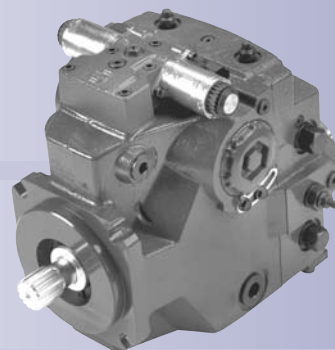




# H1 Axial Piston Pumps

## Overview

**CE COMPLIANT**  
H1 Axial Piston Pump,  
Frame Size 078  
Single Pump shown

### Technical Specifications

| Pump                      | Displacement    |                    | Speed                   |      | Pressure                               |        |              |        | Weight dry<br>(W/O PTO and Filter) | Control Options   |          | Mounting<br>Flange |
|---------------------------|-----------------|--------------------|-------------------------|------|----------------------------------------|--------|--------------|--------|------------------------------------|-------------------|----------|--------------------|
|                           |                 |                    | Rated                   | Max  | Max working<br>pressure*               |        | Max pressure |        |                                    |                   |          |                    |
|                           | cm <sup>3</sup> | [in <sup>3</sup> ] | min <sup>-1</sup> (rpm) |      | bar                                    | [psi]  | bar          | [psi]  | kg [lb]                            |                   |          | SAE                |
| Size 045/053 Single Pumps |                 |                    |                         |      | Technical Information, SD-Order Number |        |              |        |                                    | 11063344          | 11076185 |                    |
| H1P045                    | 45.0            | [2.75]             | 3400                    | 3500 | 400                                    | [5800] | 450          | [6525] | 41 [90]                            | EDC, FNR,<br>NFPE | AC       | B<br>2-bolt flange |
| H1P053                    | 53.8            | [3.28]             |                         |      | 350                                    | [5075] | 400          | [5800] |                                    |                   |          |                    |
| Size 045/053 Tandem Pumps |                 |                    |                         |      | Technical Information, SD-Order Number |        |              |        |                                    | 11063345          | -        |                    |
| H1P045                    | 45.0            | [2.75]             | 3400                    | 3500 | 400                                    | [5800] | 420          | [6090] | 65 [143]                           | EDC, FNR          | -        | B<br>2-bolt flange |
| H1P053                    | 53.8            | [3.28]             |                         |      | 350                                    | [5075] | 400          | [5800] |                                    |                   |          |                    |
| Size 078 Single Pumps     |                 |                    |                         |      | Technical Information, SD-Order Number |        |              |        |                                    | 11062169          | 11068353 |                    |
| H1P078                    | 78.1            | [4.77]             | 3500                    | 4000 | 420                                    | [6090] | 450          | [6525] | 56 [123]                           | EDC, FNR,<br>NFPE | AC       | C<br>4-bolt flange |
| Size 089/100 Single Pumps |                 |                    |                         |      | Technical Information, SD-Order Number |        |              |        |                                    | 11069970          | 11071849 |                    |
| H1P089                    | 89.2            | [5.44]             | 3300                    | 3800 | 450                                    | [6525] | 480          | [6960] | 62 [137]                           | EDC, FNR,<br>NFPE | AC       | C<br>4-bolt flange |
| H1P100                    | 101.7           | [6.21]             |                         |      | 420                                    | [6090] | 450          | [6525] |                                    |                   |          |                    |
| Size 115/130 Single Pumps |                 |                    |                         |      | Technical Information, SD-Order Number |        |              |        |                                    | 11063346          | 11071850 |                    |
| H1P115                    | 115.2           | [7.03]             | 3200                    | 3400 | 450                                    | [6525] | 480          | [6960] | 83 [187]                           | EDC, FNR,<br>NFPE | AC       | D<br>4-bolt flange |
| H1P130                    | 130.0           | [7.93]             |                         |      | 420                                    | [6090] | 450          | [6525] |                                    |                   |          |                    |
| Size 147/165 Single Pumps |                 |                    |                         |      | Technical Information, SD-Order Number |        |              |        |                                    | 11063347          | -        |                    |
| H1P147                    | 147.2           | [8.98]             | 3000                    | 3100 | 450                                    | [6525] | 480          | [6960] | 96 [211]                           | EDC               | -        | D<br>4-bolt flange |
| H1P165                    | 165.1           | [10.08]            |                         |      | 420                                    | [6090] | 450          | [6525] |                                    |                   |          |                    |

\* Applied pressures above maximum working pressure requires Sauer-Danfoss application approval.

### Other important available literature

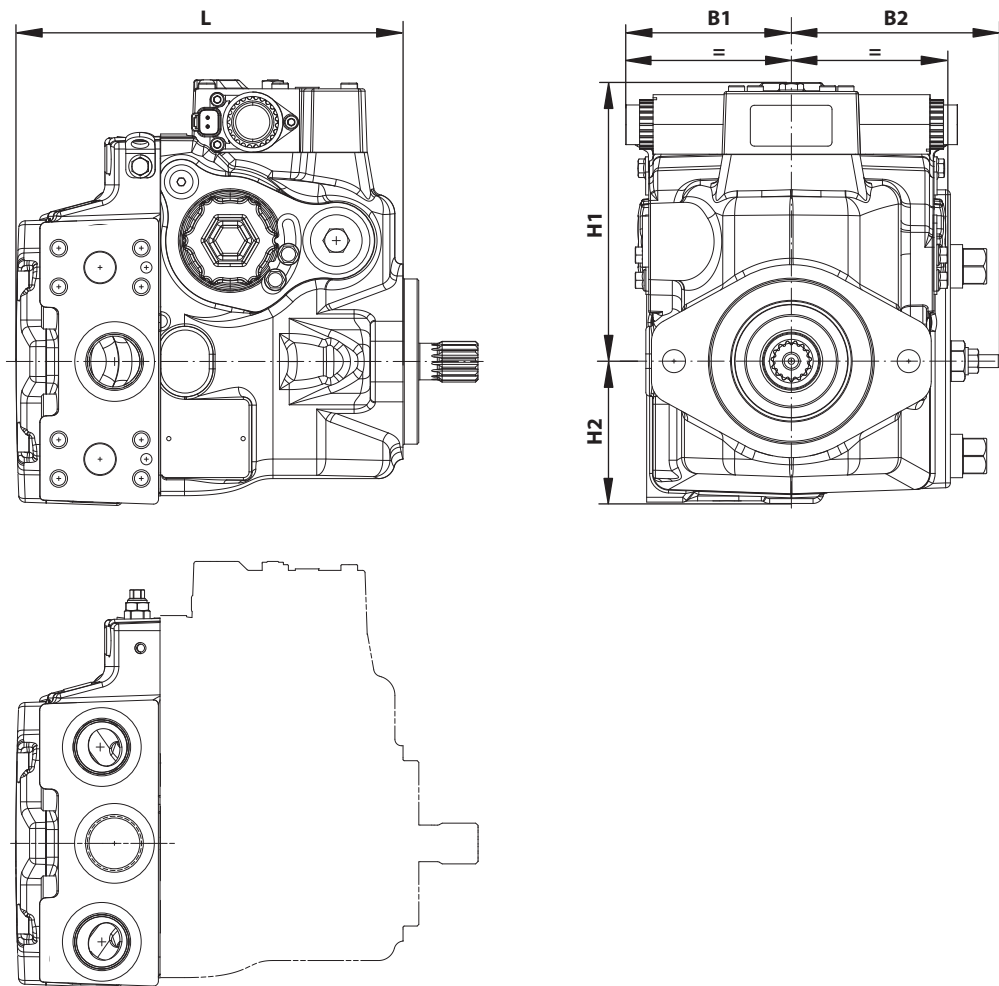
| Description                                                                           | SD-Order Number |
|---------------------------------------------------------------------------------------|-----------------|
| Basic Information, H1 Axial Piston Pumps, Single and Tandem                           | <b>11062168</b> |
| H1 Electrical Displacement Control (EDC), Product Electrical Installation             | <b>11022744</b> |
| H1 3-Position (FNR) Electrical Control, Product Electrical Installation               | <b>11025001</b> |
| H1 Non-Feedback Proportional Electric (NFPE) Control, Product Electrical Installation | <b>11025002</b> |
| Speed and Temperature Sensor, Technical Information                                   | <b>11046759</b> |
| External Remote Charge Pressure Filter, Data Sheet                                    | <b>520L1030</b> |
| Hydraulic Fluids and Lubricants, Technical Information                                | <b>520L0463</b> |
| Experience with Biodegradable Hydraulic Fluids, Technical Information                 | <b>520L0465</b> |
| Service Manual, Frame Size 045/053                                                    | <b>520L0958</b> |
| Service Manual, Frame Size 078, 089/100, 115/130, 147/165                             | <b>520L0848</b> |

Technical Literature is available at: [www.sauer-danfoss.com](http://www.sauer-danfoss.com)

## Dimensions

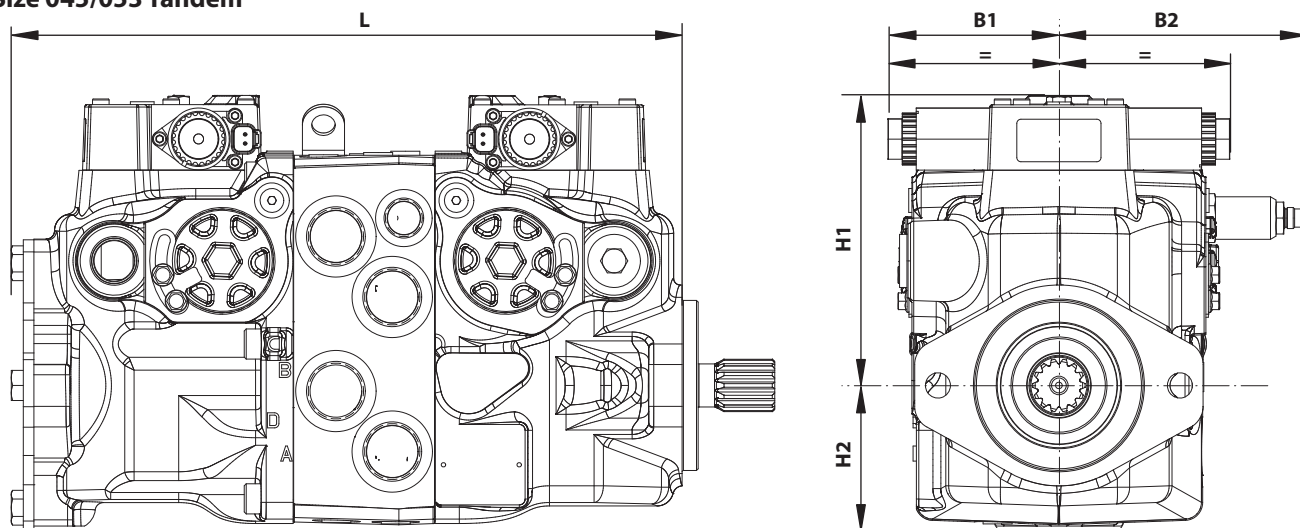
### Size 045/053 Single

mm [in]



P301 270E

### Size 045/053 Tandem

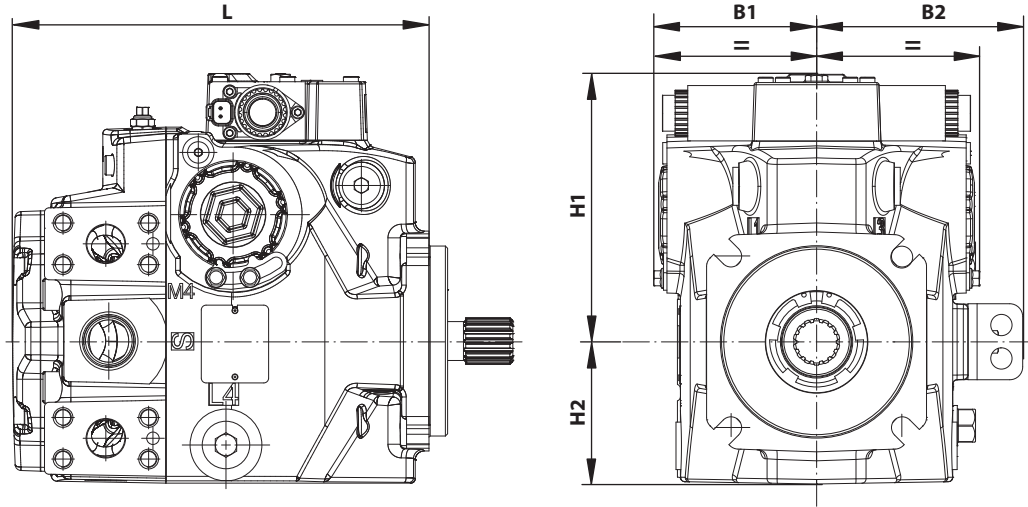


P301 271

### Dimensions

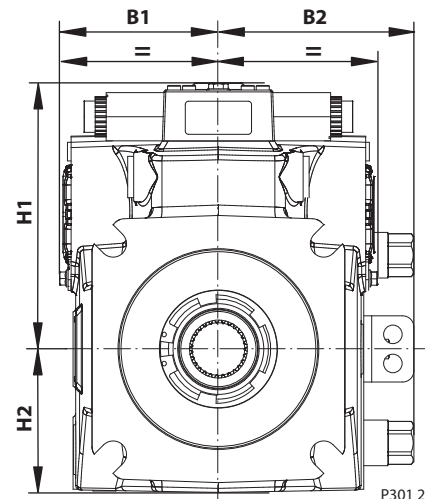
Size 078, 089/100 & 147/165

mm [in]



P301 272E

Size 115/130



P301 273E

| Size                  | L             | B1           | B2           | H1           | H2           |
|-----------------------|---------------|--------------|--------------|--------------|--------------|
| <b>045/053 Single</b> | 238.2 [9.38]  | 104.5 [4.11] | 131.2 [5.17] | 176.0 [6.93] | 89.5 [3.52]  |
| <b>045/053 Tandem</b> | 406.0 [15.98] | 104.5 [4.11] | 157.7 [6.21] | 176.0 [6.93] | 88.5 [3.48]  |
| <b>078</b>            | 278.3 [10.96] | 108.9 [4.29] | 138.2 [5.44] | 178.9 [7.04] | 95.0 [3.74]  |
| <b>089/100</b>        | 295.3 [11.63] | 139.2 [5.48] | 112.4 [4.43] | 187.3 [7.37] | 99.0 [3.90]  |
| <b>115/130</b>        | 316.9 [12.47] | 121.9 [4.80] | 148.1 [5.83] | 204.3 [8.04] | 110.0 [4.33] |
| <b>147/165</b>        | 333.3 [13.12] | 131.9 [5.19] | 152.6 [6.01] | 208.3 [8.20] | 112.0 [4.41] |

- High Pressure Port only available as Twin-Port.
- EDC, FNR, NFPE control shown
- For Automotive Control (AC) literature see Technical Information shown on the front page
- SAE-PTO not shown but available, for details see Technical Information shown on the front page

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