hertz
KOMPRESSOREN

IMPETUS

Double Stage Rotary Screw Air Compressor

125-430 HP

IMPETUS SERIES

Hertz Impetus Series two stage screw compressors provide compressed air suitable for your needs with its superior technological equipment, modern design and high energy savings. With the Impetus VSD Series, we can meet your compressed air needs with energy savings up to 65%. It is specially designed to meet all your needs from 125 to 430 HP.

171-2242 cfm

125-430 HP

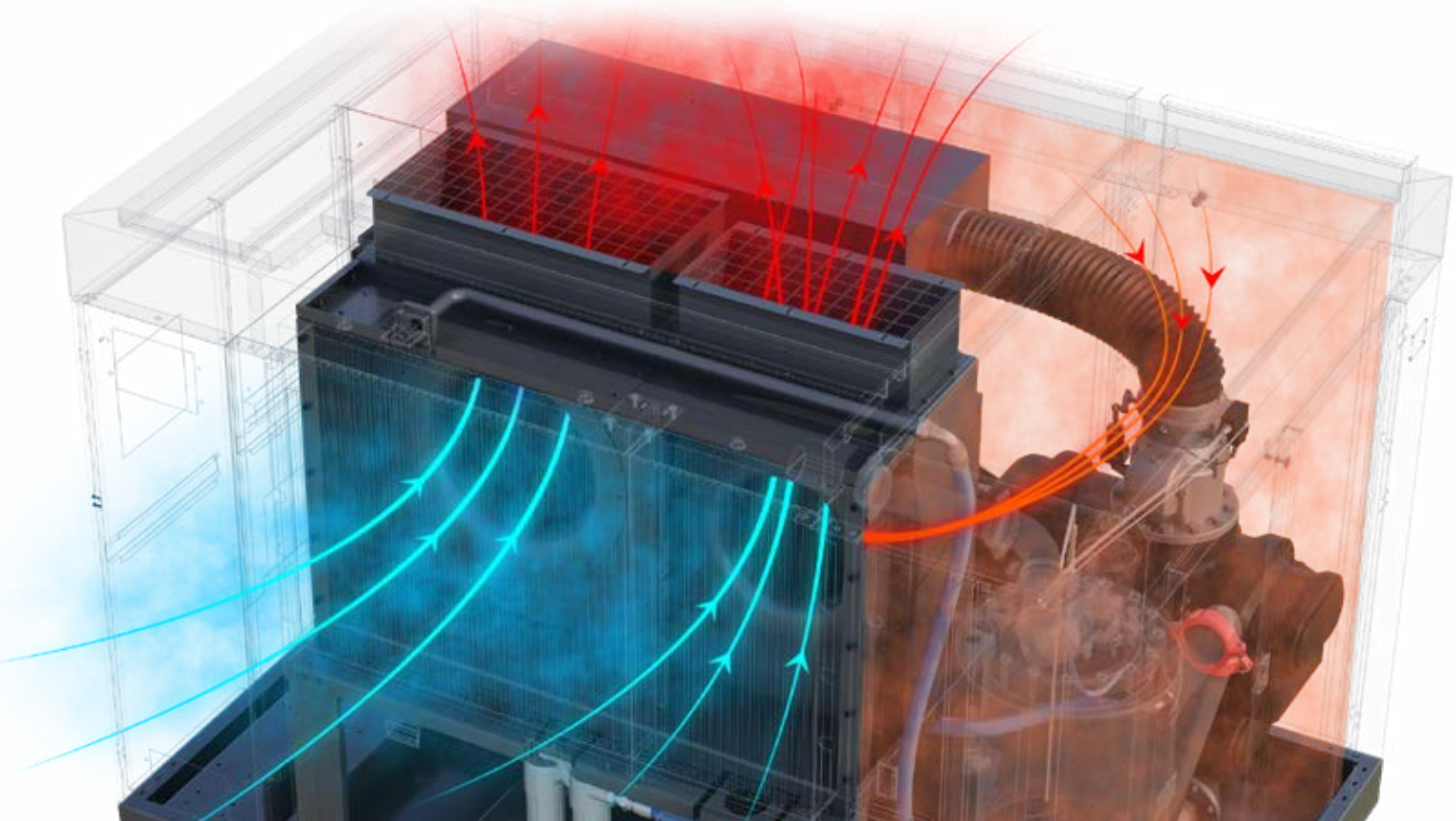
100-125 150-175 psi

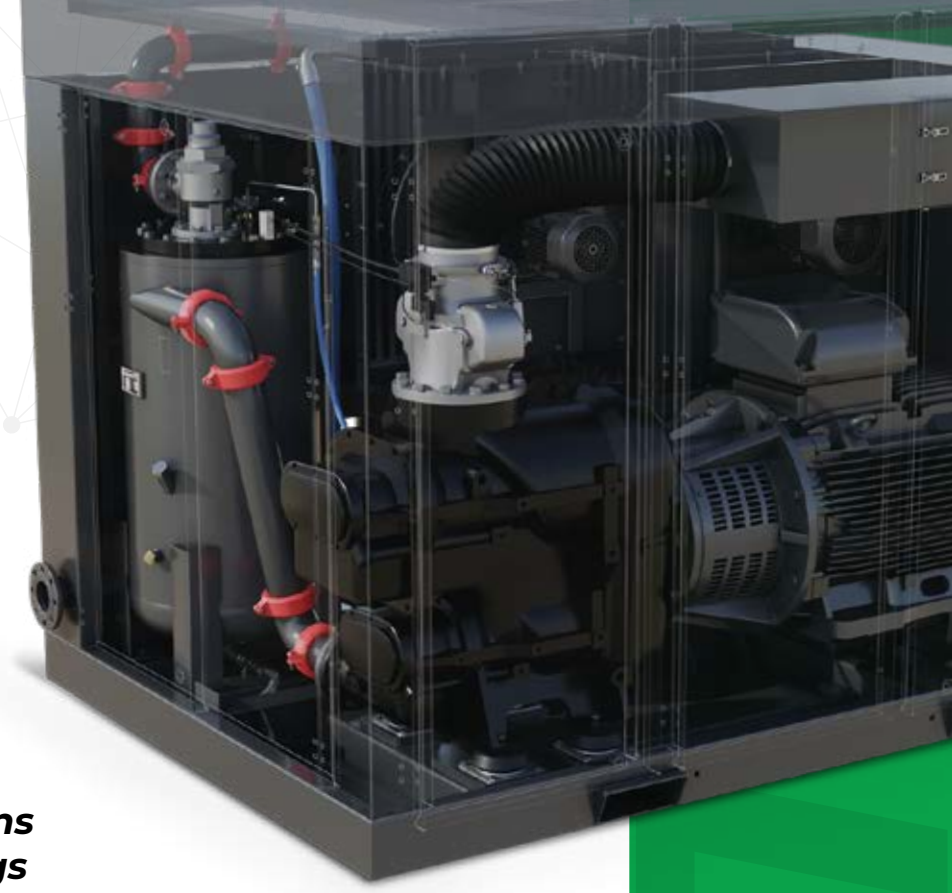
IMPETUS SERIES

Oil Injected, Two-Stage, Direct Coupled, Fixed/Variable Speed

Rotary Screw Compressors

Next gen compact compressors maximize your energy saving, minimize your total cost of own.



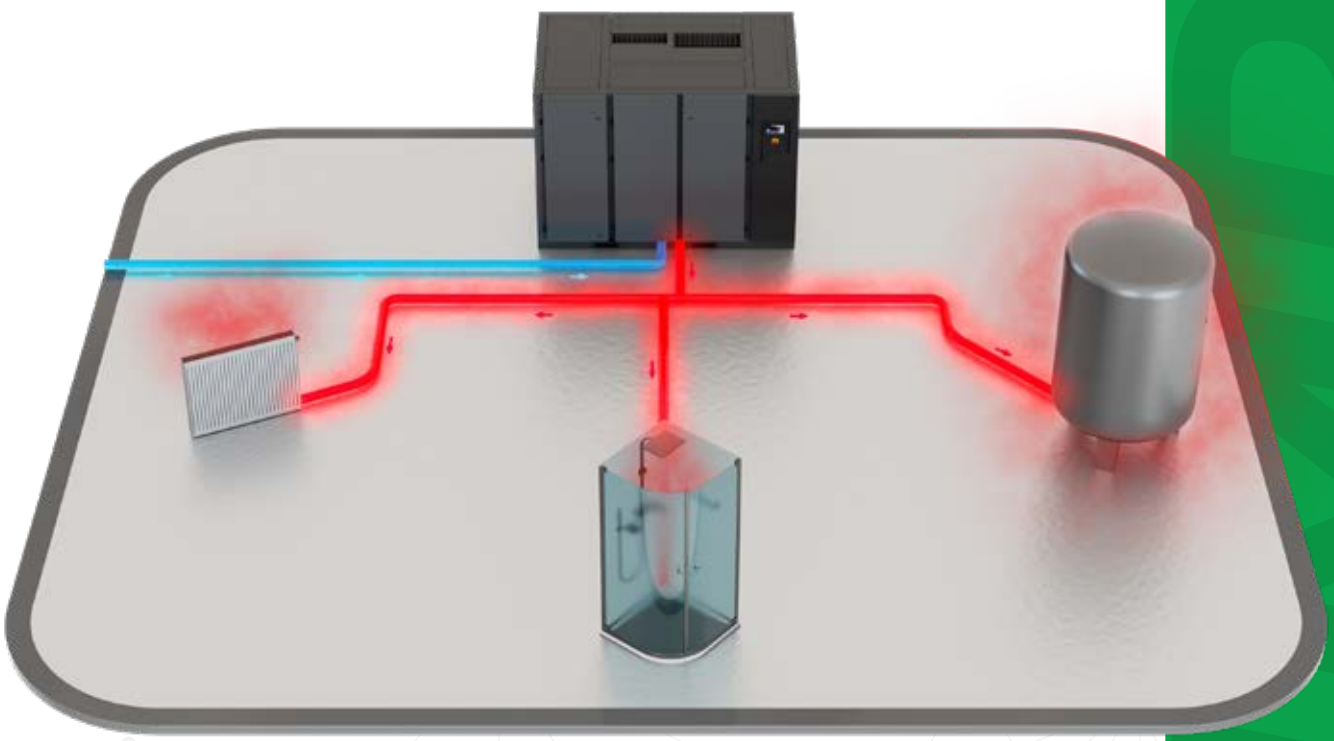


General Features

- IE4 efficiency-class electric motors
- Two-stage screw block
- Variable and fixed speed motor power options
- Water cooling and heat recovery (optional)
- Operating with low noise level

Heat Recovery Options For Even More Savings

- In compressor, a high amount of heat is released during the compression of the air.
- A large amount of heat is recovered with a suitable oil/water exchanger placed at the oil tank outlet of the compressor. The hot water obtained with the heat recovery can be used in many areas in your facilities.
- By directing the hot air coming out of the compressor, a room can be heated when heating is required, or hot air can be given outside with thermostatic control, in accordance with seasonal changes. In this way, savings from the heating system and natural gas are provided.
- 80% of the compressor's total energy consumption can be recovered.

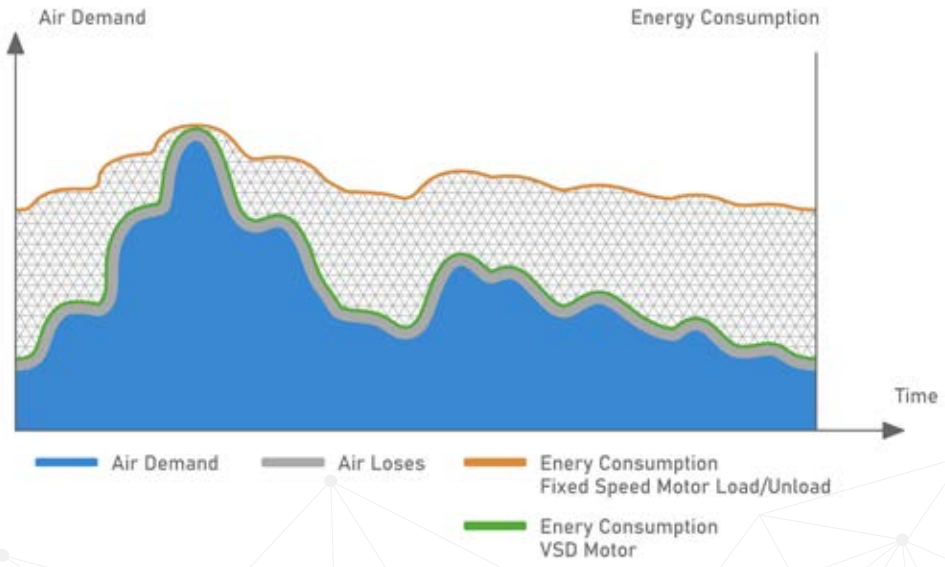


VSD *What is VSD Technology?*

Some of industrial operations, the demand for compressed air is variable.

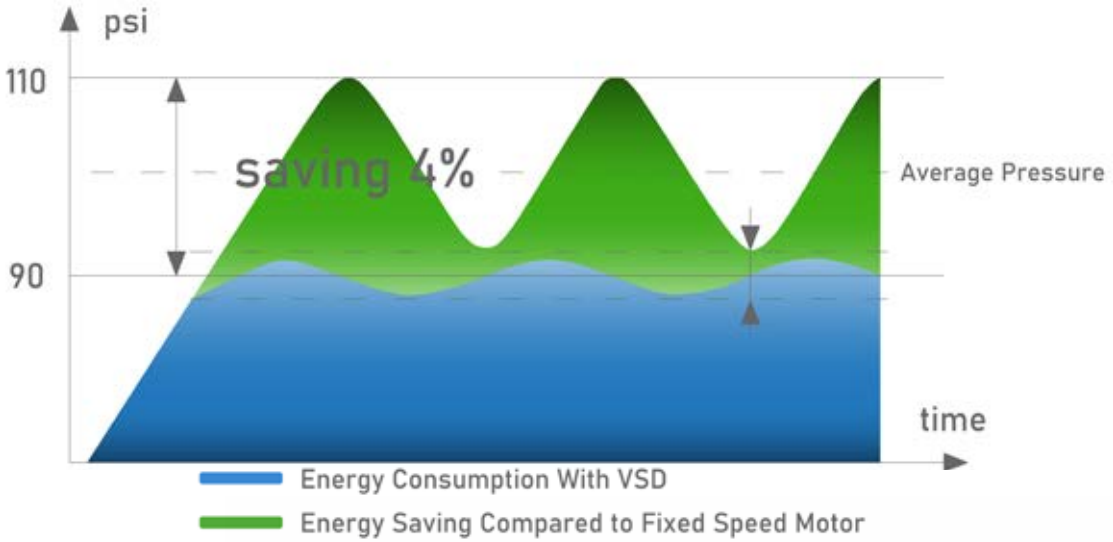
In such conditions our compressors automatically adjust the compressor's operating speed to match air production to demand in real time, saving significant amounts of energy.

A traditional fixed speed air compressor can only operate at full capacity. Fixed speed compressors consume a lot of energy when less air is required and some of the energy is wasted.



Why Hertz VSD?

- Whereas VSD compressor works only according to the amount of need, it reduces the energy cost.
- There is no need to unload, which saves both time and energy.
- Air system pressure is more consistent and also lower, minimizing energy consumption and air leaks.
- Motor and inverter are specially designed to provide maximum efficiency.
- The motors have successfully passed tests performed in the harshest conditions such as high temperature and high pressure.
- Variable speed compressors vibrate less than the other models used in the market.



IMPETUS

IS THE NEW POWER TO MAKE THINGS HAPPEN

Screw Block

- Two-stage screw produces energy efficiency by up to 10%
- Higher flow rate by up to 10% comparing to single stage
- Direct coupled
- Reduced internal losses
- Thanks to low compression rate, low axial and compression forces
- Thanks to low rotor speeds, a long service life
- With two-stage compression near isothermal compression
- Reduced axial and compression forces resulting in longer screw and bearing service life

Electric Motor

- IE4 efficiency-class electric motors
- Motors have B-class temperature increase
- Continuous operating feature

Intake Chamber

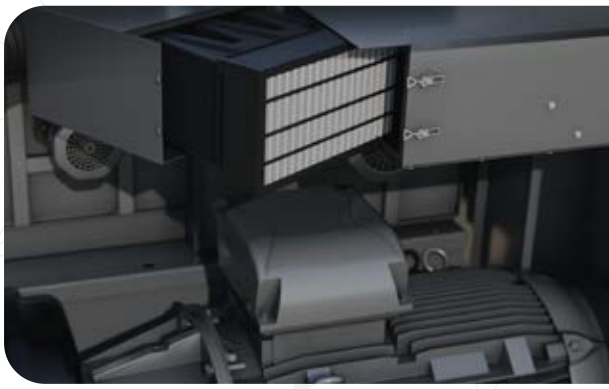
- Intake in cold air directly from the environment contributes to energy efficiency by up to 2%
- High energy efficiency with minimized intake pressure losses
- With improved acoustic designs result in low noise levels

Cooling System

- High cooling efficiency in compact air and oil heat exchangers
- Suitable design for operating up to 113°F
- Low noise level with low speed radial fans
- Energy efficiency with optimum oil temperature thanks to VSD-controlled radial fan

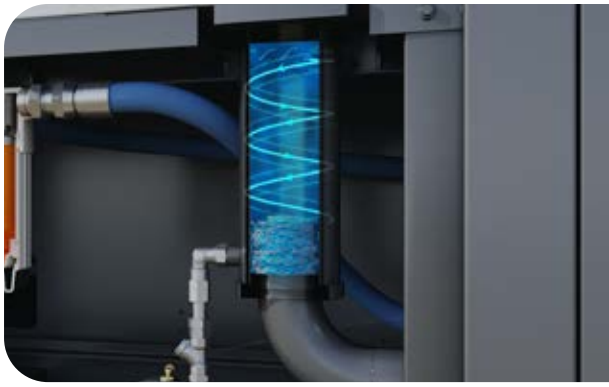
Air Filter

- Protects the screw block by separating particles down to 3 microns
- Intake pressure loss: <2 mbar results in high efficiency throughout the maintenance period
- Easy maintenance
- Long service life



Oil Filter

- Eco-friendly and recyclable oil filter
- Oil filter contains no metal alloys
- Aluminium housing
- Easy maintenance



Water Separator

- Compact, integrated, and unique design
- Reliable initial separation (>% 99)
- High separation efficiency at high humidity and temperature
- Zero loss drain
- High energy efficiency with minimal pressure loss

Oil Separator

- High separation efficiency thanks to larger surface area
- The Sep-n-Sep feature results in at least 30% lower pressure drop
- The oil separator tank and sensitive dual surface air oil separator keep the amount of oil at the compressed air outlet below 3 mg/m³

Maintenance and Service

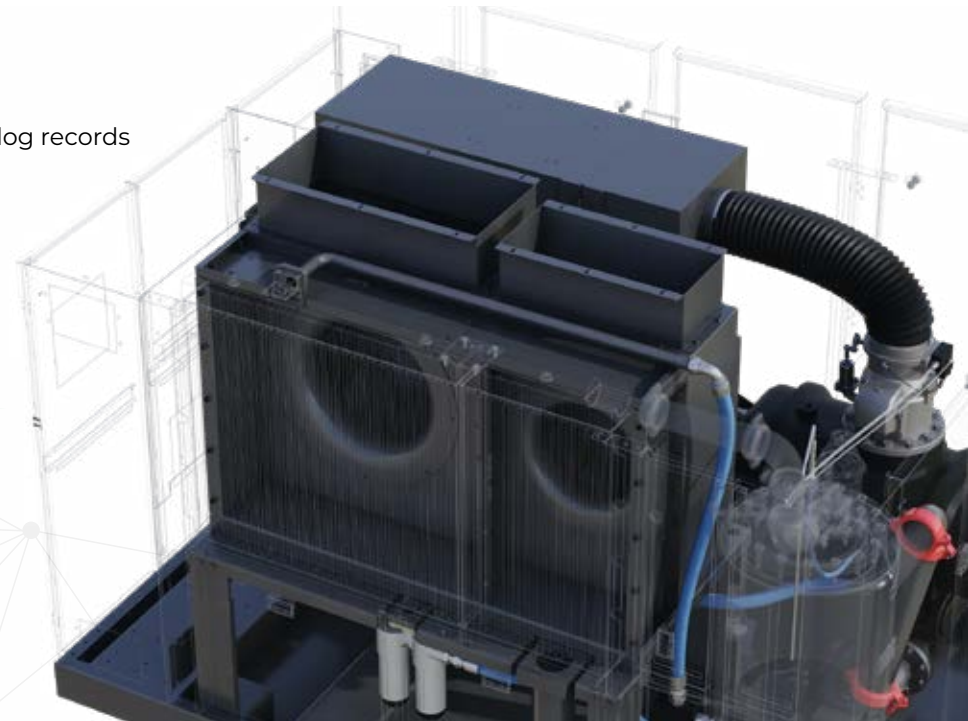
- The compressor's key components are specially designed to make servicing easy.
- Oil filter and air filters can be replaced easily.
- Longer maintenance period due to less force on the bearings
- Low-speed rotors produce less vibration and noise.

Easy Maintenance

Service Friendly

Controller

- Without the need for an external main controller, ability to work synchronized for up to 5 compressors
- Weekly scheduler for starting / stopping the machine at 3 different time intervals can be individually set for each day of the week
- Dual PID feature on inverter-equipped models can run simultaneous PID for temperature and pressure
- Pressure PID on inverter-equipped models ensures energy-efficient operation by maintaining the pressure at the required level
- Temperature PID on inverter-equipped models controls the fan speed to maintain the screw block's most efficient operating temperature
- On inverter-equipped models, all inverter and compressor control data are managed from a single point
- Internal ModBus communication
- User-friendly on-screen interface
- Alarm log records the last 20 alarms
- Periodic maintenance warnings and log records



Certification

- Motor and driver meet the requirements of IEC2 (EN50598) and CE Certificates

60 Hz

Model	Pressure		Capacity*		Motor	Connection	Dimensions (in.)			Weight	Noise
	psi	bar	cfm	m³/min	HP/kW		Length	Width	Height	lbs	dB (A)
IMPETUS 90	100	6,9	631	17,9	125/90	ANSI 2 1/2"	109	71	76	8069	75
	125	8,6	628	17,8							
	150	10,3	497	14,1							
	175	12,1	494	14,0							
IMPETUS 110	100	6,9	790	22,4	150/110	ANSI 2 1/2"	109	71	76	8818	75
	125	8,6	786	22,3							
	150	10,3	628	17,8							
	175	12,1	626	17,7							
IMPETUS 132	100	6,9	946	26,8	180/132	ANSI 3"	116	77	79	9921	75
	125	8,6	937	26,5							
	150	10,3	813	23,0							
	175	12,1	783	22,2							
IMPETUS 160	100	6,9	1106	31,3	220/160	ANSI 3"	116	77	79	11023	76
	125	8,6	1059	30,0							
	150	10,3	957	27,1							
	175	12,1	916	25,9							
IMPETUS 185	100	6,9	1262	35,7	255/185	ANSI 3"	116	77	79	11133	76
	125	8,6	1249	35,4							
	150	10,3	1086	30,8							
	175	12,1	998	28,3							
IMPETUS 200	100	6,9	1606	45,5	270/200	ANSI 4"	138	89	93	13713	78
	125	8,6	1456	41,2							
	150	10,3	1286	36,4							
	175	12,1	1077	30,5							
IMPETUS 250	100	6,9	1823	51,6	340/250	ANSI 4"	138	89	93	20106	79
	125	8,6	1703	48,2							
	150	10,3	1567	44,4							
	175	12,1	1444	40,9							
IMPETUS 315	100	6,9	2242	63,5	430/315	ANSI 4"	138	89	93	20723	80
	125	8,6	2103	59,6							
	150	10,3	1859	52,6							
	175	12,1	1674	47,4							

- Unit performances measured in reference conditions which are 1 bar absolute air pressure, 0% relative humidity, 20°C inlet air temperature, 71°C thermostatic valve set temperature and use of Smartoil.
- Hertz reserves its rights to make changes in its products and specifications without prior notice.

* Refers to free air delivery measured according to ISO 1217:2009, Annex E standard.

CAGI Compressed Air & Gas Institute
www.cagi.org
PERFORMANCE VERIFICATION PROGRAM

60 Hz

Model	Pressure		Capacity*				Motor Power	Connection	Dimensions (in.)			Weight	Noise
			Minimum		Maximum								
	psi	bar	cfm	m³/min	cfm	m³/min	HP/kW		Length	Width	Height	lbs	dB (A)
IMPETUS VSD 90	100	6,9	182	5,2	635	18,0	125/90	ANSI 2 1/2"	109	71	76	8455	75
	125	8,6	186	5,3	601	17,0							
	150	10,3	178	5,0	549	15,5							
	175	12,1	171	4,8	481	13,6							
IMPETUS VSD 110	100	6,9	239	6,8	816	23,1	150/110	ANSI 2 1/2"	109	71	76	9259	75
	125	8,6	238	6,7	752	21,3							
	150	10,3	234	6,6	684	19,4							
	175	12,1	230	6,5	617	17,5							
IMPETUS VSD 132	100	6,9	272	7,7	979	27,7	180/132	ANSI 3"	116	77	79	10307	75
	125	8,6	269	7,6	915	25,9							
	150	10,3	263	7,4	834	23,6							
	175	12,1	263	7,4	756	21,4							
IMPETUS VSD 160	100	6,9	297	8,4	1185	33,6	220/160	ANSI 3"	116	77	79	11685	76
	125	8,6	294	8,3	1090	30,9							
	150	10,3	288	8,2	981	27,8							
	175	12,1	288	8,2	842	23,8							
IMPETUS VSD 185	100	6,9	297	8,4	1339	37,9	255/185	ANSI 3"	116	77	79	11130	76
	125	8,6	294	8,3	1228	34,8							
	150	10,3	288	8,2	1188	33,6							
	175	12,1	286	8,1	961	27,2							
IMPETUS VSD 200	100	6,9	410	11,6	1516	42,9	270/200	ANSI 4"	138	89	93	14440	78
	125	8,6	403	11,4	1404	39,8							
	150	10,3	406	11,5	1272	36,0							
	175	12,1	404	11,4	1163	32,9							
IMPETUS VSD 250	100	6,9	604	17,1	1845	52,3	340/250	ANSI 4"	138	89	93	20723	79
	125	8,6	593	16,8	1698	48,1							
	150	10,3	590	16,7	1559	44,2							
	175	12,1	581	16,5	1366	38,7							
IMPETUS VSD 315	100	6,9	591	16,7	2203	62,4	430/315	ANSI 4"	138	89	93	21341	80
	125	8,6	588	16,7	2067	58,5							
	150	10,3	577	16,3	1908	54,0							
	175	12,1	577	16,3	1640	46,4							

- Unit performances measured in reference conditions which are 1 bar absolute air pressure, 0% relative humidity, 20°C inlet air temperature, 71°C thermostatic valve set temperature and use of Smartoil.
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