HEAVY INDUSTRIAL SERIES

SINGLE STAGE

DCT 75-315 kW
ROTARY SCREW COMPRESSORS

venti
COMPRESSORS

DCT:

Fixed speed, single-stage rotary screw compressors with direct transmission.

DCT - VSD:

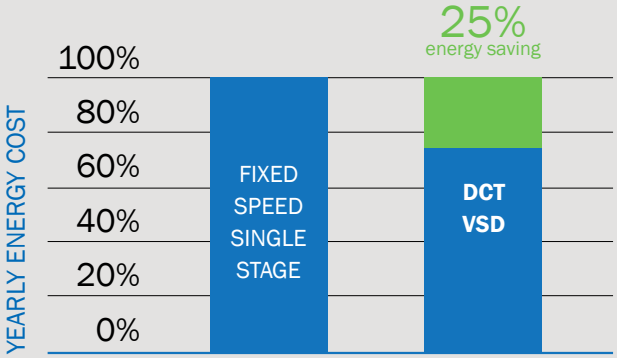
Variable speed, single-stage rotary screw compressors with direct transmission.

The DCT and DCT - VSD series of compressors offer energy efficiency and reliability for industrial use.

ADVANTAGES

Venti's DCT - VSD models with permanent magnetic variable speed motor guarentee an excellent ratio of energy costs and air flow rates.

The direct drive fixed speed DCT models are equipped with IE3 motors offering additional energy savings.



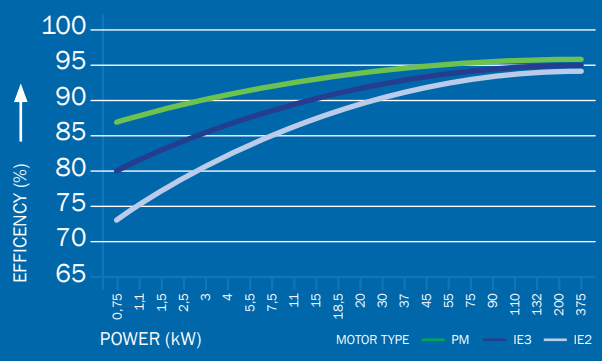
SINGLE STAGE ROTARY SCREW COMPRESSOR

The airend featured in the DCT range is engineered for efficiency and durability. The optimised rotor profile, designed with cutting-edge fluid dynamics, minimises pressure drops within the system. This reduces energy consumption by 8%, delivering better power output. Additionally, the low rotation speeds extend the service life of the bearings, ensuring long-term reliability and performance.

SINGLE STAGE COMPRESSOR

The use of a low-speed motor (4/6 poles in the fixed-speed version) combined with appropriately sized rotary screws (max 1400rpm) ensures extended bearing life.

The variable speed model features a permanent magnet motor.



BENEFITS OF SPEED CONTROL

Speed control allows for precise detection of working pressure and motor speed, ensuring the optimal flow rate based on actual air demand, which results in significant energy savings.

Electronic Controller
The user-friendly KTronic 1000 touch screen panel provides full access to all functions, parameter settings, and diagnostics, helping to boost the compressor's efficiency.

REMOTE CONTROL & CONNECTIVITY AT YOUR FINGERTIPS

The KTronic 1000 can connect to a local area network (LAN), enabling you to monitor and manage the compressor from a remote PC or mobile device.

ENERGY SAVINGS: VSD VS FIXED SPEED UNIT (LOAD-UNLOAD) COMPARISON

Venti's Heavy Industrial Series of VSD compressors delivers exceptional flexibility and efficiency in responding to variations in air demand.

Compared to traditional load/unload (on/off) compressors, variable speed units offer greater flexibility, reduced energy consumption, and less mechanical stress.

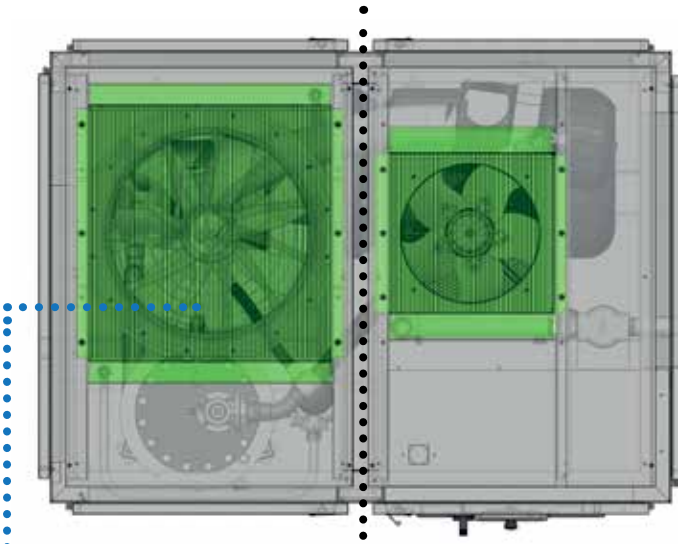
They meet the required air demand by continuously adjusting the electric motor's speed through an inverter. VSD units can also enter standby mode when the inverter reaches its lowest rotation speed.

An electronic controller constantly monitors real airflow and pressure values to ensure the pre-set targets are met.

COOLING SYSTEM

The Variable Speed Drive (VSD) range is designed and sized to operate at a 100% duty cycle, even under the most demanding conditions, while maintaining energy efficiency through an inverter-controlled fan for the oil cooler.

All components are fully enclosed and protected from contamination, and the air cooling system is engineered to function in ambient temperatures up to 50°C.



OIL COOLER FAN

AIR COOLER FAN

Enhanced Fluid Temperature Control

The cooling system features separate, individually managed coolers for air-to-air and air-to-oil systems, ensuring precise temperature regulation.

DCT-VSD Technology

The oil cooler fan uses inverter control to dynamically manage fluid temperature. This ensures optimal oil temperature, delivering significant benefits to the oil circuit while enhancing energy efficiency.

Additionally, the independent air cooler management optimises the air temperature at the compressor outlet, preventing condensation and minimising the risk of humidity-related damage. This also reduces the operational load on downstream dryers, further improving efficiency.

Together, these advanced features deliver substantial energy savings across the entire system.

ORIGINAL SPARE PARTS

Choose genuine spare parts to ensure optimal performance, reliability, and a longer lifespan for your Venti compressor.

WATER-OIL HEAT EXCHANGERS

HOT WATER AT NO COST

Water-oil heat exhangers are designed to capture and reuse the excess heat generated by your compressed air system during the air compression process.

Air compressors, especially larger industrial models, can produce significant heat as a byproduct of compressing air, and without a heat recovery system, this energy is typically wasted.

By capturing the waste heat from your compressed air system and redirecting it to other areas of your business, a water-oil heat exchanger can help offset energy consumption in these areas.

This could include heating water or air on site, channelling the heat into other areas of your production process, using it as part of the heating of your business space or for hot air blasts.

Save up to

85% for usable heating

By installing a water-oil heat exchanger, you could save up to 85 percent of the heat generated by your compressed air system.

Hot water up to

70°C

A heat exchanger system allows you to produce hot water up to 70°C from reusable compressor heat.

Innovative solutions to save money and support the environment.

HEAVY DUTY INDUSTRIAL SERIES

CODE	MODEL	POWER	PRESSURE	AIR FLOW	OUTLET	NOISE L.	DIMENSIONS	WEIGHT
		kW	bar	m³/min	DN	dB[A]	L x W x H (mm)	kg
136141303	DCT-75	75	8	12.7	G2"	74	2095x1523x1956	2150
136142303			10	11.1				
136143303			13	9.5				
136151303	DCT-90	90	8	15.8	DN80	76	2500x1600x1700	2900
136152303			10	12.9				
136153303			13	11.6				
136221303	DCT-110	110	8	19.1	DN80	76	2980x1850x2020	3200
136222303			10	15.3				
136223303			13	13.3				
136231303	DCT-132	132	8	21.8	DN100	78	2980x1850x2020	3600
136232303			10	18.8				
136233303			13	15.5				
136251303	DCT-160	160	8	25.7	DN100	78	3280x1880x2120	3900
136252303			10	24.2				
136253303			13	20.3				
136271303	DCT-200	200	8	31.3	DN100	78	3450x2000x2150	5000
136272303			10	29.1				
136273303			13	22.8				
136241303	DCT-250	250	8	41.2	DN125	78	4000x2150x2250	7000
136242303			10	37.2				
136243303			13	31.5				
136301303	DCT-315	315	8	52.1	DN125	78	4000x2150x2250	7600
136302303			10	47.0				
136303303			13	38.3				

DCT:

- Direct drive
- Single stage
- Fixed speed
- IE3 asynchronous motor

1. The above technical parameters are based on ISO1217, suction temperature 20°C, relative humidity 60% and the ambient pressure 1013 mbar.
2. Different voltages are available upon request. The above water-cooled units are also available. Please email the sales team at info@venticompressors.com.au for more information.
3. Venti holds the right to modify the mechanical layout and the technical specifications.
4. All noise levels are intended in ducted conditions.

HEAVY DUTY INDUSTRIAL VSD SERIES

CODE	MODEL	POWER	PRESSURE	AIR FLOW	OUTLET	NOISE L.	DIMENSIONS	WEIGHT
		kW	bar	m³/min	DN	dB[A]	L x W x H (mm)	kg
135141302	DCT-75 VSD	75	8	3.60 ÷ 12.3	G2"	74	2095x1523x1956	2200
135142302			10	3.90 ÷ 11.2				
135143302			13	3.80 ÷ 9.10				
135151301	DCT-90 VSD	90	8	5.25 ÷ 16.10	DN80	76	2500x1600x1700	3000
135152301			10	4.16 ÷ 13.50				
135153301			13	4.06 ÷ 12.00				
135221301	DCT-110 VSD	110	8	6.47 ÷ 19.30	DN80	76	2980x1850x2020	3200
135222301			10	5.14 ÷ 15.70				
135223301			13	5.07 ÷ 13.80				
135231301	DCT-132 VSD	132	8	7.49 ÷ 22.40	DN100	78	2980x1850x2020	3600
135232301			10	6.40 ÷ 19.50				
135233301			13	5.07 ÷ 16.10				
135251301	DCT-160 VSD	160	8	9.06 ÷ 25.90	DN100	78	3280x1880x2120	3900
135252301			10	8.40 ÷ 24.00				
135253301			13	7.21 ÷ 20.90				
135271301	DCT-200 VSD	200	8	11.20 ÷ 32.12	DN100	78	3450x2000x2150	4900
135272301			10	10.30 ÷ 29.50				
135273301			13	8.15 ÷ 23.31				
135241301	DCT-250 VSD	250	8	14.60 ÷ 41.80	DN125	78	4000x2150x2250	7000
135242301			10	13.20 ÷ 37.70				
135243301			13	13.40 ÷ 32.50				
135301301	DCT-315 VSD	315	8	18.30 ÷ 52.30	DN125	78	4000x2150x2250	7800
135302301			10	16.50 ÷ 47.10				
135301301			13	13.80 ÷ 39.30				

DCT VSD:

- Direct drive
- Single stage
- Variable speed
- Permanent magnet motor on request

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