Endless application possibilities
Orbital Motors

3 unique motor series options offer the right motor for each work function on your machine

powersolutions.danfoss.com
Count on efficient power delivery

Choose a Danfoss orbital motor, and experience the distinctive performance of a world technology leader.

**Orbital motors that match your requirements**
For all your medium to heavy-duty tasks, we have the motor to match. Each of our motors provides a smooth, efficient and reliable performance. Comprising three series – the T-Series, O-Series and V-Series – and many additional options, our broad range is made to satisfy the requirements of your hydraulic system.

**Higher productivity, lower emissions**
The best-in-class efficiency of our orbital motors reduces energy consumption and helps compensate for the lower power levels of emissions-compliant engines. Used in open or closed loop hydraulic systems, the motors minimize pressure drop and deliver a constant operating torque over the entire speed range of your application.

**Support for optimized systems**
Our global service and technical support network is your professional partner – delivering experienced technical support for optimal solutions.

Our three motor series provide maximum flexibility, supporting the performance optimization of your entire hydraulic system.

**Quality across the board**
Whether using orbital motors from our T-Series, O-Series or V-Series, you can expect the same high quality. Our global quality standards apply to all our international production sites, eliminating faults and ensuring reliable motor operation. Your vehicle benefits are high uptime, low maintenance and reduced total cost of ownership.
• Reliable quality for medium- to heavy-duty tasks
• Best-in-class efficiency for reduced heat load and lower fuel costs
• Compact design with optional extras for high system performance
• Robust drivetrain for longer service life and improved productivity
The broadest range
 – the safest bet

The Danfoss orbital motor range is the broadest on the market
 – and your safest bet for quality, durability, efficiency and reliability.

In the face of today’s environmental legislation and increasing international price competition, mobile vehicles are ever more dependent on hydraulic solutions optimized for their duty cycle.

Our orbital motors keep emissions and energy consumption down, productivity up and overall cost-of-ownership to a competitive minimum.

To help you identify the right motor for a specific task, we have divided our range into three series.

Our three series tailored for medium- to heavy-duty tasks

<table>
<thead>
<tr>
<th>Pressure rating</th>
<th>T-series</th>
<th>O-series</th>
<th>V-series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orbital motor lifetime</td>
<td><img src="image1" alt="T-series" /></td>
<td><img src="image2" alt="O-series" /></td>
<td><img src="image3" alt="V-series" /></td>
</tr>
</tbody>
</table>
T-series – the highest torque
Leading performance with a long lifespan makes light work of the heaviest duties. Offering a intermittent pressure up to 350 bar [5075 psi] and a high starting torque, the T-Series is your energy-efficient choice for the toughest working environments. Ideal for road rollers, beet harvesters and forestry machines.

O-series – the flexible choice
The O-Series is flexible beyond compare. Delivering premium power across the board, these motors cover small to large, heavy-duty needs with intermittent pressures up to 275 bar [3990 psi]. Robust, reliable and designed to fulfill the latest emissions standards, the O-Series offers you the motors of choice for turf care and agricultural equipment, forklifts and industrial sweepers.

V-series – the core solution
The V-Series is your quality benchmark for the medium duty range. Based on proven technology, these reliable motors will reduce your overall system costs while adding value to your machine. Suitable applications include seasonal machines, such as harvesters, and medium-duty tasks, such as driving agricultural conveyors and sweeper brushes.
Examples from our portfolio

- Wheel motors with recessed mounting flange for optimal utilization of bearing capacity
- Motors optimized for enhanced low-speed performance
- Short and ultra short motors for optimal system integration
- Special dust seal ring for additional shaft seal protection
- Motors with integrated flushing valve for continuous renewal and cooling of oil in a closed circuit
- Corrosion-resistant parts for applications used in harsh environments
- Motor with tacho connection for speed monitoring
- EMD speed sensor for speed monitoring and regulation

PLUS+1® Compliant EMD speed sensor

Our EMD speed sensor is designed for precision machine performance. Equipped with a magnetic sensing mechanism, it has the exclusive capability to measure both speed and direction, giving optimal motor control even at low revolution. Free of contact with the hydraulic oil, the speed sensor is robust and easily exchangeable in the field. Flexible configuration with CAN bus and pulse output modes reduces system installation costs overall.

Choose the versatile EMD speed sensor for many of your application needs.

Full compliance with our PLUS+1 electronic control platform delivers key performance benefits:

- Configurable sensor setup enables customized motor control
- Easy and efficient system integration
- Single software platform for electrohydraulic system configuration
- Faster time to market

Our orbital motors come with a multitude of features and additional options that bring maximum flexibility to your hydraulic system designs.

Endless application possibilities

<table>
<thead>
<tr>
<th>Salt &amp; grit spreaders</th>
<th>Forklift trucks – 3 wheel</th>
<th>Mini excavators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweepers (street &amp; industrial)</td>
<td>Consumer mowers</td>
<td>Commercial</td>
</tr>
<tr>
<td>Combine harvester</td>
<td>Municipal vehicles (&lt;1,5t)</td>
<td>Bale wrapper</td>
</tr>
<tr>
<td>Aerial lifts (bo)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8 cm³ [0.49 in³]
<table>
<thead>
<tr>
<th>800 cm³ [48.8 in³]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvester (beet &amp; potato)</td>
</tr>
<tr>
<td>Aerial lifts (boom &amp; scissor)</td>
</tr>
<tr>
<td>Asphalt pavers</td>
</tr>
<tr>
<td>Bale wrapper</td>
</tr>
<tr>
<td>Trench compactor</td>
</tr>
<tr>
<td>Road rollers (&lt;2t)</td>
</tr>
<tr>
<td>Municipal vehicles (&gt;1,5t)</td>
</tr>
<tr>
<td>Construction attachments</td>
</tr>
<tr>
<td>Screening &amp; crushing machines</td>
</tr>
<tr>
<td>Commercial mowers &amp; golf equipment</td>
</tr>
<tr>
<td>Skid steer loader</td>
</tr>
<tr>
<td>Forestry harvester head</td>
</tr>
<tr>
<td>Mini excavators (&lt; 2t)</td>
</tr>
<tr>
<td>Skid steer loader</td>
</tr>
<tr>
<td>Forestry harvester head</td>
</tr>
</tbody>
</table>
About Danfoss Power Solutions

Danfoss Power Solutions is a global manufacturer and supplier of high-quality hydraulic and electronic components. We specialize in providing state-of-the-art technology and solutions that excel in the harsh operating conditions of the mobile off-highway market. Building on our extensive applications expertise, we work closely with you to ensure exceptional performance for a broad range of off-highway vehicles. We help OEMs around the world speed up system development, reduce costs and bring vehicles to market faster.

Danfoss Power Solutions – your strongest partner in mobile hydraulics.

Products we offer:

- Bent Axis Motors
- Closed Circuit Axial Piston Pumps and Motors
- Displays
- Electrohydraulic Power Steering
- Electrohydraulics
- Hydraulic Power Steering
- Integrated Systems
- Joysticks and Control Handles
- Microcontrollers and Software
- Open Circuit Axial Piston Pumps
- Orbital Motors
- PLUS+1® GUIDE
- Proportional Valves
- Sensors
- Steering
- Transit Mixer Drives

Wherever off-highway vehicles are at work, so is Danfoss Power Solutions. We offer you expert worldwide support for ensuring the best possible solutions for outstanding performance. And with an extensive network of Global Service Partners, we also provide you with comprehensive global service for all of our components.

Go to www.powersolutions.danfoss.com for further product information.

Danfoss Power Solutions (US) Company
2800 East 13th Street
Ames, IA 50010, USA
Phone: +1 515 239 6000

Danfoss Power Solutions ApS
Nordborgvej 81
DK-6430 Nordborg, Denmark
Phone: +45 7488 2222

Danfoss Power Solutions GmbH & Co. OHG
Krokamp 35
D-24539 Neumünster, Germany
Phone: +49 4321 871 0

Danfoss Power Solutions Trading (Shanghai) Co. Ltd.
Building #22, No. 1000 Jin Hai Rd
Jin Qiao, Pudong New District
Shanghai, China 201206
Phone: +86 21 3418 5200