

HEAVY INDUSTRIAL SERIES

SINGLE STAGE

Air technology system.

**DCT 50-420 hp
ROTARY SCREW COMPRESSORS**



DCT:

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

DCT - VSD:

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



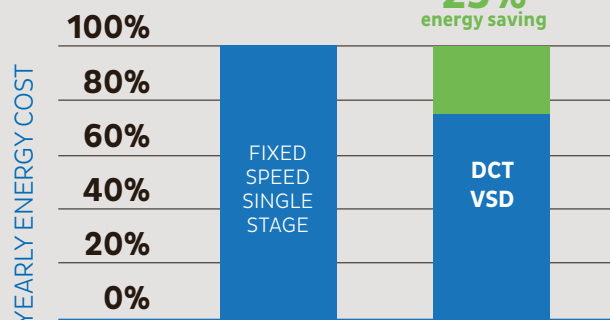
The DCT and DCT - VSD series lubricated screw compressors are particularly indicated for generating industrial use compressed air. In case of continuous and constant air demand the compressed air needs are perfectly satisfied with DCT Fix Speed. In case of non-continuous needs and several daily fluctuations of air demand DCT - VSD is the most suitable solution.

ADVANTAGES

DCT - VSD version with **Permanent Magnet Variable Speed Motor (PM)** guarantees an excellent ratio of energy costs and air flow rates. It is also capable of an unlimited operating pressure adjustment. The direct drive fixed speed DCT models are equipped with IE3 motors offering an additional contribution to energy saving.



25%
energy saving

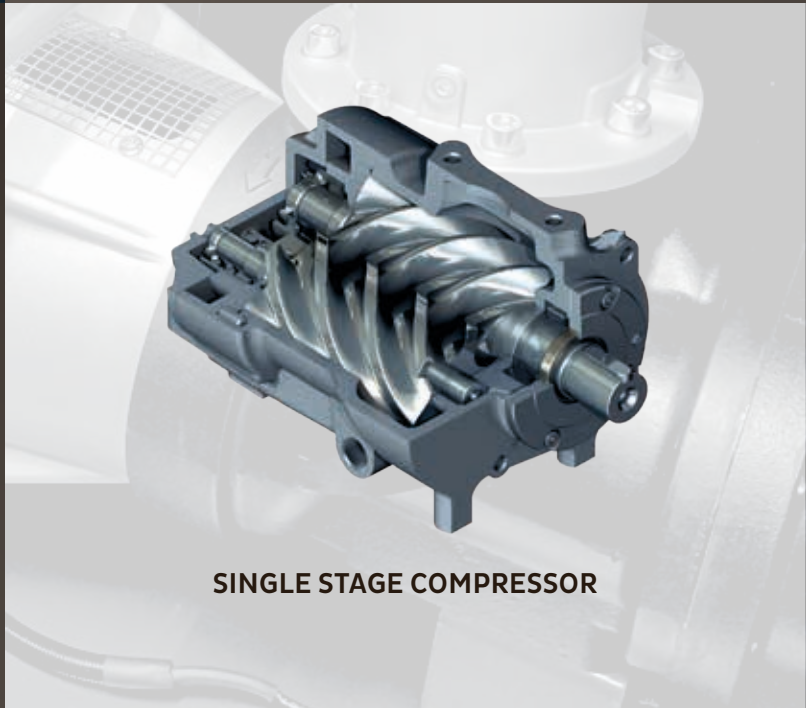
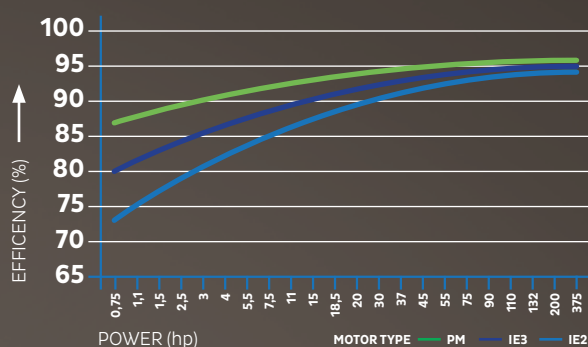


SINGLE STAGE ROTARY SCREW COMPRESSOR

Low rotation speeds allow longer bearings service life. OUR AIR-END Installed on the **DCT** range has an optimized rotor's profile from the fluid dynamics point of view. By optimizing the internal circuit, the pressure drops have been further reduced thus obtaining a 8% less energy consumption improving the specific power output.

The selection of low rotation speed motor (4/6 poles in the fixed speed version) and properly sized rotary screws (max 1400 rpm) ensures the bearings a long life.

The variable speed version is equipped with Permanent Magnet Motor.



SINGLE STAGE COMPRESSOR

BENEFITS OF SPEED CONTROL

The high precision detection of the working pressure and the motor speed control guarantee the perfect flow rate according to the real air demand, with considerable energy savings.



Electronic Controller

The intuitive KTronic 1000 touch screen panel permits full access to the functions, parameter control and diagnostics of the unit, increasing the efficiency of the compressor.



INDUSTRY 4.0 REMOTE CONTROL & CONNECTIVITY ALWAYS WITH YOU!

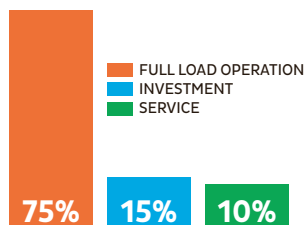
The KTronic 1000 can be connected to a LAN allowing the compressor to be monitored and managed from a remote PC or a SMARTPHONE..



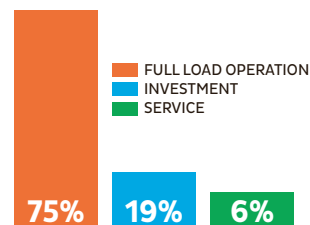
ENERGY SAVING COMPARISON BETWEEN A VSD AND A FIXED SPEED UNIT (LOAD-UNLOAD) UNIT

The VSD unit allows the compressor to be very flexible and efficient in responding to changes in air demand. The required air demand is fulfilled through the inverter that constantly adjusts the speed of the electric motor. The real air flow and pressure values are constantly monitored through the electronic controller to guarantee the attainment of the pre-set values. The variable speed units guarantees more flexibility, lower energy consumption and less mechanical stress compared to the load/unload (on/off) version. The VSD unit setting can force the standby mode when the inverter has reached the lowest rotation speed.

FIX SPEED ROTARY SCREW
COMPRESSOR TO 75% AT
FULL LOAD.



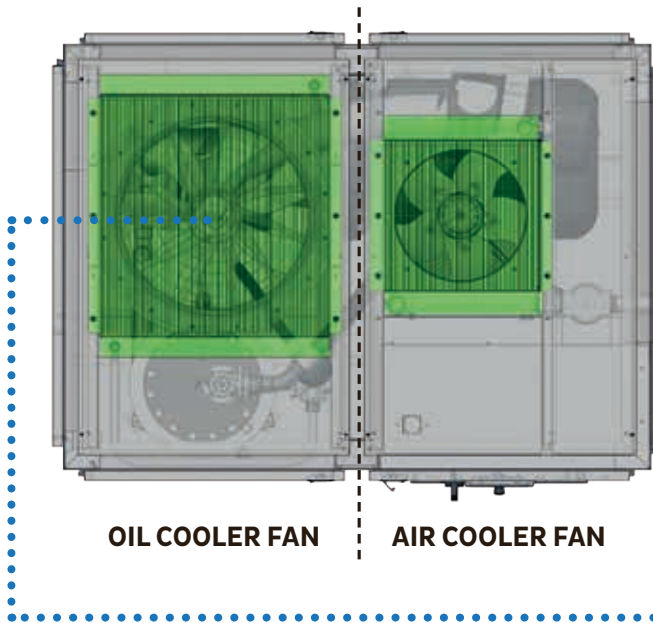
VARIABLE SPEED ROTARY SCREW
COMPRESSOR TO 75% AT
FULL LOAD.



COOLING SYSTEM

The Variable Speed Drive (VSD) range has been developed and sized to work at 100% duty cycle even in the most severe conditions, respecting the energy saving concept due to an inverter controlled fan of the oil cooler.

All the components are fully enclosed and protected from contamination. The air cooling system has been sized to work at up to 125° F ambient temperature.



Improved fluids temperature control

The coolers are separate and managed individually:

air / air and air / oil

DCT - VSD: The oil cooler fan is inverter controlled and is dynamically managing the temperature of the fluid. In this way, the oil temperature is controlled perfectly with relevant benefits in the oil circuit, and improving the energy savings as well. In addition, the separate air cooler management allows to optimize the air temperature at the compressors outlet thus avoiding condense formation and eliminating the damages caused by humidity. As consequence the dryer installed after the compressor will have also benefits on the lower operating load.

All these features allow energy savings for all the system.



EXTENDED WARRANTY

Choose our SMART60 package to extend your warranty period up to 5 years!

This is strongly suitable for where compressed air is an important part of your Company's processes.

Our specific scheduled maintenance program - with dedicated spare parts kit- will ensure the best compressor performances and reliability.



ORIGINAL KTC SPAREPARTS

All external panels of the compressor are easily removable allowing easy access to all the components requiring routine maintenance.

Choose only KTC's original spare parts to get the best performances for your compressor!



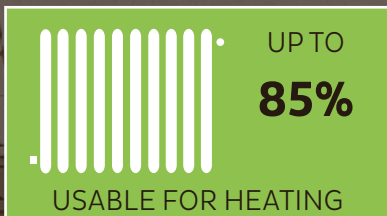
WATER-OIL HEAT EXCHANGERS

Hot water at no cost

Hot water up to 160°F for industrial use, sanitary use or for heating can be obtained by recovering the heat from the oil allowing savings of approximately 85% of the generated thermal energy.

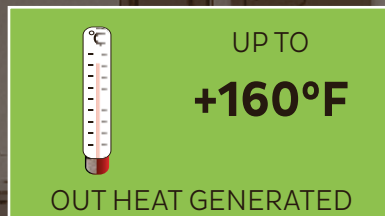
"Thanks to the heat exchanger, combined with the thermostatic valve and the complete circuit of dedicated pipes can be further lowered the costs of generating compressed air!"

HEAT RECOVERY AN ALL-ROUND WIN



A huge portion of the electrical drive energy of the electric motor is converted into heat. Thanks to our solution up to 85% of this energy is now available to be used. USE THE POTENTIAL TO YOUR ADVANTAGE!

PROCESS, HEATING AND SANITARY USE



Hot Water up to 160°F can be produced from reusable compressor heat via heat exchanger systems. Higher water temperature can be reached with a special device upon request.



Technology and Eco-Sustainability is our Philosophy



Innovative solution to save money and supporting the environment



industrial series

TECHNICAL SPECIFICATIONS OF DCT SERIES SINGLE STAGE COMPRESSOR UNIT

Code	Model	Power	Pressure	Air flow (ISO1217)	Outlet dimension	Noise L.	Dimensions	Weight
EAN								
		hp	psi	cfm	DN	dB[A]	L x W x H (in)	Lbs
136141303	DCT-75	100	116	479	G2"	74	82.4 x 59.9 x 77.0	4740
136142303			145	419				
136143303			190	358				
136151303	DCT-90	125	116	597	G2"	76	82.4 x 59.9 x 77.0	5393
136152303			145	488				
136153303			190	439				
136221303	DCT-110	150	116	722	DN80	76	117.4 x 72.9 x 79.5	7054
136222303			145	578				
136223303			190	503				
136231303	DCT-132	180	116	843	DN100	78	129.2 x 74.0 x 83.5	7939
136232303			145	725				
136233303			190	595				
136251303	DCT-160	220	116	908	DN100	78	129.2 x 74.0 x 83.5	8598
136252303			145	855				
136253303			190	717				
136261303	DCT-185	250	116	1090	DN100	78	135.8 x 78.7 x 84.7	10360
136262303			145	998				
136263303			190	840				
136271303	DCT-200	270	116	1205	DN100	78	135.8 x 78.7 x 84.7	11023
136272303			145	1102				
136273303			190	930				
136241303	DCT-250	340	116	1455	DN125	78	157.5 x 84.7 x 88.6	15432
136242303			145	1314				
136243303			190	1112				
136301303	DCT-315	420	116	1840	DN125	78	157.5 x 84.7 x 88.6	16755
136302303			145	1660				
136303303			190	1353				

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.
3. The above water-cooled units are available. If you need any, please contact the sales team.
4. If you need other power models, please contact the sales team.
5. KTC holds the right to modify the mechanical layout and the technical specifications.
6. All noise levels are intended in ducted conditions.

Code	Model	Power	Pressure	Air flow (ISO1217)	Outlet dimension	Noise L.	Dimensions	Weight
EAN		 hp	 psi	 cfm	 DN	 dB[A]	 L x W x H (in)	 Kg Lbs
135141302	DCT-75 VSD	100	116	127 ÷ 481	G2"	74	82.4 x 59.9 x 77.0	4850
135142302			145	138 ÷ 422				
135143302			190	134 ÷ 363				
135151302	DCT-90 VSD	125	116	187 ÷ 604	G2"	76	82.4 x 59.9 x 77.0	5400
135152302			145	148 ÷ 490				
135153302			190	145 ÷ 440				
135221301	DCT-110 VSD	150	116	230 ÷ 725	DN80	76	117.4 x 72.9 x 79.6	7055
135222301			145	180 ÷ 580				
135223301			190	180 ÷ 505				
135231301	DCT-132 VSD	180	116	265 ÷ 844	DN100	78	129.2 x 74.0 x 83.5	7716
135232301			145	226 ÷ 727				
135233301			190	180 ÷ 600				
135251301	DCT-160 VSD	220	116	321 ÷ 915	DN100	78	129.2 x 74.0 x 83.5	8598
135252301			145	297 ÷ 848				
135253301			190	254 ÷ 738				
135261301	DCT-185 VSD	250	116	408 ÷ 1185	DN100	78	135.8 x 78.7 x 84.7	10360
135262301			145	365 ÷ 1005				
135263301			190	298 ÷ 855				
135271301	DCT-200 VSD	270	116	460 ÷ 1234	DN100	78	135.8 x 78.7 x 84.7	10803
135272301			145	399 ÷ 1115				
135273301			190	350 ÷ 863				
135241301	DCT-250 VSD	340	116	516 ÷ 1476	DN125	78	157.5 x 84.7 x 88.6	15432
135242301			145	466 ÷ 1331				
135243301			190	473 ÷ 1148				
135301301	DCT-315 VSD	420	116	646 ÷ 1847	DN125	78	157.5 x 84.7 x 88.6	17196
135302301			145	583 ÷ 1663				
135301301			190	487 ÷ 1388				

DCT VSD:

- Direct Drive
- Single Stage
- Variable Speed
- Permanent magnet motor upon request

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