### Innovative Techniques for high Hygiene-Standards

#### 3 in 1:

The topic **Hygienic Design** and its application is generally associated with thoughts of "expensive" or "inefficient". By means of this new design, Groschopp facilitates an integration of drive components inside a motor housing that allows a cost reduction and provides a marked improvement of hygiene standards. Instead of attaching expensive stainless steel planetary gears, low-priced standard reducer gears can still be used, and additional gear-seals are no longer needed.



By means of the integration of all components inside the housing, no change needed to be made to the housing as such; that is why this drive-concept is able to maintain adherence to the stringent guidelines of the EHEDG.

#### **Brief overview:**

- Inside- and outside-radii > 3 mm
- No welding seams or unevenness
- Surface roughness Ra < 0,8µm
- FDA-conform materials
- Hygienic type label
- International Protection Class IP69K
- Stainless special steel

Standard components are not sufficient for the realisation of certain products. Therefore, it is much better to avail of a manufacturer who designs, develops, produces and installs customertailored drive solutions.



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**Drives & More** 

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# Hygienic Design

Innovative solutions for food, pharmaceutical and chemical industry







## When normal Standards are not sufficient any more...



Groschopp already offers standard models having smooth surfaces, which are easier to clean compared to models having cooling fins.



Groschopp offers various surface coatings for more stringent demands (e.g. chemical stability):

- SILA-COAT®
- HART-COAT®
- 2-component epoxy lacquer
- others on request



Designed for most stringent demands and strictly according to the guidelines of the EHEDG:

- No dead spaces
- easy to clean
- flexible configurable

In developing their stainless steel motor drives, Groschopp relies mainly on their 'Know-how' gained from the experience made with the already established ESK-line (Silver-Line). For several years, the model range finds its application in the food-processing industry. Now Groschopp takes a step further with this new model range, with which they intend to increase the sales for hygienic drives on the market – not least by offering an excellent price-performance ratio.



#### **EHEDG Membership**

Groschopp is a member of the EHEDG since 2016. The main aim of EHEDG is to develop practical guidelines for the topic "Hygienic Design".

The certification of components is becoming internationally more and more important.

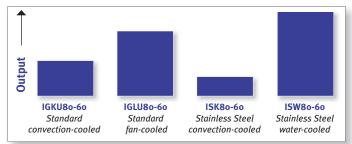
#### ...but highest demands on Hygiene are asked for

Pursuant to EHEDG guideline Doc 8, a new stainless steel model range was designed, which fulfilled the actual technical status in relation to hygienic safety. Due to globalisation and widespread distribution of products (foodstuffs and pharmaceutical products), any contamination could have global impact in an emergency. That is why, in the last few years, the demands placed on hygiene in the industrial processes of foodstuffs are continually getting more and more stringent.



#### A suitable solution for every application:

The special characteristic of the new series is its flexibility. The stainless steel motors are available independent of technology, so as to offer a suitable solution for almost all applications. In addition, water cooling can be realised for all types, which offers new project possibilities; starting with a certain output class, stainless steel motors are no longer economical due to too much designated space being required. The following graph illustrates the available output for the same model size depending on cooling.



## Drive solutions, customer-tailored according to your requirements

#### **Application**

Our Team supports you in your design both in layout and in choosing the correct drive system. In that way, customertailored solutions are found that are suitable for any particular application.



Experienced engineers study newest developments and compare them with proven technologies. Any innovative idea is included in the product portfolio only after a thorough scrutiny and validation has been completed successfully. In the process, most modern equipment is used by the interdisciplinary teams involved.



In order to shorten the development cycles and to accelerate the validation of a particular application on request of the customers involved, Groschopp relies on the technologies of the 'Rapid Prototyping' and of the 'Calculation of finite elements' (FEM).

#### Quality-Management System

Groschopp's name is synonymous with quality. In order to maintain this high standard, the documented processes are reviewed on a regular basis and as part of the general audit. In that way, strict guidelines are established and adhered to, so as to guarantee future leadership in quality assurance.



