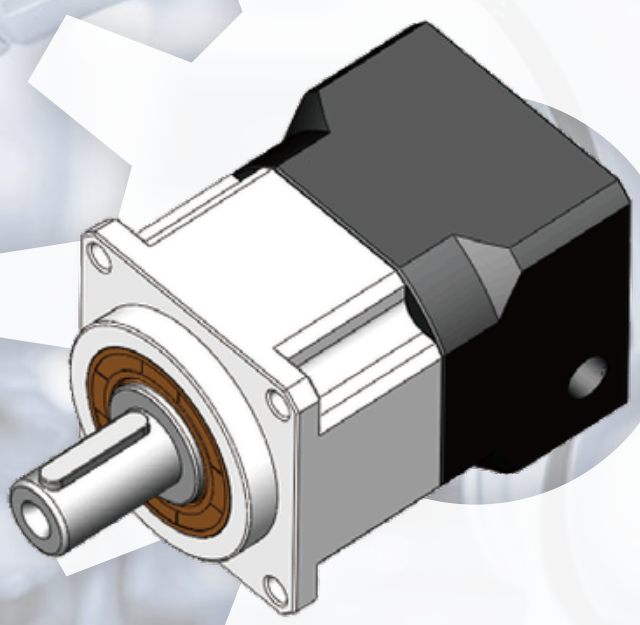
DIEQUA Corporation

PLANETARY GEARHEADS



OPERATION & MOUNTING INSTRUCTIONS

DIEQUA Corporation



DieQua Corporation is a manufacturer and supplier of a wide range of motion control and power transmission drive components. Our focus has always been to provide products that offer superior value, the highest quality, the most unique designs, and the most reliable performance. DieQua continues to develop innovative products to meet the changing technological needs of the industries and customers we serve.



The DieQua Process

DieQua offers an extensive range of motion control and power transmission products. With so many options, identifying the ideal solution or even knowing where to begin can feel overwhelming. That's why our process starts with listening.

Our team is trained to ask the right questions, understand your goals, and guide you to the most effective product or customized solution for your specific application. This consultative approach allows us to consistently exceed customer expectations with the best-fit design.

Your Application. Our Expertise

No two applications are the same. From packaging to robotics to heavy-duty manufacturing, our experienced team understands the performance, precision, and environmental demands of your industry.

We bring decades of hands-on knowledge and real-world problem-solving to every project, ensuring your solution is not only functional but fully optimized.

Customers choose DieQua for more than just high-quality products. They return for our responsiveness, transparency, and long-term commitment to their success.

We don't just deliver parts. We deliver peace of mind. From the first call to field support, we're here to solve your challenges with urgency, clarity, and expertise.



1. Notes

1.1 Preparation before installation

- Please read this operation manual before using the gearheads. DieQua will not be held responsible for any problems caused by improper operation contrary to this manual, damage caused by natural disasters, or modification of the gearheads without our permission, and the warranty will not cover the gearheads in these cases.
- The warranty period is one year from purchase of the gearheads. Within the warranty period, if the gearhead damage was not caused by operator error or natural disaster, please return the gearheads and we will replace the damaged parts free of charge.
- Installation, disassembly and maintenance of the gearheads must be performed by trained technicians, or the one-year warranty is void.
- Depending on the application and operating environment, the gearhead surface temperature may rise well above ambient after a period of running, up to the 90 °C (194 °F) operating limit. Do not touch the gearheads directly during operation or immediately after operation.
- Do not touch any rotating components while the gearheads are running. Ensure that the gearhead plugs are inserted after installation. Do not allow any small objects to fall into the gearheads.
- Handle the gearheads gently during installation. Do not strike the gearheads with any tool, as this can affect running accuracy.
- Do not disassemble or modify the gearheads, to prevent injury or equipment damage.
- Synthetic lubricant is sealed in the gearheads and they are lubricated for life. Under normal working conditions there is no need to change or replenish the lubricant. For continuous-duty or other unusual duty cycles, contact DieQua.

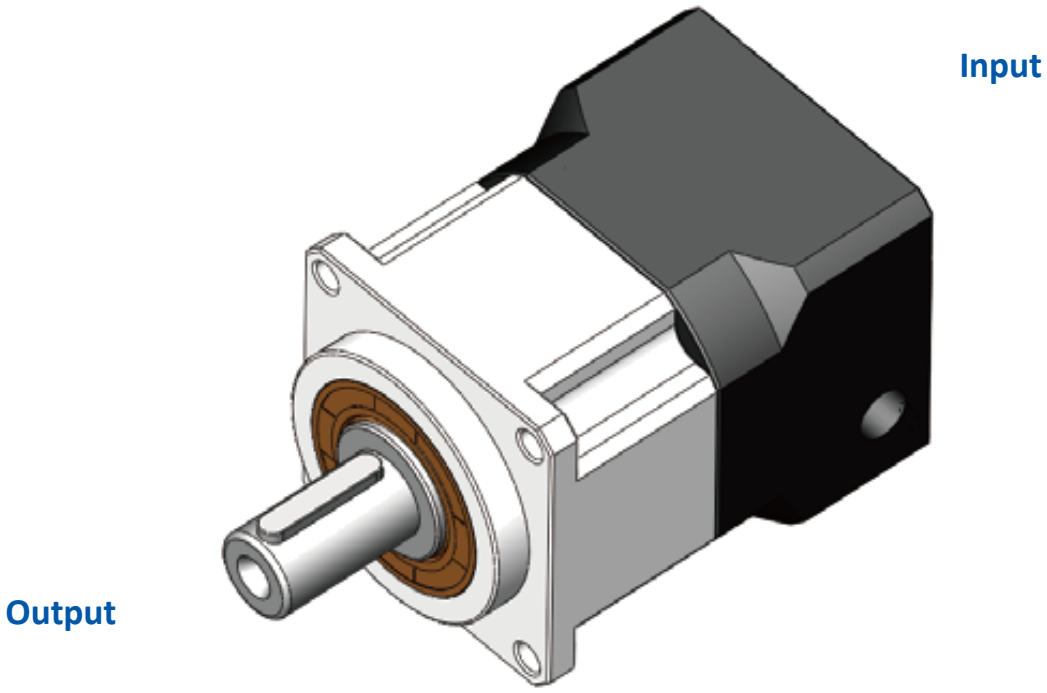
1.2 Standard installation environment limitations

The gearheads must be installed under the following standard environmental conditions. Damage resulting from installation or operation outside these conditions is not covered by the warranty. For high- or low-temperature, salt-water, washdown or other special environments, contact DieQua before installation.

- The gearheads are designed and manufactured to be used in assembly with other mechanical equipment.
- Operating temperature: –10 °C to +90 °C continuous.
- Operating altitude: no higher than 1000 m above sea level.
- Avoid continuous vibration or impact.
- Do not use the gearbox in a flammable or corrosive gas environment.
- Humidity: no more than 85 %, to avoid condensation.
- Avoid direct sunlight and dust accumulation.
- Avoid splashing water or oil.
- Use in a well-ventilated place.

2. Gearhead introduction

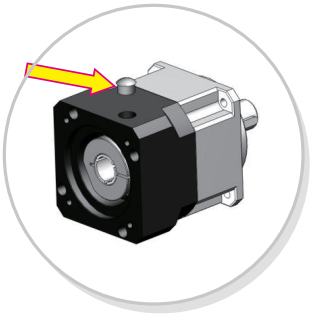
As shown below, the input side is for mounting the servo motor and the output side is mounted to the application equipment.



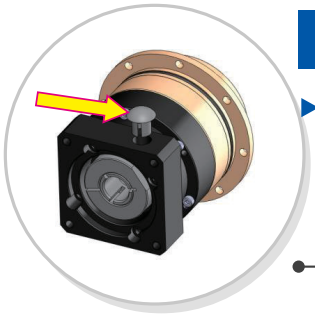
To ensure product performance, both the input and output ends must be protected carefully to avoid any damage that could cause improper operation.

3. Motor mounting instructions

Parallel type

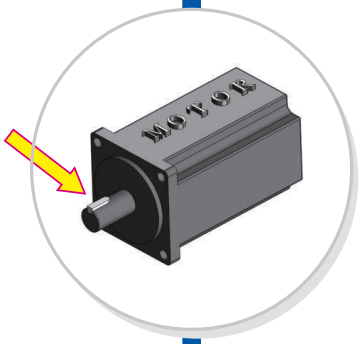


Hollow spindle type



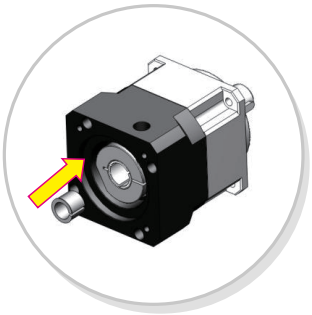
Step 1.

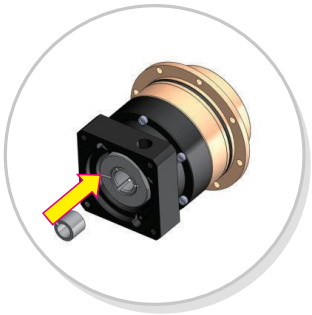
- Check the motor and gearbox sizes and clean the mounting surfaces. Remove the plug from the bracket (parallel type) or adapter plate (hollow spindle type). Rotate the set collar until the bolt is aligned with the hole.



Step 2.

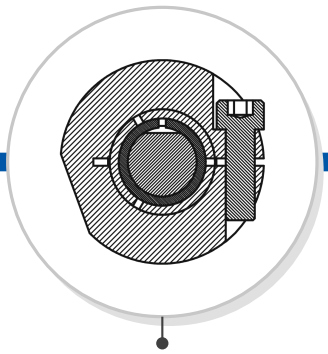
- Remove the key from the motor shaft. Fit the balance key if necessary.





Step 3.

- Check the motor shaft size. Choose the correct bushing if necessary.



Step 4.

- When mounting on a shaft with a flat, align the collet gap over the flat and the set collar bolt perpendicular to the flat.

3. Motor mounting instructions (continued)

Recommended tightening torque for the motor mounting screws

Screw size	Wrench size	Tightening torque	
	mm	N·m	in-lb
M3 x 0.5	2.5	2.1	19
M4 x 0.7	3	4.9	44
M5 x 0.8	4	9.8	87
M6 x 1	5	17	151
M8 x 1.25	6	41	364
M10 x 1.5	8	80	709
M12 x 1.75	10	139	1232
M14 x 2	12	223	1976
M16 x 2	14	343	3038

Note 1: The holding torque must be greater than the values shown above. The bolts may be tightened up to 20 % higher for increased holding.

Note 2: Values apply to metric strength class 12.9 hexagon socket cap screws only.

Step 5.

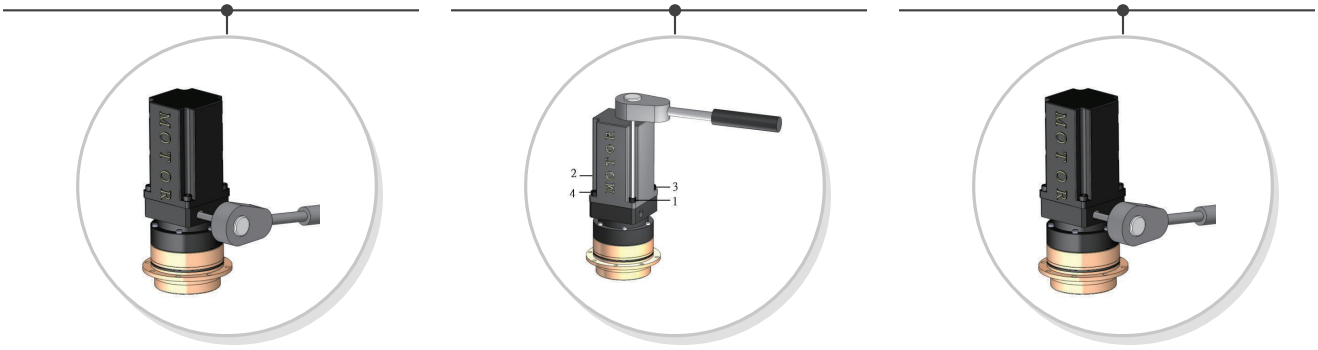
- **Install the gearbox and motor vertically.** Tighten the set collar bolt with a torque wrench to **only 5 %** of the specified torque. Do not tighten it fully yet.

Step 6.

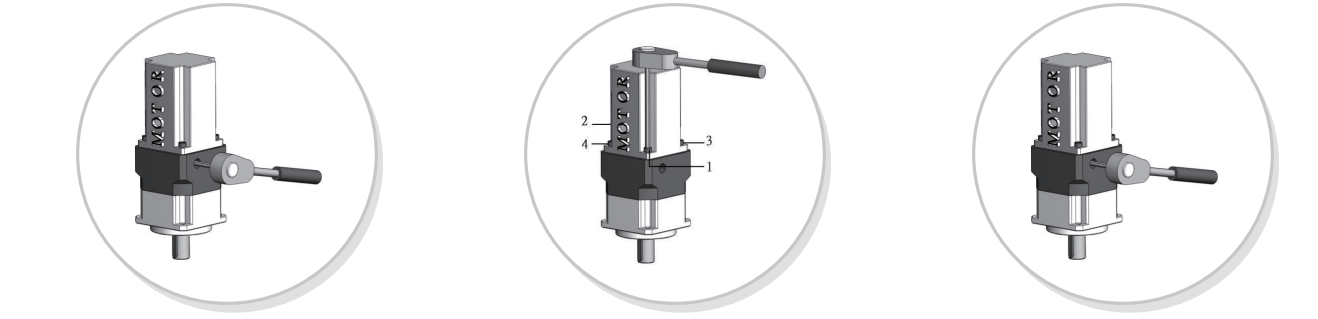
- Tighten the mounting screws in the order 1–4 with a torque wrench to the recommended torque (see the table above).

Step 7.

- Tighten the set collar bolt to the **final** specified torque. Put the plug back.



Hollow spindle type



Parallel type

Notes

ABOUT DIEQUA

Founded in 1980 by Dietmar Quaas, and now owned by his sons, DieQua Corporation has expanded from a single product line to become a leading manufacturer and supplier of an extensive line of high-quality power transmission and precision motion control products, including gearboxes, servo gearheads, screw jack systems, speed reducers, cycloidal reducers, and connecting components. The company also offers custom product modifications and complete design solutions for virtually any application. DieQua Corporation serves a wide range of industries, including medical and health care, marine engineering, renewable energy, mining, transportation, steel, forestry and lumber, water and wastewater, automotive, and factory automation, to name a few.

An experienced and knowledgeable technical sales, customer service, and engineering support staff, as well as local distributors, ensure that DieQua customers in North America, Mexico and South America select the optimum components, systems, and best design solutions for their specific requirements.

The DieQua family of products


Spiral Bevel Gearboxes


Servo Gearheads

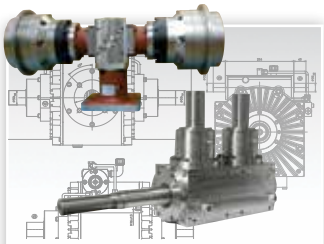

Servo Worm Gearheads


Screw Jack Systems


Helical Speed Reducers


Speed Modulating Gearboxes


Zero Backlash Couplings and Line Shafts


Custom Designs

The DieQua Advantage

Engineering Support

DieQua Corporation has several decades of combined experience specifying power transmission and motion control components. This assures proper selection of components and systems to suit your unique requirements.

Warehousing

We pride ourselves for our extensive in-stock inventory. For fast product turnaround, DieQua Corporation stocks many components of various ratios and sizes, ready to ship fast.

Manufacturing and Assembly

DieQua Corporation now manufactures or assembles most of the products, for on-time delivery of standard orders as well as prototypes. We are ISO 9001 certified and are constantly improving our quality systems to ensure our customers receive the best products.

DIEQUA Corporation

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