

## Data Sheet

# H1P 045/053

## Axial Piston Single Pumps

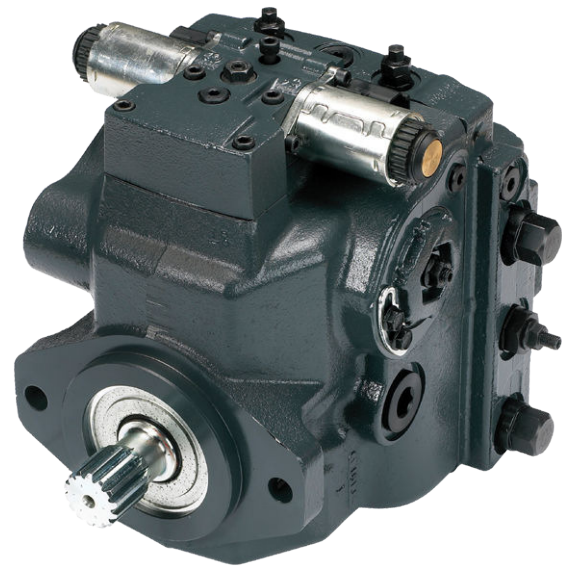


For more than 40 years, Danfoss has been developing state-of-the-art components and systems for mobile machinery used in off-highway operations around the world.

We have become a preferred supplier by offering the best of what really matters: The hardware inside your vehicle application.

The H1 range is built around an advanced control and available in a wide range of displacements. It is designed for quality and reliability and offers expanded functionality, greater total efficiency, and easy installation.

All H1 control and sensor options are PLUS+1® Compliant. PLUS+1® allows you to rapidly develop and customize electronic machine control. It opens up the future by combining machine controls and diagnostics in an integrated operating network.



### Features

#### Designed for quality and reliability

- One design concept
- Single piece swash plate

#### Wide range of controls

- Electro-hydraulic controls:
  - Electrical Displacement Control (EDC)
  - Forward-Neutral-Reverse (FNR)
  - Non-Feedback Proportional Electric (NFPE)
  - Hybrid Load Control (HLC)
- Automotive Control (AC)
- Fan Drive Control (FDC)

- Manual Displacement Control (MDC)
- Hydraulic Displacement Control (HDC)
- Common control across entire family

#### Greater total efficiency

- Minimized control losses
- Improved charge circuit
- Lower control pressure for less power consumption

#### Installation and packaging benefits

- Length optimized pump
- Minimum one clean side
- Higher corner HP / package size ratio
- Standardized connector interface

#### Expanded functionality

- PLUS+1® Compliant control and sensor options
- Integral filtration available with integrated filter bypass sensors and switch

For more information see the H1P 045/053/  
Axial Piston Single Pumps Technical  
Information, **BC00000059**.

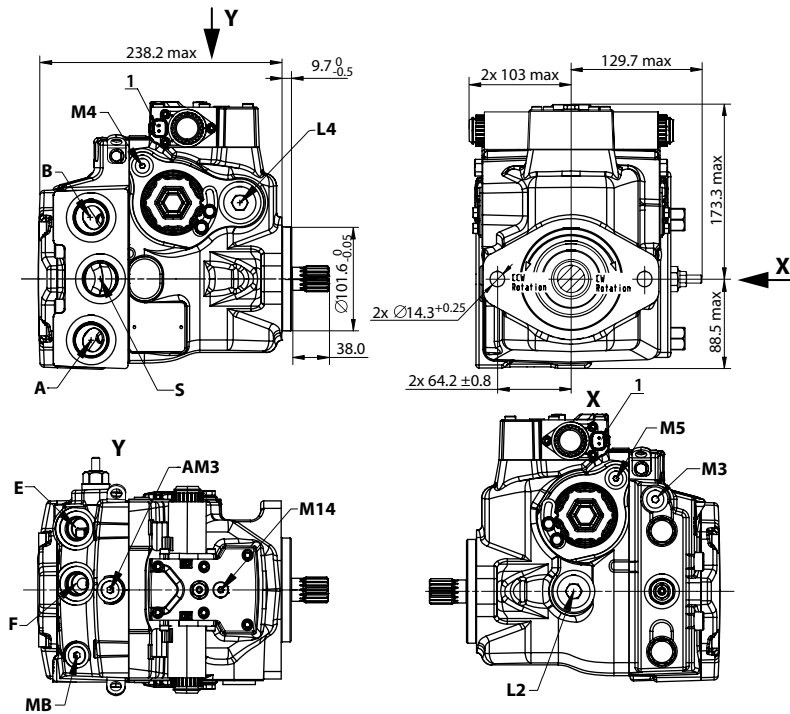
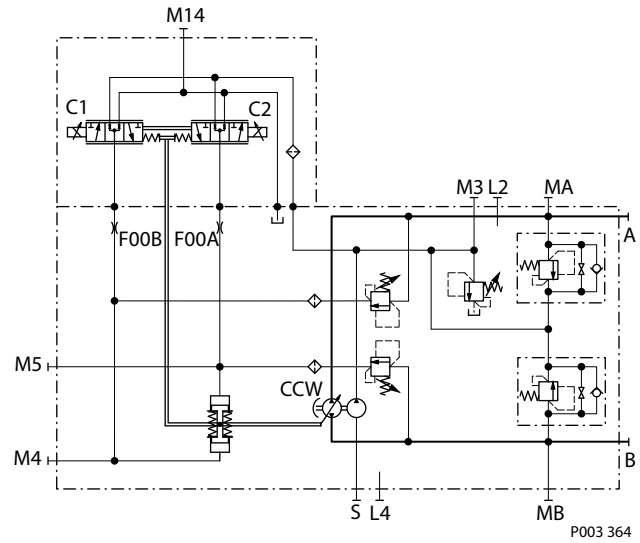
Comprehensive technical literature is online at [www.danfoss.com](http://www.danfoss.com)

## Technical Specifications

Parameters		Size 045	Size 053
<b>Displacement</b> cm <sup>3</sup> [in <sup>3</sup> ]		45.0 [2.75]	53.8 [3.28]
<b>Input speed</b> min <sup>-1</sup> (rpm)	Minimum	500	
	Rated	3400	
	Maximum	3500	
<b>System pressure</b> bar [psi]	Max. working*	420 [6092]	380 [5511]
	Maximum	450 [6527]	400 [5802]
	Min. low loop	10 [145]	
<b>Case pressure</b> bar [psi]	Rated	3.0 [44.0]	
	Maximum	5.0 [73.0]	
<b>Weight</b> (without PTO and filter), kg [lb]		41 [90]	

\* Pressures above max. working pressure requires Danfoss approval.

## Schematic



**A/B** system ports: 1<sup>5</sup>/<sub>16</sub>-12

**MA/MB** (system), **AM3, M3** (charge) gauge ports per ISO 11926-1: 9<sup>16</sup>/<sub>16</sub>-18

**M4, M5** (servo), **M14** (case) gauge ports per ISO 11926-1: 7<sup>16</sup>/<sub>16</sub>-20

**L2, L4** - Case drain ports per ISO 11926-1: 1<sup>1</sup>/<sub>16</sub>-12

**E/F** - Charge filtration ports per ISO 11926-1: 7<sup>8</sup>/<sub>8</sub>-14

**S** - Charge inlet port per ISO 11926-1: 1<sup>5</sup>/<sub>16</sub>-12

**1** - Connector DEUTSCH DT04-2P, to be paint free