

Installation and Maintenance Instructions

Receiving and Inspection of Goods

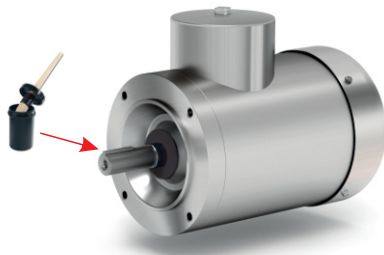
Visually inspect the gearbox for any apparent damage that may have occurred during shipping. If there is any damage to the shipping container/box and there is evidence of excessive damage, please refuse delivery of the gearbox from the carrier. Record pictures of any damage and report any shortages or missing items immediately.

INSTALLATION - Quill style

Before installing the gearbox, make sure that the nameplate data is correct, and in accordance with the specifications required. All of this data can be found laser etched on the back of the gearbox and on top of the motor.

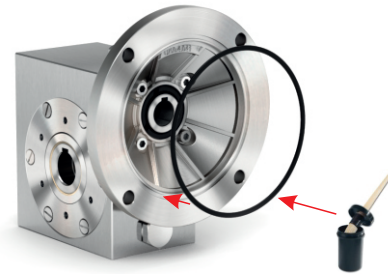
For proper assembly follow the 4 steps below.

1



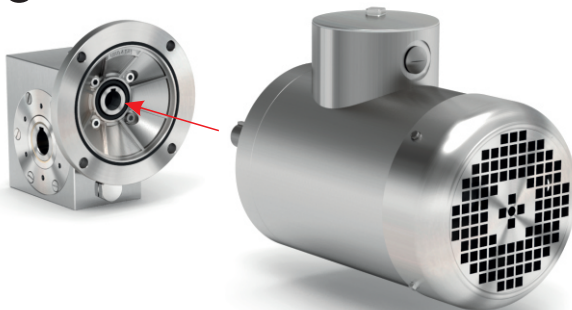
Use Loctite Food Grade Anti-Seize 1167237 or equivalent on motor shaft before assembly.

2



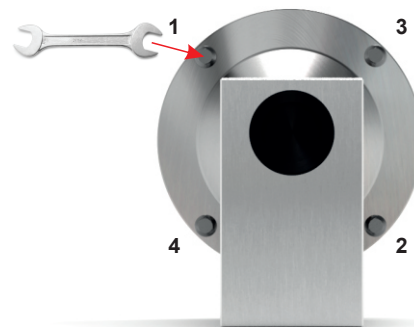
An o-ring must be installed in the input flange of the gearbox to ensure a water tight seal between the motor and the gearbox. This O-ring is provided in a bag which is attached to each and every gearbox. To hold the O-ring in place use Loctite SI 5699 sealant grey paste or food grade grease.

3



Fit the motor on the gearbox paying attention to the correct position of the ring O-ring.

4



Tighten the screws in the sequence indicated by the numbers. First tighten the screws by carefully compressing the O-ring. Repeat the sequence to definitively tighten the screws.

To ensure longevity and reliable service, Keltech stainless steel gearboxes must be rigidly supported and all shafts aligned accurately according to the appropriate ANSI/AGMA industry standards.

The end consumer is responsible to contact Keltech if any changes are to be made to the operating conditions such as applied loads, operating speeds or duty cycles.

In general, worm gearboxes operate best at a maximum speed of 1800RPM. At speed exceeding this the generated heat can exceed the lubricants ability to cool the gearbox properly. This can lead to excessive heat and premature failure. Operating above 60 Hertz (Hz) is not recommended.

PATENTED

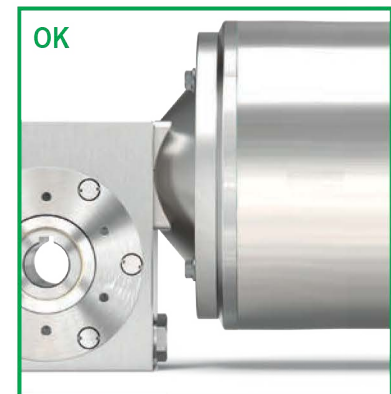


Motor shaft only allowed with shoulder

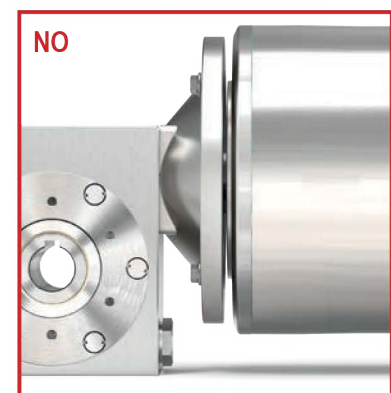


Do not use motor shaft without shoulder

Motor assembly

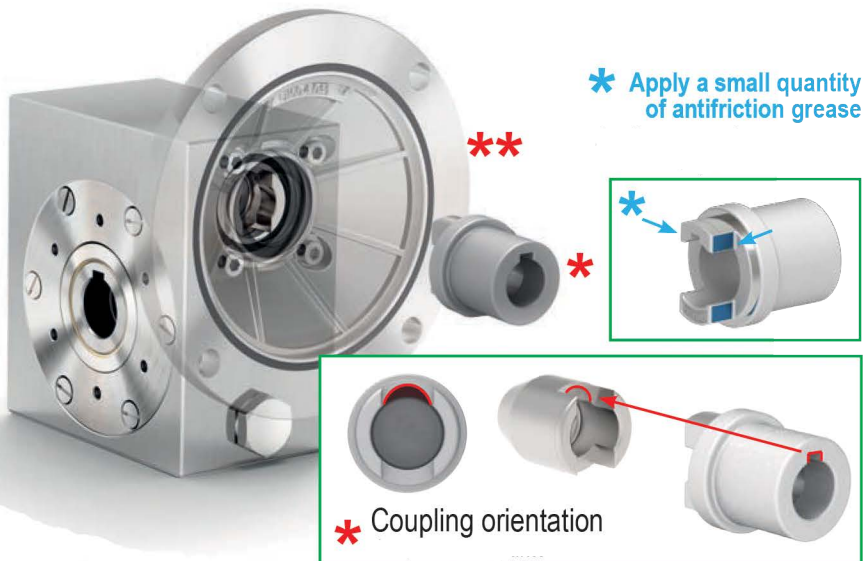


Make sure easily motor in full contact with gearbox flange before tightening the screws.



Direct mounting - No settings - No screw

1



Do not mount
oil seals on
motor flange

- * Coupling orientation

2



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START UP

It is normal for a Keltech Stainless Steel gearbox to record higher than normal surface temperatures for an initial break in period. This time can vary depending on your application. Factors include load, run time and input HP. This break in time is typically 24-48 hours.

Worm gearboxes, because of the design transform part of their installed power into heat. Which is subsequently disposed of throughout the housing of the gearbox. This may cause measured temperatures at the top of the housing and around the input bore in the range of 80-100°C (176-212°F) without causing any adverse effects on the gearbox.

This heat loss will often cause the housing to become too hot to touch. It is therefore wrong to assume that the gearbox is running too hot just because it cannot be touched. In fact, it cannot be touched as soon as the temperature goes above 50°C (122°F)

It is important to check that once the gearbox has been running for longer than the break in period, the operating temperature remains more or less constant under the same working conditions. This indicated that the gearbox is running in a trouble free manner, and that the power (HP) is correct.



WARNING

-  Under no circumstances can the reducers be used in winch applications, man lift or people moving devices.
-  Reducers are not to be considered fail safe or self-locking devices. If these features are required, a properly sized, independent holding device should be utilized. Reducers should not be used as brake.
-  Any brakes that are used in conjunction with a reducer must be sized or positioned in such a way so as to not subject the reducer to loads beyond the catalog rating.
-  Hot oil and reducers can cause severe burns. Use extreme care when removing lubrication plugs or vents.
-  Make certain that the power supply is disconnected before attempting to service or remove any components.

Buyer shall be solely responsible for determining the adequacy of the product for any and all uses to which buyer shall apply the product.

SELLING CONDITIONS / WARRANTY

Warranty for manufacturing defects will expire one year from the invoice date. Keltech will replace or repair defective parts but will not accept any further charges for direct or indirect damages of any kind.

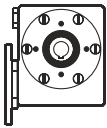
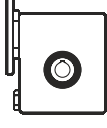
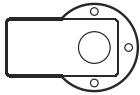
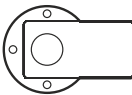
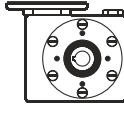
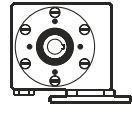
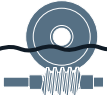
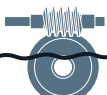
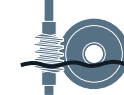
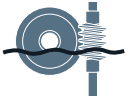
The warranty will become null and void if repairs or changes are carried out without prior written authorization

Our company will not be responsible for any direct or indirect damages, caused by wrong use of the products or for not observing any of the conditions stated above.

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LUBRICATION

All Keltech stainless steel gearboxes are shipping with a pre-determined Qty of Polyglycol synthetic oil. As per the chart illustrated below. The standard factory oil supplied is Eni Telium VSF 320

	B8	B3	B6	B7	V5	V6
						
						
OIL QUANTITY FOR EVERY POSITION (OUNCES)						
K30R	2.11	2.11	2.11	2.11	2.11	2.11
K45R	5.28	5.28	7.04	7.04	5.28	5.28
K50R	7.74	7.74	9.85	9.85	7.74	7.74
K63R	21.1	21.1	28.9	28.9	21.1	21.1
K85R	49.3	49.3	59.8	59.8	49.3	49.3
K110R	73.9*	123.2	87.9*	87.9*	56.3*	56.3*

* OIL QTY LINES ARE APPROX. AND FOR ORIENTATION REFERENCE ONLY

* SUBTRACT OIL FOR THE STANDARD QTY OR ADVISE AT TIME OF ORDER

LUBRICATION REPLACEMENT

Keltech suggest at minimum, the synthetic oil should be replaced every 10,000 hours.

However, due to the reducer being exposed to extreme hostile service conditions, a condition-based oil change interval should be established though routine analysis and good tracking of oil performance with help from your primary lubrication supplier.

FACTORY OIL EQUIVILANTS

Do not mix oil with different base formulation and additive packages. Pag oils are not miscible with mineral oil or some other synthetic oils.

Contact your primary lubrication supplier if any changes are to be made. See out website for the MSDS and oil specifications.

Recommended North American equivalent oil is Mobil Gygoyle 460.

	TEMPERATURE			
	-85°c	0°c	+120°c	
MOBIL GLYGOYLE 460 H1	-33°c		+265°c	 SYNTHETIC

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PERIODIC MAINTENANCE CHECK LIST

1. Periodically check the condition of the O ring between the motor and gearbox, to confirm no moisture infiltration. Change is necessary.
2. On a regular basis check the condition of the input and output seals to confirm no damage or leaks. Replace if needed.

Seals are wearable parts and depending on the environmental conditions, and the type of chemicals being used for your wash down process, could affect the lifetime of the seals.

Seals can be replaced but special care should be taken when removing them, not to damage the output shaft surface. Before one mounts the new seals check the shaft surface and clean it with a damp smooth cloth to ensure that the shaft is clean and free of any debris.
3. When the gearboxes are being washed down, care should be taken to avoid direct contact with the lips of the output seals to prevent premature failures. Make sure that the chemicals used for cleaning are compatible with the seals rubber composition.
4. Mounting bolts and C flange bolts should be periodically checked to ensure that the unit is firmly attached for proper operation.