

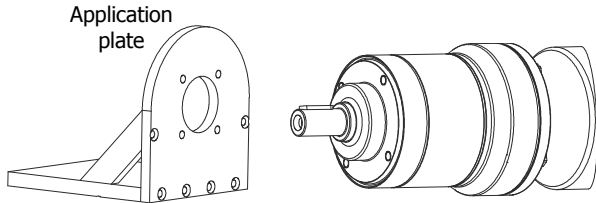


# Installation instructions HLAE gearbox mounting

DSS-Nr	100225369
DSS-REV	002
TSS-Nr	
Datum:	10.12.2015
Seite:	2 / 2

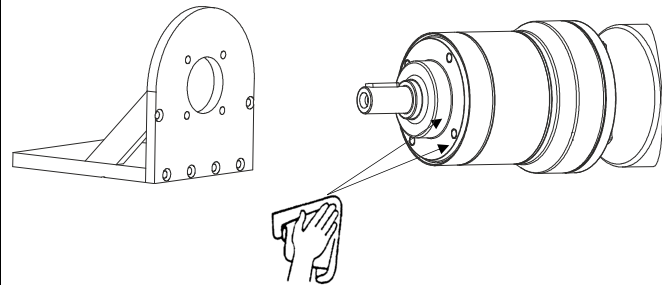
ISO-Dokument

1.



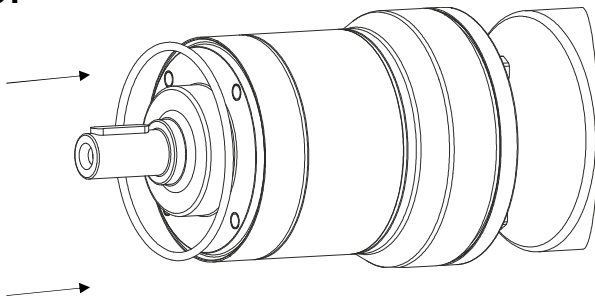
Check that it is geometrically possible to install the gearbox on the application.

2.



Thoroughly clean / degrease the flange face and centring on the gearbox and on the application plate (no aggressive detergents)

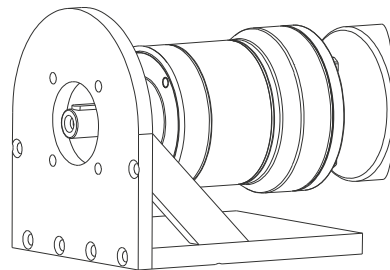
3.



Clamp the enclosed O-ring into the groove intended for this purpose between gearbox and application plate.

**Note:** pull the O-ring onto the casing. Once the gearbox rests against the application plate (see item 12 and 13), carefully slide the O-ring into the groove.

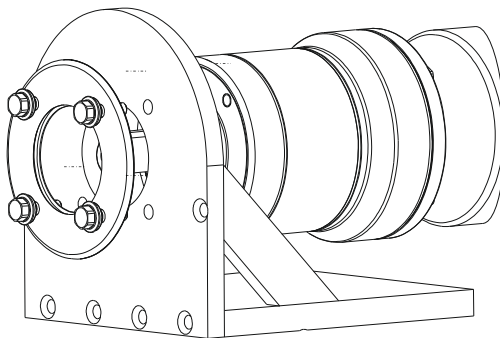
4.



Carefully introduce the gearbox parallel to the axis into the application centring.

**Caution:** the O-ring may not be crushed or pushed out of position in doing so.

5.



Fix the gearbox on your application with the enclosed sealing screws and using the sealing kit.

Before doing so, the O-rings enclosed with the sealing kit must be inserted.

**Note:** Insert the O-ring in mounting plate and application in the groove intended for this purpose and if necessary, fix for installation with a suitable adhesive agent.

**Caution:**

- The O-ring may not be crushed or pushed out of position in doing so.
- Observe the tightening torque ( $T_{A,S}$ ) intended for this purpose and use a suitable screw locking device.

Gearbox:	$T_{A,S}$ EHEDG screw	AF	Thread
<b>HLAE070</b>	3.7 Nm	8 mm	M5
<b>HLAE090</b>	6.4 Nm	10 mm	M6
<b>HLAE110</b>	15.8 Nm	13 mm	M8

**1.**

DIN 42955-N  
Correct motor? correct gearbox?

**2.**

Clean grease free, rectify any damage.

**3.**

If the motor has a feather key, remove it.

**4.**

Mount the included motor pinion on to the grease-free motor shaft while taking the mounting dimensions into account. Refer to Table 4.1.

Gearbox mounting dimensions	Clamping system [D26]	Motor shaft [D20]	Motor dimensions [L20]/[D21]/[D22]/ <b>B14</b> /[G3]	X ± 0.1 mm	Y (theoretical motor shaft length)	X+Y (Info)
<b>HLAE 070</b>	C = 11 D = 14	5 - 11 6.35 - 14	/26/40/58/ <b>B14</b> /M5	23.2 mm	26 mm	49.2 mm
			/26/60/71/ <b>B14</b> /M6	23.2 mm	26 mm	49.2 mm
			/30/60/71/ <b>B14</b> /M6	23.2 mm	30 mm	53.2 mm
<b>HLAE 090</b>	E = 19	8 - 19	/40/60/71/ <b>B14</b> /M6	28 mm	40 mm	68 mm
			/40/80/100/ <b>B14</b> /M6	28 mm	40 mm	68 mm
			/40/85/100/ <b>B14</b> /M8	28 mm	40 mm	68 mm
<b>HLAE 110</b>	F = 24	11 - 24	/40/80/100/ <b>B14</b> /M6	42 mm	40 mm	82 mm
			/40/85/100/ <b>B14</b> /M8	42 mm	40 mm	82 mm

Table 4.1

**5.**

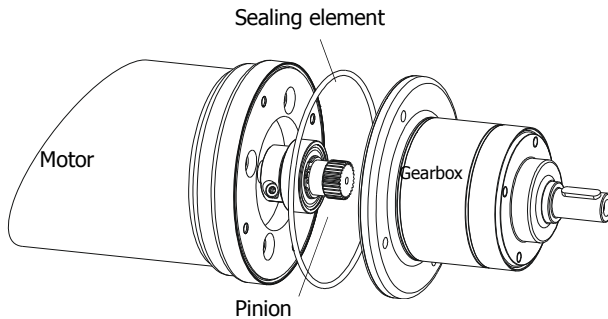
Fix the clamping screw with the specified tightening torque.

Gearbox:	T <sub>A,K</sub>	SW
<b>HLAE 070</b>	4.5 Nm	3 mm
<b>HLAE 090</b>	9.5 Nm	4 mm
<b>HLAE 110</b>	16.5 Nm	5 mm

**6.**

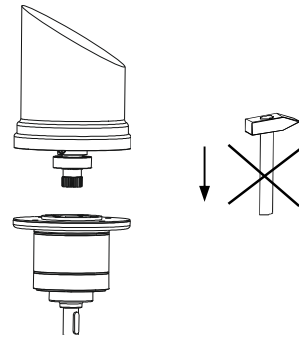
Mount the adapter plate onto the motor. Property class 8.8 screws must be secured. Tightening torque (T<sub>A,S</sub>) of the screw is 90% of screw yield strength. Tighten screws crosswise with T<sub>A,S</sub>. Seal the area between the motor and adapter with the appropriate sealant (supplied by the customer).

7.



Insert the enclosed sealing element into the groove between the motor flange and gearbox.

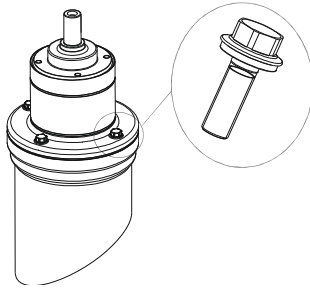
8.



Guide the motor pinion at a vertical angle (so it is axially parallel) and use slight rotating movements to secure the pinion into the middle of the planetary gears.

**Caution:** If handled improperly, the teeth may become damaged. Ensure correct positioning of the O-ring during mounting.

9.



The motor flange must be tightly fitted onto the gearbox. Screws with a strength class of A4-70 must be secured. Tightening torque ( $T_{A,S}$ ) of the screw is 90% of screw yield strength. Tighten screws crosswise with  $T_{A,S}$ .

Gearbox:	$T_{A,S}$ EHEDG Screws	SW	Thread
<b>HLAE070</b>	3.7 Nm	8 mm	M5
<b>HLAE090</b>	6.4 Nm	10 mm	M6
<b>HLAE110</b>	15.8 Nm	13 mm	M8



# Installation instructions HLAE motor mounting B5

DSS-Nr	100225365
DSS-REV	004
TSS-Nr	100281749
Datum:	10.12.2015
Seite:	2 / 2

ISO-Dokument

**1.**

DIN 42955-N  
correct motor?, correct gearbox?

**2.**

clean in a greaseless manner, remove any damages.

**3.**

on motors with feather key, the latter must be removed.

**4.**

Install the motor pinion that is included in the supply on the cleaned motor shaft taking into consideration the installation dimensions.

Installation dimensions:	X ± 0.1 mm	Y (theoretical motor shaft length)
<b>HLAE070</b>	19.85 mm	e.g. 30 mm
<b>HLAE090</b>	28.45 mm	e.g. 30 mm
<b>HLAE110</b>	35.10 mm	e.g. 40 mm

**5.**

Fix the clamping screw with the specified tightening torque.

Gearbox:	T <sub>AK</sub>	AF
<b>HLAE070</b>	4.5 Nm	3 mm
<b>HLAE090</b>	9.5 Nm	4 mm
<b>HLAE110</b>	16.5 Nm	5 mm

**6.**

Motor, Gearbox, Pinion, Sealing element

Place the sealing element enclosed by the motor manufacturer into the groove between motor flange and gearbox provided on the "Hygienic Design motor".

**7.**

Introduce the motor pinion parallel to the axis in vertical position carefully into the gearing by means of slight turning movements. Place the motor onto the gearbox while exerting slight pressure.

**Caution:** Improper handling can damage the gearing.

**8.**

Motor flange must rest on the gearbox flange.  
Use screws of strength category A4-70, screws must be locked; tightening torque (T<sub>A,S</sub>) of the screw: use 90% of the screw yield strength, tighten screws crosswise with T<sub>A,S</sub>.