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Mega – New versions and minor upgrades

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Dear Distributor,

The hydraulic unit for Mega is now available in stainless steel.

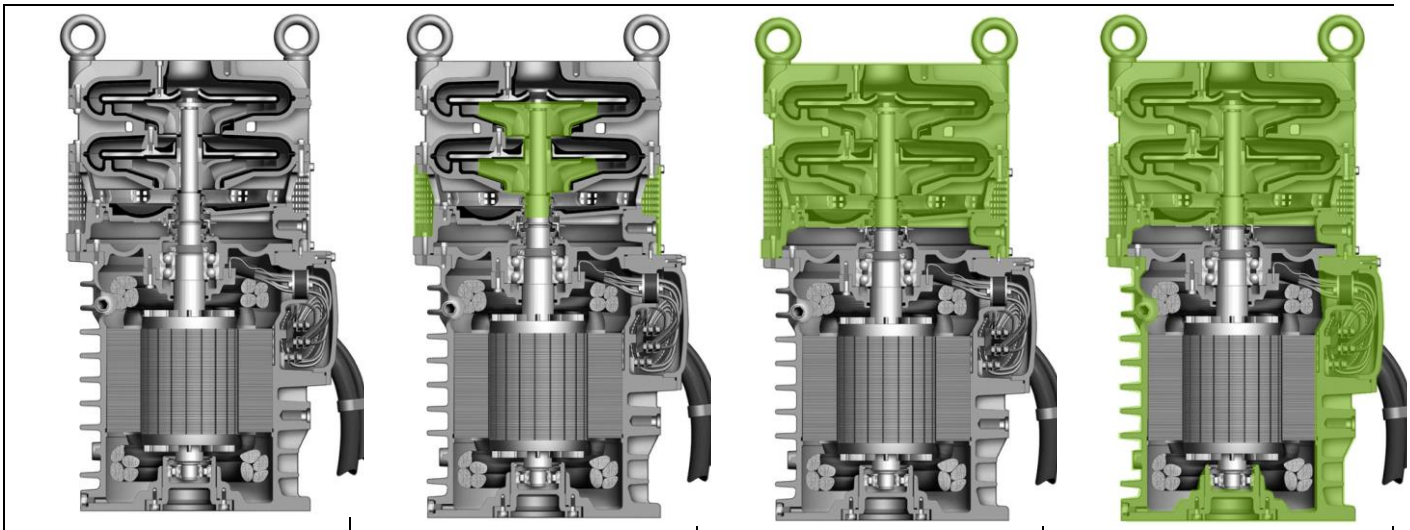
It is also possible to configure pumps with different coatings and with outer mechanical seal in both tungsten carbide and silicon carbide.

Design modification

Mega can be configured with different levels of stainless steel depending on application.

Figure 1 shows a graphical overview of which parts are made from stainless steel in each configuration.

- Cast iron hydraulic end
  - Fasteners in min. A2
- Partial stainless steel hydraulic end
  - Fasteners in min. A2
  - Shaft end, impellers and strainers in acid proof[1]
- Full stainless steel hydraulic end
  - Fasteners in A4
  - Shaft end, impellers, strainers, oil housing, diffusers, and lifting eye bolts in acid proof.
- Full stainless steel hydraulic end and drive unit
  - This version will be available in April 2016.



DU: Cast iron **HE: Cast iron**	**DU: Cast iron** **HE: Partial stainless steel**	**DU: Cast iron** **HE: Full stainless steel**	**DU: Stainless steel** **HE: Full stainless steel**

Figure 1. Different levels of stainless steel. DU=Drive unit, HE, hydraulic end

[1] Castings : EN1.4474, CD-4MCuN or EN1.4408/1.4412, CF-8M
Bar, sheet etc.: EN1.4460/AISI 329 or EN 1.4404/1.4432, AISI 316

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Product numbers configured with the new hudraulic versions can be recognized in the pump database in column Acc1 (Accessories1).

Coating of pumps

Depending on configuration, different coating are recommended. Duasolid 50 is a two-pack oxyrane ester.

- **Standard pump**
  - One layer Duasolid 50 120-350 µm.
- **Standard pump with zinc anodes**
  - One layer Temanyl PVB, 3 layers Duasolid 360-800 µm.
- **Cast iron DU and Stainless steel HE**
  - One layer Temanyl PVB, 4 layers Duasolid 450-800 µm (only drive unit)

Mechanical seal

The seal rings in the inner mechanical seal are always made from tungsten carbide. For the outer seal, there are two options, silicon carbide[2] and tungsten carbide[3].
Tungsten carbide is the most versatile material and is the best choice in most media. However, in low pH environments silicon carbide, is the preferred material.

Below is a recommendation on which material that is to prefer in the different Mega configurations. Remember that this is only a guideline, consult Grindex technical support if there are any questions.

- **Standard pump** (pH 5-14)
  - Tungsten carbide
- **Standard pump with zinc anodes**
  - Tungsten carbide or Silicon carbide
- **Cast iron DU and Stainless steel HE**
  - Silicon carbide (Tungsten carbide optional)
- **Stainless steel DU, Stainless steel HE**
  - Silicon carbide (Tungsten carbide optional)

The inner seal has been updated in order to improve the lubrication of the seal surfaces, and thereby reducing the risk for seizure. This update also protects the seal functionality if the pump is started in reverse.

[2] Reaction bonded silicon carbide
[3] Corrosion resistant tungsten Carbide

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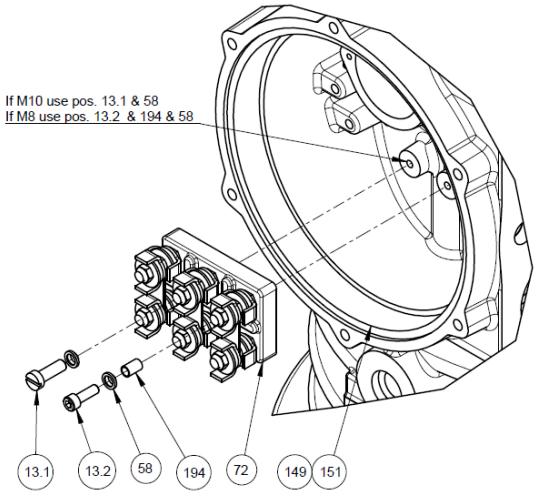
New fastening of terminal board

The terminal board is held in place by a slotted head screw with a plastic washer. The washer is necessary to avoid cracking the terminal board, but it makes it difficult to obtain the correct tightening torque.
To improve this, a sleeve, pos. 194, is introduced and the screw is replaced with a hexagon socket head screw. This will allow the screw to be tightened according to standard torque.



Parts for pump version		
POS.NO		**Denomination**
13.1	410204	Slotted head screw
13.2	5002100	Hexagon head screw
58	410252	Seal washer
194	5191600	Sleeve
72	5120100	Terminal board unit
149	5121404,05	Stator housing

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New rotational lock washer for mechanical seal

The old lock washer, pos. 74.1 in *Figure 2* had to be tightened with care to secure that the washer was not bent, yet not too loose so that it may come loose.
The design has been approved according to pos. 74.2 which will allow tightening according to standardized torque for M6 screw (see table in Service repair manual). To ensure that there will be enough clamp length, the thread on the main bearing holder has been countersunk.

Note that the hexagon head screw, pos 93.2 will work with both lock washers (74.1 and 74.2). The slotted head screw, pos. 93.1 will not work with the new washer, pos 74.2.

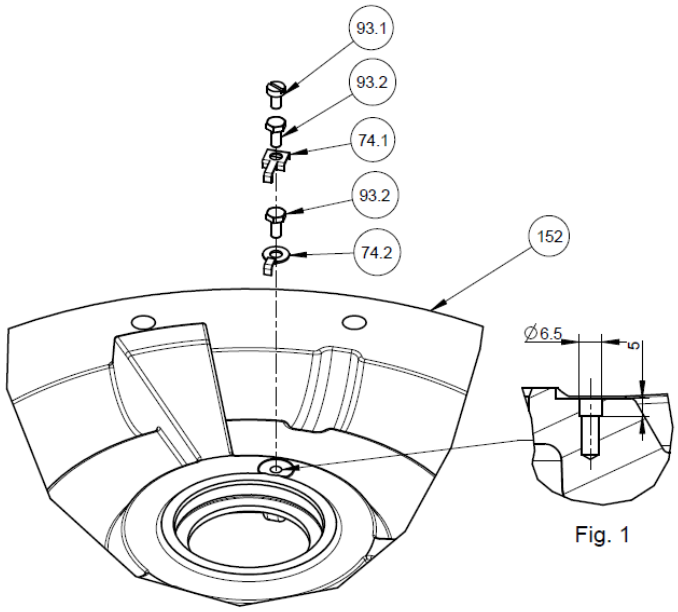

Figure 2. New lock washer for inner stationary seal ring

Pos. no.	Part	Denomination
93.1	410203	Slotted head screw
93.2	5002020	Hexagon head screw
74.1	5126400	Lock washer
74.2	5126401	Lock washer
152	5121600,01	Bearing housing lower

Yours sincerely,

Tore Hovland

Technical Support