

HLP22 Oil Purifier

Description

Leveraging more than 30 years of design and field experience, Pall presents the second in its family of HLP series fluid conditioning purifiers – the HLP22 Oil Purifier.

The HLP 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 HLP series purifier has a new vacuum tower design that results in very efficient water removal.

Maximum Reliability, Lower Cost of Ownership

HLP series purifiers are designed for maximum uptime, and have proven themselves in the field, exhibiting higher utilization rates even in the most demanding and continuous duty applications.

The HLP22 uses specially selected components to help ensure maximum reliability and lower cost of ownership. These premium components include:

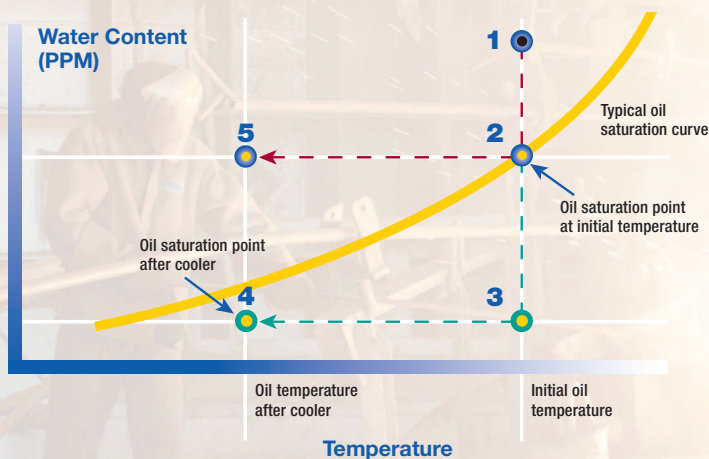
- Best-in-class Allen Bradley PLC
- Reliable Elmo Rietschle vacuum pump with 12 month service interval.



- Viking gear pumps – proven performers for more than 20 years in Pall 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 HLP22 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.

Ease of Use

The HLP22 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

Standard Features

Pall HLP series purifiers come with the following standard features that many suppliers charge extra for:

- Dissolved water sensor (Pall model WS10)
- Low watt density heater (15kw output)
- Condenser with gravity drain

Focus on Your Process, Not on Your Purifier

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

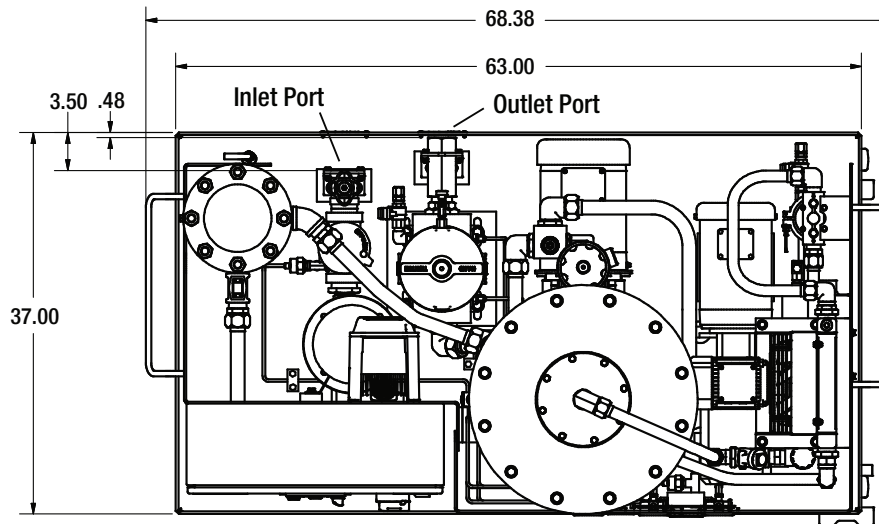
The HLP purifier is one of the easiest purifiers to operate. Simply connect the purifier to the reservoir, power up, and press the start button. In fact, many HLP users are able to just “press the button and walk away”.

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

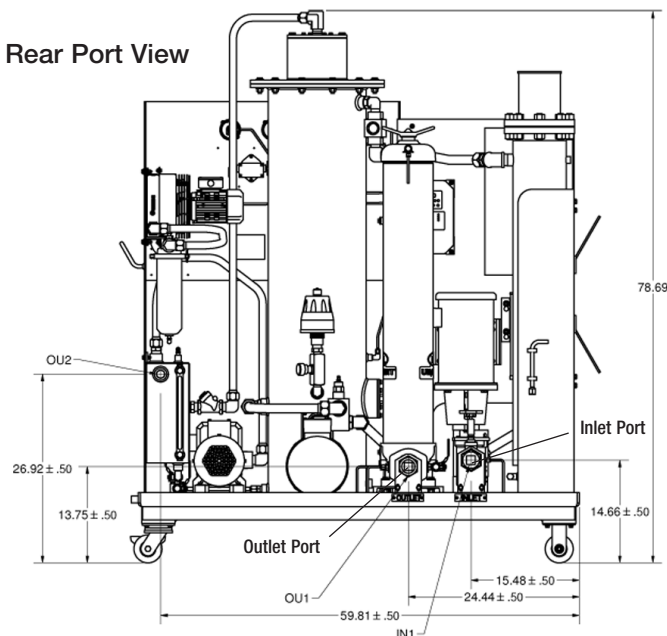
Dimensional Drawings

(inches)

Top View



Rear Port View

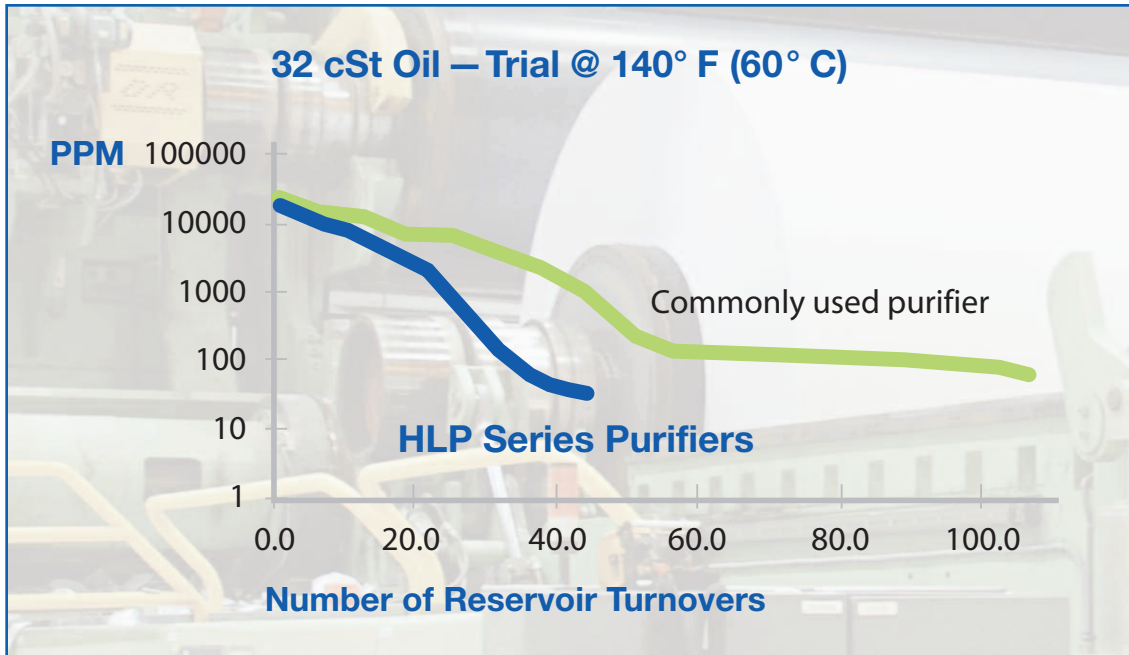


Performance

The Pall HLP Series of purifiers has a new vacuum tower design that produces very efficient water removal. The HLP22 removes 100% of free gases and water (under

steady state conditions), and up to 80% of dissolved gases and water. It also removes solid contaminants, with efficiency of 99.9% (down to 3 microns).

HLP Series oil purifiers showed a 40% faster dehydration rate when compared to a commonly used, similarly sized purifier.



HLP22 Specifications

Flow Rate:	22 GPM (83 LPM)
Dry Mass:	1932 lbs (876 kg)
Dimensions (caster or floor mount):	79" H x 68.5" L x 35" W (201 cm x 174 cm x 89 cm)
Viscosity Range:	3 cSt to 1000 cSt
Seal Material:	Fluorocarbon
Enclosure:	NEMA 4 (IP65)
Inlet Fluid Temperature:	170°F (76.7°C) maximum
Ambient Temperature: (special options available for higher ambient temperatures)	39°F to 105°F (3.9°C to 40.6°C)
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" Hg to 22" Hg (-0.51 bar to -0.75 bar)
Heater Capacity:	15 KW (low watt density)
Paint Scheme:	Powder coated (suitable for industrial phosphate ester service)
Fluid Filter Housing:	UR699 series with 40" element

Part Numbers / Ordering Information

HLP22 [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) * WS10 water sensor is standard equipment on all HLP purifiers

Table 1

Code	Voltage
R3	380V / 50 Hz / 3P
W4	480V / 60 Hz / 3P
14	575V / 60 Hz / 3P

Table 2

Code	Filter Element Options	
	$\beta_{x(c)} \geq 1000$ based on ISO 16889	CST Rating*
AZ	3	08/04/01
AP	5	12/07/02
AN	7	15/11/04
AS	12	16/13/04
AT	22	17/15/08

* CST: Cyclic Stabilization Test to determine filter rating under stress conditions, based on SAE ARP4205

Table 3

Code	Seal Material
Z	Fluorocarbon

Table 4

Code	Mounting Option
C	Casters
N	Static
P	Tow Package

Table 5

Code	Ports
T	NPT Tapered Inlet = 2" FNPT Outlet = 1½" FNPT

Table 6

Code	MFG Location
W	Western Hemisphere

Table 7

Code	Language
EN	English
ES	Spanish
FR	French
BP	Brazilian Portuguese

Table 8

Code	Special Options
OMIT	No Special Options
P001	Tested with Fyrquel® Fluid
P002	Industrial Lighting Scheme



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