

IDS & IDP Series Dry Screw Vacuum Pump



V A K U U M E X P E R T E N



VACUUM

Industry Application





OIL FREE



VACUUM

Features and Advantages

Oil-free Technology

Zero Pollution

High Ultimate Vacuum

Prepared for Demanding Processes

Maintain High Pumping Speed within a Large Vacuum Range

Compatible with Different Processes

Excellent SER Value ($\text{m}^3/\text{hr}/\text{kW}$)

Maximize Energy Efficiency

Integrated VSD Variable Frequency Drive

Provide the Lowest Energy Consumption Required by the Working Conditions

Standard Flange-Connected Motor

Ease of Maintenance

Configurable Water-Cooled Motor

Reduce Heat Load in the Workspace

Low Rotation Speed (3000/3600 rpm)

Provide High Flow and High Ultimate Vacuum at Low Power within the Working Range

Reduce Environmental Impact

Low Noise, Low Power Consumption, and Reduced Carbon Emissions

Low Life-Cycle Cost

Low Procurement and Maintenance Costs



Core Technology of
Excellent Screw



Variable Frequency
Drive



High-Efficiency
Motor



System
Integration



**High Energy-Saving
Effect up to 60%**



**24/7 Unit
Condition Monitoring**
Improve Productivity and
Mechanical Efficiency



**Visual Equipment
Statistics**
All Units under Control



Timely maintenance
Prolong service life



**Predictive Suggestion
Alert**
Minimize Unplanned Downtime
Reduce Risk of Downtime



**Real-Time Alarm
Notification**



**High Efficiency and
Convenience**



IDS & IDP Dry Screw Vacuum Pumps



Excellent Screw Profile Design and Machining Capability

- Max pumping speed: 1030m³/h
 - Ultimate vacuum: 0.005mbar
 - Mature screw manufacturing experience
- Stable and reliable



Uniquely Designed Composite Seal

- Seal form tailored to the process
- Effectively prevent turbid gas or corrosive process gas in the pump chamber from entering the oil tanks on both sides
- A stable barrier formed by protective gas to block the entry of process gas



More Efficient Cooling Water Channel Design

- Special water jacket design to ensure sufficient heat transfer area
- Reduce internal cavities in the water jacket and effectively discharge internal bubbles





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Package Version Sensors and IIoT

- Nitrogen pipeline equipped with nitrogen flow meter
- Pipeline solenoid valve control
- The position of the pump body temperature monitoring point ensures the accuracy of the measured temperature
- Standard-equipped with built-in IIoT plug-in to real-time monitor pump temperature, cooling water flow, nitrogen flow, etc. The data can be uploaded to the cloud for customers to monitor the actual operation status of the dry screw pump



Package Version Intelligent Control System

- Control system integrated with HMI, with a clear operation interface to intuitively display the pump operation status
- Integrated water cooling for the motor and pump body to reduce overall heat generation
Purge pipeline automatically controlled according to the preset program



Package Version More Compact and Comprehensive Configuration

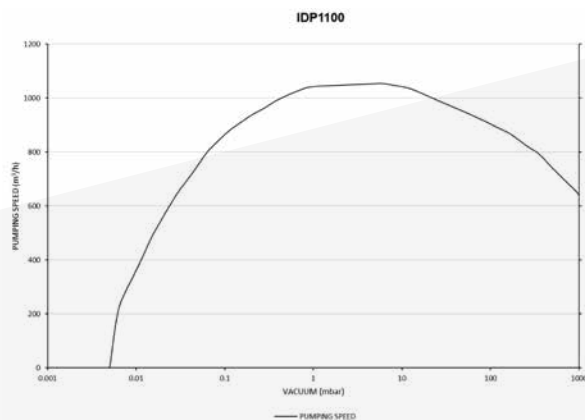
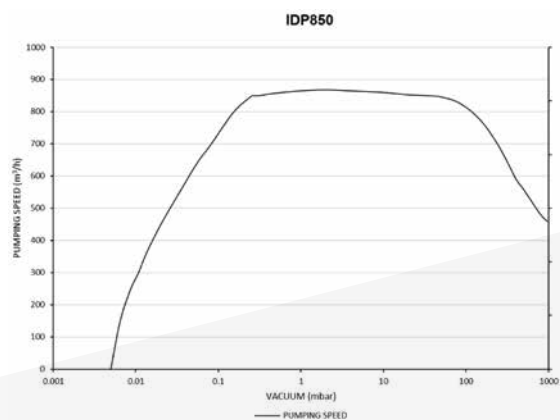
- The noise level can reach 58dB with metal sheet metal
- Standard-equipped with inlet pressure transmitter, temperature transmitter, nitrogen flow meter, and cooling water flow meter to timely feedback the pump operating conditions
- Base feet: fixed feet by default. At the same time, movable feet can be provided for users to choose

Performance Parameters

		IDS850	IDP850	IDS1100	IDP1100
Max. Pumping speed	m ³ /h	810	850	1030	1030
	ft ³ /min	476	500	606	606
Ultimate Vacuum	mbar	0.005	0.005	0.005	0.005
Motor Power	kW	18.5	18.5	18.5	22
Max. Rotation Speed	rpm	3000	3300	3600	3600
Motor Type		Fixed Frequency	Variable Frequency	Variable Frequency	Variable Frequency
Motor Cooling Method		Air Cooling	Water Cooling	Air Cooling / Water Cooling	Water Cooling
Controller		/	PLC, 7" Touch Screen	/	PLC, 7" Touch Screen
Unit Dimensions (L*W*H)	mm	1700 x 650 x 750	1907 x 868 x 787	1700 x 650 x 750	1907 x 868 x 787
Total Weight	kg	909	1055	909	1055
Inlet Interface (Flange)		ISO100	ISO100	ISO100	ISO100
Outlet Interface (Flange)		ISO 65	DN100 PN10 / ISO80	ISO 65	DN100 PN10 / ISO80
Cooling Water Supply Pressure	Barg	/	2-6	/	2-6
Cooling Water Flow	L/min	15-20	15-20	15-20	15-20
Cooling Water Temperature	°C	5-35	5-35	5-35	5-35
Cooling Water Inlet and Outlet Dimensions		G1/2"	Rc 3/4" Female Thread	G1/2"	Rc 3/4" Female Thread
N2 Supply Pressure	Barg	/	3-6	/	3-6
N2 Inlet Dimension		/	Rc 3/8" Female Thread	/	Rc 3/8" Female Thread
Noise (at Ultimate Vacuum, with Exhaust Pipe Led Out)	dB(A)	80±3	60	80±3	61
Temperature	°C	5-46	5-46	5-46	5-46
Exhaust Back Pressure (Maximum Allowed)	mbarg	200	200	200	200

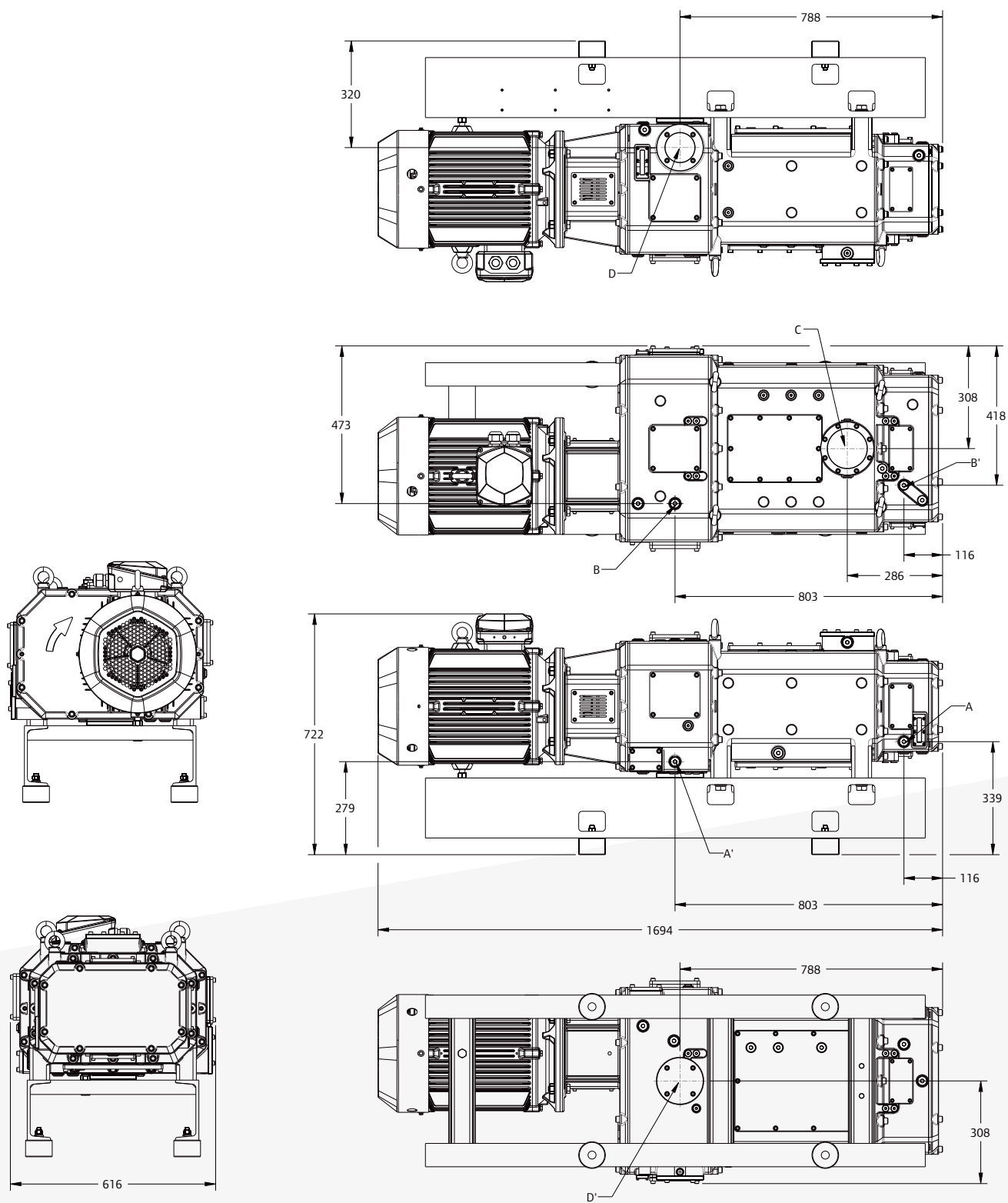
Notes:

1. Measurement Standard: ISO21360 - 2:2012(E)
2. Pumping Speed Measurement Based on ISO21360 - 2:2012(E)
3. Noise Test Standard: ISO2151:2004
4. The Rated Power of the Motor is Based on an Altitude Below 1000 Meters
5. Please Refer to the Basic Assembly Drawings for Details of Dimensions and Pipe Connections



Dimension

IDS 850/1100





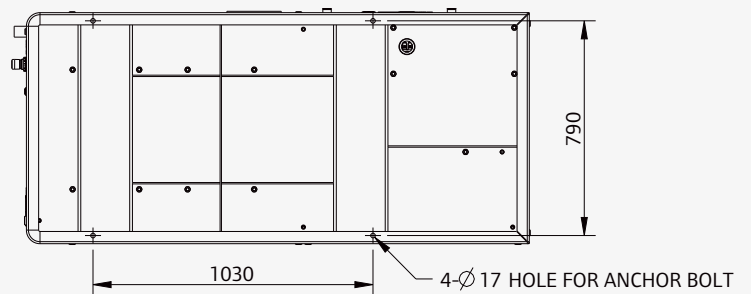
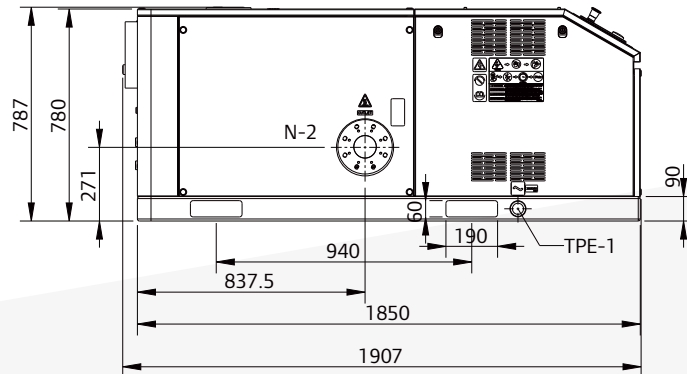
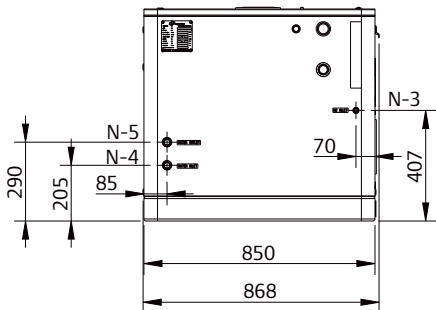
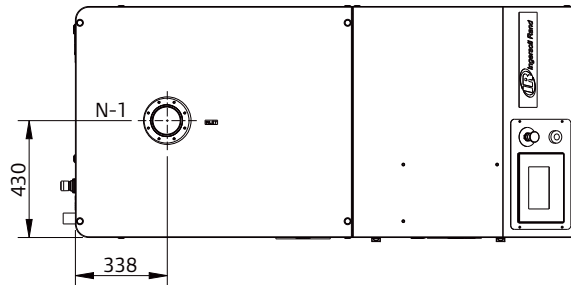
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Dimension

IDP 850/1100





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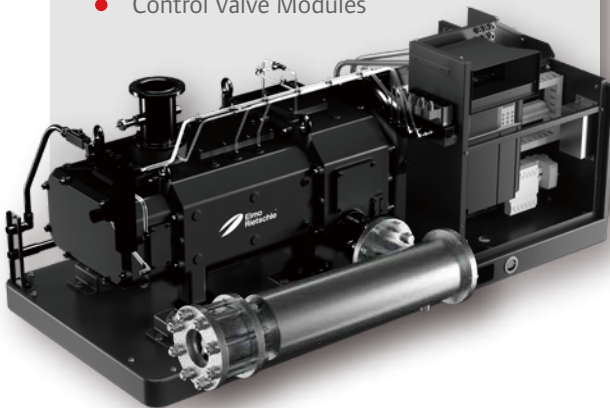


VACUUM

Modular Customization

IDS

- Exhaust Silencer 47854790001
- Exhaust Check Valve 47854789001
- Inlet Switch Butterfly Valve 47854791001
- Inlet Filter 47854792001
- Casters 47854787001
- N₂ Purge Circuit
- Shaft Seal Purge Circuit
- Cooling Water Circuit
- Control Valve Modules



IDP

- Exhaust Silencer 47854790001
- Exhaust Check Valve 47854789001
- Inlet Switch Butterfly Valve 47854791001
- Inlet Filter 47854792001
- Casters 47854787001



After-sales Service

We Keep An Eye on every machine in use

We Pay Great Attention to the user experience of every customer

We Care About the customers return on investment of every plant

Ingersoll Rand provides comprehensive after-sales services, including but not limited to preventative & scheduled maintenance program, genuine parts, onsite inspection, expert maintenance, customer visits and effective professional training, just to make sure that every product runs well at optimal performance for your peace of mind.





G-Series Side Channel



L-Series Liquid Ring



V-Series Rotary Vane



R-Series Roots



C-Series Claw



S-Series Screw



X-Series Syetems

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