

# HEAVY INDUSTRIAL SERIES

TWO-STAGE

DCT 2S 55-355 kW  
ROTARY SCREW COMPRESSORS



**venti**  
COMPRESSORS

## DCT - 2S:

Two-stage rotary screw compressors fix speed.

## DCT - 2S - VSD:

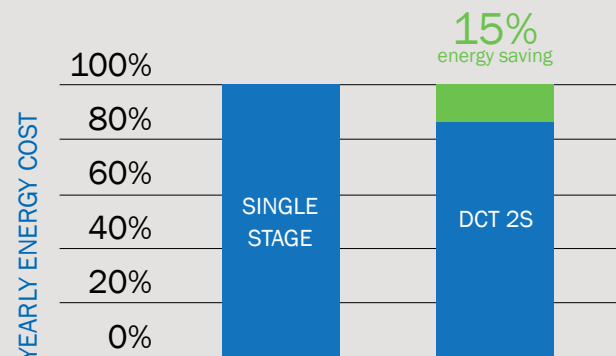
Two-stage rotary screw compressors with Variable Speed Drive.



The DCT - 2S - VSD series of compressors offer unmatched energy efficiency and reliability.

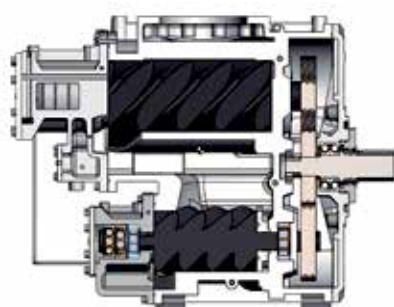
## ADVANTAGES

Venti's two-stage screw units offer up to 15% energy savings compared to single-stage screw units.



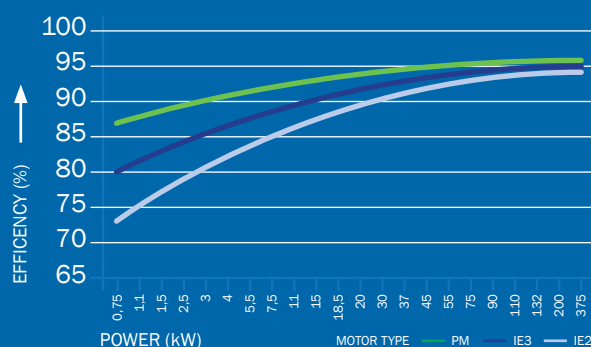
## TWO STAGE ROTARY SCREW COMPRESSOR

- Increased air output
- Better power efficiency (kW/m<sup>3</sup>/min)
- Lower oil temperature between the first and second stages enhances the efficiency of the screw unit
- Low rotation speed allows for long bearing life.



The use of a low-speed motor (4/6 poles in the fixed-speed version) combined with appropriately sized rotary screws (max 1500 rpm) 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.



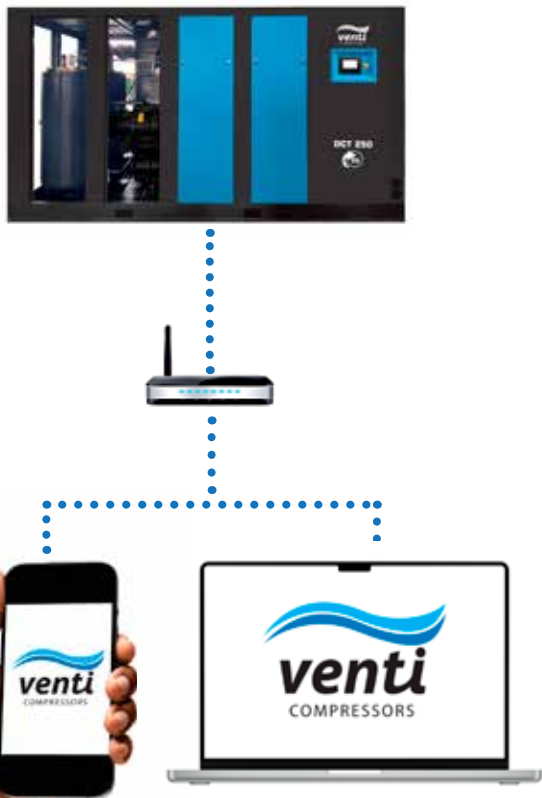
## Electronic Controller

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.

## ENERGY SAVING CALCULATION

The table below outlines the average energy savings of a VSD compared to a fixed speed unit, based on an average load of 70%, equivalent to approximately 4,000 hours at a cost of \$0.30 per kW.

Power kW	55	75	90	110
Energy saving \$/year	\$16,000	\$22,000	\$24,000	\$30,000

Possible energy saving cost.  
Energy wasted during unloading + energy wasted during loading.

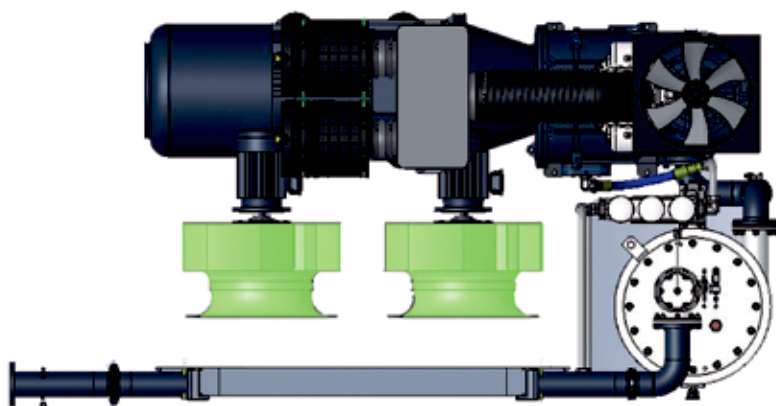


## COOLING SYSTEM

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.

A water cooling system is also available upon request.



## EASY MAINTENANCE

The compressor's easily removable external panels allow for convenient access to components requiring routine maintenance.

The air-oil separator cartridge can also be quickly replaced by simply rotating the tank lid, without the need for disassembly.

## 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 exchangers 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	m <sup>3</sup> /min	DN	dB[A]	L x W x H (mm)	kg
133131301	DCT-2S-55	55	8	12	DN50	74	2500x1600x1700	2100
133132301			10	10.1				
133133301			13	8.8				
133141301	DCT-2S-75	75	8	15.1	DN50	74	2500x1600x1700	2300
133142301			10	12.3				
133143301			13	10.6				
133151301	DCT-2S-90	90	8	20.1	DN80	76	2980x1850x2020	3500
133152301			10	17.8				
133153301			13	14.5				
133221301	DCT-2S-110	110	8	23.7	DN80	76	2980x1850x2020	3600
133222301			10	20				
133223301			13	17.5				
133231301	DCT-2S-132	132	8	28.2	DN100	78	3280x1880x2120	4600
133232301			10	23.6				
133233301			13	19.7				
133251301	DCT-2S-160	160	8	32.8	DN100	78	3280x1880x2120	4650
133252301			10	28.6				
133253301			13	25.6				
133271301	DCT-2S-200	200	8	42.5	DN100	78	3450x2000x2150	5200
133272301			10	38.5				
133273301			13	33.3				
133281301	DCT-2S-220	220	8	47.8	DN125	78	4000x2150x2250	7350
133282301			10	42.9				
133283301			13	32.6				
133241301	DCT-2S-250	250	8	54.3	DN125	78	4000x2150x2250	7800
133242301			10	46.2				
133243301			13	40.5				
133301301	DCT-2S-315	315	8	64.2	DN125	78	4500x2150x2250	8400
133302301			10	56.1				
133303301			13	47.3				
133311301	DCT-2S-355	355	8	74.2	DN125	78	4500x2150x2250	9400
133312301			10	63.3				
133313301			13	52.2				

## DCT 2S:

- Direct drive
- Double 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](mailto: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	m <sup>3</sup> /min	DN	dB[A]	L x W x H (mm)	kg
134131301	DCT-2S-55 VSD	55	8	4.8 ÷ 12	DN50	74	2500x1600x1700	2150
134132301			10	4 ÷ 10.1				
134133301			13	3.5 ÷ 8.8				
134141301	DCT-2S-75 VSD	75	8	6 ÷ 15.1	DN50	74	2500x1600x1700	2350
134142301			10	4.9 ÷ 12.3				
134143301			13	4.2 ÷ 11.2				
134151301	DCT-2S-90 VSD	90	8	8 ÷ 20.1	DN80	76	2980x1850x2020	3600
134152301			10	7.1 ÷ 17.8				
134153301			13	5.8 ÷ 14.5				
134221301	DCT-2S-110 VSD	110	8	9.5 ÷ 23.7	DN80	76	2980x1850x2020	3650
134222301			10	8 ÷ 20				
134223301			13	7 ÷ 17.5				
134231301	DCT-2S-132 VSD	132	8	11.3 ÷ 28.2	DN100	78	3280x1880x2120	4450
134232301			10	9.4 ÷ 23.6				
134233301			13	7.9 ÷ 19.7				
134251301	DCT-2S-160 VSD	160	8	13.1 ÷ 32.8	DN100	78	3280x1880x2120	4500
134252301			10	11.4 ÷ 28.6				
134253301			13	10.2 ÷ 25.6				
134271301	DCT-2S-200 VSD	200	8	14.5 ÷ 42.5	DN100	78	3450x2000x2150	5100
134272301			10	13.5 ÷ 38.5				
134273301			13	13.3 ÷ 33.3				
134281301	DCT-2S-220 VSD	220	8	19.1 ÷ 47.8	DN125	78	4000x2150x2250	7300
134282301			10	17.2 ÷ 42.9				
134283301			13	13 ÷ 32.6				
134241301	DCT-2S-250 VSD	250	8	21.7 ÷ 54.3	DN125	78	4000x2150x2250	7700
134242301			10	18.5 ÷ 46.2				
134243301			13	16.2 ÷ 40.5				
134301302	DCT-2S-315 VSD	315	8	25.7 ÷ 64.2	DN125	78	4500x2150x2250	8350
134302302			10	22.4 ÷ 56.1				
134303302			13	18.9 ÷ 47.3				
134311302	DCT-2S-355 VSD	355	8	29.7 ÷ 74.2	DN125	78	4500x2150x2250	9450
134312302			10	25.3 ÷ 63.3				
134313302			13	20.9 ÷ 52.2				

## DCT 2S VSD:

- Direct drive
- Double stage
- Variable speed
- Permanent magnet motor

1. The above technical parameters are based on ISO1217, suction temperature 20°C, relative humidity 60% and the ambient pressure 1013 mbar.
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