

ENGINEERING  
TOMORROW

*Danfoss*

# Mobile hydraulic solutions for Combine Harvester

Pumps and Motors, Orbital Motors and Valves for Propel and Work Function

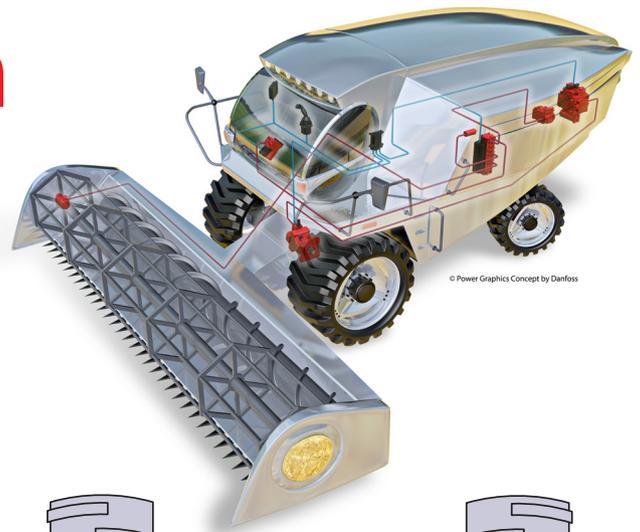
**19** facilities

around the globe  
make us your global  
partner for mobile  
hydraulic solutions



# Propel Function

## Closed Circuit Axial Piston Pumps and Motors for Combine Harvester



© Power Graphics Concept by Danfos

### Series 90 | High Density - Compact, Lightweight



S90 Pump



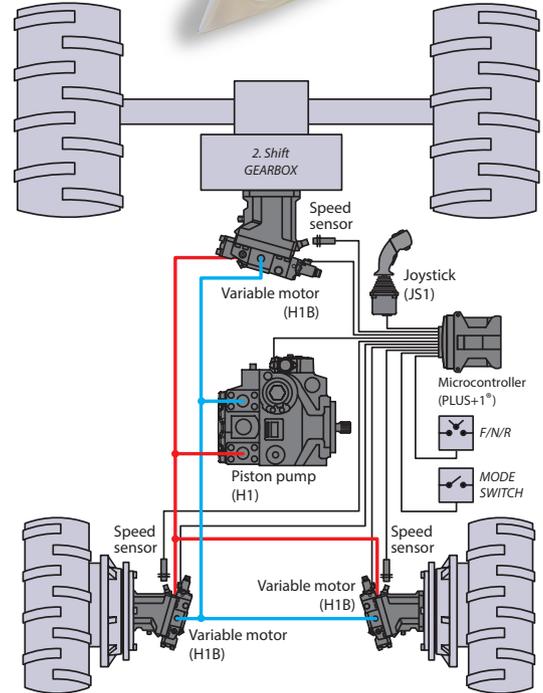
S90 Motor

#### Series 90 Pumps

Type	S90P (Axial Piston Variable Pump)
Control Options	<ul style="list-style-type: none"> <li>- 3-position Electric Control (FNR)</li> <li>- Electric Displacement Control (EDC)</li> <li>- Manual Over Ride (MOR)</li> <li>- Hydraulic Displacement Control (HDC)</li> <li>- Manual Displacement Control (MDC)</li> <li>- MDC with Neutral Start Switch (NSS)</li> <li>- Non Feedback Proportional Electric Control (NFPE)</li> </ul>
Displacement (cm <sup>3</sup> /rev)	042 / 055 / 075 / 100 / 130 / 180 / 250
Max. Pressure (bar)	480
Mounting Flange	SAE

#### Series 90 Motors

Type	S90M (Axial Piston Motor)
Displacement (cm <sup>3</sup> /rev)	055 / 075 / 100 / 130
Max. Pressure (bar)	480
Mounting Flange	SAE, Cartridge



### Series H1 | Proven Performance - Exceptional Efficiency

- Greater overall vehicle efficiency
- SIL 2 certified Automotive Control (H1 AC)
- Optimized for modern control systems
- Improved fuel economy and reduced heat load
- Proven operating performance and increased productivity



H1 Pump



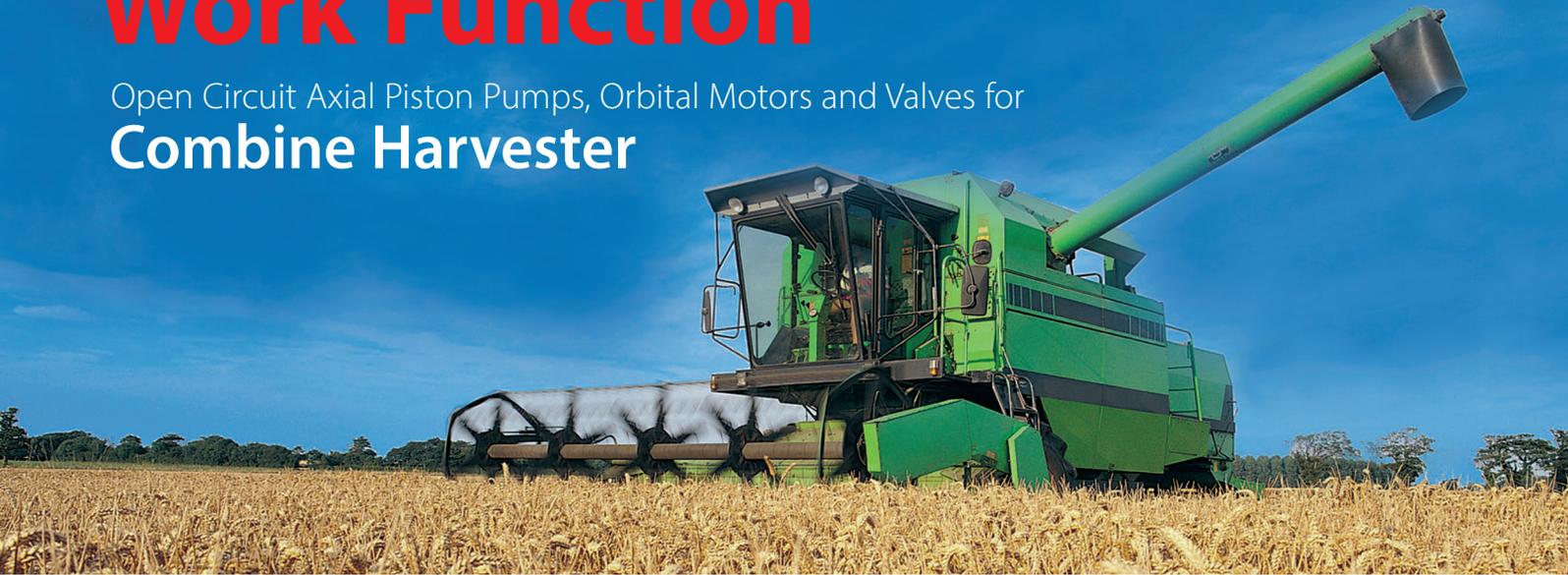
H1 Motor

#### Series H1 Pumps and Motors

Type	H1P (Axial Piston Variable Pump)	H1B (Best Axis Motor)
Control Options	<ul style="list-style-type: none"> <li>- Electric Displacement Control (EDC)</li> <li>- Forward-Neutral-Reverse control (FNR)</li> <li>- Non-Feedback Proportional Electric control (NFPE)</li> <li>- Automotive Control (AC)</li> <li>- Fan Drive Control (FDC)</li> <li>- Manual Displacement Control (MDC)</li> <li>- Common controls across the entire motor family</li> <li>- PLUS+1® Compliant control and sensor options</li> </ul>	<ul style="list-style-type: none"> <li>- Electric Two-position Control</li> <li>- Electric Proportional Control</li> <li>- Hydraulic Two-position Control</li> <li>- Hydraulic Proportional Control</li> <li>- Pressure Compensator Override</li> <li>- Proportional Pressure Compensator Override</li> <li>- Brake Pressure Defeat option</li> <li>- Common controls across the entire motor family</li> <li>- PLUS+1® Compliant control and sensor options</li> </ul>
Displacement (cm <sup>3</sup> /rev)	045 / 053 / 060 / 068 / 069 / 078 / 089 / 100 / 115 / 130 / 147 / 165 / 210 / 250	060 / 080 / 110 / 160 / 210 / 250
Max. Pressure (bar)	480 (053 & 068 : 400, 045 & 060 : 450)	480
Mounting Flange	SAE	SAE, DIN, Cartridge

# Work Function

Open Circuit Axial Piston Pumps, Orbital Motors and Valves for  
**Combine Harvester**



## Orbital Motors | High efficiency, High Starting Torque



Type	Displacement (cm <sup>3</sup> /rev)	Max. Torque (Nm)
<b>OMP-X</b>	25 - 400	40 - 400
<b>OMR-X</b>	50 - 400	100 - 400
<b>OMS</b>	80 - 500	240 - 850
<b>TMT</b>	250 - 630	940 - 1830

## Open Circuit Pumps | Designed for durability and flexibility

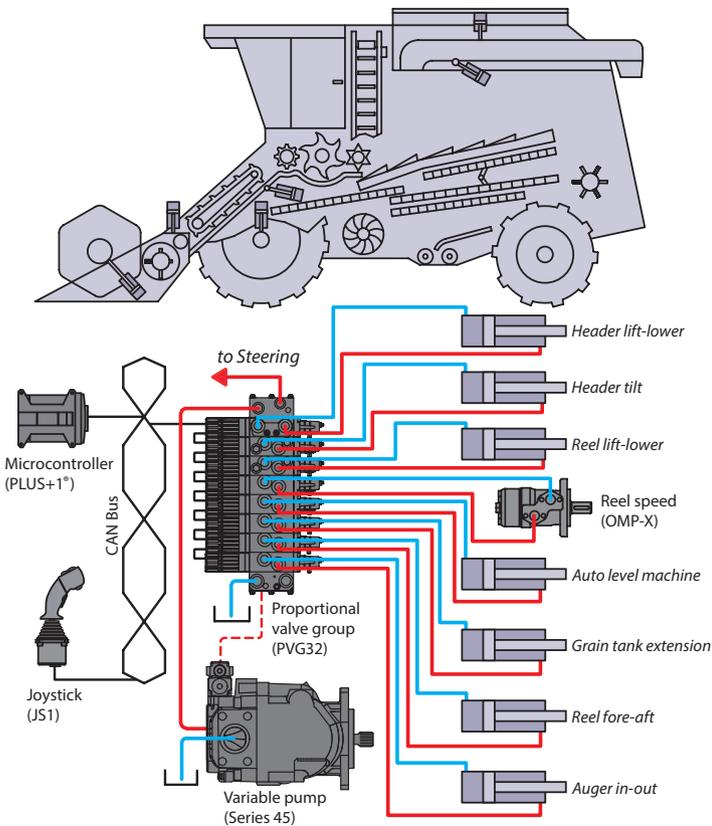


Type	Displacement (cm <sup>3</sup> /rev)	Max. Pressure (bar)
<b>Series 45 Frame L</b>	25 / 30	260
<b>Series 45 Frame K</b>	38 / 45	260
<b>Series 45 Frame J</b>	45 / 51 / 60 / 65 / 75	310
<b>Series 45 Frame F</b>	74 / 90	310
<b>Series 45 Frame E</b>	100 / 130 / 147	310

## Valves | Directional and Proportional



Type	Oil Flow Rated (l/min)	Max. Pressure (bar)
<b>ECO 80</b>	80	320
<b>PVG 16</b>	60	380
<b>PVG 32</b>	130	350



- Complete, automatic header control solutions
- Synchronized harvesting, cleaning & conveying process
- Consistent and reliable rotating functions with a complete range of compact and robust Orbital Motors
- Reduced energy consumption with Series 45 variable piston pumps
- Precise flow control with load independent PVG valves
- Accurate elevation functions utilizing valve module with zero leak ports
- Modular valve design for customized systems
- Remote control solutions; analogue or via CAN Bus technology

## 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](http://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