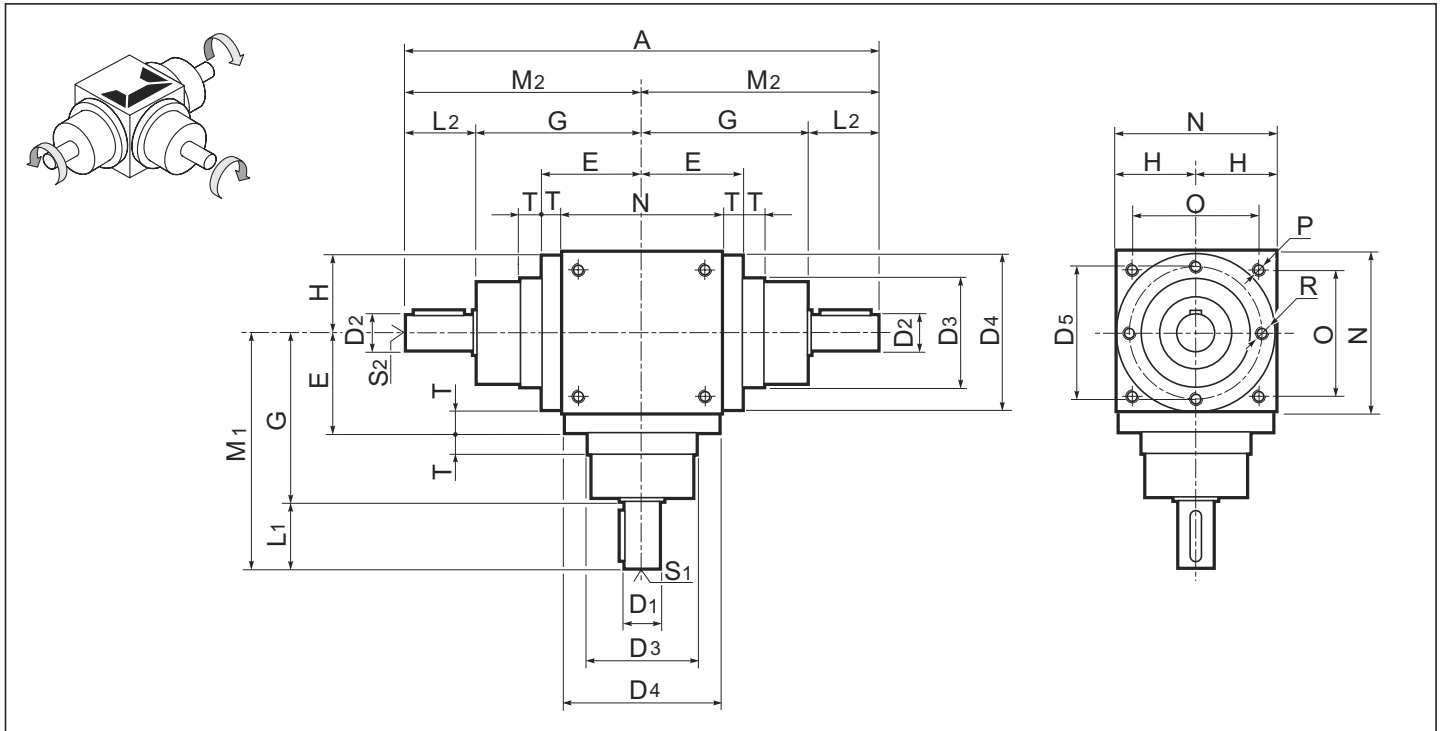
| D1 - D2 | b x h | t ₁ |
|---------|---------|----------------|
| 12 | 4 x 4 | 2.5 |
| 14 | 5 x 5 | 3.0 |
| 19 | 6 x 6 | 3.5 |
| 24 | 8 x 7 | 4.0 |
| 28 | 8 x 7 | 4.0 |
| 32 | 8 x 7 | 4.0 |
| 38 | 10 x 8 | 5.0 |
| 42 | 12 x 8 | 5.0 |
| 55 | 16 x 10 | 6.0 |
| 75 | 22 x 14 | 9.0 |

| Z.MDR | IEC | 12 | | 19 | | 24 | | 32 | | 38 | | 42 | | 55 | |
|-------|-----|-----------|----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K |
| | B5 | 105 (B14) | 90 | 140 | 90 | 160 | 120 | 200 | 140 | 200 | 155 | 250 | 200 | 250 | 220 |
| | | 140 | 90 | 160 | 90 | 200 | 120 | 250 | 140 | 250 | 155 | 300 | 200 | 300 | 220 |
| | | | | | | | | | | 300 | 155 | 350 | 200 | 350 | 220 |

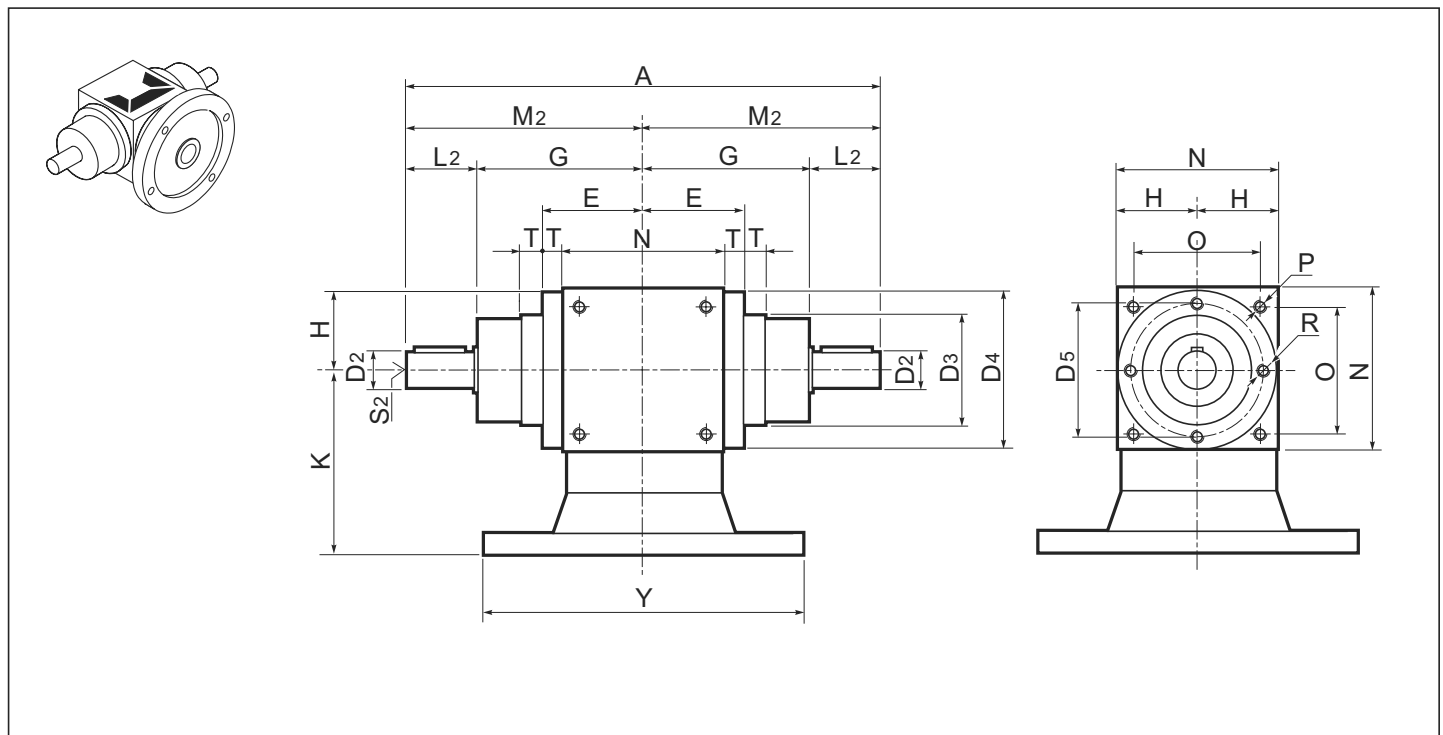


1.8 Размеры

Z.DX



Z.MDX

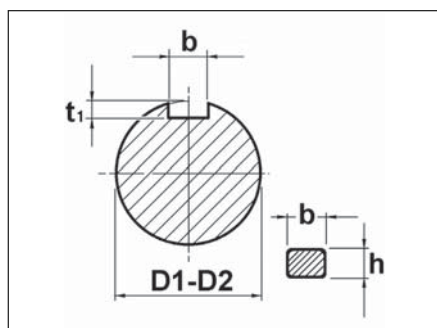




1.8 Размеры

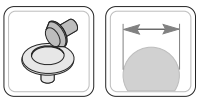
| Z.DX | D3 h8 | D4 | D5 | E | G | H | N | O | P | R | T |
|------|----------|-----|-----|-----|-----|------|-----|-----|-----|-----|----|
| 12 | 44 | - | 54 | 42 | 74 | 32.5 | 65 | 45 | M6 | M6 | - |
| 19 | 60 | 86 | 72 | 59 | 100 | 45 | 90 | 70 | M6 | M6 | 14 |
| 24 | 70 | 105 | 88 | 73 | 115 | 55 | 110 | 88 | M8 | M8 | 18 |
| 32 | 95 | 135 | 115 | 88 | 145 | 70 | 140 | 110 | M10 | M10 | 18 |
| 38 | 120 | 165 | 145 | 103 | 170 | 85 | 170 | 136 | M12 | M12 | 18 |
| 42 | 135 | 190 | 165 | 118 | 195 | 100 | 200 | 155 | M12 | M12 | 18 |
| 55 | 170 | 230 | 205 | 143 | 245 | 120 | 240 | 190 | M14 | M14 | 23 |
| 75 | - | 300 | - | 195 | 350 | 165 | 330 | 248 | M16 | M16 | 30 |

| Z.DX | ir | A | M1 | M2 | Входной вал | | | Выходной вал | | |
|------|-------|------|-----|-----|-------------|-----|--------|--------------|-----|--------|
| | | | | | D1 j6 | L1 | S1 | D2 j6 | L2 | S2 |
| 12 | 1-2-3 | 200 | 100 | 100 | 12 | 26 | M4x8 | 12 | 26 | M4x8 |
| 19 | 1-2-3 | 280 | 140 | 140 | 19 | 40 | M6x12 | 19 | 40 | M6x12 |
| | 4-5 | 260 | 130 | | 14 | 30 | M5x10 | | | |
| 24 | 1-2-3 | 330 | 165 | 165 | 24 | 50 | M8x16 | 24 | 50 | M8x16 |
| | 4-5 | 310 | 155 | | 19 | 40 | M6x12 | | | |
| 32 | 1-2-3 | 410 | 205 | 205 | 32 | 60 | M10x20 | 32 | 60 | M10x20 |
| | 4-5 | 390 | 195 | | 24 | 50 | M8x16 | | | |
| 38 | 1-2-3 | 480 | 240 | 240 | 38 | 70 | M12x24 | 38 | 70 | M12x24 |
| | 4-5 | 460 | 230 | | 28 | 60 | M10x20 | | | |
| 42 | 1-2-3 | 550 | 275 | 275 | 42 | 80 | M12x24 | 42 | 80 | M12x24 |
| | 4-5 | 510 | 255 | | 32 | 60 | M10x20 | | | |
| 55 | 1-2-3 | 710 | 355 | 355 | 55 | 110 | M14x28 | 55 | 110 | M14x28 |
| | 4-5 | 650 | 325 | | 42 | 80 | M12x24 | | | |
| 75 | 1-2-3 | 1000 | 500 | 500 | 75 | 150 | M16x32 | 75 | 150 | M16x32 |
| | 4-5 | 920 | 460 | | 55 | 110 | M14x28 | | | |



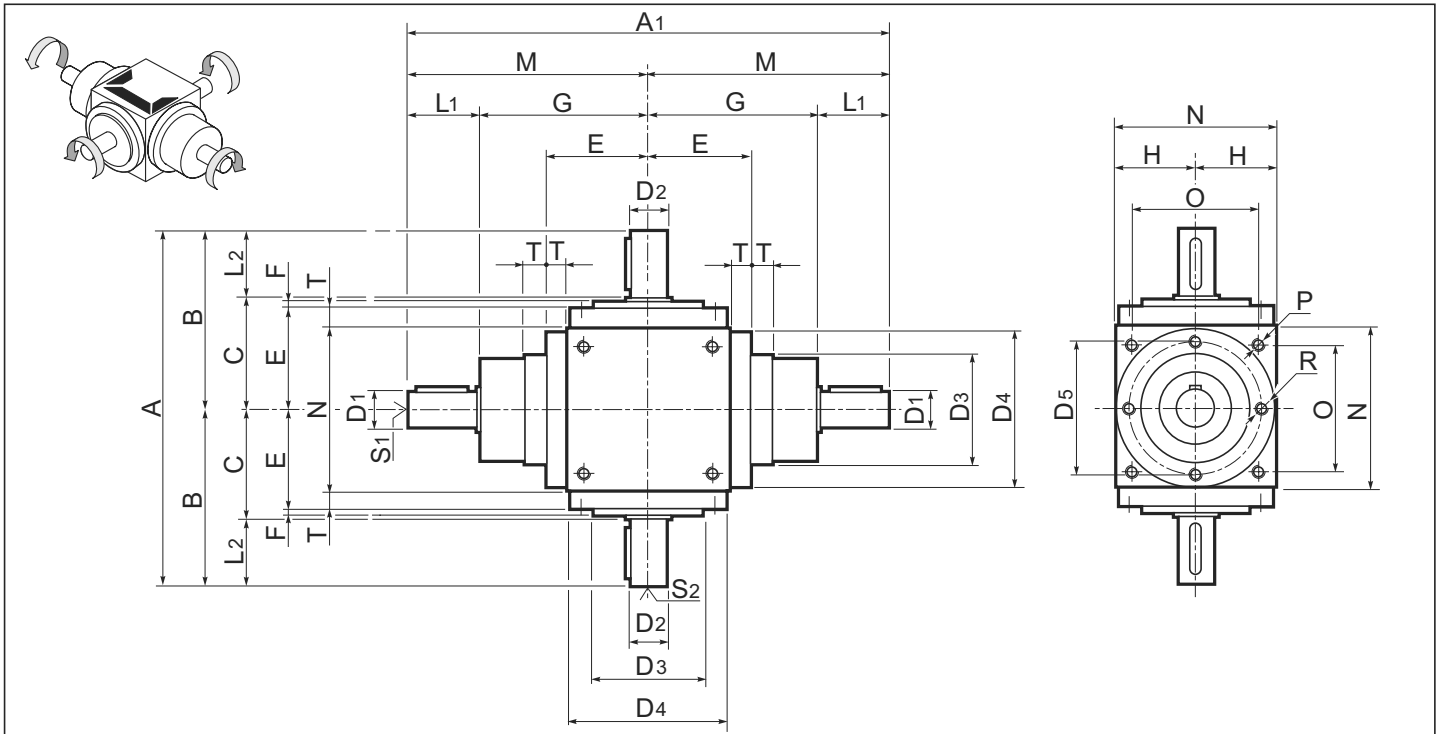
| D1 - D2 | b x h | t ₁ | |
|---------|---------|----------------|-----------|
| 12 | 4 x 4 | 2.5 | |
| 14 | 5 x 5 | 3.0 | +0.1 0 |
| 19 | 6 x 6 | 3.5 | |
| 24 | 8 x 7 | 4.0 | |
| 28 | 8 x 7 | 4.0 | |
| 32 | 8 x 7 | 4.0 | |
| 38 | 10 x 8 | 5.0 | +0.2 0 |
| 42 | 12 x 8 | 5.0 | |
| 55 | 16 x 10 | 6.0 | |
| 75 | 22 x 14 | 9.0 | |

| Z.MDX | IEC | 12 | | 19 | | 24 | | 32 | | 38 | | 42 | | 55 | |
|-------|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K |
| | B5 | 105 (B14) | 90 | 140 | 90 | 160 | 120 | 200 | 140 | 200 | 155 | 250 | 200 | 250 | 220 |
| | 140 | 90 | 160 | 90 | 200 | 120 | 250 | 140 | 250 | 155 | 300 | 200 | 300 | 220 | |
| | | | | | | | | | 300 | 155 | 350 | 200 | 350 | 220 | |

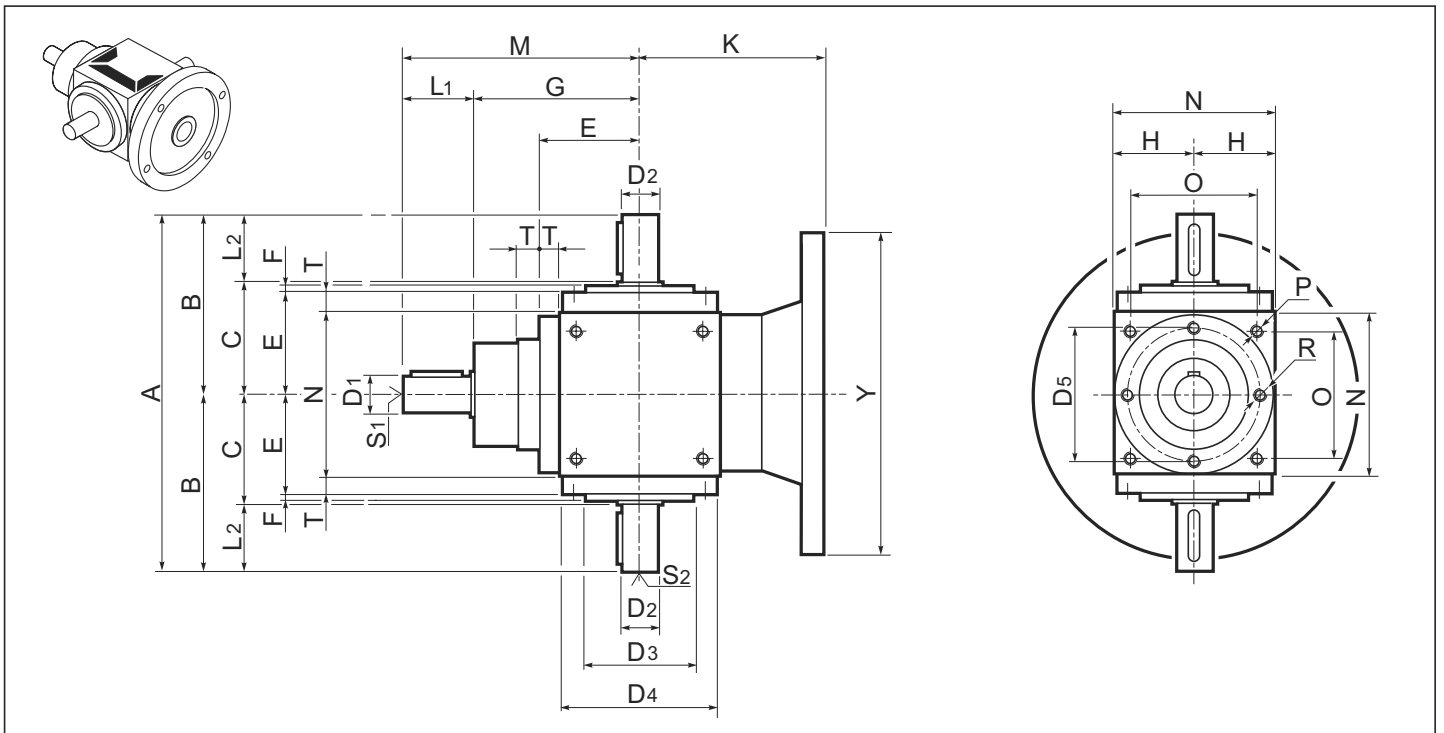


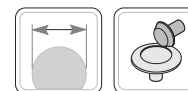
1.8 Размеры

Z.B



Z.MB

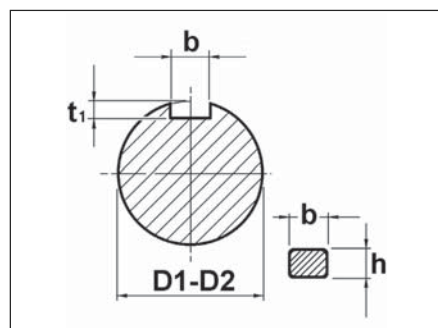




1.8 Размеры

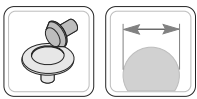
| Z.B | C | D3 h8 | D4 | D5 | E | F | G | H | N | O | P | R | T |
|-----|-----|----------|-----|-----|-----|---|-----|------|-----|-----|-----|-----|----|
| 12 | 46 | 44 | — | 54 | 42 | 2 | 74 | 32.5 | 65 | 45 | M6 | M6 | — |
| 19 | 65 | 60 | 86 | 72 | 59 | 4 | 100 | 45 | 90 | 70 | M6 | M6 | 14 |
| 24 | 80 | 70 | 105 | 88 | 73 | 5 | 115 | 55 | 110 | 88 | M8 | M8 | 18 |
| 32 | 95 | 95 | 135 | 115 | 88 | 5 | 145 | 70 | 140 | 110 | M10 | M10 | 18 |
| 38 | 110 | 120 | 165 | 145 | 103 | 5 | 170 | 85 | 170 | 136 | M12 | M12 | 18 |
| 42 | 125 | 135 | 190 | 165 | 118 | 5 | 195 | 100 | 200 | 155 | M12 | M12 | 18 |
| 55 | 150 | 170 | 230 | 205 | 143 | 5 | 245 | 120 | 240 | 190 | M14 | M14 | 23 |
| 75 | 225 | — | 300 | — | 195 | — | 350 | 165 | 330 | 248 | M16 | M16 | 30 |

| Z.B | ir | A1 | A2 | B | M | Входной вал | | | Выходной вал | | |
|-----|-------|------|-----|-----|-----|-------------|-----|--------|--------------|-----|--------|
| | | | | | | D1 j6 | L1 | S1 | D2 j6 | L2 | S2 |
| 12 | 1-2-3 | 200 | 144 | 72 | 100 | 12 | 26 | M4x8 | 12 | 26 | M4x8 |
| 19 | 1-2-3 | 280 | 210 | 105 | 140 | 19 | 40 | M6x12 | 19 | 40 | M6x12 |
| | 4-5 | 260 | | | 130 | 14 | 30 | M5x10 | | | |
| 24 | 1-2-3 | 330 | 260 | 130 | 165 | 24 | 50 | M8x16 | 24 | 50 | M8x16 |
| | 4-5 | 310 | | | 155 | 19 | 40 | M6x12 | | | |
| 32 | 1-2-3 | 410 | 310 | 155 | 205 | 32 | 60 | M10x20 | 32 | 60 | M10x20 |
| | 4-5 | 390 | | | 195 | 24 | 50 | M8x16 | | | |
| 38 | 1-2-3 | 480 | 360 | 180 | 240 | 38 | 70 | M12x24 | 38 | 70 | M12x24 |
| | 4-5 | 460 | | | 230 | 28 | 60 | M10x20 | | | |
| 42 | 1-2-3 | 550 | 410 | 205 | 275 | 42 | 80 | M12x24 | 42 | 80 | M12x24 |
| | 4-5 | 510 | | | 255 | 32 | 60 | M10x20 | | | |
| 55 | 1-2-3 | 710 | 520 | 260 | 355 | 55 | 110 | M14x28 | 55 | 110 | M14x28 |
| | 4-5 | 650 | | | 325 | 42 | 80 | M12x24 | | | |
| 75 | 1-2-3 | 1000 | 750 | 375 | 500 | 75 | 150 | M16x32 | 75 | 150 | M16x32 |
| | 4-5 | 920 | | | 460 | 55 | 110 | M14x28 | | | |



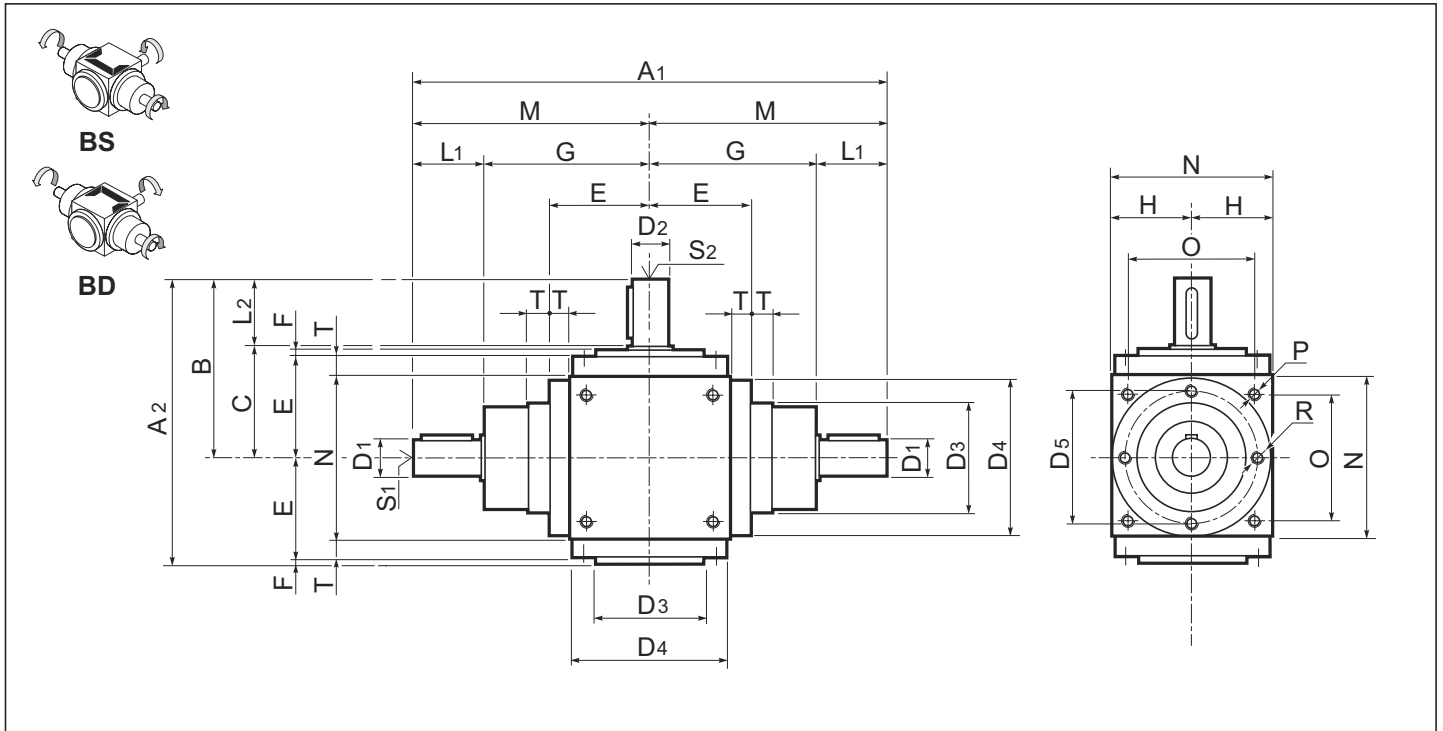
| D1 - D2 | b x h | t ₁ |
|---------|---------|----------------|
| 12 | 4 x 4 | 2.5 |
| 14 | 5 x 5 | 3.0 |
| 19 | 6 x 6 | 3.5 |
| 24 | 8 x 7 | 4.0 |
| 28 | 8 x 7 | 4.0 |
| 32 | 8 x 7 | 4.0 |
| 38 | 10 x 8 | 5.0 |
| 42 | 12 x 8 | 5.0 |
| 55 | 16 x 10 | 6.0 |
| 75 | 22 x 14 | 9.0 |

| Z.MB | IEC | 12 | | 19 | | 24 | | 32 | | 38 | | 42 | | 55 | |
|------|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K |
| | B5 | 105 (B14) | 90 | 140 | 90 | 160 | 120 | 200 | 140 | 200 | 155 | 250 | 200 | 250 | 220 |
| | 140 | 90 | 160 | 90 | 200 | 120 | 250 | 140 | 250 | 155 | 300 | 200 | 300 | 220 | |
| | | | | | | | | | 300 | 155 | 350 | 200 | 350 | 220 | |

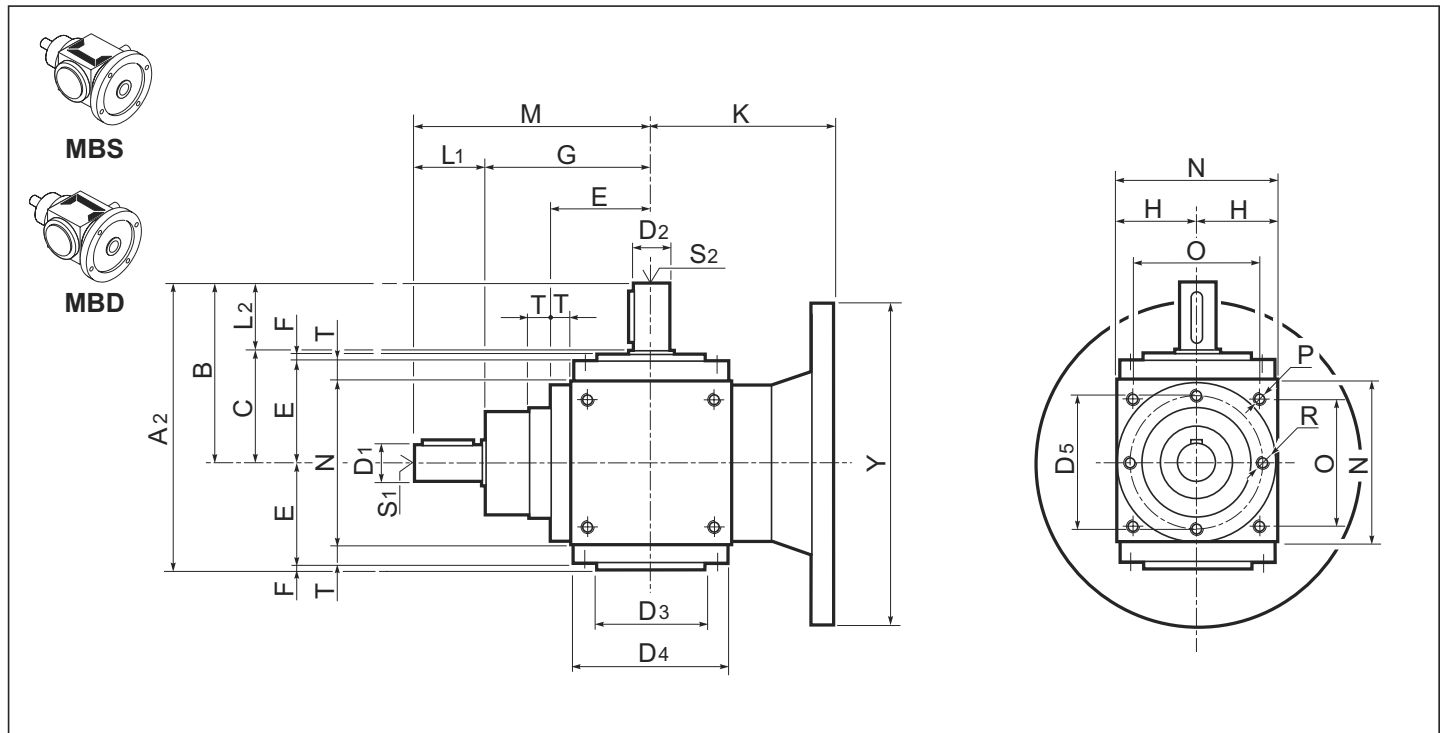


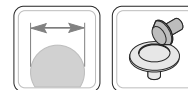
1.8 Размеры

Z.BS - Z.BD



Z.MBS - Z.MBD

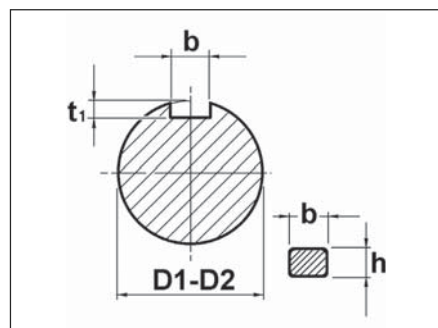




1.8 Размеры

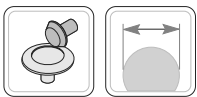
| Z.BS Z.BD | C | D3 h8 | D4 | D5 | E | F | G | H | N | O | P | R | T |
|--------------|-----|----------|-----|-----|-----|---|-----|------|-----|-----|-----|-----|----|
| 12 | 46 | 44 | — | 54 | 42 | 2 | 74 | 32.5 | 65 | 45 | M6 | M6 | — |
| 19 | 65 | 60 | 86 | 72 | 59 | 4 | 100 | 45 | 90 | 70 | M6 | M6 | 14 |
| 24 | 80 | 70 | 105 | 88 | 73 | 5 | 115 | 55 | 110 | 88 | M8 | M8 | 18 |
| 32 | 95 | 95 | 135 | 115 | 88 | 5 | 145 | 70 | 140 | 110 | M10 | M10 | 18 |
| 38 | 110 | 120 | 165 | 145 | 103 | 5 | 170 | 85 | 170 | 136 | M12 | M12 | 18 |
| 42 | 125 | 135 | 190 | 165 | 118 | 5 | 195 | 100 | 200 | 155 | M12 | M12 | 18 |
| 55 | 150 | 170 | 230 | 205 | 143 | 5 | 245 | 120 | 240 | 190 | M14 | M14 | 23 |
| 75 | 225 | — | 300 | — | 195 | — | 350 | 165 | 330 | 248 | M16 | M16 | 30 |

| Z.BS Z.BD | ir | A1 | A2 | M | Входной вал | | | Выходной вал | | |
|--------------|-------|------|-----|-----|-------------|-----|--------|--------------|-----|--------|
| | | | | | D1 j6 | L1 | S1 | D2 j6 | L2 | S2 |
| 12 | 1-2-3 | 200 | 116 | 100 | 12 | 26 | M4x8 | 12 | 26 | M4x8 |
| 19 | 1-2-3 | 280 | 168 | 140 | 19 | 40 | M6x12 | 19 | 40 | M6x12 |
| | 4-5 | 260 | | 130 | 14 | 30 | M5x10 | | | |
| 24 | 1-2-3 | 330 | 208 | 165 | 24 | 50 | M8x16 | 24 | 50 | M8x16 |
| | 4-5 | 310 | | 155 | 19 | 40 | M6x12 | | | |
| 32 | 1-2-3 | 410 | 248 | 205 | 32 | 60 | M10x20 | 32 | 60 | M10x20 |
| | 4-5 | 390 | | 195 | 24 | 50 | M8x16 | | | |
| 38 | 1-2-3 | 480 | 288 | 240 | 38 | 70 | M12x24 | 38 | 70 | M12x24 |
| | 4-5 | 460 | | 230 | 28 | 60 | M10x20 | | | |
| 42 | 1-2-3 | 550 | 328 | 275 | 42 | 80 | M12x24 | 42 | 80 | M12x24 |
| | 4-5 | 510 | | 255 | 32 | 60 | M10x20 | | | |
| 55 | 1-2-3 | 710 | 408 | 355 | 55 | 110 | M14x28 | 55 | 110 | M14x28 |
| | 4-5 | 650 | | 325 | 42 | 80 | M12x24 | | | |
| 75 | 1-2-3 | 1000 | 598 | 500 | 75 | 150 | M16x32 | 75 | 150 | M16x32 |
| | 4-5 | 920 | | 460 | 55 | 110 | M14x28 | | | |



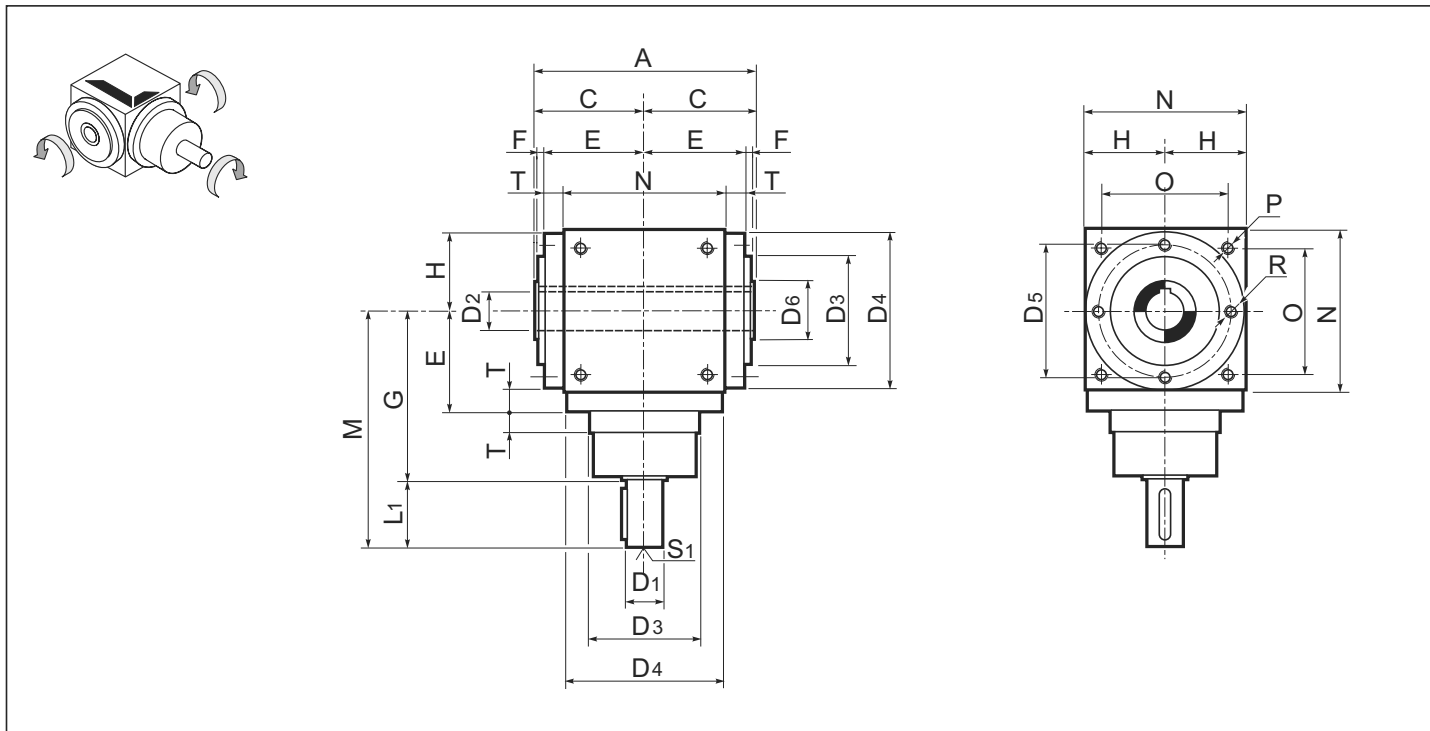
| D1 - D2 | b x h | t ₁ | |
|---------|---------|----------------|-----------|
| 12 | 4 x 4 | 2.5 | +0.1 0 |
| 14 | 5 x 5 | 3.0 | |
| 19 | 6 x 6 | 3.5 | |
| 24 | 8 x 7 | 4.0 | +0.2 0 |
| 28 | 8 x 7 | 4.0 | |
| 32 | 8 x 7 | 4.0 | |
| 38 | 10 x 8 | 5.0 | |
| 42 | 12 x 8 | 5.0 | |
| 55 | 16 x 10 | 6.0 | |
| 75 | 22 x 14 | 9.0 | |

| Z.MBS Z.MBD | IEC | 12 | | 19 | | 24 | | 32 | | 38 | | 42 | | 55 | |
|----------------|-----|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K |
| | B5 | | 105 (B14) | 90 | 140 | 90 | 160 | 120 | 200 | 140 | 200 | 155 | 250 | 200 | 250 |
| | | 140 | 90 | 160 | 90 | 200 | 120 | 250 | 140 | 250 | 155 | 300 | 200 | 300 | 220 |
| | | | | | | | | | | 300 | 155 | 350 | 200 | 350 | 220 |

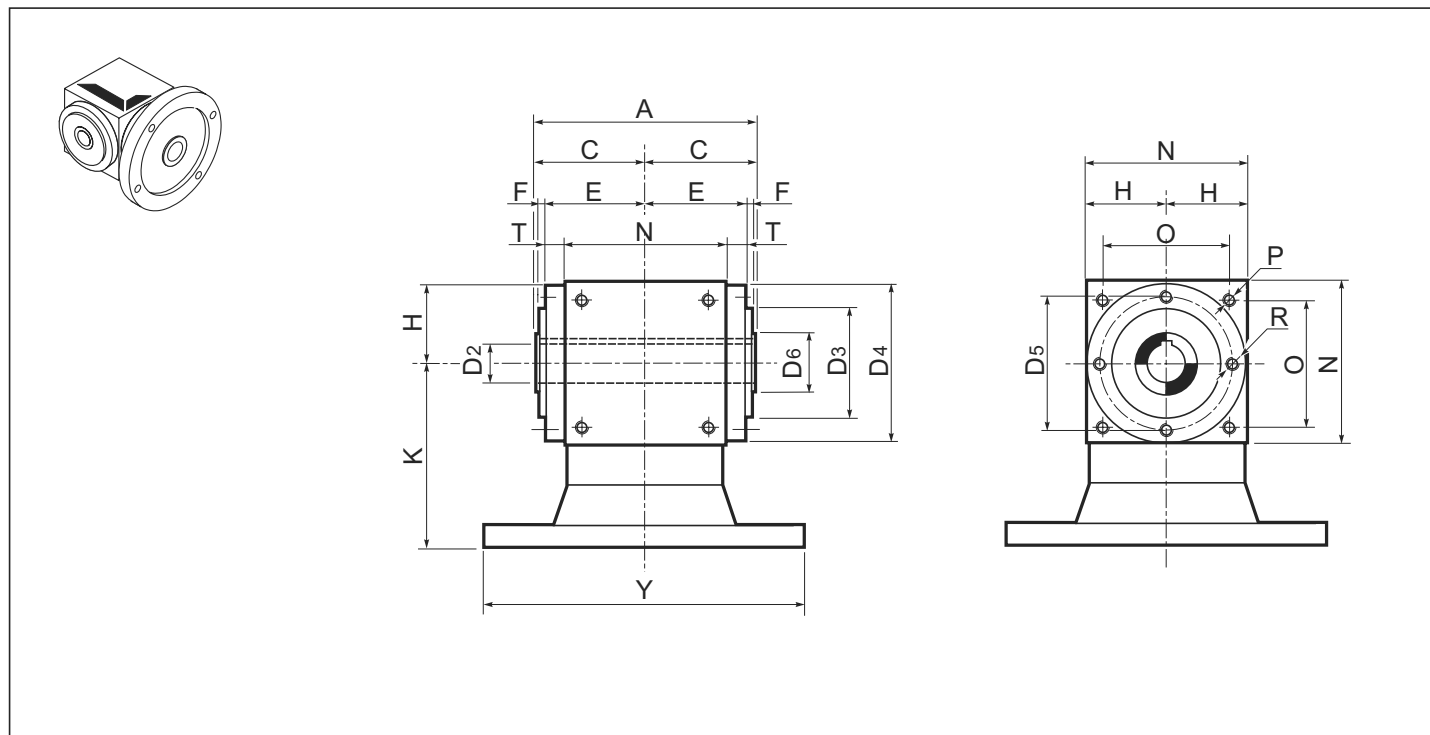


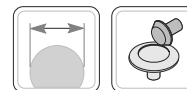
1.8 Размеры

Z.AH



Z.MAH

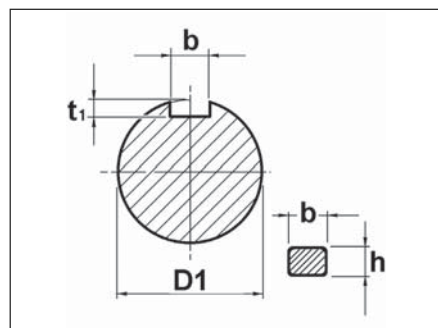




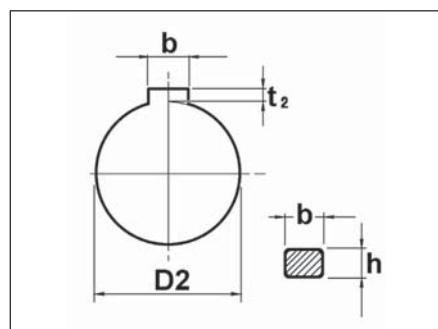
1.8 Размеры

| Z.AH | C | D3 h8 | D4 | D5 | D6 | E | F | G | H | N | O | P | R | T |
|------|-----|----------|-----|-----|-----|-----|---|-----|------|-----|-----|-----|-----|-----|
| 12 | 46 | 44 (h7) | 65 | 54 | — | 42 | 2 | 74 | 32.5 | 65 | — | — | 76 | 9.5 |
| 19 | 65 | 60 | 86 | 72 | 30 | 59 | 4 | 100 | 45 | 90 | 70 | M6 | M6 | 14 |
| 24 | 80 | 70 | 105 | 88 | 35 | 73 | 5 | 115 | 55 | 110 | 88 | M8 | M8 | 18 |
| 32 | 95 | 95 | 135 | 115 | 50 | 88 | 5 | 145 | 70 | 140 | 110 | M10 | M10 | 18 |
| 38 | 110 | 120 | 165 | 145 | 60 | 103 | 5 | 170 | 85 | 170 | 136 | M12 | M12 | 18 |
| 42 | 125 | 135 | 190 | 165 | 60 | 118 | 5 | 195 | 100 | 200 | 155 | M12 | M12 | 18 |
| 55 | 150 | 170 | 230 | 205 | 75 | 143 | 5 | 245 | 120 | 240 | 190 | M14 | M14 | 23 |
| 75 | 225 | — | 300 | — | 120 | 195 | — | 350 | 165 | 330 | 248 | M16 | M16 | 30 |

| Z.AH | ir | A | M | Входной вал | | | Выходной вал |
|------|-------|-----|-----|-------------|-----|--------|--------------|
| | | | | D1 j6 | L1 | S1 | D2 H7 |
| 12 | 1-2-3 | 92 | 100 | 12 | 26 | — | 12 |
| 19 | 1-2-3 | 130 | 140 | 19 | 40 | M6x12 | 19 |
| | 4-5 | | 130 | 14 | 30 | M5x10 | |
| 24 | 1-2-3 | 160 | 165 | 24 | 50 | M8x16 | 24 |
| | 4-5 | | 155 | 19 | 40 | M6x12 | |
| 32 | 1-2-3 | 190 | 205 | 32 | 60 | M10x20 | 32 |
| | 4-5 | | 195 | 24 | 50 | M8x16 | |
| 38 | 1-2-3 | 220 | 240 | 38 | 70 | M12x24 | 38 |
| | 4-5 | | 230 | 28 | 60 | M10x20 | |
| 42 | 1-2-3 | 250 | 275 | 42 | 80 | M12x24 | 42 |
| | 4-5 | | 255 | 32 | 60 | M10x20 | |
| 55 | 1-2-3 | 300 | 355 | 55 | 110 | M14x28 | 55 |
| | 4-5 | | 325 | 42 | 80 | M12x24 | |
| 75 | 1-2-3 | 450 | 500 | 75 | 150 | M16x32 | 75 |
| | 4-5 | | 460 | 55 | 110 | M14x28 | |

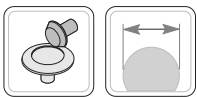


| D1 | b x h | t ₁ |
|----|---------|----------------|
| 14 | 5 x 5 | 3.0 +0.1 0 |
| 19 | 6 x 6 | 3.5 |
| 24 | 8 x 7 | 4.0 |
| 28 | 8 x 7 | 4.0 |
| 32 | 8 x 7 | 4.0 |
| 38 | 10 x 8 | 5.0 +0.2 0 |
| 42 | 12 x 8 | 5.0 |
| 55 | 16 x 10 | 6.0 |
| 75 | 22 x 14 | 9.0 |



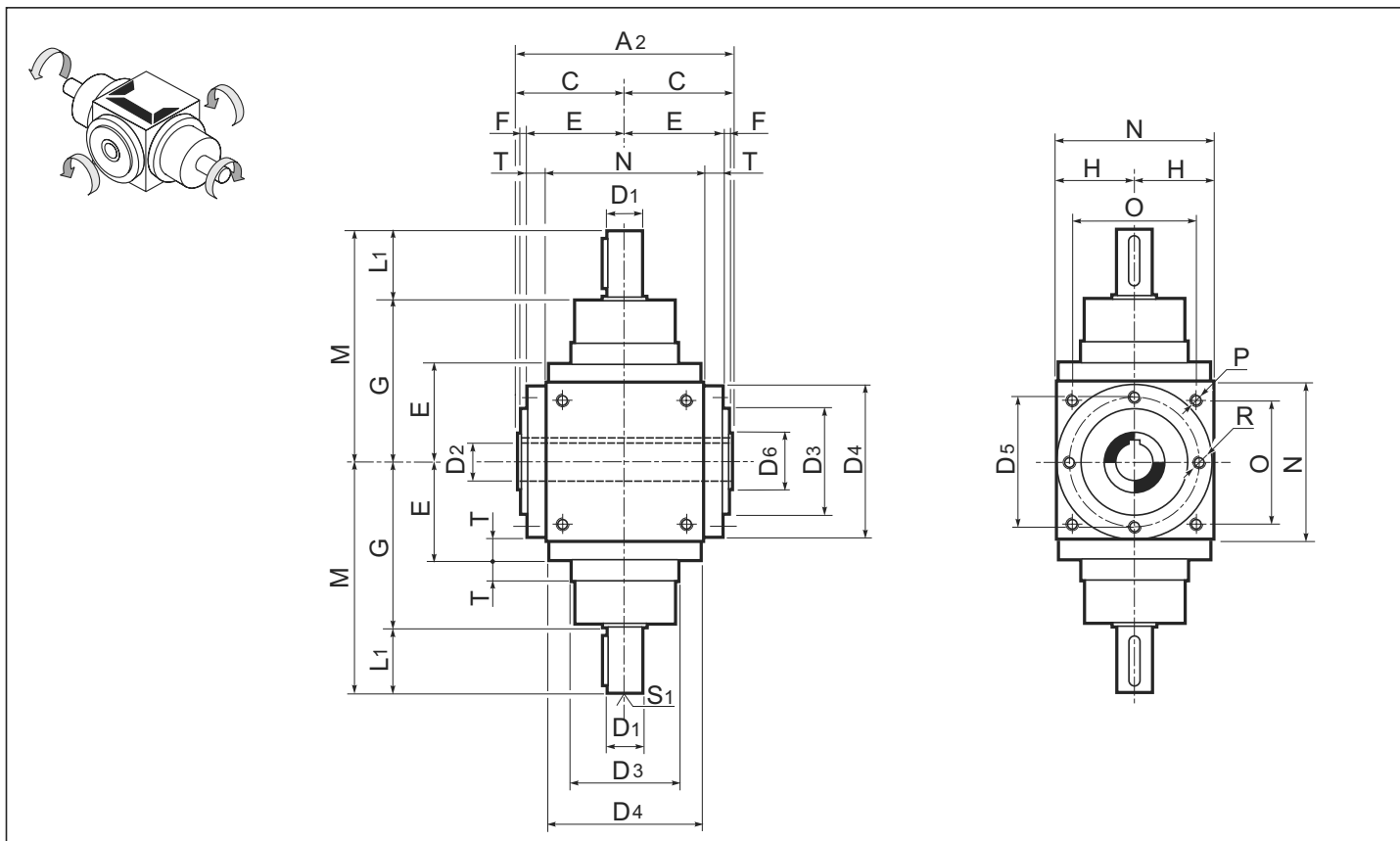
| D2 | b x h | t ₂ |
|----|---------|----------------|
| 19 | 6 x 6 | 2.8 +0.1 0 |
| 24 | 8 x 7 | 3.3 |
| 32 | 8 x 7 | 3.3 |
| 38 | 10 x 8 | 3.3 +0.2 0 |
| 42 | 12 x 8 | 3.3 |
| 55 | 16 x 10 | 4.3 |
| 75 | 22 x 14 | 5.4 |

| Z.MAH | IEC | 12 | | 19 | | 24 | | 32 | | 38 | | 42 | | 55 | |
|-------|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K |
| | B5 | 105 (B14) | 90 | 140 | 90 | 160 | 120 | 200 | 140 | 200 | 155 | 250 | 200 | 250 | 220 |
| | 140 | 90 | 160 | 90 | 200 | 120 | 250 | 140 | 250 | 155 | 300 | 200 | 300 | 220 | 220 |
| | | | | | | | | | 300 | 155 | 350 | 200 | 350 | 220 | 220 |

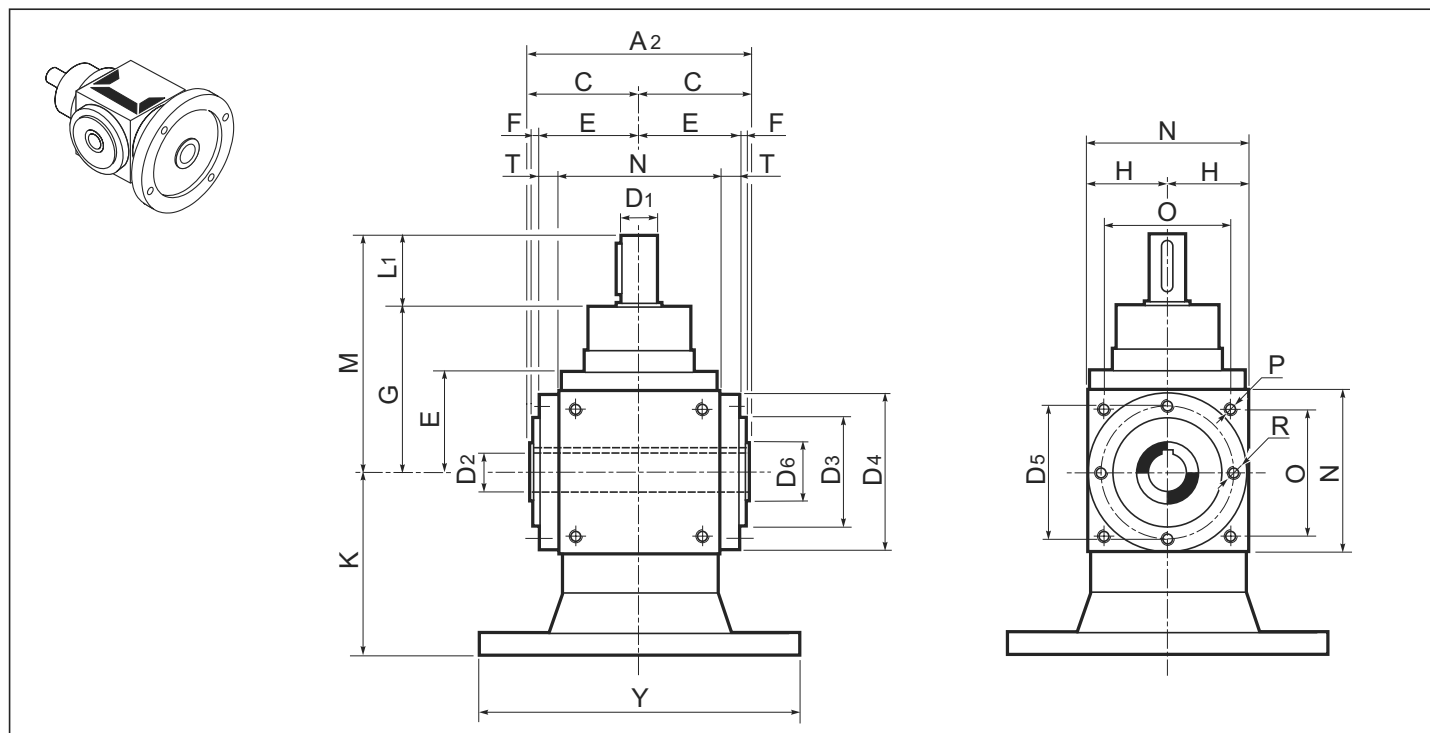


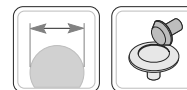
1.8 Размеры

Z.BH



Z.MBH

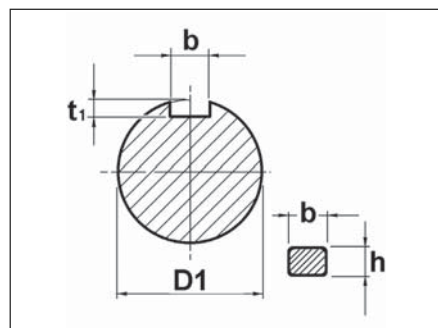




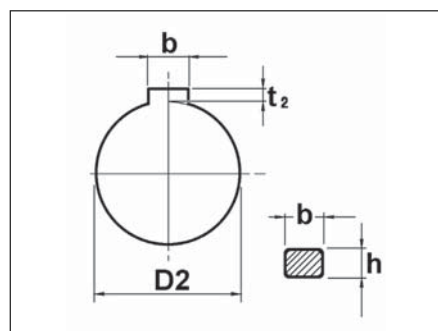
1.8 Размеры

| Z.BH | C | D3 h8 | D4 | D5 | D6 | E | F | G | H | N | O | P | R | T |
|------|-----|----------|-----|-----|-----|-----|---|-----|------|-----|-----|-----|-----|-----|
| 12 | 46 | 44 (h7) | 65 | 54 | — | 42 | 2 | 74 | 32.5 | 65 | — | — | 76 | 9.5 |
| 19 | 65 | 60 | 86 | 72 | 30 | 59 | 4 | 100 | 45 | 90 | 70 | M6 | M6 | 14 |
| 24 | 80 | 70 | 105 | 88 | 35 | 73 | 5 | 115 | 55 | 110 | 88 | M8 | M8 | 18 |
| 32 | 95 | 95 | 135 | 115 | 50 | 88 | 5 | 145 | 70 | 140 | 110 | M10 | M10 | 18 |
| 38 | 110 | 120 | 165 | 145 | 60 | 103 | 5 | 170 | 85 | 170 | 136 | M12 | M12 | 18 |
| 42 | 125 | 135 | 190 | 165 | 60 | 118 | 5 | 195 | 100 | 200 | 155 | M12 | M12 | 18 |
| 55 | 150 | 170 | 230 | 205 | 75 | 143 | 5 | 245 | 120 | 240 | 190 | M14 | M14 | 23 |
| 75 | 225 | — | 300 | — | 120 | 195 | — | 350 | 165 | 330 | 248 | M16 | M16 | 30 |

| Z.BH | ir | A1 | A2 | M | Входной вал | | | Выходной вал |
|------|-------|------|-----|-----|-------------|-----|--------|--------------|
| | | | | | D1 j6 | L1 | S1 | D2 H7 |
| 12 | 1-2-3 | — | — | — | — | — | — | — |
| 19 | 1-2-3 | 280 | 130 | 140 | 19 | 40 | M6x12 | 19 |
| | 4-5 | 260 | | 130 | 14 | 30 | M5x10 | |
| 24 | 1-2-3 | 330 | 160 | 165 | 24 | 50 | M8x16 | 24 |
| | 4-5 | 310 | | 155 | 19 | 40 | M6x12 | |
| 32 | 1-2-3 | 410 | 190 | 205 | 32 | 60 | M10x20 | 32 |
| | 4-5 | 390 | | 195 | 24 | 50 | M8x16 | |
| 38 | 1-2-3 | 480 | 220 | 240 | 38 | 70 | M12x24 | 38 |
| | 4-5 | 460 | | 230 | 28 | 60 | M10x20 | |
| 42 | 1-2-3 | 550 | 250 | 275 | 42 | 80 | M12x24 | 42 |
| | 4-5 | 510 | | 255 | 32 | 60 | M10x20 | |
| 55 | 1-2-3 | 710 | 300 | 355 | 55 | 110 | M14x28 | 55 |
| | 4-5 | 650 | | 325 | 42 | 80 | M12x24 | |
| 75 | 1-2-3 | 1000 | 450 | 500 | 75 | 150 | M16x32 | 75 |
| | 4-5 | 920 | | 460 | 55 | 110 | M14x28 | |

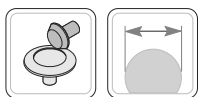


| D1 | b x h | t ₁ |
|----|---------|----------------|
| 14 | 5 x 5 | 3.0 |
| 19 | 6 x 6 | 3.5 |
| 24 | 8 x 7 | 4.0 |
| 28 | 8 x 7 | 4.0 |
| 32 | 8 x 7 | 4.0 |
| 38 | 10 x 8 | 5.0 |
| 42 | 12 x 8 | 5.0 |
| 55 | 16 x 10 | 6.0 |
| 75 | 22 x 14 | 9.0 |



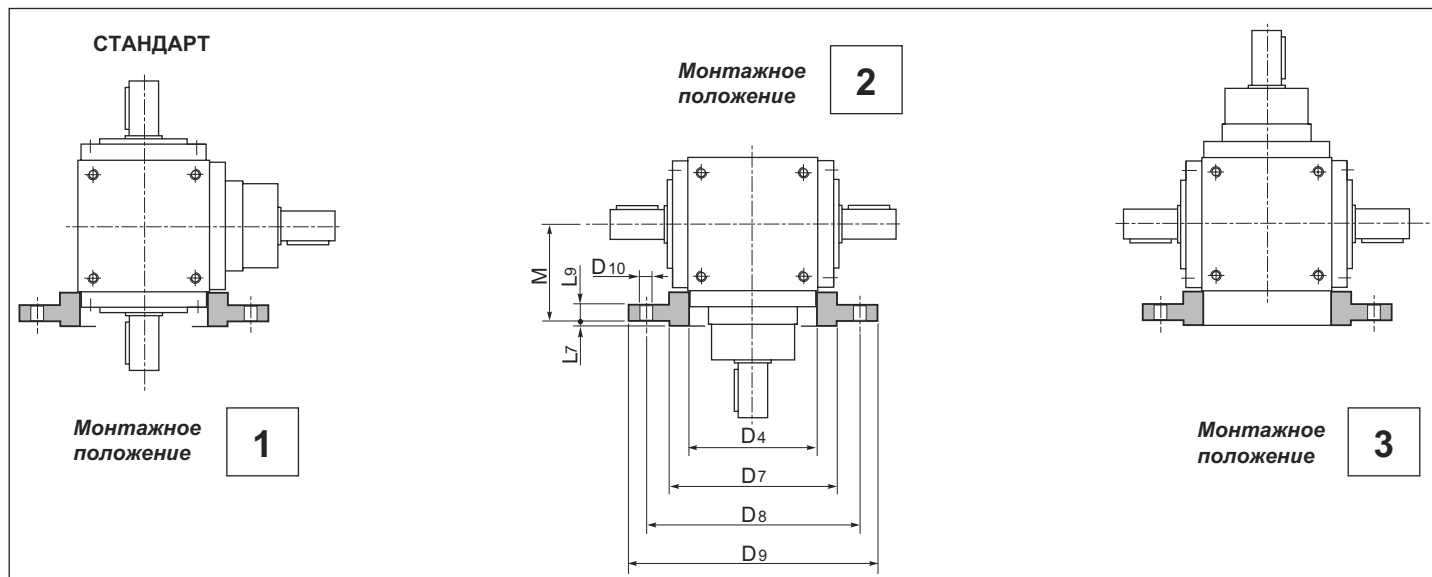
| D2 | b x h | t ₂ |
|----|---------|----------------|
| 19 | 6 x 6 | 2.8 |
| 24 | 8 x 7 | 3.3 |
| 32 | 8 x 7 | 3.3 |
| 38 | 10 x 8 | 3.3 |
| 42 | 12 x 8 | 3.3 |
| 55 | 16 x 10 | 4.3 |
| 75 | 22 x 14 | 5.4 |

| Z.MBH | IEC | 12 | | 19 | | 24 | | 32 | | 38 | | 42 | | 55 | |
|-------|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K | Y | K |
| | B5 | 105 (B14) | 90 | 140 | 90 | 160 | 120 | 200 | 140 | 200 | 155 | 250 | 200 | 250 | 220 |
| | 140 | 90 | 160 | 90 | 200 | 120 | 250 | 140 | 250 | 155 | 300 | 200 | 300 | 220 | 220 |
| | | | | | | | | | 300 | 155 | 350 | 200 | 350 | 220 | 220 |

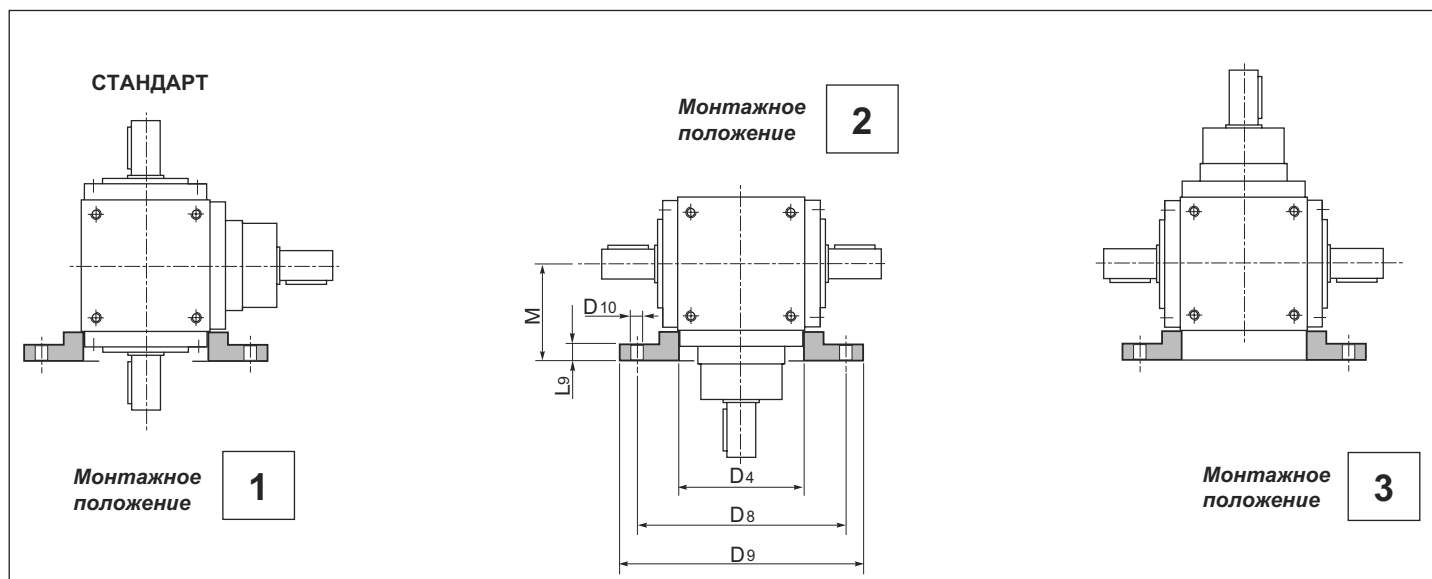


1.9 Аксессуары

СОЕДИНИТЕЛЬНЫЙ ФЛАНЕЦ ТИПА FC



СОЕДИНИТЕЛЬНЫЙ ФЛАНЕЦ ТИПА FP



| Z. | D4 H8 | D7 h8 | D8 | D9 | D10 | L7 | L9 | M |
|----|-------|-------|-----|-----|-----|-----|----|-----|
| 12 | — | — | — | — | — | — | — | — |
| 19 | 86 | 110 | 130 | 160 | 9 | 3.5 | 12 | 70 |
| 24 | 105 | 130 | 165 | 200 | 11 | 3.5 | 13 | 85 |
| 32 | 135 | 180 | 215 | 250 | 14 | 4 | 15 | 105 |
| 38 | 165 | 230 | 265 | 300 | 14 | 4 | 15 | 125 |
| 42 | 190 | 230 | 265 | 300 | 14 | 4 | 15 | 145 |
| 55 | 230 | 250 | 300 | 350 | 18 | 5 | 18 | 175 |
| 75 | 300 | 350 | 400 | 450 | 18 | 5 | 25 | 230 |