

# Extended Range, Deep Vacuum Conveying Power

High efficiency, claw style Long Distance Positive Displacement Pumps provide the highest level of vacuum power available for conveying plastic material. The LDP employs an advanced claw-shaped lobe design that cuts through and pressurizes air in a quiet, nearly maintenance free package. The direct drive pump delivers stronger conveying performance at longer distances and higher elevations for challenging resin transfer applications.



## Reduce Energy/Noise and Convey Greater Distances

The Claw Pump utilized in the LDP revolutionizes the way vacuum conveying air is created for resin transfer.

Conventional compression lobes are replaced with precision machined “claws” that smoothly cut, capture and compress the air with minimal draft and vibration, reducing traditional positive displacement noise and energy consumption and extending vacuum conveying power to new levels.

Using the same vacuum/material line size, the LDP range provides approximately twice the conveying performance in pounds per hour and/or capable distance, with less energy and nearly half the noise of traditional lobe style vacuum pumps.

In addition, drive belts and motor adjustments are replaced with smooth, low maintenance, direct drive operation. Energy consumption, depending upon the application, is reduced by up to 25% over common PD pumps.

- **Extend conveying system range**  
Deep vacuum can provide conveying performance to 1000 feet {304 meters}.
- **Increase conveying system performance**  
Replace your pump with a LDP to solve conveying problems without redesigning your conveying or vacuum tubing network.
- **Simple alternative to pressure systems**  
The LDP provides a high performance vacuum conveying solution for long distance, high volume resin requirements.
- **Broader adjustment of air-to-material ratios**  
Increased vacuum conveying power at the material pick-up point provides trouble-free resin flow without line plugging or surging.
- **Ready to install**  
Includes motor starter, vacuum gauge, vacuum relief, vacuum breaker, idle mode valve, and pump protection filter.



## Features

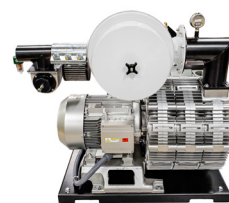
LDP Pumps must be used in conjunction with a Conveying System Dust Collector installed on the vacuum line prior to the LDP inlet. LDP pumps are equipped with:

- Voltage matched, magnetic pump starter with 24 VDC starter coil
- Mechanical vacuum relief valve
- Vacuum idle mode valve with filter (requires 90 to 120 psi {6.2 to 8.2 bar} compressed air)
- 12 square foot pump protection cartridge filter in no-tools access housing
- Vacuum gauge
- Internal cooling fan

## Options

- 3-phase disconnect switch (Use of a 3-phase disconnect switch near the pump installation is recommended.)
- Aftercooler on dust collector
- Pump stacking stand

## Which pump is right for me?



PD (Positive Displacement Pump)	LDP (Claw Pump)	RG Pump (Regenerative)	HRG (Hybrid Regenerative)
Medium cost pump	Highest cost pump	Lowest cost pump	Medium cost pump
Rotating lobe	Claw style	Regenerative (single-piece fan/motor)	Multi-stage regenerative impeller
Long distance / high volume	Extreme distance / high volume	Shorter distance / medium volume	Extreme distance / high volume
Up to 600 ft.	Up to 1000 ft.	Up to 450 ft.	Up to 800 ft.
69-90 dbA noise	79-84 dbA noise	67-78 dbA noise	72-74 dbA noise
Highest energy consumption	Medium energy consumption	Lowest energy consumption	Medium energy consumption
Medium vacuum levels (12 inches Hg)	Deepest vacuum power	Lowest vacuum levels	High vacuum power
No Wave Conveying	Wave Conveying	No Wave Conveying	Wave Conveying
Dilute phase only	Dilute/stream/pulse phase	Dilute phase only	Dilute/stream phase
Filter included*	Filter included*	No filter	Filter included*
Inlet size 1.75-4.0 inches	Inlet size 1.5-4.0 inches	Inlet size 1.5-2.0 inches	Inlet size 2.5-3.0 inches
7-25 hp	5-30 hp	3.4-16.9 hp	13.2-33 hp

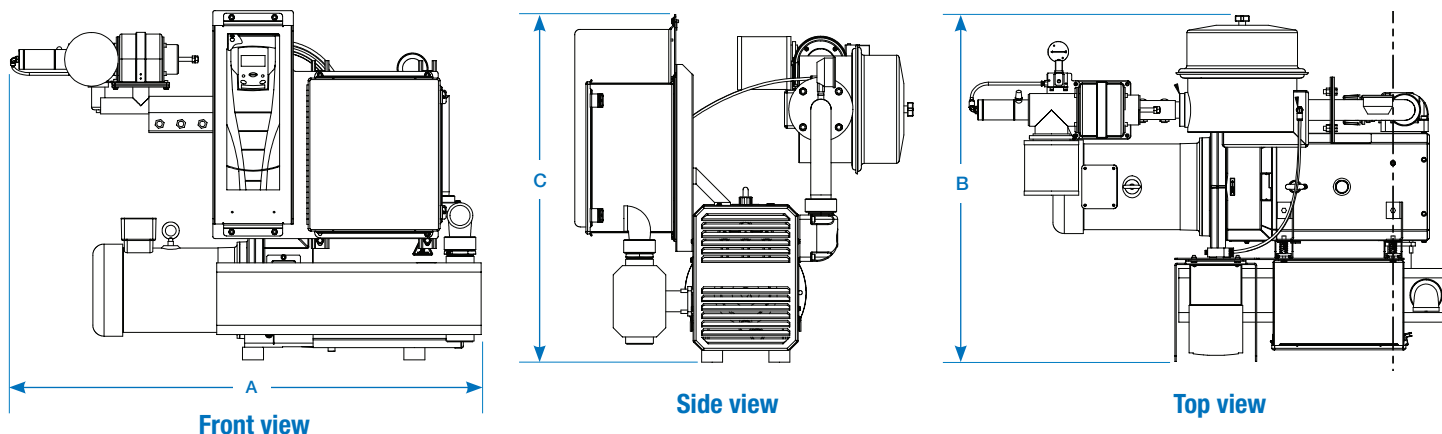
### Application Notes

\* The included filter is a pump protection filter, to prevent damage to the internal pump components. This filter does not take the place of a dust collection filter like Conair's DC-1, DC-2, or DC-3 dust collector in a conveying system.

Every vacuum conveying application should be assessed by Conair engineers to apply the appropriate equipment



## Specifications



Model	LDP-5	LDP-7.5	LDP-10	LDP-15	LDP-30
<b>Performance characteristics</b>					
Horsepower {kW}	5.0 {3.7}	7.5 {5.6}	10.0 {7.5}	15.0 {11.2}	30.0 {22.4}
Average sound level (dbA)	82	79	84	84	83
Vacuum inlet size inches {mm}	1.5 {38.1} or 2.0 {50.8}	2.25 {57.1} or 2.5 {63.5}	2.5 {63.5} or 3.0 {76.2}	3.0 {76.2}	4.0 {101.6}
Outlet size inch NPT	1.5	2.0	3	3	4
<b>Dimensions inches {mm}</b>					
A - Length	43.8 {1112.5}	50.2 {1275.0}	51.6 {1310.6}	51.37 {1304.7}	65.0 {1651.0}
B - Width	31.6 {802.6}	32.1 {815.3}	45.2 {1148.08}	46.5 {1181.1}	36.8 {934.7}
C - Height	32.5 {825.5}	38.9 {988.0}	37.06 {941.3}	40.3 {1023.6}	58.3 {1480.8}
<b>Weight lbs {kg}</b>					
Shipping	545.0 {247.2}	875.0 {396.8}	990 {449.0}	1320 {598.7}	2090 {948.0}
<b>Voltage Full load amps *</b>					
230-400V / 3-phase / 50 Hz	6.2	10.2	13.2	19.2	35.9
208-230V / 3-phase / 60 Hz	13.5 / 12.5	19.5 / 18.5	30.5 / 28.5	38.0 / 34.5	N/A
400-690V / 3-phase / 50 Hz	6.2	10.2	13.2	19.2	35.9
460V / 3-phase / 60 Hz	6.2	9.2	14.2	17.2	35.9
575V/3 phase/60 Hz	4.9	7.0	11.4	14.0	27.2
<b>Voltage with VFD Full load amps *</b>					
230-400V / 3-phase / 50 Hz	9.6	13.7	30.2	30.2	47.2
208-230V / 3-phase / 60 Hz	18.1	25.5	44.5	44.5	N/A
400-690V / 3-phase / 50 Hz	9.6	13.7	30.2	30.2	47.2
460V / 3-phase / 60 Hz	9.6	13.7	30.2	30.2	47.2
575V / 3-phase / 60 Hz	7.1	10.2	19.2	19.2	35.2
380V / 3-phase / 60 Hz *	9.6	13.7	30.2	30.2	47.2
<b>Compressed air requirement †</b>					
	80 - 120 psi {5.5 - 8.2 bar} @ 1 - 2 ft³ {28 - 57 liters}				

### Application Notes

All conveying system pump applications should be specified and approved by Conair system engineers for optimal performance. Critical information for correct sizing must include:

- Horizontal material conveying distance
- Vertical material conveying distance
- Number and type of material conveying elbows
- Length of material conveying flex hose
- Length of vacuum line
- Altitude (feet above sea level) of operating location
- Material(s) being conveyed and bulk density(s)
- Total throughputs

### Specification Notes

\* FLA data for reference purposes only. Does not include any options or accessories on equipment. For full FLA detail for power circuit design of specific machines and systems, refer to the electrical diagrams of the equipment order and the nameplate applied to the machine.

\* 380V / 3-phase / 60 Hz is only available with a VFD

† For operation of Idle Mode Valve.

Specifications may change without notice. Consult with a Conair representative for the most current information.