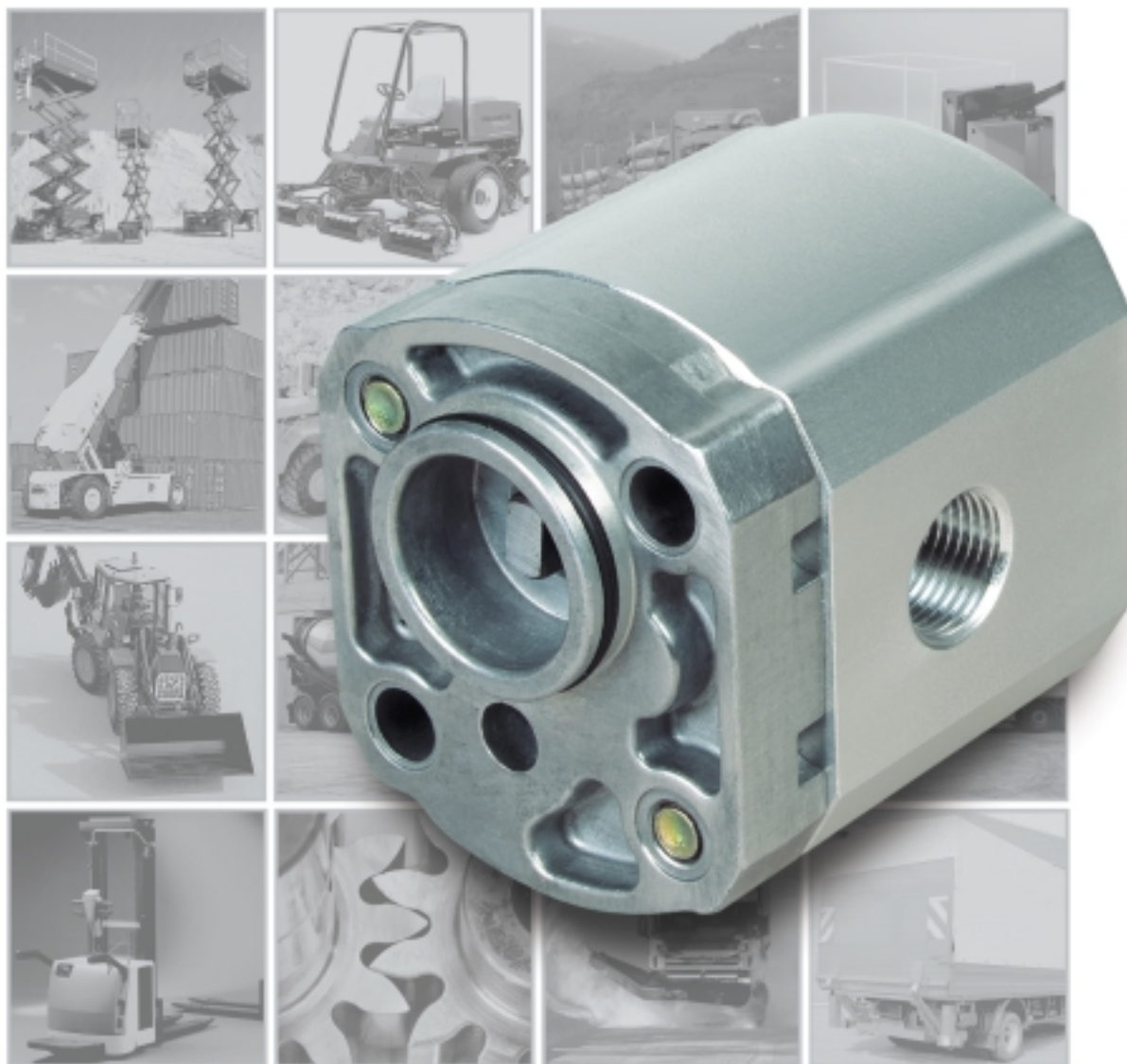


**Haldex**

## HIGH PRESSURE GEAR PUMP W300

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HYDRAULIC SYSTEMS DIVISION

Outstanding Hydraulic Products, Service and Expertise, Worldwide



## THE POWER OF THE W300 B SERIES \_\_\_\_\_

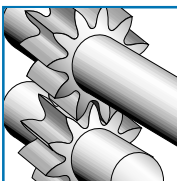
Haldex Hydraulics is one of the world's leading manufacturers of hydraulic pumps. In recent years we have focused on important markets, such as materials handling and vehicles, and now the result are in: a series of high-performance hydraulic pumps. The W300 series builds on the versatile technical platform represented by the W series.

W300 High Pressure Gear Pumps are optimized for demanding work, with harsh weather conditions, rugged operations and long service intervals. The W300 series is a range of cost-efficient group I pumps for all applications in which the customer's demands for quality and reliability are particularly high.



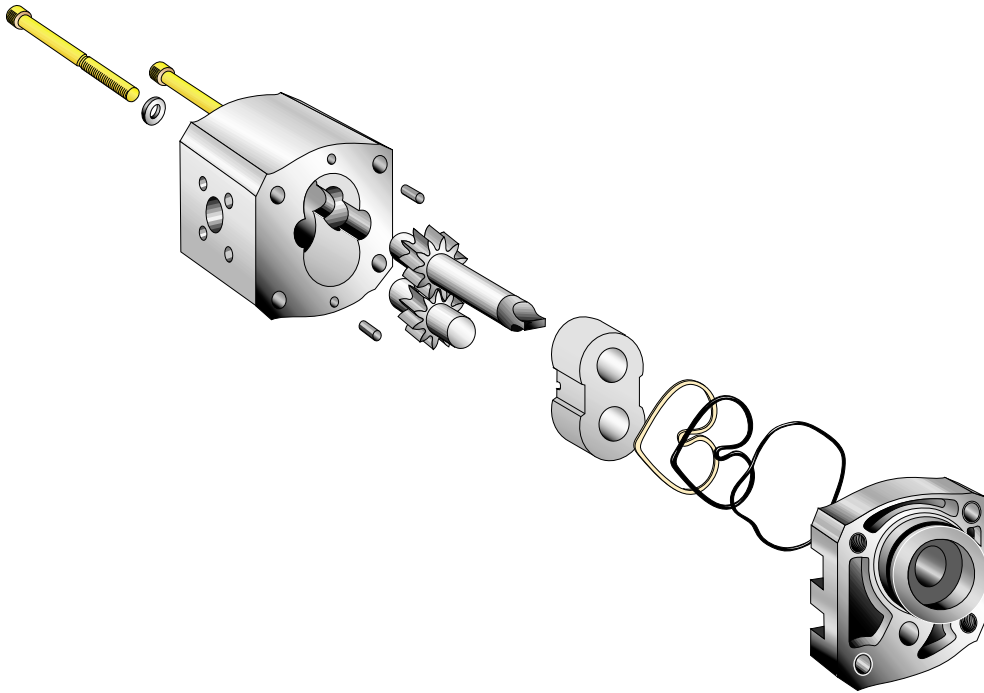
**FLANGE CODE 20, 22, 23** \_\_\_\_\_

**4 - 6**



**EFFICIENCIES** \_\_\_\_\_

**7**



Model code example for a single pump

**WP 03 B 1 B 008 R 20 MA 124 N**  
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

- |                              |                     |
|------------------------------|---------------------|
| ① = Type                     | ⑦ = Rotation        |
| ② = Series                   | ⑧ = Mounting flange |
| ③ = Design revision          | ⑨ = Drive shaft     |
| ④ = # of sections            | ⑩ = Portings        |
| ⑤ = Seal material            | ⑪ = Valve options   |
| ⑥ = Displacement per section |                     |

## W300 DESCRIPTION

The W300 pumps come in single configuration and have a two piece modular design. All, mounting flange, and rear cover are manufactured of high strength aluminium alloy.

For optimum strength, gears and shafts are precision machined as a one-piece-part. The 11-tooth gear geometry has been optimized for low noise level and low pressure pulsation.

All shaft bearing surfaces are continually cooled and lubricated by a controlled flow of fresh oil. This permits operation across a wide speed range at very high loads. Extra large slide bearings help guarantee a long service life.

A wide range of mounting flanges and port sizes are available to meet international standards.

### General data

Displacement  $V$  0,8 - 5,7cc/rev  
 Speed  $n$  800 - 6000 rpm  
 Pressure  
 rated pressure  $p_1$  up to 230 bar  
 intermittent pressure  $p_{II}$  up to 255 bar  
 Operating temperatures  $t$  up to 90°C  
 Average volumetric efficiency 97%  
 The maximum values for  $n$ ,  $p_1$  and  $t$  for a given pump specification may be applied simultaneously.

### Options

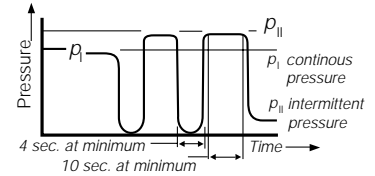
- Rectangular flanges, through bolt model.
- Tapered shaft with key, tang shaft.
- Thread ports of flange ports.
- Clockwise or anti-clockwise rotation.
- Integrated valve features.

## PERFORMANCE DATA

### Operating pressure range

**Inlet port:** continuous, minimum -0,17 bar  
 intermittent, minimum -0,35 bar  
 maximum +2,00 bar

**Outlet port** (See tables on pages 4-6)



Product has been tested to 500,000 cycles at  $p_1$ . Pressure  $p_{II}$  is permitted at maxi. 10 sec loaded following 4 sec minimum unloaded. Above represents performance which can be expected from units incorporating flange port styles.

### Speed range

Minimum speed for all pump sizes depends on the pump model in question and can be identified from tables on pages 4-6 for respective models.

Maximum speed for single pumps depends on the pump model in question and can be identified from tables on pages 4-6 for respective models.

Noise performance data according to DIN 45 635. Typical levels for pump type W3B1-2,5 at 160 bar using mineral oil with viscosity of 40mm<sup>2</sup>/s and at temperature of 50° C at different speeds:

1500 rpm	2300 rpm	3000 rpm
52 dB(A)	56 dB(A)	57 dB(A)

**Hydraulic fluids.** The use of HL-or HLP-hydraulic oil according to DIN 51 524 is recommended.

The permissible viscosity for all W3B pumps ranges from 800 to 12 mm<sup>2</sup>/s.

The permissible cold start viscosity is 2000 mm<sup>2</sup>/s.

We recommend to contact Haldex Hydraulics before using fire resistant or bio-degradable fluids.

### Temperature range

Amb. temperature: mini. -25° C  
 maxi. +80° C

Fluid temperature:  
 continuous operation maxi. +80° C  
 short term operation maxi. +90° C

### Please note

Viscosities -when operating at above temperature limits-have to remain within the range specified under "Hydraulic Fluids".

### Fluid cleanliness

Fluid cleanliness according to ISO 4406/1986 Code 18/14 or better is required in order to assure the pump's high level of efficiency in the long term.

### Drive arrangement

Flexible couplings are preferred for direct drives. Please contact Haldex Hydraulics for indirect drive requirements.

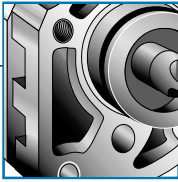
### Mounting position

As required.



### Symbol

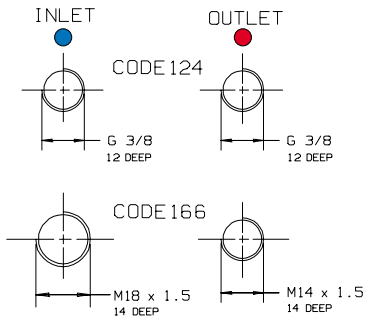
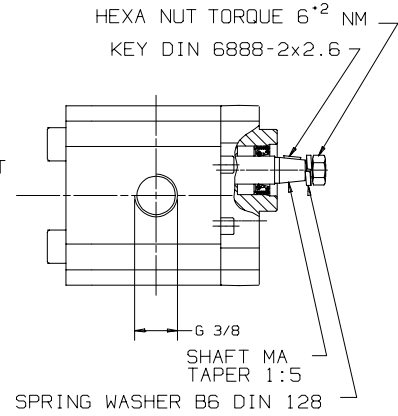
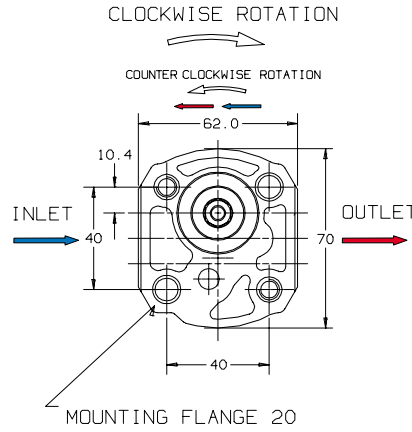
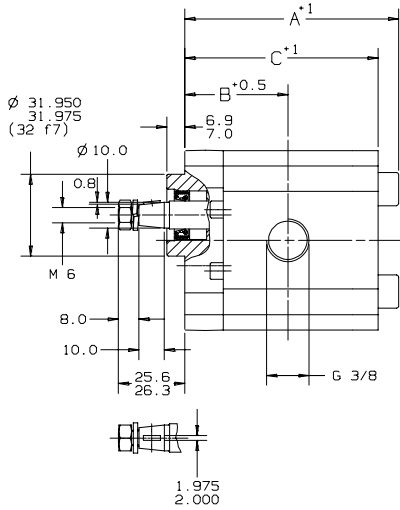
Single pump.



## FLANGE CODE 20

All shaft bearings are continually cooled and lubricated by a controlled flow of fresh oil. This enables operation across a wide speed range at very high loads. The large sized side bearings support

the pump's long-life condition. A wide range of mounting flanges and port sizes are available to meet European and international standards.



Model code example for a single pump

**WP 03 B 1 B 008 R 20 MA 124 N**  
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

- ① = Type WP - Pump
- ② = Series 03 - 300
- ③ = Design revision B
- ④ = # of sections 1 - Single
- ⑤ = Seal material B - Buna
- ⑥ = Displacement per section (See table below)  
008 - 0,8cc
- ⑦ = Rotation  
R - Clockwise  
L - Counter clockwise
- ⑧ = Mounting flange 20
- ⑨ = Drive shaft MA
- ⑩ = Portings  
124 - G3/8" + G3/8" BSPP  
166 - M18 x 1,5 + M14 x 1,5
- ⑪ = Valve options N - None

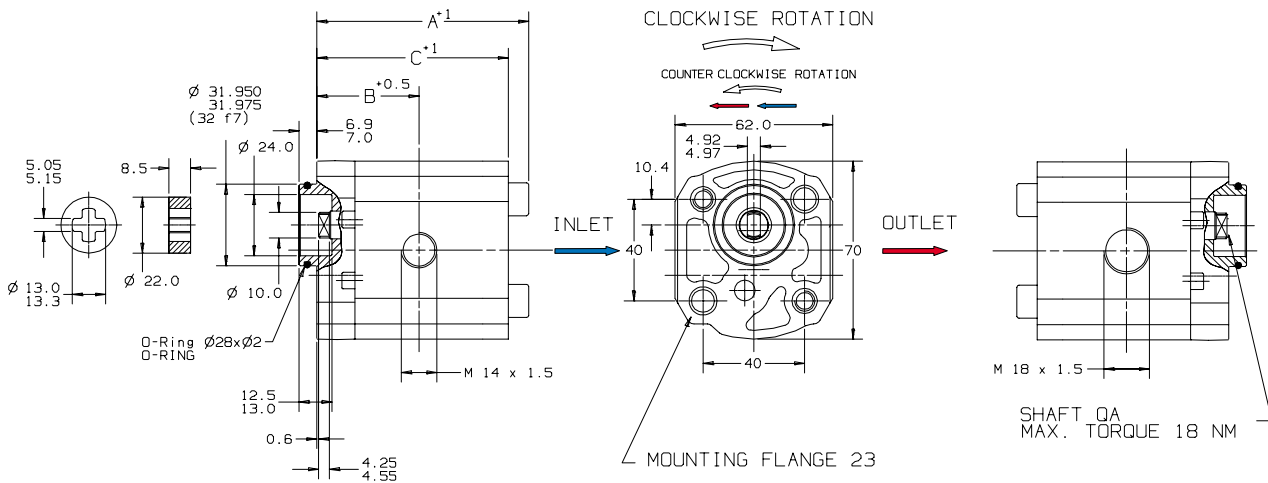
At CCW rotation inlet and outlet are reversed.

Code Displ.	Rated pressure $P_I$ [bar]	Intermitt. $P_{II}$ [bar]	Maxi. speed [rpm]	Mini. speed [rpm]	Dimensions			Weight (approx.) [kg]
					A [mm]	B [mm]	C [mm]	
008 - 0,8cc	230	255	6000	1200	68,1	32,6	60,1	0,70
012 - 1,2cc	230	255	6000	1100	69,8	33,4	61,8	0,72
016 - 1,6cc	230	255	6000	1100	71,5	34,2	63,5	0,74
020 - 2,0cc	230	255	6000	1000	73,2	35,1	65,2	0,77
025 - 2,5cc	230	255	5000	1000	75,3	35,9	67,3	0,80
032 - 3,2cc	230	255	5000	1000	78,2	37,6	70,2	0,83
038 - 3,8cc	210	230	4500	850	80,8	38,9	72,8	0,86
043 - 4,3cc	190	210	4500	850	82,9	40,0	74,9	0,89
048 - 4,8cc	170	187	4200	800	85,0	41,0	77,0	0,91
057 - 5,7cc	145	160	3800	800	88,8	42,9	80,8	0,96

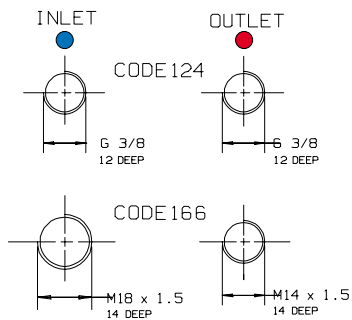




## FLANGE CODE 23



Model code example for a single pump

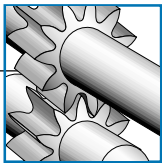


**WP 03 B 1 B 008 R 23 QA 124 N**  
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

- ① = Type WP - Pump
- ② = Series 03 - 300
- ③ = Design revision B
- ④ = # of sections 1 - Single
- ⑤ = Seal material B - Buna
- ⑥ = Displacement per section (See table below)  
008 - 0,8cc
- ⑦ = Rotation  
R - Clockwise  
L - Counter clockwise
- ⑧ = Mounting flange 23
- ⑨ = Drive shaft QA
- ⑩ = Portings  
124 - G3/8" + G3/8" BSPP  
166 - M18 x 1,5 + M14 x 1,5
- ⑪ = Valve options N - None

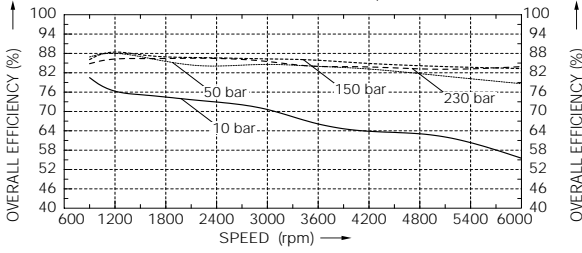
At CCW rotation inlet and outlet are reversed.

Code Displ.	Rated pressure $P_I$ [bar]	Intermitt. $P_{II}$ [bar]	Maxi. speed [rpm]	Mini. speed [rpm]	Dimensions			Weight (approx.) [kg]
					A [mm]	B [mm]	C [mm]	
008 - 0,8cc	230	255	6000	1200	68,1	32,6	60,1	0,68
012 - 1,2cc	230	255	6000	1100	69,8	33,4	61,8	0,70
016 - 1,6cc	230	255	6000	1100	71,5	34,2	63,5	0,72
020 - 2,0cc	230	255	6000	1000	73,2	35,1	65,2	0,75
025 - 2,5cc	230	255	5000	1000	75,3	35,9	67,3	0,78
032 - 3,2cc	230	255	5000	1000	78,2	37,6	70,2	0,81
038 - 3,8cc	210	230	4500	850	80,8	38,9	72,8	0,84
043 - 4,3cc	190	210	4500	850	82,9	40,0	74,9	0,87
048 - 4,8cc	170	187	4200	800	85,0	41,0	77,0	0,89
057 - 5,7cc	145	160	3800	800	88,8	42,9	80,8	0,94

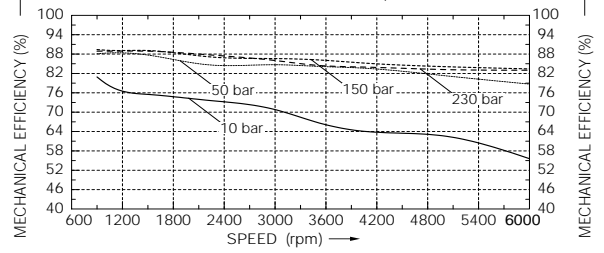


# EFFICIENCIES, TOTAL , MECHANICAL, VOLUMETRIC

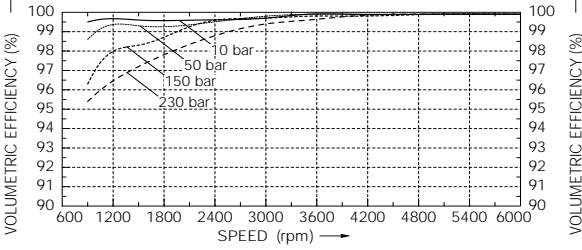
**OVERALL EFFICIENCY W3B1-1.2-\*\*-\*\*-N-N**  
AVERAGE ± 3% AT 42°C, 32 cSt.



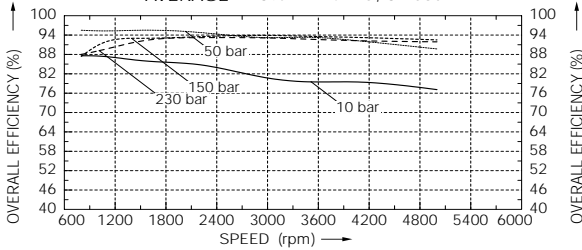
**MECHANICAL EFFICIENCY W3B1-1.2-\*\*-\*\*-N-N**  
AVERAGE ± 3% AT 42°C, 32 cSt.



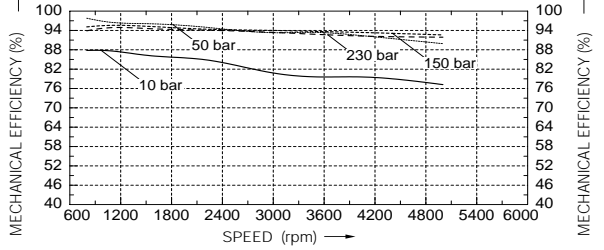
**VOLUMETRIC EFFICIENCY W3B1-1.2-\*\*-\*\*-N-N**  
AVERAGE ± 3% AT 42°C, 32 cSt.



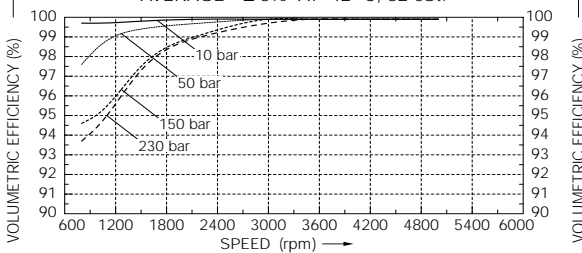
**OVERALL EFFICIENCY W3B1-3.2-\*\*-\*\*-N-N**  
AVERAGE ± 3% AT 42°C, 32 cSt.



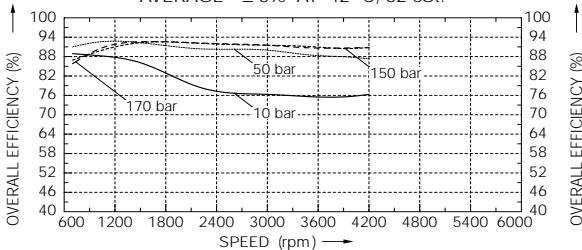
**MECHANICAL EFFICIENCY W3B1-3.2-\*\*-\*\*-N-N**  
AVERAGE ± 3% AT 42°C, 32 cSt.



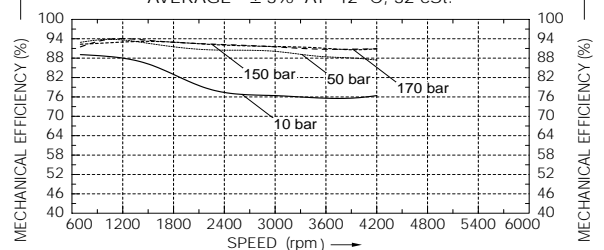
**VOLUMETRIC EFFICIENCY W3B1-3.2-\*\*-\*\*-N-N**  
AVERAGE ± 3% AT 42°C, 32 cSt.



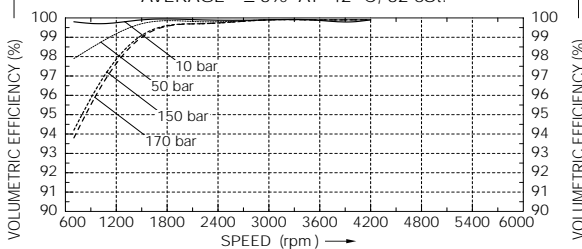
**OVERALL EFFICIENCY W3B1-4.8-\*\*-\*\*-N-N**  
AVERAGE ± 3% AT 42°C, 32 cSt.



**MECHANICAL EFFICIENCY W3B1-4.8-\*\*-\*\*-N-N**  
AVERAGE ± 3% AT 42°C, 32 cSt.



**VOLUMETRIC EFFICIENCY W3B1-4.8-\*\*-\*\*-N-N**  
AVERAGE ± 3% AT 42°C, 32 cSt.



# Haldex

HALDEX W300 GB-03-03

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Haldex is an innovator in vehicle technology and supplies proprietary systems and components for trucks, cars and industrial vehicles worldwide. Haldex is listed on the Stockholm Stock Exchange and has yearly sales exceeding 6,5 billion Swedish Krona with 4.000 employees ([www.haldex.com](http://www.haldex.com)).

## PRODUCT RANGE

**HE Powerpacks**  
12/24/48 VDC 0.3 – 4.5 kW and  
0.75 – 3 kW AC modular power  
packs

**Pressure Switches**  
5 - 350 bar, connecting/  
disconnecting

**HE Box Powerpacks**  
12/24/48 VDC modular  
powerpacks in weatherproof  
boxes

**W100 Hydraulic pumps**  
0,5 - 2,0 cc 227 bar

**W300 Hydraulic pumps**  
0.8 – 5.7 cc 230 bar

**W600 Hydraulic pumps**  
3 – 12 cc 276 bar

**WM600 Hydraulic motors**  
3 – 12 cc 276 bar

**W900 Hydraulic pumps**  
5 – 31 cc/section 276 bar

**WM900 Hydraulic motors**  
5 - 31 cc/section 276 bar

**WQ900 The quiet pump**  
5 - 23 cc/section 230 bar

**W1500 Hydraulic pumps**  
19 - 50 cc/section 276 bar

**WM1500 Hydraulic motors**  
19 - 50 cc/section 276 bar

**G25 Hydraulic pumps**  
21.3 – 63 cc/section 250 bar

**GPA Internal Gear pumps**  
1.7 – 63 cc/section 100 bar

**GC Hydraulic pumps**  
1.06 – 11.65 cc/section 275 bar

**II-Stage Hydraulic pumps**  
4.2 – 22.8 cc/section 275 bar

**Rotary Flow Dividers**  
3.8 – 13.3 cc/section 300 bar

**G20/G30 (LS) Hydraulic pumps**  
23 – 161 cc/section 275 bar

**Transmission pumps**

**Fuel pumps**