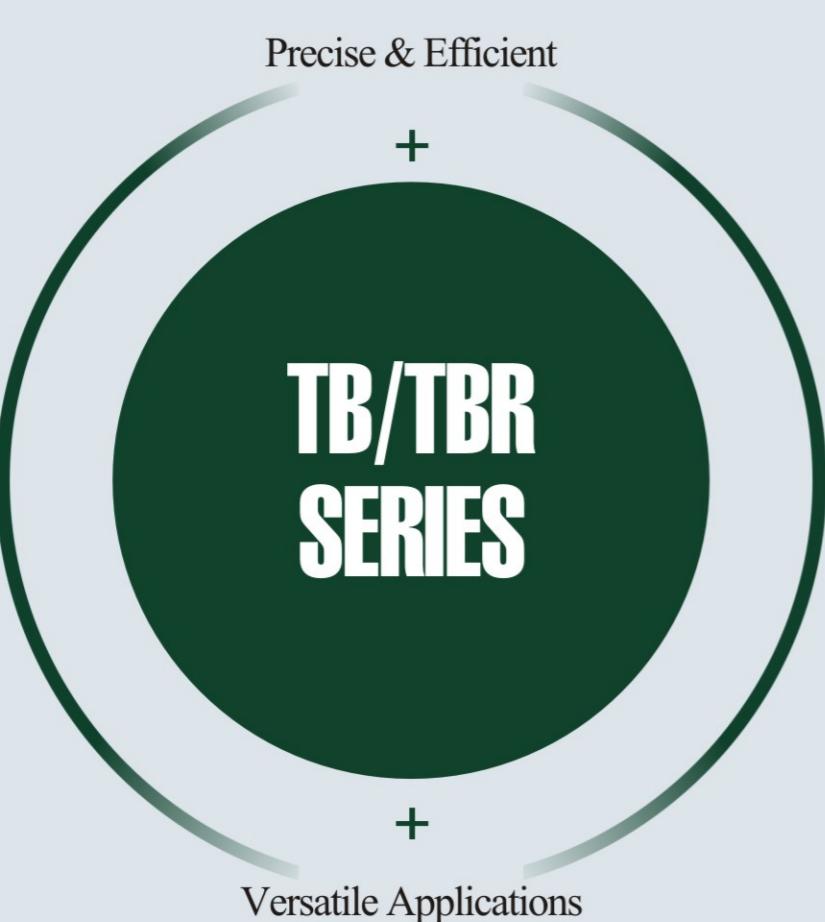




DRIVES

THE PRECISION



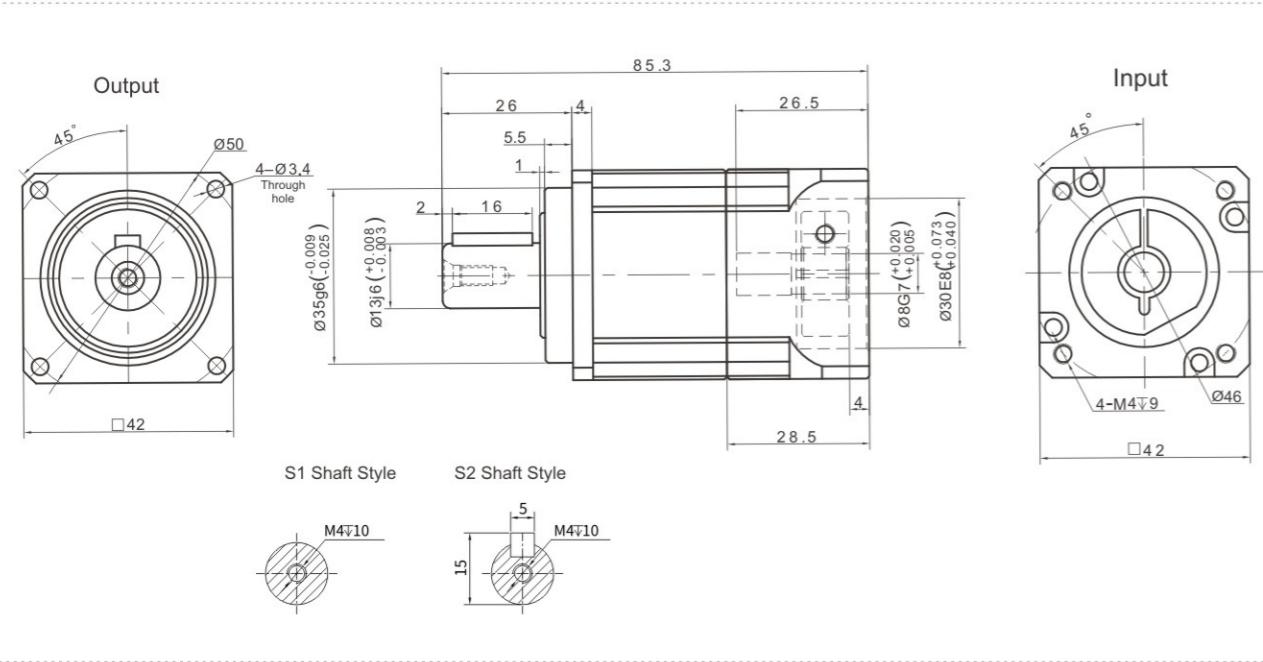
TB/TBR Series planetary reducer achieves maximum efficiency even at the highest speed and load.
Robust structure and low backlash enable it to be applied in almost any shaft-output applications.



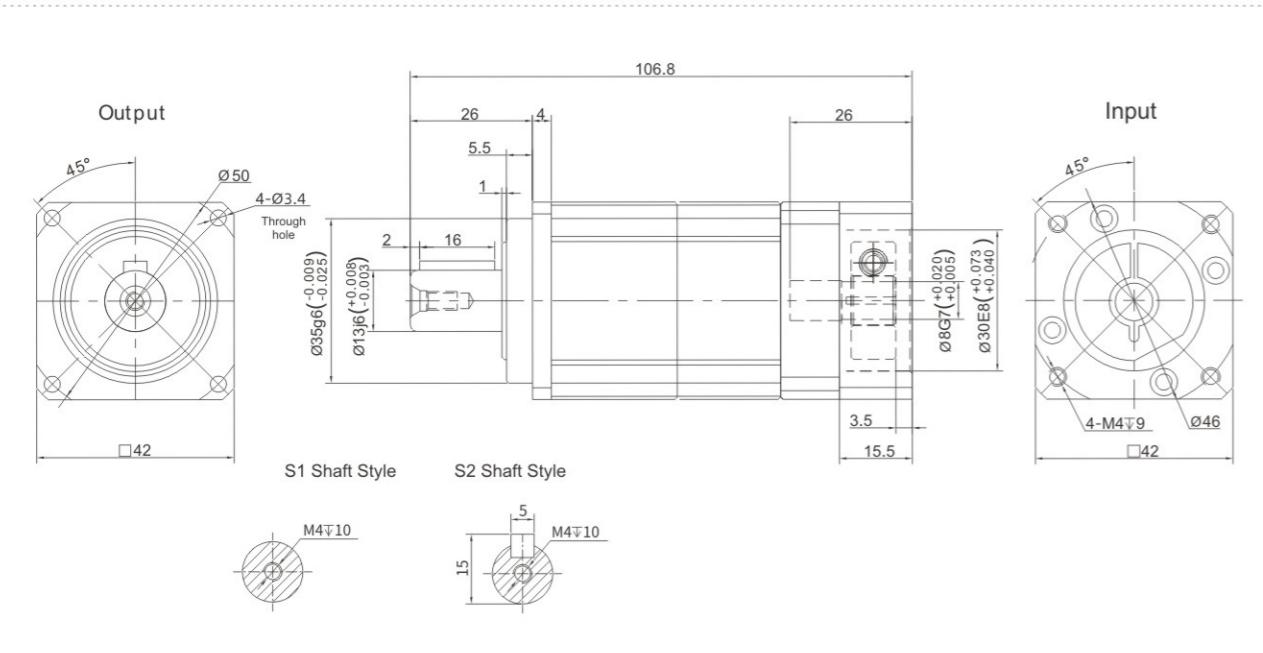
TB Series - High Speed and Precision

TB042 Series

TB042 One Stage



TB042 Two Stage



Performance Data

The TB series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

Notes:

- Speed ratio ($i= \text{S}_{\text{in}}/\text{S}_{\text{out}}$)
 - When the output speed is 100 rpm, it acts on the center of the output shaft.
 - For continuous operation, the service life is no less than 10,000 hours.
 - The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

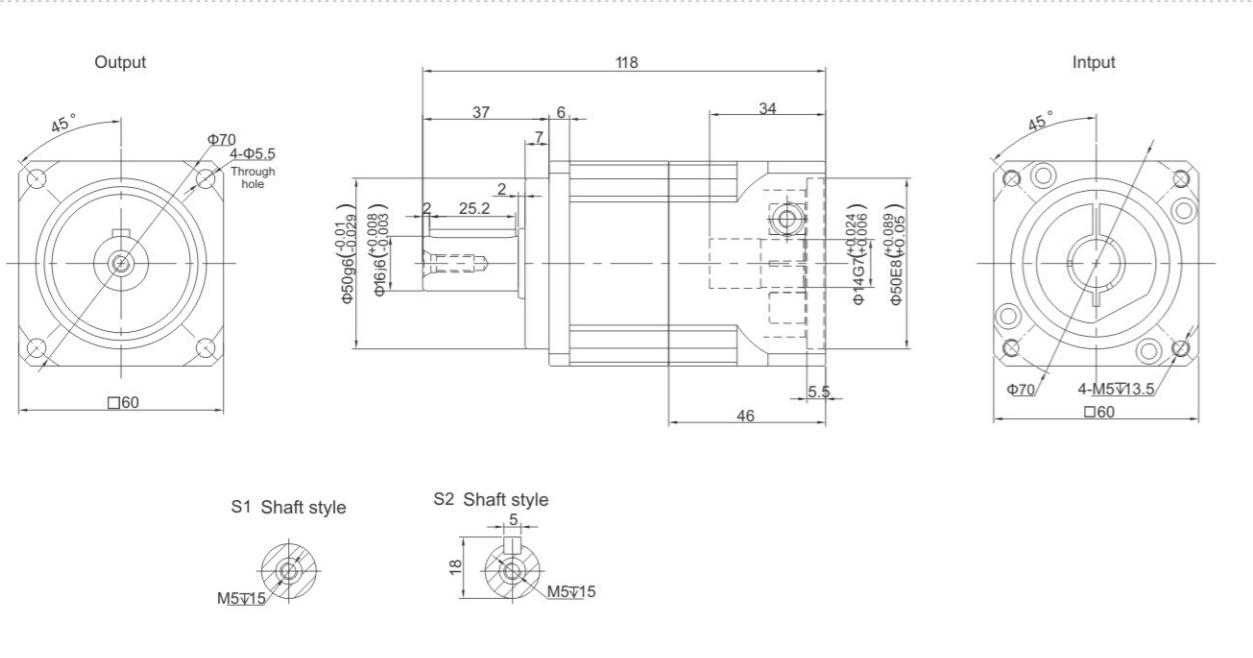
TB Series - High Speed and Precision

Gearko

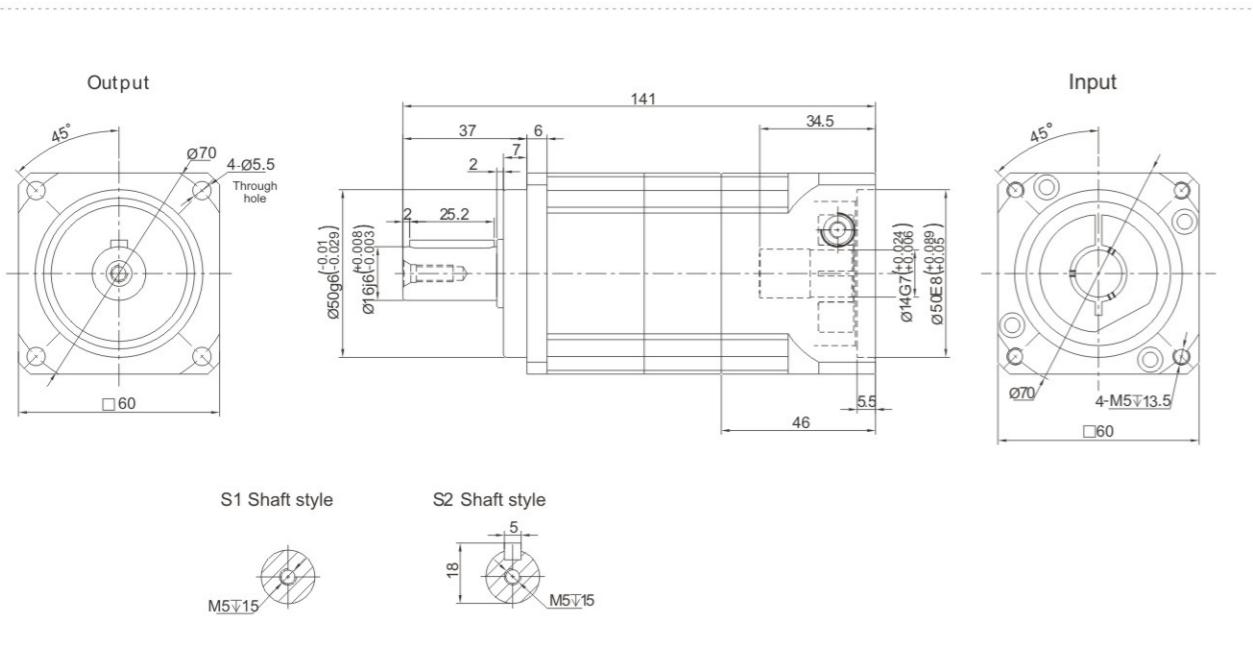
TB

TB060 Series

TB060 One Stage



TB060 Two Stage



Performance Data

The TB series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

| TB060 | One Stage | | | | | | | | | | Two Stage | | | | | | | | | | |
|-----------------------|-------------|-----------|------|------|----|----|----|----|---|----|-----------|----|----|----|----|----|----|----|----|----|------|
| | Speed Ratio | i | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 100 |
| Normal Output Torque | T_1 | Nm | 55 | 50 | 60 | 55 | 50 | 45 | - | 40 | 55 | 50 | 60 | 55 | 50 | 45 | 60 | 55 | 50 | 45 | 40 |
| Emergency Stop Torque | T_2 | Nm | | | | | | | | | | | | | | | | | | | |
| Normal Input Speed | S_1 | rpm | | | | | | | | | | | | | | | | | | | |
| Maximum Input Speed | S_2 | rpm | | | | | | | | | | | | | | | | | | | |
| Maximum Output Torque | T_4 | Nm | | | | | | | | | | | | | | | | | | | |
| Maximum Radial Force | F_a | N | | | | | | | | | | | | | | | | | | | |
| Maximum Axial Force | F_b | N | | | | | | | | | | | | | | | | | | | |
| Torsional Rigidity | - | Nm/arcmin | | | | | | | | | | | | | | | | | | | |
| Efficiency | η | % | | | | | | | | | | | | | | | | | | | |
| Service Life | - | h | | | | | | | | | | | | | | | | | | | |
| Noise | - | dB | | | | | | | | | | | | | | | | | | | |
| Weight | - | Kg | | | | | | | | | | | | | | | | | | | |
| P0 | | | | | | | | | | | | | | | | | | | | | |
| Backlash | P1 | arcmin | | | | | | | | | | | | | | | | | | | |
| | P2 | | | | | | | | | | | | | | | | | | | | |
| Operating Temperature | - | °C | | | | | | | | | | | | | | | | | | | |
| Lubrication | - | | | | | | | | | | | | | | | | | | | | |
| Protection Class | - | | | | | | | | | | | | | | | | | | | | |
| Mounting Position | - | | | | | | | | | | | | | | | | | | | | |
| Moment of Inertia | J | kg.cm² | 0.16 | 0.14 | | | | | | | | | | | | | | | | | 0.13 |

Notes:

- Speed ratio ($i = \text{Sout}/\text{Sin}$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

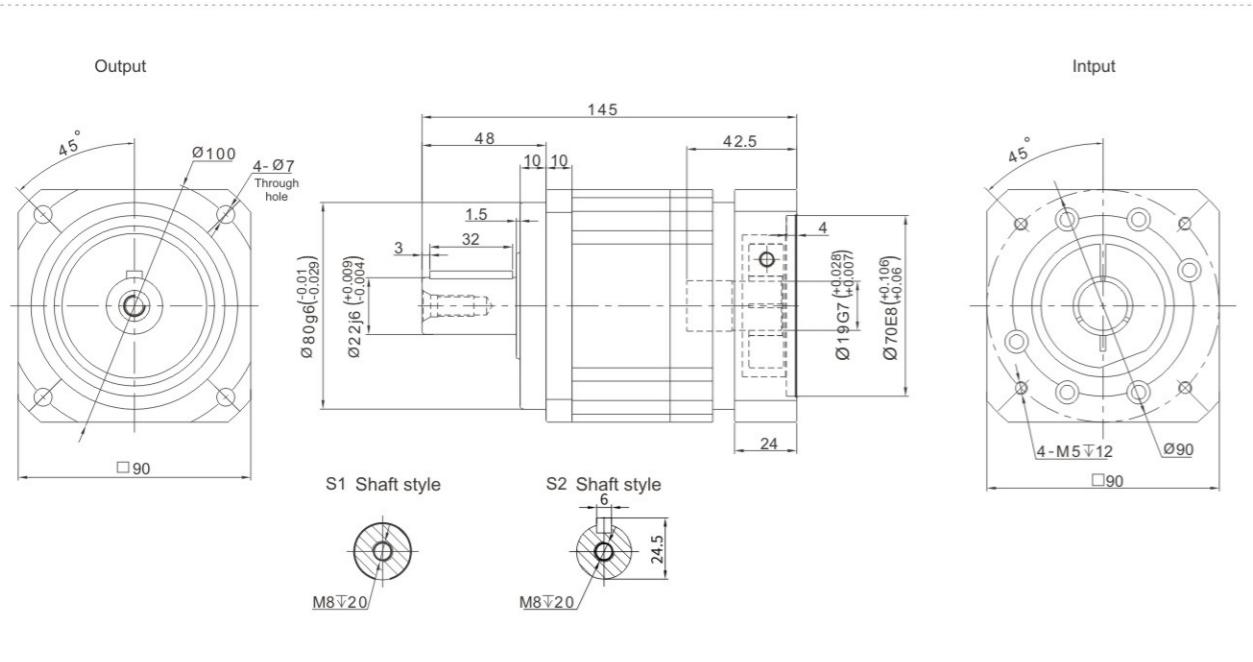
TB Series - High Speed and Precision

Gearko

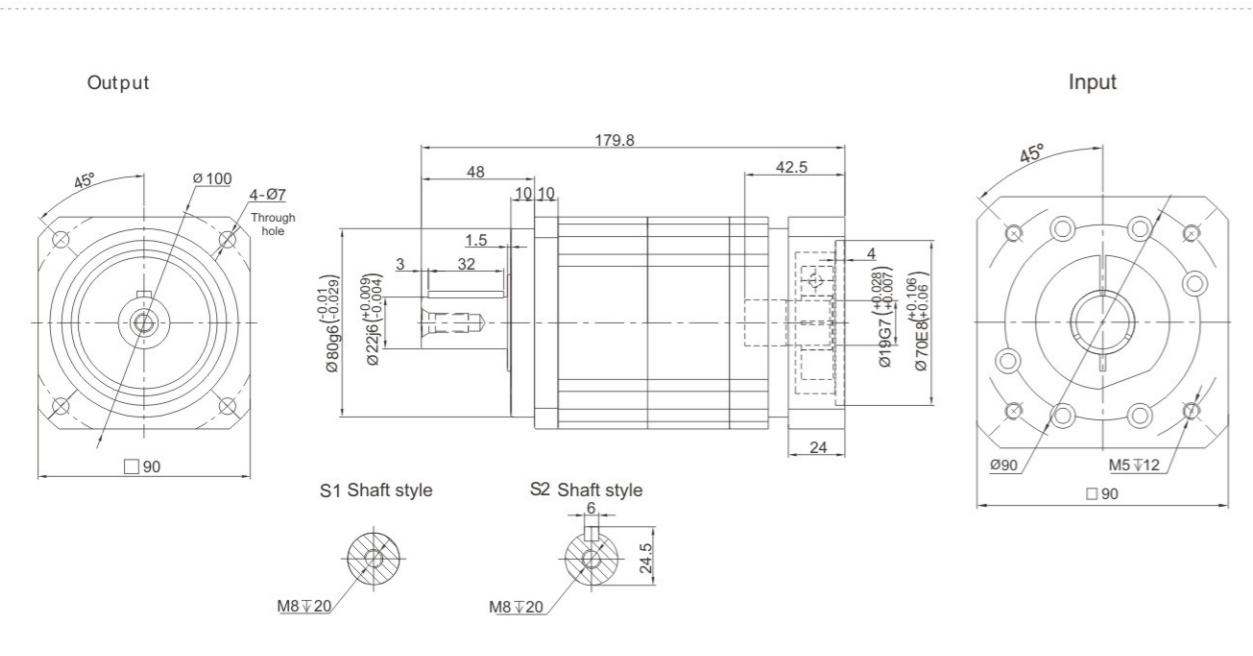
TB

TB090 Series

TB090 One Stage



TB090 Two Stage



Performance Data

The TB series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

| TB090 | One Stage | | | | | | | | | | Two Stage | | | | | | | | | | |
|-----------------------|-------------|-----------|------|------|------|------|------|-----|---|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | Speed Ratio | i | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 100 |
| Normal Output Torque | T_1 | Nm | 130 | 140 | 160 | 150 | 140 | 120 | - | 100 | 130 | 140 | 160 | 150 | 140 | 120 | 160 | 150 | 140 | 120 | 100 |
| Emergency Stop Torque | T_2 | Nm | | | | | | | | | | | | | | | | | | | |
| Normal Input Speed | S_1 | rpm | | | | | | | | | | | | | | | | | | | |
| Maximum Input Speed | S_2 | rpm | | | | | | | | | | | | | | | | | | | |
| Maximum Output Torque | T_4 | Nm | | | | | | | | | | | | | | | | | | | |
| Maximum Radial Force | F_a | N | | | | | | | | | | | | | | | | | | | |
| Maximum Axial Force | F_b | N | | | | | | | | | | | | | | | | | | | |
| Torsional Rigidity | - | Nm/arcmin | | | | | | | | | | | | | | | | | | | |
| Efficiency | η | % | | | | | | | | | | | | | | | | | | | |
| Service Life | - | h | | | | | | | | | | | | | | | | | | | |
| Noise | - | dB | | | | | | | | | | | | | | | | | | | |
| Weight | - | Kg | | | | | | | | | | | | | | | | | | | |
| P0 | | | | | | | | | | | | | | | | | | | | | |
| Backlash | P_1 | arcmin | | | | | | | | | | | | | | | | | | | |
| | P_2 | | | | | | | | | | | | | | | | | | | | |
| Operating Temperature | - | °C | | | | | | | | | | | | | | | | | | | |
| Lubrication | - | | | | | | | | | | | | | | | | | | | | |
| Protection Class | - | | | | | | | | | | | | | | | | | | | | |
| Mounting Position | - | | | | | | | | | | | | | | | | | | | | |
| Moment of Inertia | J | kg.cm² | 0.61 | 0.48 | 0.47 | 0.45 | 0.44 | | | | | | | | | | | | | | |

Notes:

- Speed ratio ($i = S_{in}/S_{out}$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

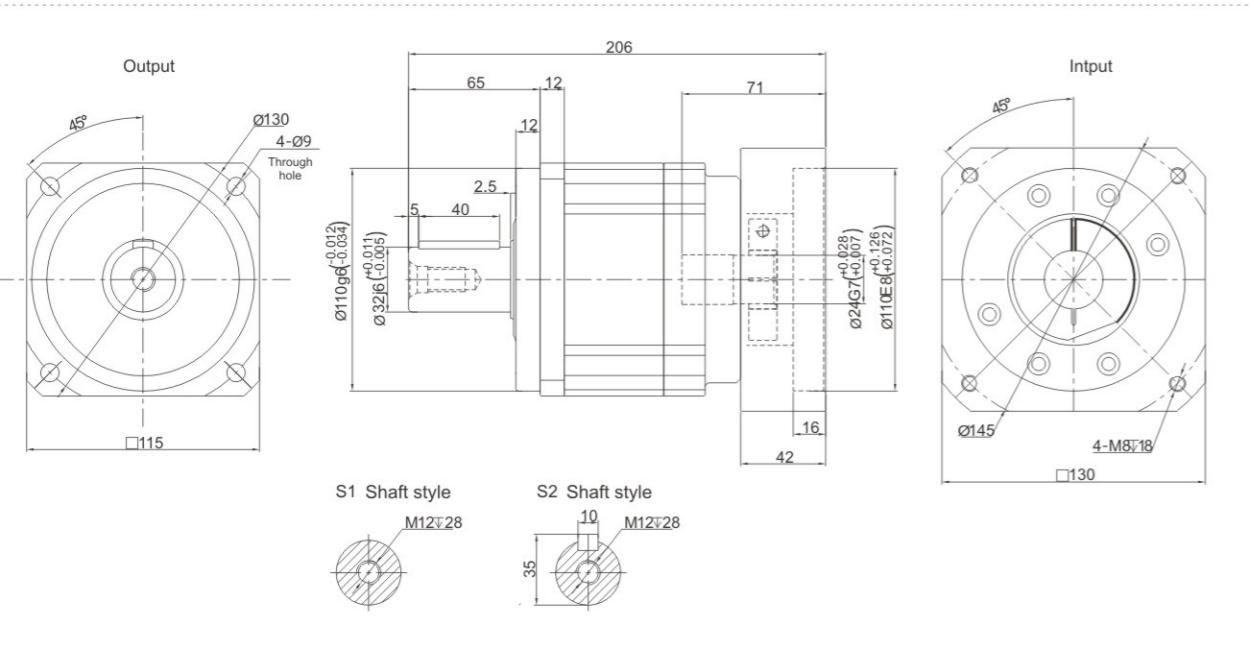
TB Series - High Speed and Precision

Gearko

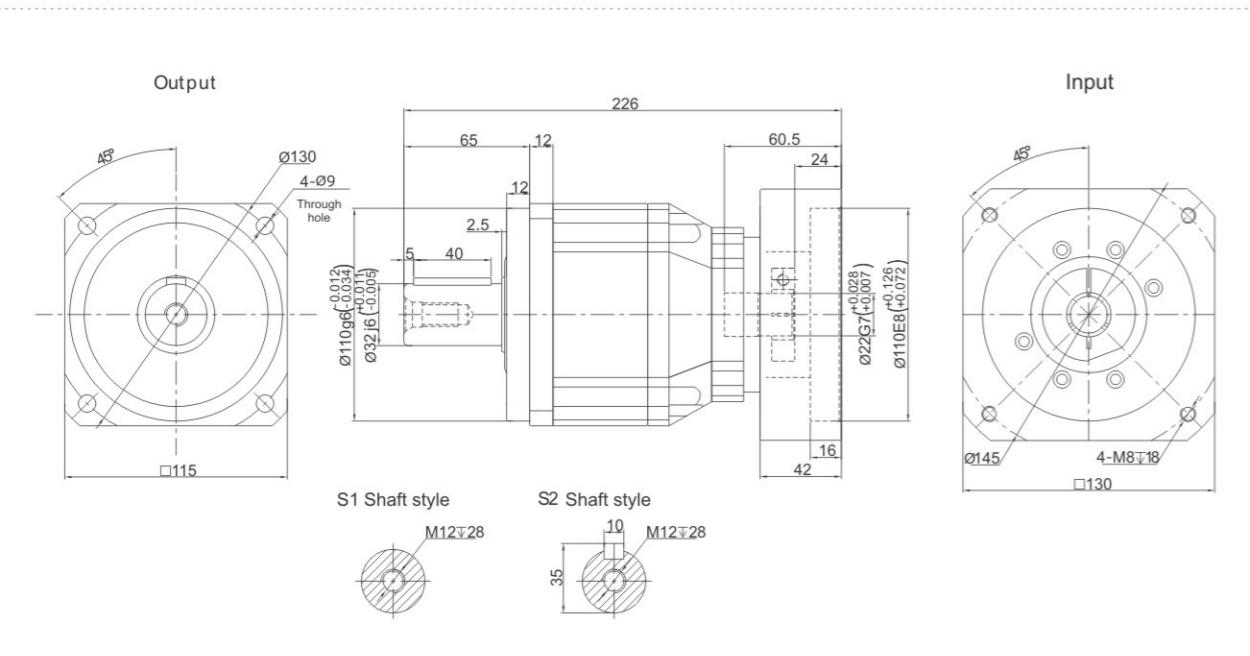
TB

TB115 Series

TB115 One Stage



TB115 Two Stage



Performance Data

The TB series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

| TB115 | One Stage | | | | | | | | | | Two Stage | | | | | | | | | | |
|-----------------------|-------------|-----------|------|------|------|------|------|------|---|------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | Speed Ratio | i | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 100 |
| Normal Output Torque | T_1 | Nm | 208 | 290 | 330 | 310 | 300 | 260 | - | 230 | 208 | 290 | 330 | 310 | 300 | 260 | 330 | 310 | 300 | 260 | 230 |
| Emergency Stop Torque | T_2 | Nm | | | | | | | | | | | | | | | | | | | |
| Normal Input Speed | S_1 | rpm | | | | | | | | | | | | | | | | | | | |
| Maximum Input Speed | S_2 | rpm | | | | | | | | | | | | | | | | | | | |
| Maximum Output Torque | T_4 | Nm | | | | | | | | | | | | | | | | | | | |
| Maximum Radial Force | F_a | N | | | | | | | | | | | | | | | | | | | |
| Maximum Axial Force | F_b | N | | | | | | | | | | | | | | | | | | | |
| Torsional Rigidity | - | Nm/arcmin | | | | | | | | | | | | | | | | | | | |
| Efficiency | η | % | | | | | | | | | | | | | | | | | | | |
| Service Life | - | h | | | | | | | | | | | | | | | | | | | |
| Noise | - | dB | | | | | | | | | | | | | | | | | | | |
| Weight | - | Kg | | | | | | | | | | | | | | | | | | | |
| P0 | | | | | | | | | | | | | | | | | | | | | |
| Backlash | P1 | arcmin | | | | | | | | | | | | | | | | | | | |
| | P2 | | | | | | | | | | | | | | | | | | | | |
| Operating Temperature | - | °C | | | | | | | | | | | | | | | | | | | |
| Lubrication | - | | | | | | | | | | | | | | | | | | | | |
| Protection Class | - | | | | | | | | | | | | | | | | | | | | |
| Mounting Position | - | | | | | | | | | | | | | | | | | | | | |
| Moment of Inertia | J | kg.cm² | 3.25 | 2.74 | 2.71 | 2.65 | 2.62 | 2.58 | - | 2.57 | | | | | | | | | | | |

Notes:

- Speed ratio ($i = \text{Sout}/\text{Sin}$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

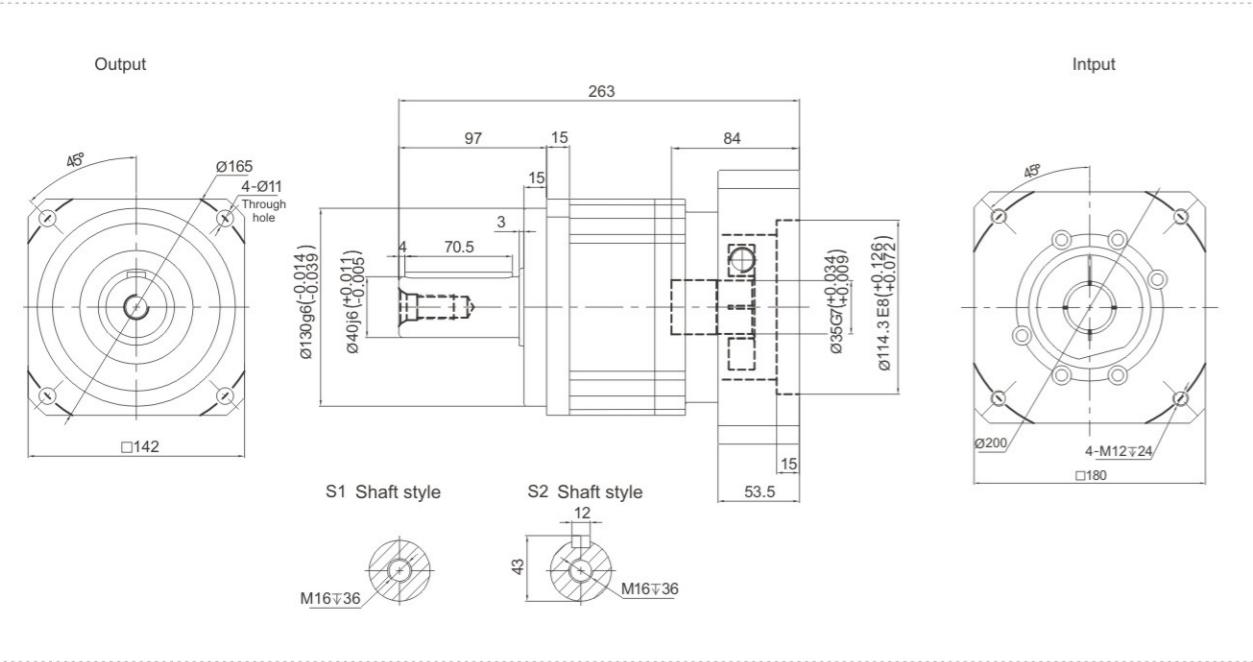
TB Series - High Speed and Precision

GEARKO

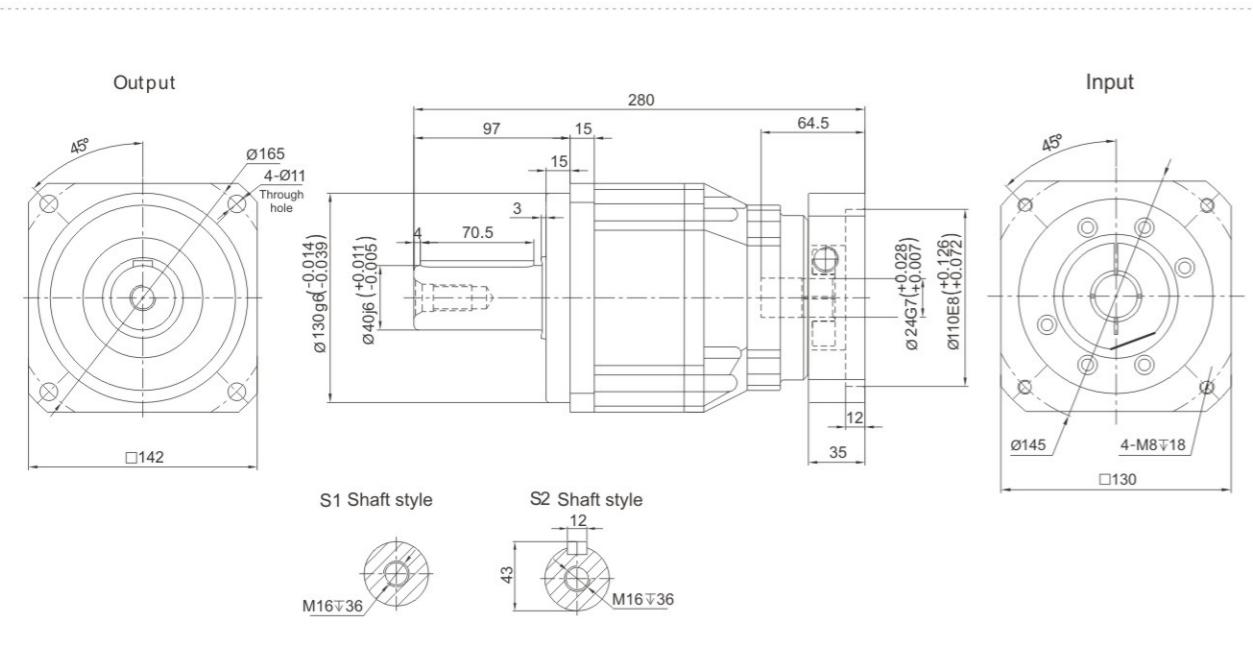
TB

TB142 Series

TB142 One Stage



TB142 Two Stage



Performance Data

The TB series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

| TB142 | One Stage | | | | | | | | | | Two Stage | | | | | | | | | | |
|-----------------------|-------------|-----------|------|------|------|------|------|------|---|------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | Speed Ratio | i | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 100 |
| Normal Output Torque | T_1 | Nm | 342 | 542 | 650 | 600 | 550 | 500 | - | 450 | 342 | 542 | 650 | 600 | 550 | 500 | 650 | 600 | 550 | 500 | 450 |
| Emergency Stop Torque | T_2 | Nm | | | | | | | | | | | | | | | | | | | |
| Normal Input Speed | S_1 | rpm | | | | | | | | | | | | | | | | | | | |
| Maximum Input Speed | S_2 | rpm | | | | | | | | | | | | | | | | | | | |
| Maximum Output Torque | T_4 | Nm | | | | | | | | | | | | | | | | | | | |
| Maximum Radial Force | F_a | N | | | | | | | | | | | | | | | | | | | |
| Maximum Axial Force | F_b | N | | | | | | | | | | | | | | | | | | | |
| Torsional Rigidity | - | Nm/arcmin | | | | | | | | | | | | | | | | | | | |
| Efficiency | η | % | | | | | | | | | | | | | | | | | | | |
| Service Life | - | h | | | | | | | | | | | | | | | | | | | |
| Noise | - | dB | | | | | | | | | | | | | | | | | | | |
| Weight | - | Kg | | | | | | | | | | | | | | | | | | | |
| P0 | | | | | | | | | | | | | | | | | | | | | |
| Backlash | $P1$ | arcmin | | | | | | | | | | | | | | | | | | | |
| | $P2$ | | | | | | | | | | | | | | | | | | | | |
| Operating Temperature | - | °C | | | | | | | | | | | | | | | | | | | |
| Lubrication | - | | | | | | | | | | | | | | | | | | | | |
| Protection Class | - | | | | | | | | | | | | | | | | | | | | |
| Mounting Position | - | | | | | | | | | | | | | | | | | | | | |
| Moment of Inertia | J | kg.cm² | 9.21 | 7.54 | 7.42 | 7.25 | 7.14 | 7.07 | - | 7.03 | | | | | | | | | | | |

Notes:

- Speed ratio ($i=Sin/Sout$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

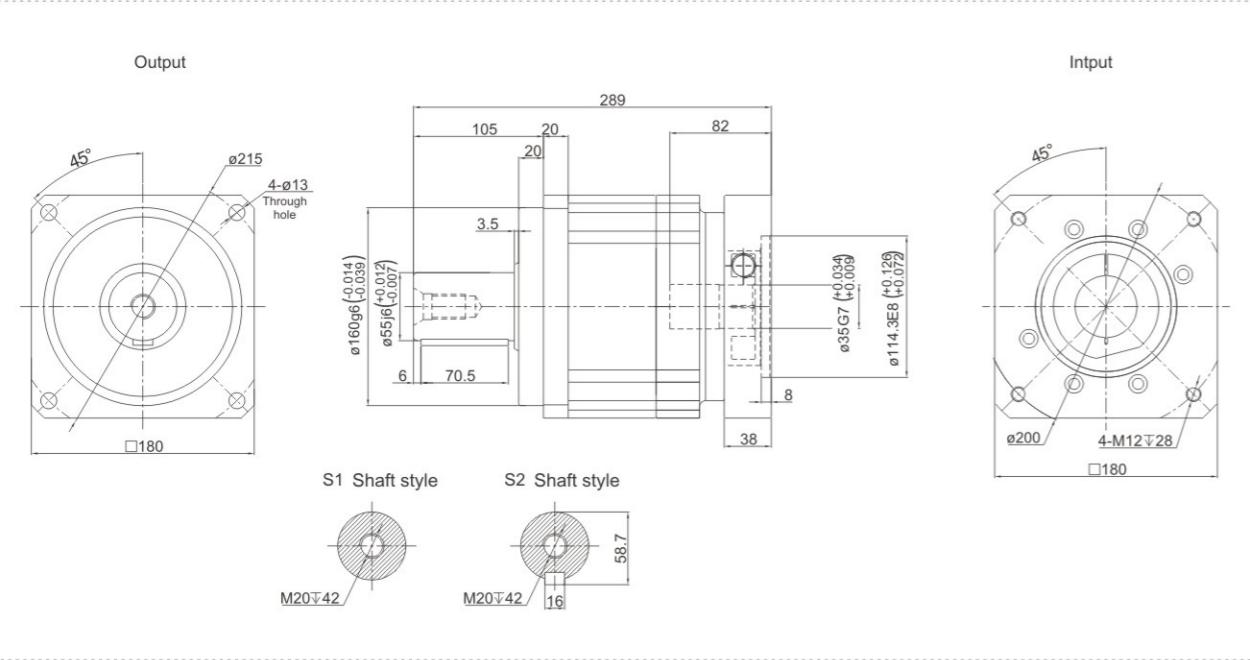
TB Series - High Speed and Precision

Gearko

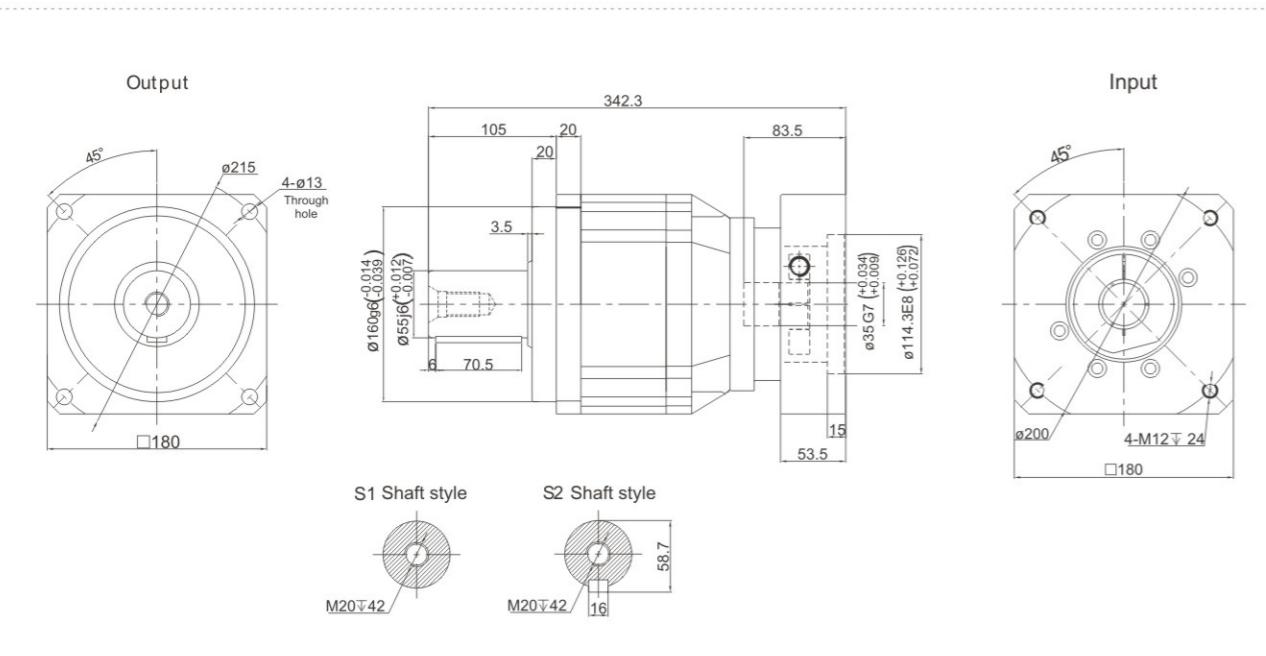
TB

TB180 Series

TB180 One Stage



TB180 Two Stage



Performance Data

The TB series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

| TB180 | One Stage | | | | | | | | | | Two Stage | | | | | | | | | | |
|-----------------------------|-------------|-------|-------|-------|-------|-------|-------|---|-------|-----|-----------|------|------|------|------|------|------|------|------|-----|-----|
| | Speed Ratio | i | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 100 |
| Nominal Output Torque T_1 | Nm | 588 | 1050 | 1200 | 1100 | 1100 | 1000 | - | 900 | 588 | 1050 | 1200 | 1100 | 1100 | 1000 | 1200 | 1100 | 1100 | 1000 | 900 | |
| Emergency Stop Torque T_2 | Nm | | | | | | | | | | | | | | | | | | | | |
| Normal Input Speed S_1 | rpm | | | | | | | | | | | | | | | | | | | | |
| Maximum Input Speed S_2 | rpm | | | | | | | | | | | | | | | | | | | | |
| Maximum Output Torque T_4 | Nm | | | | | | | | | | | | | | | | | | | | |
| Maximum Radial Force F_a | N | | | | | | | | | | | | | | | | | | | | |
| Maximum Axial Force F_b | N | | | | | | | | | | | | | | | | | | | | |
| Torsional Rigidity | Nm/arcmin | | | | | | | | | | | | | | | | | | | | |
| Efficiency η | % | | | | | | | | | | | | | | | | | | | | |
| Service Life | h | | | | | | | | | | | | | | | | | | | | |
| Noise | dB | | | | | | | | | | | | | | | | | | | | |
| Weight | Kg | | | | | | | | | | | | | | | | | | | | |
| P0 | | | | | | | | | | | | | | | | | | | | | |
| Backlash | arcmin | | | | | | | | | | | | | | | | | | | | |
| P1 | arcmin | | | | | | | | | | | | | | | | | | | | |
| P2 | | | | | | | | | | | | | | | | | | | | | |
| Operating Temperature | °C | | | | | | | | | | | | | | | | | | | | |
| Lubrication | | | | | | | | | | | | | | | | | | | | | |
| Protection Class | | | | | | | | | | | | | | | | | | | | | |
| Mounting Position | | | | | | | | | | | | | | | | | | | | | |
| Moment of Inertia J | kg.cm² | 28.98 | 23.67 | 23.29 | 22.75 | 22.48 | 22.59 | - | 22.51 | | | | | | | | | | | | |

Notes:

- Speed ratio ($i=Sin/Sout$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

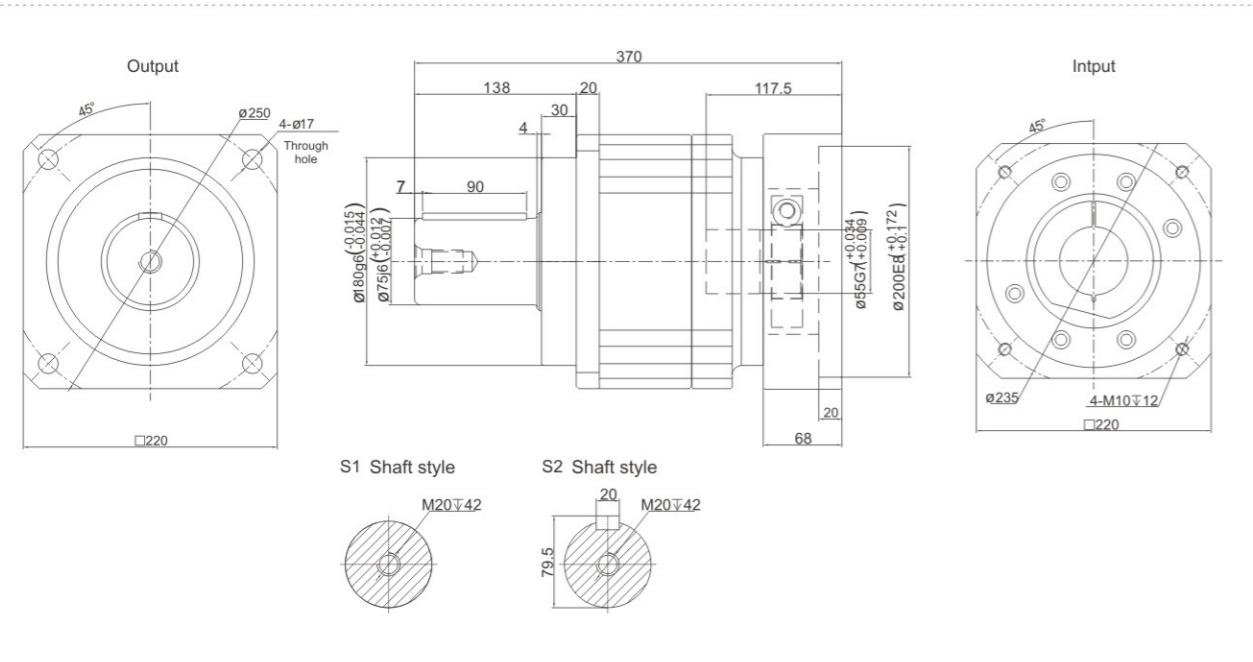
TB Series - High Speed and Precision

Gearko

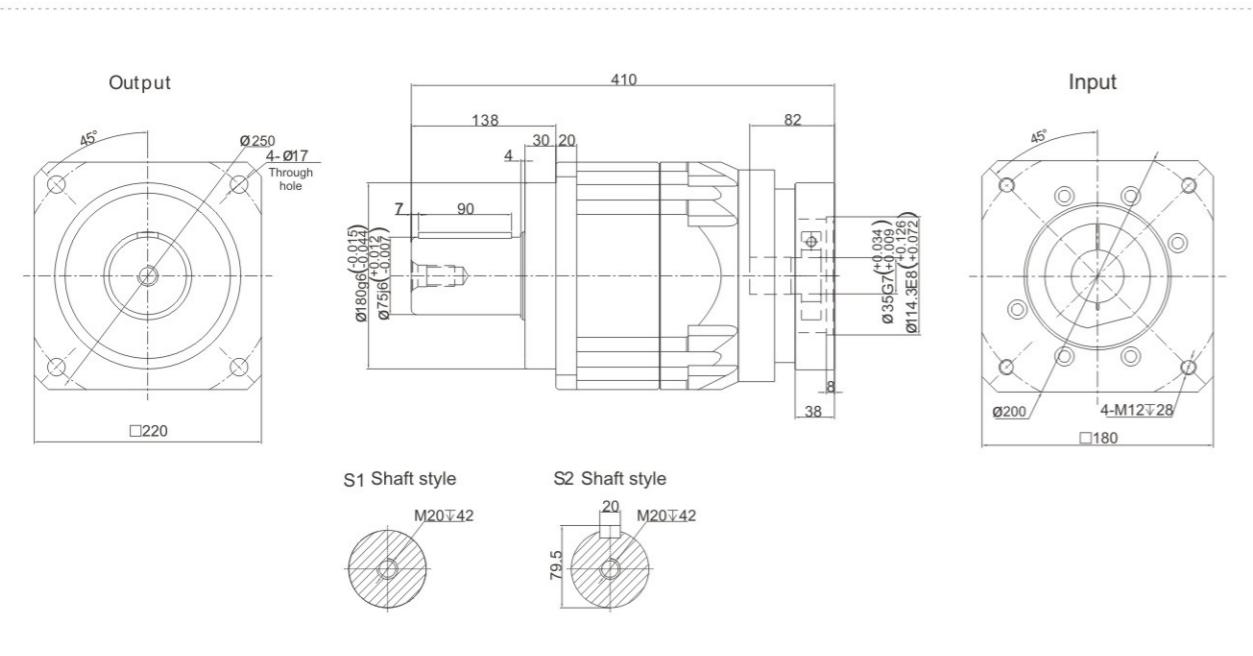
TB

TB220 Series

TB220 One Stage



TB220 Two Stage



Performance Data

The TB series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

| TB220 | One Stage | | | | | | | | | | Two Stage | | | | | | | | | | |
|-----------------------|-------------|---------|-------|-------|-------|-------|-------|-------|---|-------|-----------|------|------|------|------|------|------|------|------|------|----------------------------|
| | Speed Ratio | i | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 100 |
| Normal Output Torque | T_1 | Nm | 1140 | 1700 | 2000 | 1900 | 1800 | 1600 | - | 1500 | 1140 | 1700 | 2000 | 1900 | 1800 | 1600 | 2000 | 1900 | 1800 | 1600 | 1500 |
| Emergency Stop Torque | T_2 | Nm | | | | | | | | | | | | | | | | | | | $T_1 \times 3$ |
| Normal Input Speed | S_1 | rpm | | | | | | | | | | | | | | | | | | | 2000 |
| Maximum Input Speed | S_2 | rpm | | | | | | | | | | | | | | | | | | | 4000 |
| Maximum Output Torque | T_4 | Nm | | | | | | | | | | | | | | | | | | | $T_1 \times 3 \times 60\%$ |
| Maximum Radial Force | F_a | N | | | | | | | | | | | | | | | | | | | 50000 |
| Maximum Axial Force | F_b | N | | | | | | | | | | | | | | | | | | | 25000 |
| Torsional Rigidity | - | Nm/arcm | | | | | | | | | | | | | | | | | | | 225 |
| Efficiency | η | % | | | | | | | | | | | | | | | | | | | ≥94 |
| Service Life | - | h | | | | | | | | | | | | | | | | | | | 20000 |
| Noise | - | dB | | | | | | | | | | | | | | | | | | | ≤70 |
| Weight | - | Kg | | | | | | | | | | | | | | | | | | | 60 |
| P0 | | | | | | | | | | | | | | | | | | | | | ≤3 |
| Backlash | P1 | arcmin | | | | | | | | | | | | | | | | | | | ≤5 |
| | P2 | | | | | | | | | | | | | | | | | | | | ≤7 |
| Operating Temperature | - | °C | | | | | | | | | | | | | | | | | | | -20~90 |
| Lubrication | - | | | | | | | | | | | | | | | | | | | | Synthetic Grease |
| Protection Class | - | | | | | | | | | | | | | | | | | | | | IP65 |
| Mounting Position | - | | | | | | | | | | | | | | | | | | | | Any Direction |
| Moment of Inertia | J | kg.cm² | 69.61 | 54.37 | 53.27 | 51.72 | 50.97 | 50.84 | - | 50.56 | | | | | | | | | | | 22.51 |

Notes:

- Speed ratio ($i = S_{in}/S_{out}$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

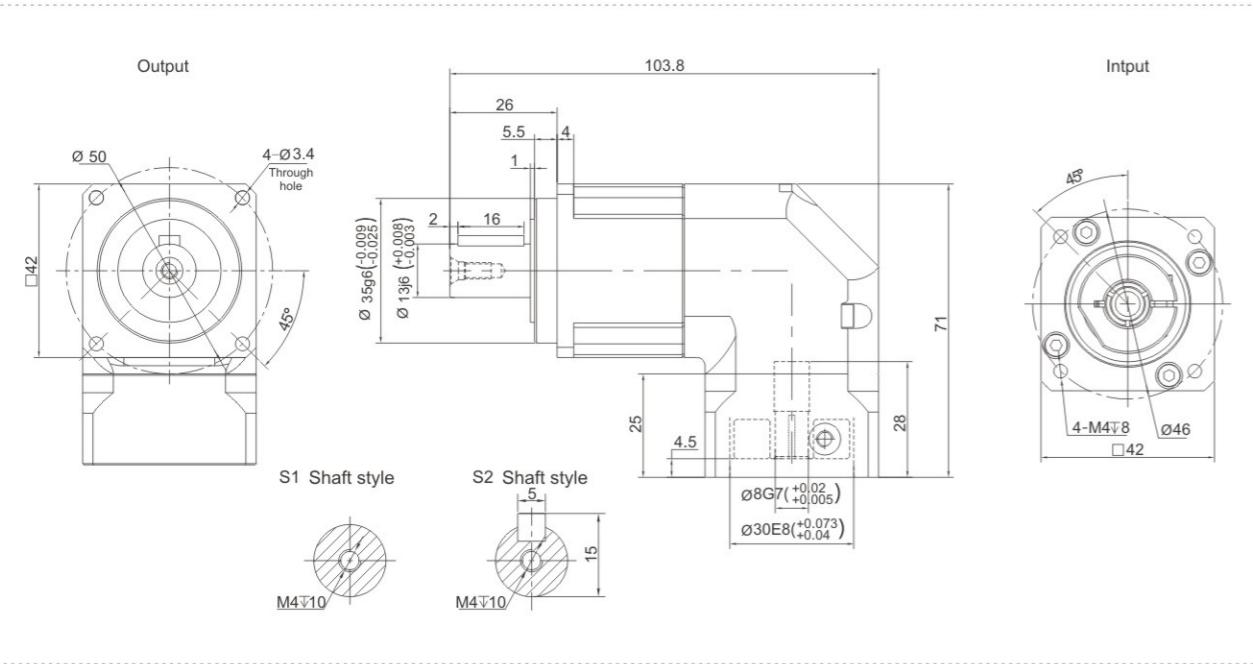
TBR Series - High Speed and Precision

GEARKO

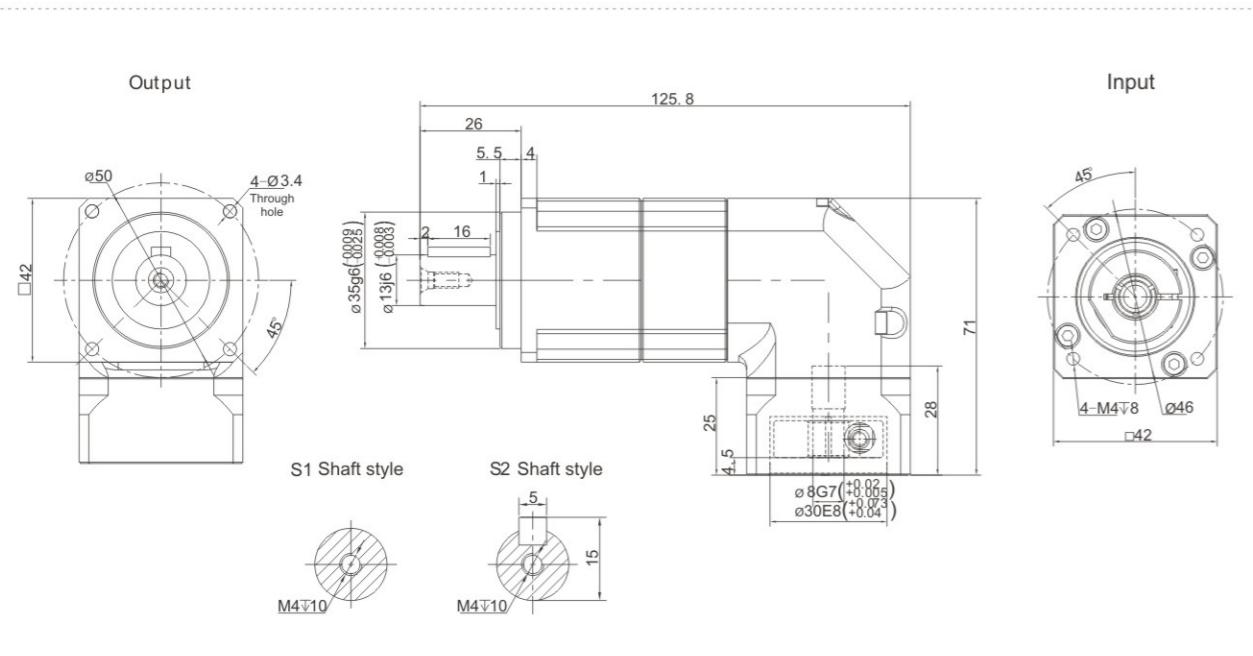
TB

TBR042 Series

TBR042 One Stage



TBR042 Two Stage



Performance Data

The TBR series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

| TBR042 | One Stage | | | | | | | | | | Two Stage | | | | | | | | | | | | | | | | |
|----------------------------------|-------------|---|----|----|----|----|----|---|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|
| | Speed Ratio | i | - | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 100 | 120 | 140 | 160 | 180 |
| Normal Output Torque T_1 Nm | | - | 12 | 15 | 18 | 19 | 17 | - | 14 | 18 | - | 17 | 14 | 15 | 20 | 19 | 17 | 14 | - | - | - | - | - | - | - | - | - |
| Emergency Stop Torque T_2 Nm | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Normal Input Speed S_1 rpm | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Input Speed S_2 rpm | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Output Torque T_4 Nm | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Radial Force F_a N | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Axial Force F_b N | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Torsional Rigidity $-$ Nm/arcmin | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Efficiency η % | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Service Life $-$ h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Noise $-$ dB | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Weight $-$ Kg | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P0 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Backlash P_1 arcmin | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P_2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Temperature $-$ °C | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lubrication | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection Class | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mounting Position | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Moment of Inertia J kg.cm² | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Notes:

- Speed ratio ($i = \text{Sout}/\text{Sin}$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

TBR Series - High Speed and Precision

GEARKO

TBR060 Series

TB

TBR

TD

TDR

TE

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TF

TCB

TCBR

TCE

TM

TB

TBR

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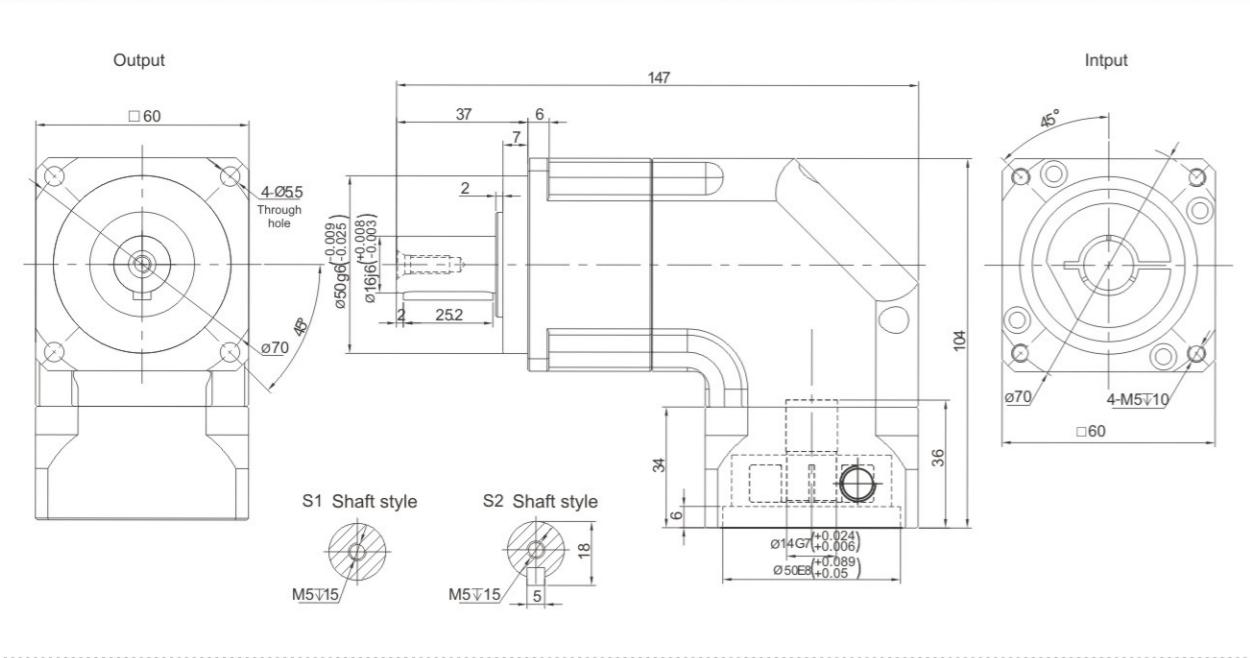
TCB

TCBR

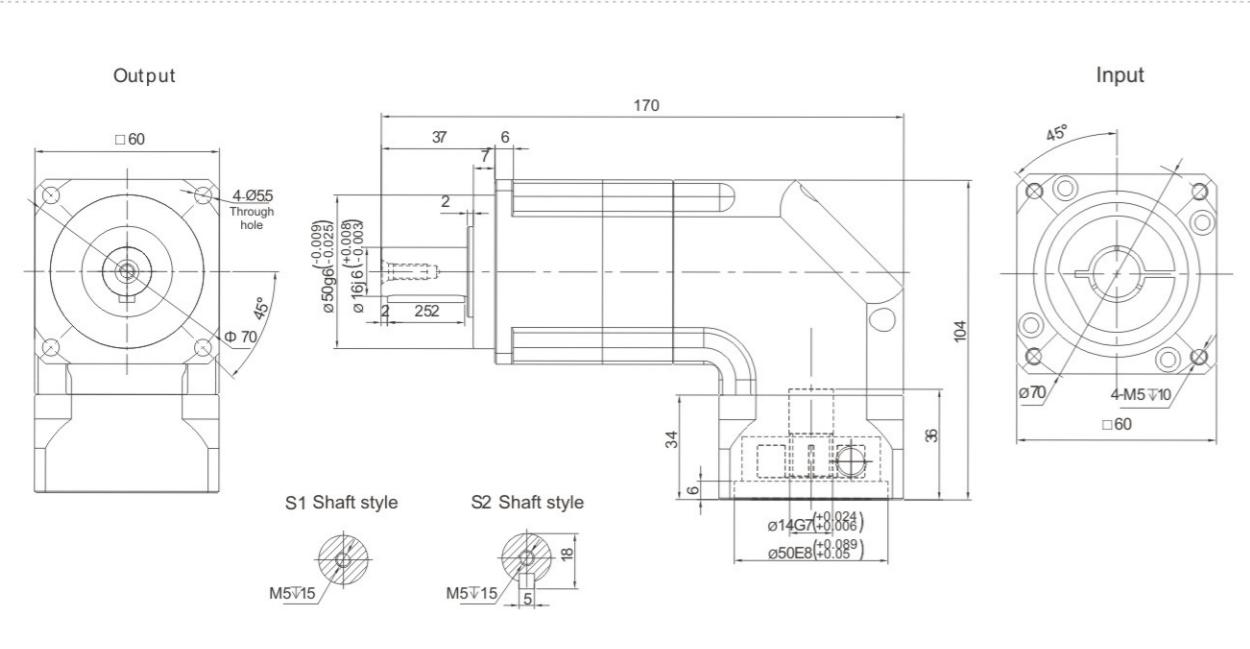
TCE

TM

TBR060 One Stage



TBR060 Two Stage



Performance Data

The TBR series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

| TBR060 | One Stage | | | | | | | | | | Two Stage | | | | | | | | | | | | | | | | | |
|---------------------------------|-------------|----|----|----|----|----|----|---|----|----|-----------|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|
| | Speed Ratio | i | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 100 | 120 | 140 | 160 | 180 | 200 |
| Norminal Output Torque T_1 Nm | | 36 | 48 | 60 | 55 | 50 | 45 | - | 40 | 55 | 42 | 45 | 40 | 60 | 55 | 50 | 45 | 60 | 55 | 50 | 45 | 40 | 55 | 50 | 45 | - | 40 | |
| Emergency Stop Torque T_2 Nm | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Norminal Input Speed S_1 rpm | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Input Speed S_2 rpm | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Output Torque T_4 Nm | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Radial Force F_a N | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Axial Force F_b N | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Torsional Rigidity - Nm/arcmin | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Efficiency η % | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Service Life - h | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Noise - dB | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Weight - Kg | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Backlash P1 arcmin | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Temperature - °C | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lubrication | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection Class | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mounting Position | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Moment of Inertia J kg.cm² | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Notes:

- Speed ratio (i=Sin/Sout)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, i=10.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

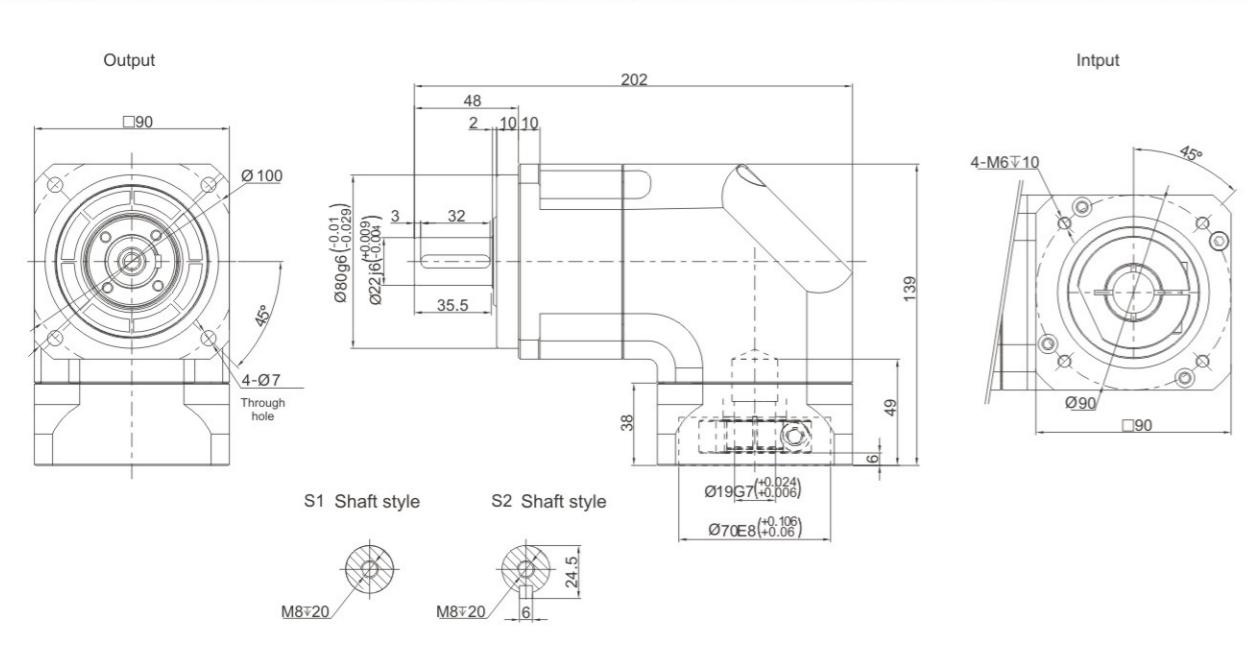
TBR Series - High Speed and Precision

GEARKO

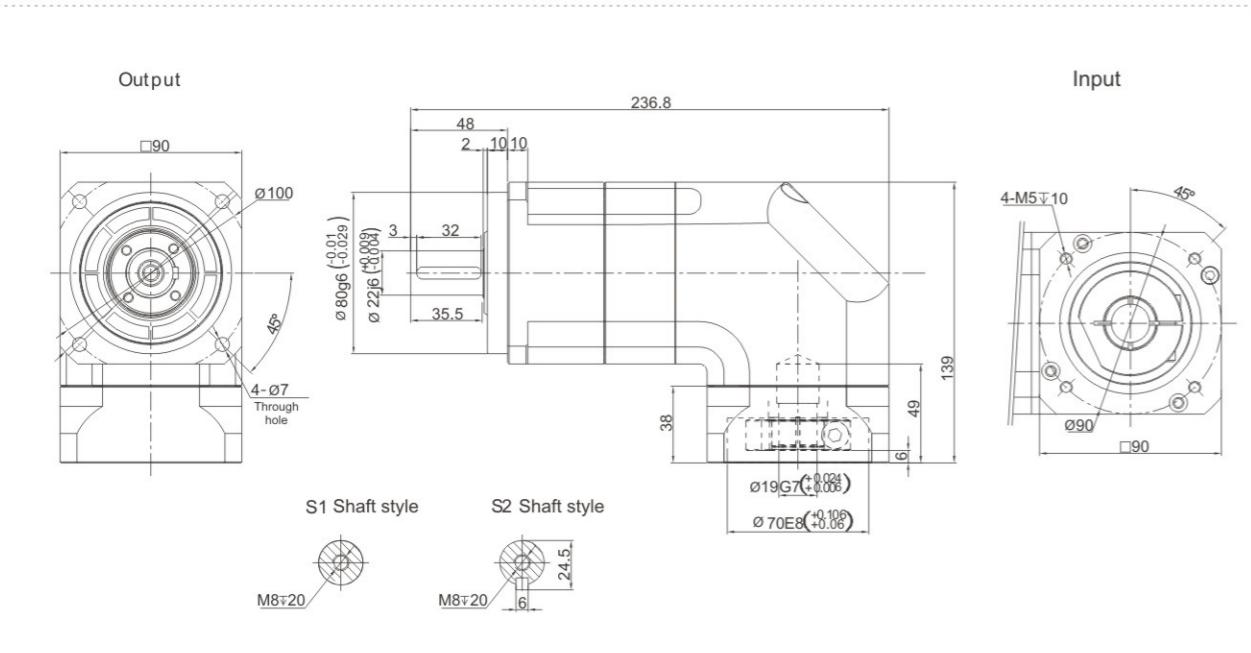
TB

TBR090 Series

TBR090 One Stage



TBR090 Two Stage



Performance Data

The TBR series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

| Speed Ratio | i | One Stage | | | | | | | | | | Two Stage | | | | | | | | | | | | | | | | |
|-----------------------|----------------|--------------------|----|-----|-----|-----|-----|-----|----|-----|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|
| | | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | |
| Normal Output Torque | T ₁ | Nm | 90 | 120 | 150 | 150 | 140 | 120 | - | 100 | 150 | 140 | 120 | 100 | 150 | 150 | 140 | 120 | 100 | 150 | 140 | 120 | 100 | 150 | 140 | 120 | - | 100 |
| Emergency Stop Torque | T ₂ | Nm | | | | | | | | | | | | | | | | | | | | | | | | | T ₁ \times 3 | |
| Normal Input Speed | S ₁ | rpm | | | | | | | | | | | | | | | | | | | | | | | | | 4000 | |
| Maximum Input Speed | S ₂ | rpm | | | | | | | | | | | | | | | | | | | | | | | | | 8000 | |
| Maximum Output Torque | T ₄ | Nm | | | | | | | | | | | | | | | | | | | | | | | | | T ₁ \times 3 \times 60% | |
| Maximum Radial Force | F _a | N | | | | | | | | | | | | | | | | | | | | | | | | | 3250 | |
| Maximum Axial Force | F _b | N | | | | | | | | | | | | | | | | | | | | | | | | | 1625 | |
| Torsional Rigidity | - | Nm/arcmin | | | | | | | | | | | | | | | | | | | | | | | | | 14 | |
| Efficiency | η | % | | | | | | | | | | | | | | | | | | | | | | | | | ≥95 | |
| Service Life | - | h | | | | | | | | | | | | | | | | | | | | | | | | | 20000 | |
| Noise | - | dB | | | | | | | | | | | | | | | | | | | | | | | | | ≤65 | |
| Weight | - | Kg | | | | | | | | | | | | | | | | | | | | | | | | | 6.4 | |
| P0 | | | | | | | | | | | | | | | | | | | | | | | | | | | ≤2 | |
| Backlash | P1 | arcmin | | | | | | | | | | | | | | | | | | | | | | | | | ≤4 | |
| P2 | | | | | | | | | | | | | | | | | | | | | | | | | | | ≤6 | |
| Operating Temperature | - | °C | | | | | | | | | | | | | | | | | | | | | | | | | -20~90 | |
| Lubrication | - | | | | | | | | | | | | | | | | | | | | | | | | | | Synthetic Grease | |
| Protection Class | - | | | | | | | | | | | | | | | | | | | | | | | | | | IP65 | |
| Mounting Position | - | | | | | | | | | | | | | | | | | | | | | | | | | | Any Direction | |
| Moment of Inertia | J | kg.cm ² | | | | | | | | | | | | | | | | | | | | | | | | | 2.25 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 1.87 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 0.35 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 0.31 | |

Notes:

- ➊ Speed ratio (i=Sin/Sout)
- ➋ When the output speed is 100 rpm, it acts on the center of the output shaft.
- ➌ For continuous operation, the service life is no less than 10,000 hours.
- ➍ The noise value was measured based on the input rotational speed of 3000 rpm, i=10.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

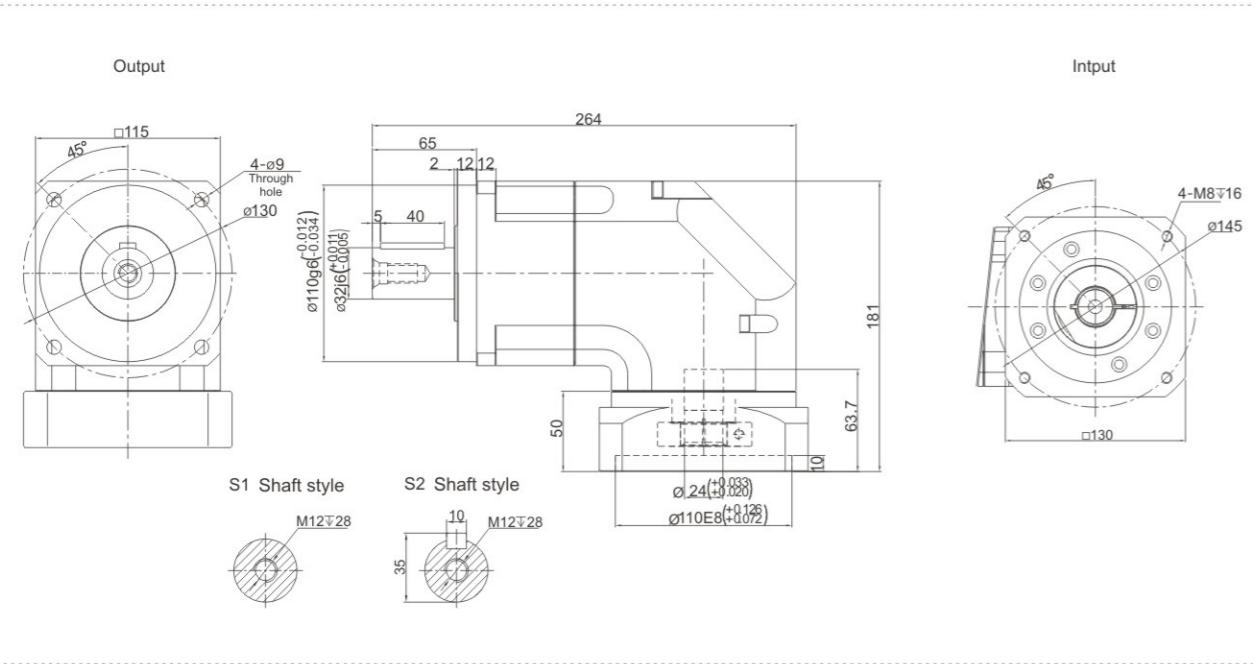
TBR Series - High Speed and Precision

GEARKO

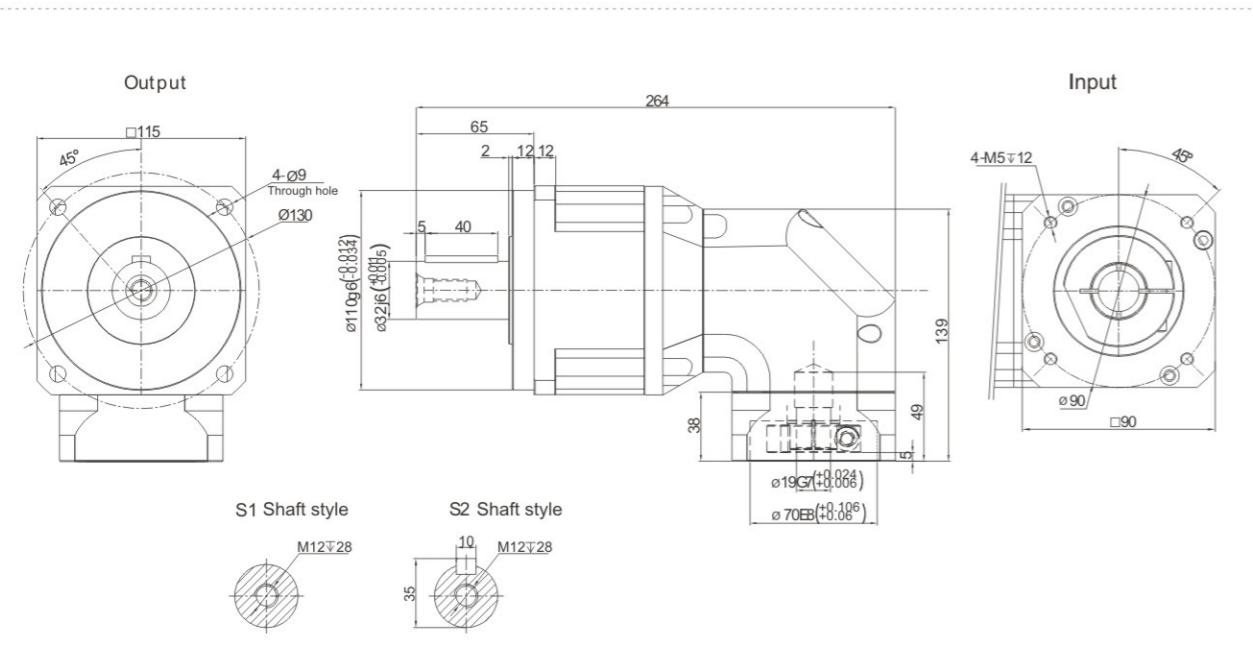
TB

TBR115 Series

TBR115 One Stage



TBR115 Two Stage



Performance Data

The TBR series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

| | | One Stage | | | | | | | | | | Two Stage | | | | | | | | | | | | | | | |
|-----------------------|--------|-----------|-----|-----|-----|-----|-----|-----|----|-----|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Speed Ratio | i | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 100 | 120 | 140 | 160 | 180 | 200 |
| Normal Output Torque | T_1 | Nm | 195 | 260 | 325 | 310 | 300 | 260 | - | 230 | 310 | 300 | 260 | 230 | 325 | 310 | 300 | 260 | 230 | 310 | 300 | 260 | 230 | 310 | 300 | 260 | |
| Emergency Stop Torque | T_2 | Nm | | | | | | | | | | | | | | | | | | | | | | | | | |
| Normal Input Speed | S_1 | rpm | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Input Speed | S_2 | rpm | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Output Torque | T_4 | Nm | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Radial Force | F_a | N | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Axial Force | F_b | N | | | | | | | | | | | | | | | | | | | | | | | | | |
| Torsional Rigidity | | Nm/arcm | | | | | | | | | | | | | | | | | | | | | | | | | |
| Efficiency | η | % | | | | | | | | | | | | | | | | | | | | | | | | | |
| Service Life | - | h | | | | | | | | | | | | | | | | | | | | | | | | | |
| Noise | - | dB | | | | | | | | | | | | | | | | | | | | | | | | | |
| Weight | - | Kg | | | | | | | | | | | | | | | | | | | | | | | | | |
| P0 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Backlash | P1 | arcmin | | | | | | | | | | | | | | | | | | | | | | | | | |
| P2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Temperature | - | °C | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lubrication | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection Class | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mounting Position | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Moment of Inertia | J | kg.cm² | | | | | | | | | | | | | | | | | | | | | | | | | |

Notes:

- Speed ratio (i=Sin/Sout)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, i=10.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

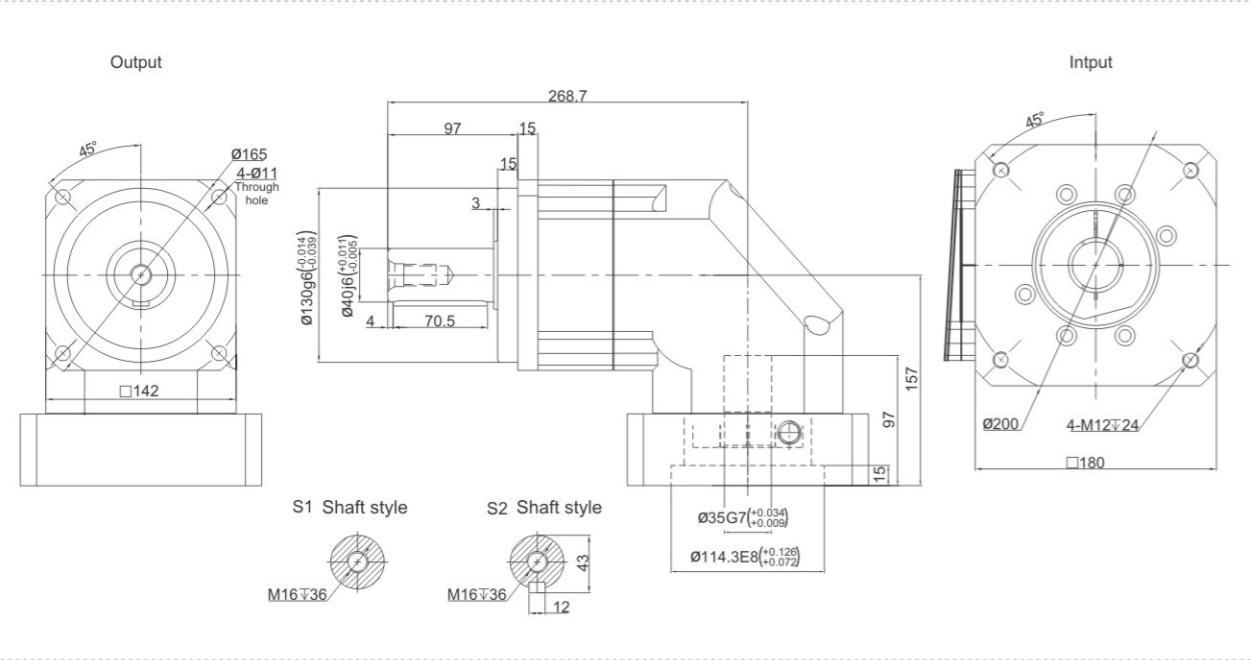
TBR Series - High Speed and Precision

GEARKO

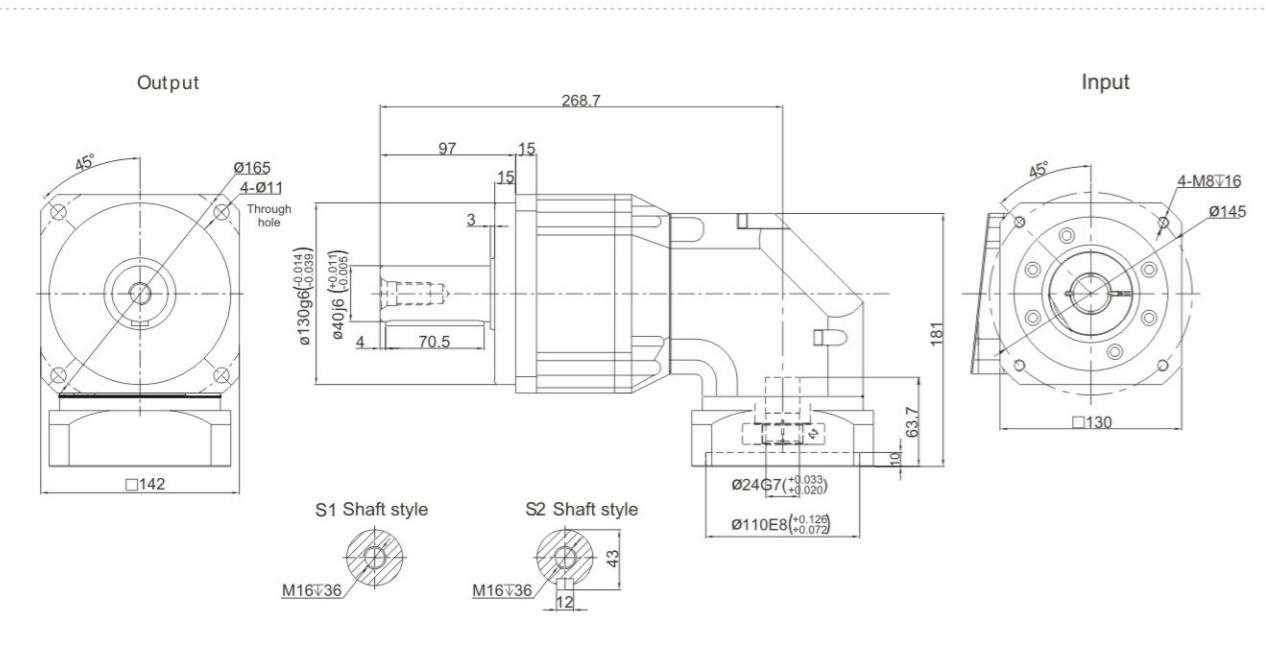
TB

TBR142 Series

TBR142 One Stage



TBR142 Two Stage



Performance Data

The TBR series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

| TBR142 | One Stage | | | | | | | | | | Two Stage | | | | | | | | | | | | | | | | | |
|-----------------------------|-------------|-----|-----|-----|-----|-----|-----|---|-----|-----|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | Speed Ratio | i | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 100 | 120 | 140 | 160 | 180 | 200 |
| Normal Output Torque T_1 | Nm | 342 | 520 | 650 | 600 | 550 | 500 | - | 450 | 600 | 550 | 500 | 450 | 650 | 600 | 550 | 500 | 650 | 600 | 550 | 500 | 450 | 600 | 550 | 550 | - | 450 | |
| Emergency Stop Torque T_2 | Nm | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Normal Input Speed S_1 | rpm | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Input Speed S_2 | rpm | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Output Torque T_4 | Nm | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Radial Force F_a | N | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum Axial Force F_b | N | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Torsional Rigidity | Nm/arcmin | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Efficiency | % | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Service Life | h | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Noise | dB | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Weight | Kg | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Backlash | P1 arcmin | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| P2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operating Temperature | °C | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lubrication | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Protection Class | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mounting Position | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Moment of Inertia | J kg.cm² | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Notes:

- Speed ratio ($i = \text{Sout}/\text{Sin}$)
- When the output speed is 100 rpm, it acts on the center of the output shaft.
- For continuous operation, the service life is no less than 10,000 hours.
- The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

Any product models and parameters in this sample are subject to change without prior notice. Please confirm with the company before ordering.

TBR Series - High Speed and Precision

GEARKO

TBR180 Series

TB

TBR

TD

TDR

TE

TER

TF

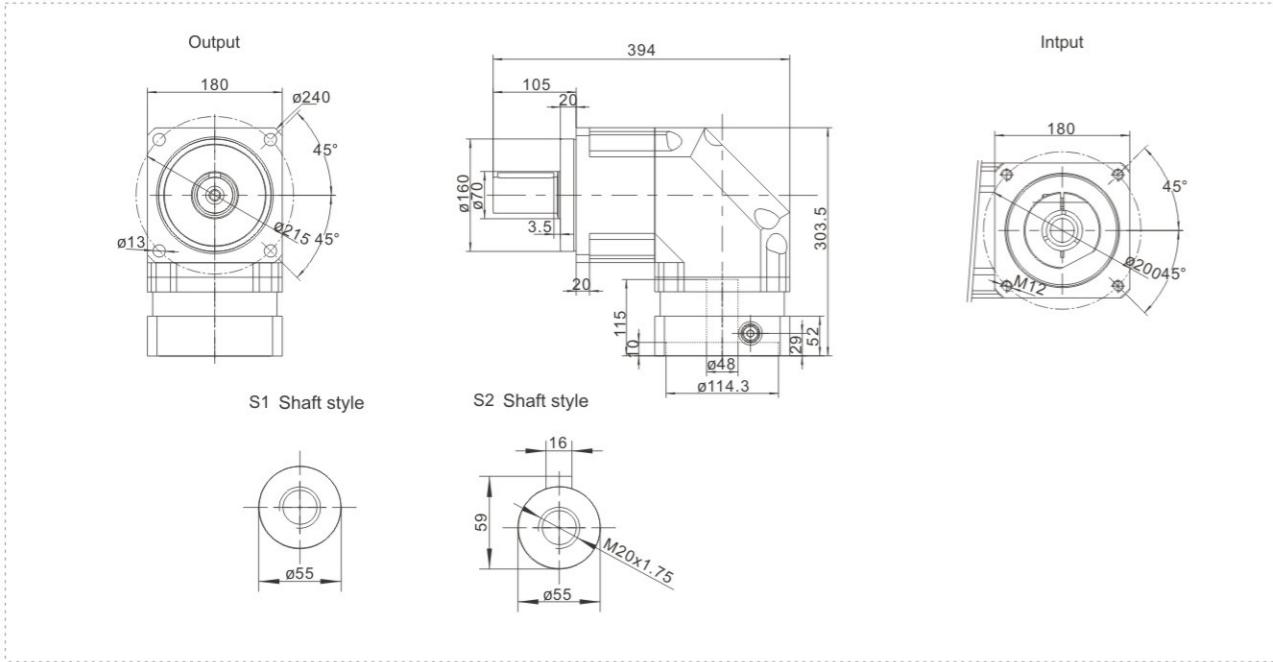
TCB

TCBR

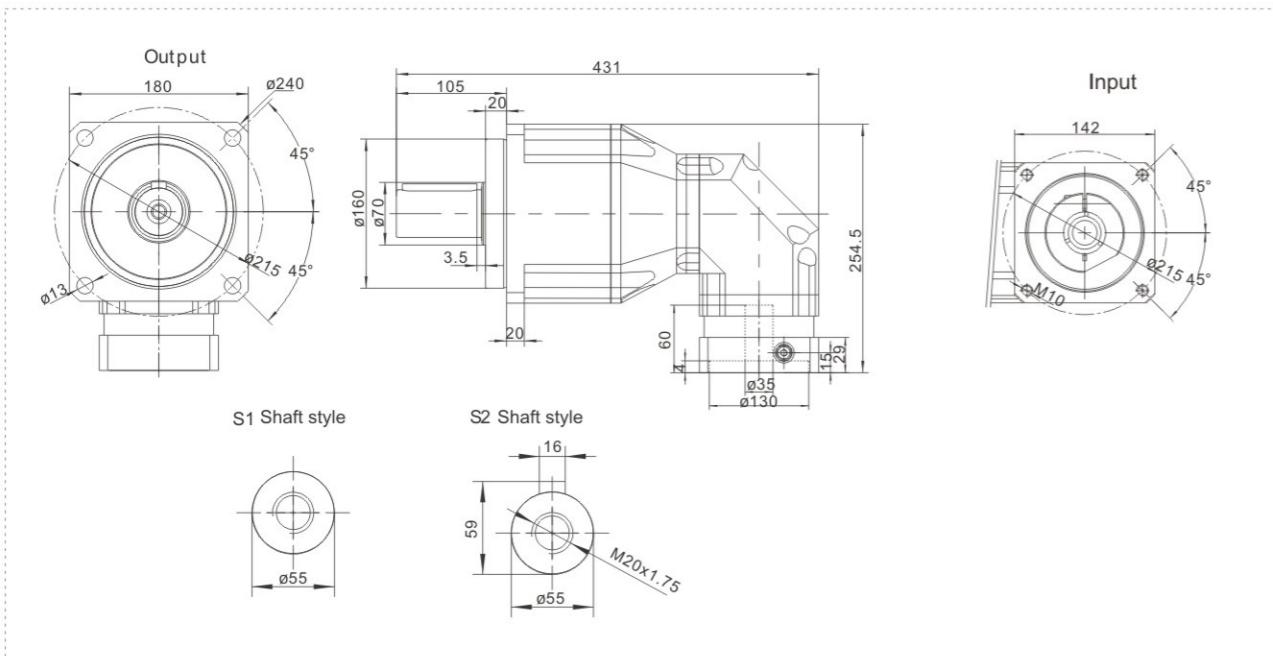
TCE

TM

TBR180 One Stage



TBR180 Two Stage



Performance Data

The TBR series reducer adopts a standardized flange interface. The installation is convenient and quick. Due to its integral structure design, this high-precision model can operate excellently in many demanding working application.

| TBR180 | One Stage | | | | | | | | | | | | Two Stage | | | | | | | | | | | | | | |
|------------------------------|-------------|--------|------|------|------|------|------|---|-----|------|------|------|-----------|------|------|------|------|------|------|------|------|-----|------|------|------|-----|----------------------------|
| | Speed Ratio | i | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 12 | 14 | 16 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 70 | 80 | 100 | 120 | 140 | 160 | 180 |
| Norminal Output Torque T_1 | Nm | 588 | 1040 | 1200 | 1100 | 1100 | 1000 | - | 900 | 1100 | 1100 | 1000 | 900 | 1200 | 1100 | 1100 | 1000 | 1200 | 1100 | 1100 | 1000 | 900 | 1100 | 1100 | 1000 | - | 900 |
| Emergency Stop Torque T_2 | Nm | | | | | | | | | | | | | | | | | | | | | | | | | | $T_1 \times 3$ |
| Norminal Input Speed S_1 | rpm | | | | | | | | | | | | | | | | | | | | | | | | | | 3000 |
| Maximum Input Speed S_2 | rpm | | | | | | | | | | | | | | | | | | | | | | | | | | 6000 |
| Maximum Output Torque T_4 | Nm | | | | | | | | | | | | | | | | | | | | | | | | | | $T_1 \times 3 \times 60\%$ |
| Maximum Radial Force F_r | N | | | | | | | | | | | | | | | | | | | | | | | | | | 14500 |
| Maximum Axial Force F_a | N | | | | | | | | | | | | | | | | | | | | | | | | | | 7250 |
| Torsional Rigidity | Nm/arcm | | | | | | | | | | | | | | | | | | | | | | | | | | 145 |
| Efficiency η | % | | | | | | | | | | | | | | | | | | | | | | | | | | ≥95 |
| Service Life | h | | | | | | | | | | | | | | | | | | | | | | | | | | 20000 |
| Noise | dB | | | | | | | | | | | | | | | | | | | | | | | | | | ≤72 |
| Weight | Kg | | | | | | | | | | | | | | | | | | | | | | | | | | 51 |
| PO | | | | | | | | | | | | | | | | | | | | | | | | | | | ≤4 |
| Backlash | P1 | arcmin | | | | | | | | | | | | | | | | | | | | | | | | | ≤7 |
| | P2 | | | | | | | | | | | | | | | | | | | | | | | | | | ≤9 |
| Operating Temperature | °C | | | | | | | | | | | | | | | | | | | | | | | | | | -20~90 |
| Lubrication | - | | | | | | | | | | | | | | | | | | | | | | | | | | Synthetic Grease |
| Protection Class | - | | | | | | | | | | | | | | | | | | | | | | | | | | IP65 |
| Mounting Position | - | | | | | | | | | | | | | | | | | | | | | | | | | | Any Direction |
| Moment of Inertia | J | kg.cm² | | | | | | | | | | | | | | | | | | | | | | | | | 21.8 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 23.4 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 65.6 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 68.9 |

Notes:

- ⊕ Speed ratio ($i = S_{in}/S_{out}$)
- ⊕ When the output speed is 100 rpm, it acts on the center of the output shaft.
- ⊕ For continuous operation, the service life is no less than 10,000 hours.
- ⊕ The noise value was measured based on the input rotational speed of 3000 rpm, $i=10$.

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