“We design simple and user-friendly cleaning systems, which are reliable and clean parts every day all year round without harming the environment.”

Jan Hedeby, founder and partner
Simple User-Friendly Design
At Cleentek our objective is to produce high quality, reliable equipment. Therefore we work carefully with all the details on our systems, but reliability is always the most important consideration. We also strive to make our machines look good. We design all our machines, so they appear functional and simple. Therefore you will find few external components on our machines. Noise of machines are minimised by integrating any noisy parts into levels the internal framework construction of machines and then using sound insulating panels. With Cleentek you get a reliable and simple machine – with the functions you need. Our manufacturing philosophy is “The fewer the parts, the better the quality!”

Flexibility is our strength
Cleentek’s programme include both cabin washing machines and multi-stage conveyor washing machines. This gives you the customer, the flexibility to put the machine together exactly according to your needs. Together with a large selection of optional extra equipment, we can deliver the machine specified exactly to provide the cleaning performance you need.

The people behind Cleentek
All our cleaning systems are produced by Hese A/S, which is the manufacturing company behind the brand Cleentek. Today Hese A/S is owned by the founder Jan Hedeby, technical director Kristian Pausgaard and Stenhøj A/S. The Hese group also includes Hein-Hese GmbH in Köln in Germany and Cleentek Ltd in the United Kingdom.

European customers count on Cleentek. As well as Danish customers such as Danfoss, Grundfos, Lego, Novo Nordisk and other recognised industrial companies – we have customers all over Europe and in the Middle East. These include several large German industrial companies such as Daimler-Chrysler, VW-Audi, ZF, Mannesmann-Demag and Bosch-Rexroth. Together these companies make up a very long and extensive reference list for Cleentek.
If you want a very flexible cleaning system, you should choose the Compo Cleaner. This in-line conveyor wash system is manufactured in modules, which can feature wash, rinse, passivate, phosphate and/or dry functions. In other words – the machines is specified according to the application and is available in 3 different working widths (CC 1020, 1040, 1060) to suit the dimensions of your components.

A compact in-line system with double wash, rinse and dry.
Operation of the machine
The Compo Cleaner is a throughfeed machine, so parts are processed continuously. The Compo Cleaner is designed, so it can be placed directly in the production line or used in conjunction with a robot for a continuous cleaning of parts day and night. Therefore the Compo Cleaner can make the logistics in your business more efficient.

Robustly constructed in stainless steel, the system has a large capacity, which means that it is capable of processing several tons of parts every hour. Noise and heat insulating panels are used in the construction of the Compo Cleaner, which greatly reduces the outer noise levels and enables the machine to carry out the required cleaning processes at high temperatures.

Design and user friendliness
The Compo Cleaner is designed totally in stainless steel both inside and out. To give the machine a more simple and neutral appearance, we have integrated a lot of components into the machine. In practice, this design means that there are few components outside the system, which could otherwise obstruct and inconvenience the machine operators.

The system has a compact construction, which makes it easier to operate. On the outside, you will find only the control panel. From this it is easy to programme and operate the machine and make various adjustments, such as setting the speed and temperature of the separate wash tanks.

Wash day and night
The Compo Cleaner is perfect for installation in any production lines, where machines have to run continuously for 24 hours. The machine is equipped with an efficient return flow system, which returns the cleaning solution through a filtration system to the wash tank. The wash water is continuously filtered and collects any loose debris from the components. On the pressure side of the pump system, efficient pressure filters are installed to prevent nozzles blocking, which could otherwise reduce the cleaning performance.

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### COMPO MODELS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>1020</th>
<th>1040</th>
<th>1060</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning width</td>
<td>200</td>
<td>400</td>
<td>600</td>
<td>Mm</td>
</tr>
<tr>
<td>Cleaning height</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>Mm</td>
</tr>
<tr>
<td>Inlet height</td>
<td>900-950</td>
<td>900-950</td>
<td>900-950</td>
<td>Mm</td>
</tr>
<tr>
<td>Machine width</td>
<td>1050</td>
<td>1250</td>
<td>1450</td>
<td>Mm</td>
</tr>
<tr>
<td>Machine length WD</td>
<td>2160</td>
<td>2160</td>
<td>2160</td>
<td>Mm</td>
</tr>
<tr>
<td>Machine length WRD</td>
<td>3460</td>
<td>3460</td>
<td>3460</td>
<td>Mm</td>
</tr>
<tr>
<td>Belt speed</td>
<td>0.3 - 2.7</td>
<td>0.3 - 2.7</td>
<td>0.3 - 2.7</td>
<td>M./min.</td>
</tr>
<tr>
<td>Tank capacity wash/rinse</td>
<td>145/290</td>
<td>145/290</td>
<td>145/290/550</td>
<td>L.</td>
</tr>
<tr>
<td>Temperature</td>
<td>20 &gt; 75</td>
<td>20 &gt; 75</td>
<td>20 &gt; 75</td>
<td>°C</td>
</tr>
<tr>
<td>Pump capacity</td>
<td>100/200</td>
<td>100/250</td>
<td>100/200/450</td>
<td>L./min.</td>
</tr>
<tr>
<td>Pressure</td>
<td>2-5</td>
<td>2-5</td>
<td>2-5</td>
<td>Bar</td>
</tr>
<tr>
<td>Heating wash/rinse</td>
<td>9/12</td>
<td>12/18</td>
<td>12/18/27</td>
<td>kW</td>
</tr>
<tr>
<td>Drying section</td>
<td>50 &gt; 110 - 5000</td>
<td>50 &gt; 110 - 5000</td>
<td>50 &gt; 110 - 5000</td>
<td>°C - L./min.</td>
</tr>
</tbody>
</table>
COMPO CLEANER EQUIPMENT

Due to the modular construction of the Compo Cleaner and the large selection of optional extra equipment, we can offer our customers a machine, which meets their exact requirements.

As can be seen on the above drawing, the machine can be adapted to meet various requirements. The system can be manufactured to wash/degrease, rinse, passivate/phosphate and/or dry components, so that they are ready either for the next stage in the manufacturing process or for despatch. You can see the list of optional extra equipment available on page 7.

Example of wash, rinse and dry.

The Compo Cleaner is very maintenance friendly. It is designed with easy to remove panels, which provide easy access for servicing the machine. We have a large selection of different belts to suit most components.
EXTRA EQUIPMENT FOR THE COMPO CLEANER

We can offer the following extra equipment for the Compo Cleaner:

- Infeed-/ and outfeed roller conveyors designed to requirements
- Conveyor belts: Stainless or plastic belt
- Conveyor system with carriers to suit the shape of the components
- Photoelectric control of the conveyer belt
- Different washing baskets and fixtures
- Filtration systems
- Oil skimmers / oil separators
- Extraction fan
- Steam condenser
- Chemical dosing
- Discharge pump

EXTRA EQUIPMENT FOR FRONTLOADER, MUSTANG FRONTLOADER AND TOPLOADER

We can offer the following extra equipment for the other cleaning systems in our programme:

- 7 day timer for tank heaters and oil skimmer
- Compressed air blow-off after wash
- Drying
- Discharge pump
- Oil skimmer
- Extraction fan / steam condenser to remove water steam
- Motordrive on basket for uniform rotation – toploader
- Square drive wash – frontloader and Mustang
- Pressure filter for effective filtration of the liquid
- Automatic chemical dosing and water filling
- Transport trolley
- Load platform
- Different washing baskets and fixtures
- Chemical programme

For further information about extra equipment for the different machines, please contact Cleentek. We will assist you by offering the best solution for your individual application.
The frontloader – also called the DF-series – belongs to the family of different cabin washing machines, which Cleentek has in their programme. The machines have a vertical front door, and the machine cleans components through use of an efficient rotating wash system. The DF-series is specially designed for the cleaning of large components with weights up to 2000 kg. and length of up to 3000 mm.
The DF-series is simple and robustly constructed and it is suitable for parts up to 2000 kg.

DF 1300 with load platform.

The efficient motor driven square wash system is a unique and pioneered solution.

Operation of the machine
The parts to be cleaned are sprayed with a high flow via the spray bars, which rotate either through spray pressure or a mechanical drive. The spray bars are mounted with flat pattern nozzles, which provide efficient cleaning results.

The machines are fully insulated with stainless steel panels, and therefore the wash water can be heated up to 90°C. Normal working temperature is from 50 - 65°C.

Design and user friendliness
The DF-series machines have a compact and simple design. Operation of the machine is via the very easy to use Vision 2000/3000 touch control panel. We have focused on ensuring that no special skills are required to use the machine. Therefore, the control panel on front of the machine is just as simple as the rest of the machine’s design.

Equipment
The DF machines are equipped with Vision 2000/3000 control. In practice this means that the control panel consists of a practical soft touch panel with a digital display. The Vision control gives you the possibility to regulate the temperature and the process times for the wash programme, which can be interrupted at any time and then restarted as required. You can also read possible error messages from the machine via the digital display.

In order to specify the machine so that it is suited to your application, you can choose from a wide variety of optional extra equipment. Look at the list on page 7.

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**FRONTLOADER MODELS**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DF 900</th>
<th>DF 1300</th>
<th>DF 2000</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning area</td>
<td>Ø900/Ø850</td>
<td>Ø1300/Ø1300</td>
<td>Ø2000/Ø2000</td>
<td>Mm</td>
</tr>
<tr>
<td>Cleaning height</td>
<td>625</td>
<td>1050</td>
<td>1400</td>
<td>Mm</td>
</tr>
<tr>
<td>Load height</td>
<td>920</td>
<td>915</td>
<td>1000</td>
<td>Mm</td>
</tr>
<tr>
<td>Machine width</td>
<td>1220</td>
<td>1680</td>
<td>2400</td>
<td>Mm</td>
</tr>
<tr>
<td>Machine length</td>
<td>1420</td>
<td>1920</td>
<td>2800</td>
<td>Mm</td>
</tr>
<tr>
<td>Machine height</td>
<td>2630</td>
<td>3550</td>
<td>4300</td>
<td>Mm</td>
</tr>
<tr>
<td>Max. load</td>
<td>500/750</td>
<td>500/1000</td>
<td>1000/2000</td>
<td>Kg</td>
</tr>
<tr>
<td>Tank capacity</td>
<td>400</td>
<td>600</td>
<td>1500</td>
<td>L</td>
</tr>
<tr>
<td>Temperature</td>
<td>30 &gt; 90</td>
<td>30 &gt; 90</td>
<td>30 &gt; 90</td>
<td>°C</td>
</tr>
<tr>
<td>Pump capacity</td>
<td>220/350</td>
<td>350/550</td>
<td>700</td>
<td>L/min</td>
</tr>
<tr>
<td>Pressure</td>
<td>4.5 - 5.5</td>
<td>4 - 6</td>
<td>4 - 6</td>
<td>Bar</td>
</tr>
<tr>
<td>Heating</td>
<td>9</td>
<td>18</td>
<td>36</td>
<td>kW</td>
</tr>
</tbody>
</table>
The latest washing system in the Frontloader-family is the Mustang, which can be delivered in the following four versions: C90, 130, 150 and 200. The machine comes as standard as a two stage system. This means that the system can be used for the following processes: wash – rinse, wash – passivate or wash – phosphate. The system has an extremely robust construction, which without problems can handle parts up to 2000 kg.
Operation of the machine
The parts to be cleaned are sprayed like the DF-series with a high flow via the spray bars, which rotate either through spray pressure or a mechanical drive. The spray bars are mounted with flat pattern nozzles, which provide efficient cleaning results.

Design and user friendliness
The Mustang is designed in a compact and simple way. Even though the Mustang is constructed to handle a lot of different jobs, it is still important that the machine is not complex – either to look at or operate.

The systems are prepared for mounting of different optional extra equipment such as drying, filtration units, oil skimmers, extraction fan/steam condenser, discharge pump and chemical dosing. All the extra units can be integrated in the machine without external components, which means that it still is a compact machine with straight lines.

Equipment
The Mustang comes as standard with the vision 3000 control, which makes it easy to programme different wash cycles. The Mustang can also be delivered with Siemens PLC S7/200 with appurtenant soft touch panel.

There is large selection of optional extra equipment for the Mustang. Please look at the list on page 7.
Cleentek offers two versions of toploader; the DT and RT-series. They both have access from the top for loading parts and use a rotating basket. Different machines sizes are available.

DT-series - Top insulated machine
- very quiet in operation

RT-series - simple and low-cost machine
RT-series with fully opened cover provides easy access to the basket.

A motordrive can be fitted on the rotating basket of the toploader to ensure a positive rotation.

**Operation of the machine**
The dirty components are placed in the basket, which rotates during the wash cycle. The toploaders operate by utilizing 3 sided spraying with a high flow of heated, water-based cleaning solutions.

**Design and use friendliness**
All the toploader machines have a compact design, which makes them look as simple as they are to use. Both the DT- and the RT-series have a simple control panel, from which the operator can adjust the wash cycle to suit the application.

**DT-series**
The DT-series is available in 2 sizes; DT700C and DT800C. The DT-series is a fully automatic cleaning machine, which comes with the possibility for some manual cleaning, using the connected brush and gun tools. The DT-series can heat cleaning solutions up to 90°C, and the machines are very quiet in operation due to the sound insulating panels. The system comes with a low level control to protect the pump and heating element.

The DT-model is successfully used by manufacturing companies, graphic / printing companies, service and maintenance companies, automotive companies, offshore and the navy sector.

**RT-series**
The RT-series is available in 3 sizes; RT700, 900 and 1150. All three models have a simple and reliable operation, and the machine is always dependable. All the machines are made in stainless steel, and you have the possibility to adjust the temperature between 30 - 60°C and the cleaning time between 0 - 30 minutes. All models are fitted with a low level control to protect the pump and heating element.

The RT-model is successfully used by machine shops, manufacturing companies, offshore and the navy sector.

**Equipment**
In order to specify the machine so that it is suited to your application, you can choose from a wide variety of optional extra equipment. Look at the list on page 7.

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**TOPLOADER MODELS**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>RT 700</th>
<th>RT 900</th>
<th>RT 1150</th>
<th>DT 700 C</th>
<th>DT 800 C</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning area</td>
<td>Ø690</td>
<td>Ø890</td>
<td>Ø1140</td>
<td>Ø690</td>
<td>Ø790</td>
<td>Mm</td>
</tr>
<tr>
<td>Cleaning height</td>
<td>450</td>
<td>500</td>
<td>700</td>
<td>450</td>
<td>450</td>
<td>Mm</td>
</tr>
<tr>
<td>Load height</td>
<td>Ø50</td>
<td>700</td>
<td>700</td>
<td>Ø50</td>
<td>920</td>
<td>Mm</td>
</tr>
<tr>
<td>Machine width</td>
<td>Ø50</td>
<td>1300</td>
<td>1750</td>
<td>920</td>
<td>1070</td>
<td>Mm</td>
</tr>
<tr>
<td>Machine length</td>
<td>1000</td>
<td>1300</td>
<td>1550</td>
<td>1090</td>
<td>1220</td>
<td>Mm</td>
</tr>
<tr>
<td>Machine height</td>
<td>980</td>
<td>1150</td>
<td>1400</td>
<td>1020</td>
<td>1100</td>
<td>Mm</td>
</tr>
<tr>
<td>Max. load</td>
<td>100</td>
<td>200</td>
<td>300</td>
<td>100</td>
<td>150</td>
<td>Kg.</td>
</tr>
<tr>
<td>Tank capacity</td>
<td>30 &gt; 60</td>
<td>30 &gt; 60</td>
<td>30 &gt; 60</td>
<td>30 &gt; 90</td>
<td>30 &gt; 90</td>
<td>L.</td>
</tr>
<tr>
<td>Temperature</td>
<td>30 &gt; 60</td>
<td>250</td>
<td>400</td>
<td>100</td>
<td>180</td>
<td>L.</td>
</tr>
<tr>
<td>Pump capacity</td>
<td>100/150</td>
<td>220/350</td>
<td>280/350</td>
<td>100</td>
<td>160</td>
<td>L./min.</td>
</tr>
<tr>
<td>Pressure</td>
<td>2.4/4</td>
<td>4.5/6</td>
<td>4/6</td>
<td>2.4</td>
<td>3</td>
<td>Bar</td>
</tr>
<tr>
<td>Heating</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>9</td>
<td>kW</td>
</tr>
</tbody>
</table>
OPTIONS:

BASKETS AND FIXTURES
Cleentek can also offer many different types of wash baskets and fixtures, which may be necessary for cleaning small or light components. We have a wide range of standard solutions. Please contact us for further information.

CLEANING SOLUTIONS
We can also provide a large selection of different cleaning solutions for use in our machines. Please contact us for advice and a recommendation for your application.

In order to prolong the life and cleanliness of the cleaning solution, we recommend our high-flow filters. These are available as a single or double system.

Small filter unit to prevent blocked nozzles.

For systems which demand continuous supervision, the filters can be equipped with a pressure activated detection system.
CLEENTEK HAS MANUFACTURED CLEANING SYSTEMS FOR THE FOLLOWING COMPANIES

**Denmark:**
- Danfoss
- Sauer Danfoss
- Grundfos
- Lego
- Novo Nordisk
- GPV
- LJM Maskinfabrik
- Jydsk Aluminium Industri
- KP Komponenter
- SAS
- Sun-Air
- Arla
- Stenhøj
- Linda Værftet
- Dalum
- ZF Danmark
- Siemens Wind Power

**Germany:**
- ZF Germany
- Bosch Rexroth
- Mannesmann-Demag
- Daimler Chrysler
- VW Volkswagen
- Lufthansa Aero
- Miele
- Norma Rasmussen
- TRW
- Fette
- Ziehl-Abegg
- Ina
- Hawe Hydraulik
- Endress & Hauser
- Claas
- Bayer Werk

**United Kingdom:**
- Shell
- Rexam
- Tyco
- Gardner Denver Drum

We have supplied more than 2000 cleaning systems to other customers.

**For the 10th time in only 15 years, here we’re supplying a Hesø system to a very satisfied customer – Allan Lind Jensen, who is the second generation in the company LJM Maskinfabrik, which is a leading manufacturer of hydraulic cylinders.**
DESIGN AND INNOVATION

Cleentek aims to continuously innovate to improve the solutions it can offer its customers. However, we strive to introduce any new ideas carefully, following strict testing procedures and adhering to our philosophy of producing machines with a pure design, which appear neutral and simple.

For us a simple design also means user friendliness and quality, which gives reliability every day, all year round without harming the environment.

"The fewer the parts, the better the quality!"