

New: HDP50 Oil Purifier



PIHDP50EN

Description

Leveraging more than 30 years of design and field experience, Pall presents the third in its family of HDP Series fluid conditioning purifiers – the HDP50 Oil Purifier.

The HDP Series combines the water removal performance of mass transfer purifiers with high reliability and ease-of-use to help ensure maximum equipment uptime and lowest cost of ownership – enabling you to focus on your process, and not your equipment.

Improved Performance

The Pall HDP series purifiers feature an innovative new vacuum tower design that maximizes water removal efficiency.

Maximum Reliability, Lower Cost of Ownership

HDP series purifiers are designed for maximum uptime and have proven themselves in the field with industry-leading utilization rates even in the most demanding and continuous-duty applications.

The HDP50 uses specially selected components to help ensure maximum reliability and lower cost of ownership. These premium components include:

- Schneider Electric PLC¹ and HMI
- Reliable Gardner Denver² VLR series vacuum pump with 12 month service interval (8760 hours run time)
- Rickmeier³ gear pumps — proven performers for more than 20 years in Pall purifiers

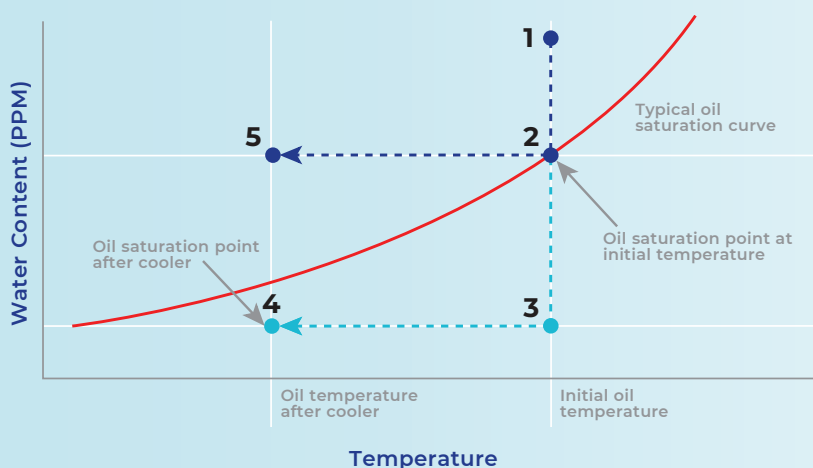


HDP50 Series Oil Purifier

Controlling the dissolved as well as the free water in the reservoir is critical in ensuring the absence of free water during operation.

With the Pall HDP50 Purifier, this is done efficiently, easily, and reliably. The diagram below illustrates the concept.

Removing free water is never enough!



- 1 Initial water content is above saturation (free water).
- 2 Maximum water removal capability of 'free water removal' devices (coalescers, centrifuges, etc.) is to the oil's saturation point.
- 3 Water content achieved with mass transfer dehydration is significantly below the oil's saturation point.
- 4 Water content achieved with mass transfer dehydration remains below the oil's saturation point even after oil is cooled. This prevents the formation of free water, harmful to the system.
- 5 If only free water is removed at initial temperature, when oil is cooled the amount of harmful free water in the oil can increase significantly.

Performance

The Pall HDP Series of purifiers has a new vacuum tower design that maximizes water removal. The HDP50 removes 100 % of free, un-dissolved gases and water (under steady state conditions), and up to 80 % of dissolved gases and water. It also removes solid contaminants with efficiency of 99.95 % (down to 3 microns).

HDP Series oil purifiers showed a 40 % faster dehydration rate when compared with a typical purifier.

Standard Features

Pall HDP Series Purifiers come with the following standard features that many suppliers charge extra for:

- Dissolved Water Sensor (Pall model WS12)
- Athalon high performance B_{X(C)}>2000 rated particulate filter
- Low watt density heater (15kw output)
- Pall Profile Star Coalescing Element to reduce risk of carry-over

Design Improvements

Superior dewatering performance and a 300 cSt viscosity range increase (from top end 700 cSt to 1000 cSt) when compared to the Pall HLP50 Oil Purifiers, the Pall HDP50 Oil Purifiers boast a series of design improvements over past versions. (1) The HDP will come standard with the ability to display water content PPM (parts per million) in most commonly available hydraulic and lube oils,

giving you an all-in-one solution to measure and ensure oil quality. (2) Larger outlet check valves ensure reduced backpressure for more efficient, quieter running. (3) Upper tower level vacuum pump protection enabling a safe shutdown.

Ease of Use

The HDP50 Series offers the following features to increase versatility in service and lower cost of ownership:

- Low maintenance
- Able to work with wide range of oil viscosities (3 cSt to 1000 cSt)
- No utility water required for cooling or pump operation – the only utility needed is an electrical power source

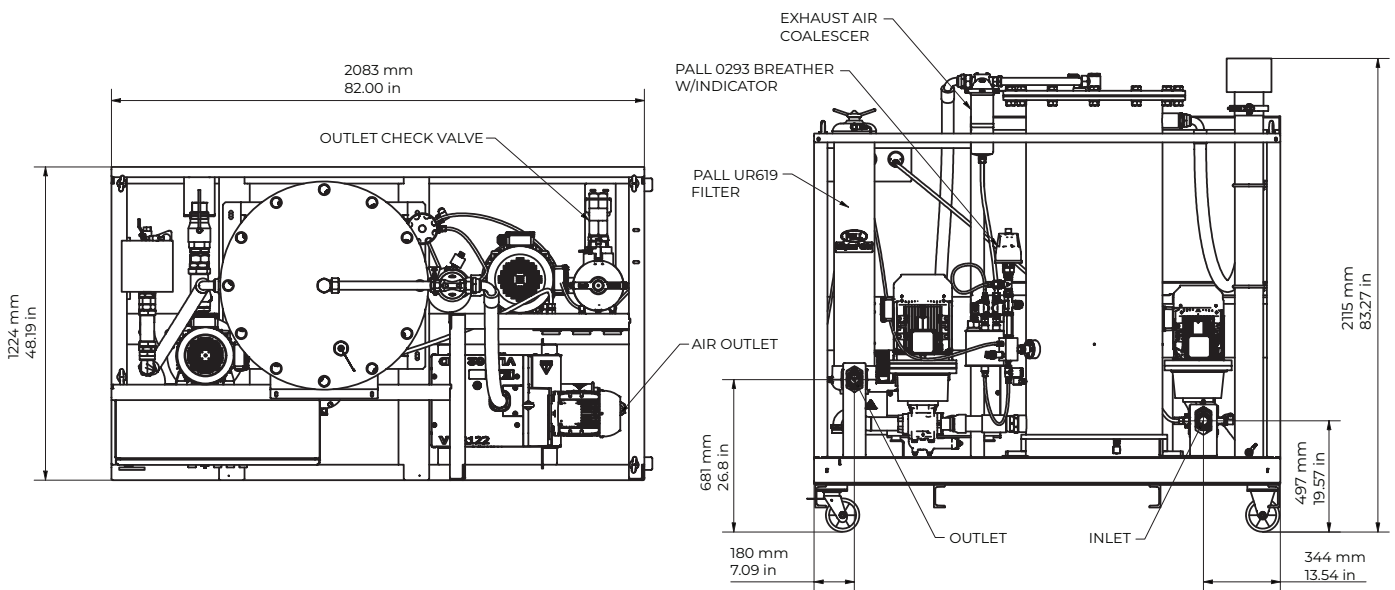
Focus on Your Process, Not on Your Purifier

HDP Series Purifiers requires the minimum of user interaction, which allows users to focus more on their process and less on the maintenance and upkeep of their purifier.

The HDP Purifier is one of the easiest purifiers to operate. Simply connect the purifier to the reservoir, power up, and press the start button. “Our standard is that the HDP users are able to just press the button and walk away even under challenging conditions”.

- Extended vacuum pump oil change interval – 12 months (8760 hours of run time)
- No water utility for cooling or pump operation

Dimensional Drawings



HDP50 Specifications

Flow Rate:	51.8 GPM @ 60 Hz / 43 GPM @ 50 Hz (163 LPM)
Dry Weight:	2678 lbs (1215 kg)
Dimensions (caster or floor mount):	77.6" H x 82" L x 48" W (197 cm x 208 cm x 122 cm)
Viscosity Range:	3 cSt to 1000 cSt
Seal Material:	Fluorocarbon
Enclosure:	Voltage Code W/I: NEMA 4. Remaining Voltage Codes: IP55
Inlet Fluid Temperature:	167° F (75° C) Maximum
Ambient Temperature:	39° F to 104° F (3.9° C to 40° C)
(special options available for higher ambient temperatures)	
Inlet Pressure Range:	-14" Hg to 10 PSI (-0.47 bar to 0.69 bar)
Outlet Pressure Relief Setting:	80 psi (5.5 barg maximum)
Operating Vacuum Range:	-15" to -24" Hg (-0.51 bar to -0.80 bar)
Heater Capacity:	30 kW (low watt density)
Paint Scheme:	Powder coated (suitable for industrial phosphate ester service)
Fluid Filter Housing:	UR619 Series with 40" element

* Note: Pall HDP purifiers containing the R, S, & T voltage codes comply with all applicable EC directives and bears the CE mark.

Purifier Part Numbers / Ordering Information

HDP50 1 2 Z 3 4 5 6 7 WS12 Water Sensor is standard equipment on all HDP purifiers

Table 1

Code	Voltage
R	380 Vac
S	400 Vac
T	415 Vac
W	480 Vac
I	575 Vac

Table 2

Frequency Code	Frequency
3	50 Hz, 3Ø
4	60 Hz, 3Ø

Table 3

Mounting Code	Description
C	Castor
N	Static

Note: Z indicates fluorocarbon seals and chlorinated polyethylene hoses are standard. Contact Pall Sales for other options.

Table 4

Port Code	Port Type
P	ISO228 - BSP Parallel (Inlet: G2, Outlet: G2.5)
T	ANSI B1.20.1 - NPT Taper (Inlet: 2", Outlet: 2 1/2")

Table 5

Language Code	Description
DE	German
EN	English
ES	Spanish
FR	French
IT	Italian
PT	Portuguese
RU	Russian
FI	Finnish

Table 6

Option Code	Special Options
Omit	No Special Options
A	Factory Testing With Fyrquel ¹ Fluid

Table 7

Panel Code	Panel Options
Omit	No Panel
P	Panel

Outlet Filter Element Part Numbers / Ordering Information

UR619 Rating Code Length Code Seal Code

Rating Code	Rating (ISO16889)	Length Code	Seal Code
AZ	β3 (c) ≥ 2000	40	Z
AP	β5 (c) ≥ 2000		
AN	β7 (c) ≥ 2000		
AS	β12 (c) ≥ 2000		
AT	β25 (c) ≥ 2000		



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IF APPLICABLE Please contact Pall Corporation to verify that the product conforms to your national legislation and/or regional regulatory requirements for water and food contact use.

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