



COMPRESSORS



TI-ECO-Series

PT Hydraulics Aus Pty Ltd

"TI-ECO SERIES" COMPRESSORS FROM IDE"



Portable and stationary high pressure compressor systems for breathing air, air and other gases. Preferred range of models for use in diving schools and by emergency fire services

Air delivery output 210 or 330 litres/minute
Motorised (depending on model) with 400 V 50/ 60 Cy or Petrol engine.
200 bar or 300 bar

PT Hydraulics Aus Pty Ltd

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Frame, support

Stable base frame made from welded profiled pipe, sand blasted and plastic-coated. Basic frame colour RAL 5012 Light Blue.

Front panelling made from tough plastic

Standard colour RAL 5012 Light Blue.

Chassis motor compressor block made from 4 mm steel plate with welded reinforcement for vibration damping and with 3-6 silencer blocks screwed to the base frame. Colour RAL 7016 Anthracite Grey.

The entire frame stands on generously dimensioned rubber/metal connection feet to transfer vibrations and oscillation, and to prevent noise.

Electrics

The TI ECO series offers the following as standard:

- Thermal overload protection switch
- Magnetic contactor
- Start/Stop switch
- Working hour meter

All of the installed components are of a consistently high quality standard.

The connection cable is 3 m long; fitted as standard for three phase current..

Drive unit

The drive unit comprises an electric or combustion motor with power transmission via a V-belt. The TAPER type V-belt pulleys are designed to achieve maximum smooth running with optimum power transmission.

TI ECO 210 ET 4 kW (5.5 HP), 400V, 50/ 60 Cy asynchronous three-phase current electric motor, design B 3, protection rating IP 54, 2.865 rpm

TI ECO 210 HB IDE combustion motor (petrol) TYP IX 24 with automatic low oil shut-down 6.0 kW (8 HP), approx. 102 dbA

TI ECO 260 ET 5,5 kW (7.5 HP), 400V, 50/60 Cy asynchronous three-phase current electric motor, design B 3, protection rating IP 54, 2.865 rpm

TI ECO 260 HB IDE combustion motor (petrol) TYP IX 27 with automatic low oil shut-down 6.6 kW (9 HP), approx. 102 dbA

TI ECO 330 ET 7,5 kW (10 HP), 400V, 50/60 Cy asynchronous three-phase current electric motor, design B 3, protection rating IP 54, 2.865 rpm

TI ECO 330 HB IDE combustion motor (petrol) TYP IX 34 with automatic low oil shut-down 6.6 kW (9 HP), approx. 102 dbA



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Compressor block

Currently the world's most advanced compressor block only from IDE COMPRESSORS

Three-cylinder, 3-stage compressor block with oil whizzer pin splash lubrication TI 330 is fitted with a low pressure oil pump. Salt water resistant aluminium die cast crank case. Crank drive made from a reinforced special steel, 2 support points with large roller bearings (Made in Germany) for exceptionally quiet operation.

The connecting rods and the pistons, including the free piston, are manufactured from special aluminium and fitted with robust rollers and needle roller bearings (Made in Germany). The cylinders in the 1st, 2nd, 3rd stages are made from a special aluminium alloy with grey cast iron sleeves.

This yet again reinforces IDE's technological expertise and capacity for innovation. This design achieves maximum dissipation of the heat produced during compression. That ensures a significant extension of the service life, as well as a considerable reduction in the level of noise generated. To obtain maximum performance, the free piston has been fitted with 7 special piston rings. The piston and oil scraper rings are manufactured in Germany especially for the unit to the highest level of manufacturing accuracy and precision.

In IDE compressors this ensures that the units provide optimum performance with the lowest possible degree of friction and noise generation. This means less heat is produced, providing increased performance.

The suction and pressure valves in the individual stages (most of which are also "Made In Germany") are produced for optimum flow and ease of servicing for rapid replacement without extended system downtimes.

All intermediate coolers are produced in a special stainless steel alloy to the optimum dimensions. This ensures that the compressor provides optimum performance values with excellent air quality, whilst producing exceptionally low levels of residual humidity.

Each compressor stage is fitted with a factory-sealed safety valve to prevent damage to the system in the event of one of the suction or pressure valves malfunctioning. The limit pressure safety valve is also factory-sealed and can be supplied with a TÜV adjustment certificate attached, on request.

The condensate separators are manufactured from a high quality aluminium alloy to dimensions which ensure optimum condensate loss.

Filling panel

The filling panel has 1 ventable filling valve with 1,30 m filling hose and DIN-filling connection.

The filling hose are special filling hose for breathing air designed for a maximum working pressure of 400 bar.

THE HOSES ARE APPROVED FOR USE WITH BREATHING AIR

The stainless steel manometers installed display up to max. 400 bar and are filled with glycerine to dampen movements of the indicator caused by vibration. All pressure-conveying lines in the filling ramp and the entire system are made from stainless steel to DIN 14571 (V4A). All screw connections to pressure-conveying lines installed in IDE systems all have at least x 1.5 – 4 safety.



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Air preparation

The TI model series standard filter system is FT 310. An integrated, adjustable pressure holding return valve ensures that optimum filter conditions are maintained at all times and provides the longest possible service life of the filter cartridges.

FT 310 can provide a volume of air of 768 m³. The filter housing is manufactured from a high quality, seawater-proof, anodised aluminium alloy and is designed for 225 and/or 330 bar of ultimate pressure. The filter refillable filter cartridge is made from aluminium.

FILTER GUARD

The filter is perhaps one of the most neglected sections of a breathing air compressor. At IDE we acknowledge the difficulty at filling centres with keeping logs, training personal and generally working out when filters need to be changed in order to ensure a safe supply of breathing air. For several years we have been working on a simple and inexpensive method of correctly calculating filter life based upon compressor run time and filter air temperature. The Filter Guard is the result.

Advantages:

- True life based upon the run-time and the filter temperature.
- Simple to use and understand (three LED's).
- No setup or configuration needed
- No batteries to leak or to change.
- No vibration sensors that can be falsely set off.
- Can be fitted near to or on a compressor.
- Sealed unit with environmentally protected electronics.
- Can be retrofitted to existing compressors.
- No special filters or canisters required.



The basic principles of operation allows these units to be fitted to most other brands of electrically powered compressors making this product very useful.

Note that the unit can only be fitted to electric models or diesel / gasoline compressors with an electric starting system.

Certificates and documentation

- Comprehensive operating manual
- Declaration of Conformity

Scope of delivery

- The systems are supplied with a ready-filled High Solution breathing air compressor special synthetic oil.
- Breathing air fine filter cartridges for the original type ordered, vacuum-packed, Filter opening key.

Packaging

All systems are packed in transport boxes manufactured specifically to the size of the system and are then approved for transportation.

Technical data

See data sheet enclosed

Optional equipment

See list enclosed



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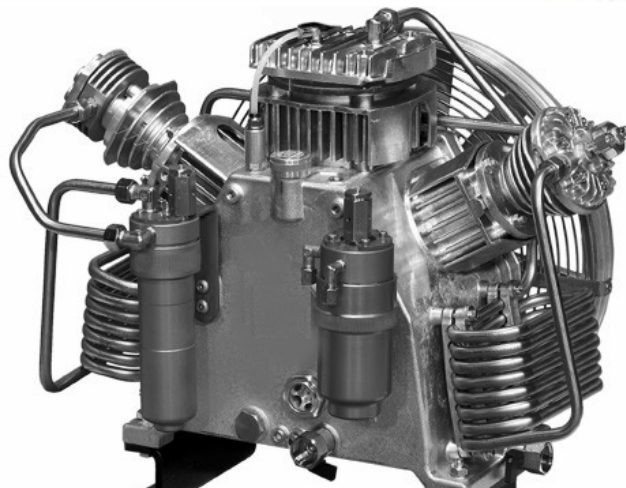
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COMPRESSORS



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Equipment

Modell	Capacity L/Min. *	Drive	Drive power	Filtersystem **	Fillingconnection	Weight Kg
TI 210 ECO ET	210	3x400 V 50 Hz	4,0 kW	FT 310	1	87
TI 210 ECO HB	210	IDE IX 24	5,9 kW	FT 310	1	84
TI 260 ECO ET	260	3x400 V 50 Hz	5,5 kW	FT 310	1	90
TI 260 ECO HB	260	IDE IX 27	6,6 kW	FT 310	1	87
TI 330 ECO ET	330	3x400 V 50 Hz	7,5 kW	FT 310	1	105
TI 330 ECO HB	330	IDE IX 34	8,1 kW	FT 310	1	110

Filling unit with G 5/8" DIN safety connection for 225 or 330 bar

1 x 1,30 metre filling hose with filling valve (ventable)

FT 310 filter system for 768 m³ breathing air conforming to DIN EN 12021 at 20° ambient temperature. Including Filterguard System.

Key

* measured according to the standard for bottle-filling of 0-200 bar +/- 5%

** conforming to DIN EN 12021 on the Quality of Breathing Air

Note

Subject to technical modifications and printing errors, some diagrams may show optional extras.



TI-ECO Serie

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Additional optional equipment	Prod.-Code	Description
Filling device 200 bar	F 225	Max. 4 connections
Filling device 300 bar	F 330	Max. 4 connections
2nd pressure range	2DB	Filling 200 and 300 bar incl. safety valve
Protection cover	Cover TI	All weather protection cover
Transportwheels	1520-5	4 pieces selfadjusting and with locking device

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Medium	Air
Fillingcapacity at: TI 190 ECO 1.250 U/Min. TI 240 ECO 1.450 U/Min.	Tank filling from 0 to 200 bar (10 L-tank) TI 190=190 L/Min. 11,4 m ³ /h, 5,4 c.f.m. TI 240=240 L/Min. 14,4 m ³ /h, 6,9 c.f.m. TI 325=325 L/Min. 19,5 m ³ /h, 9,3 c.f.m.
Intake pressure	Atmospheric (1-1,2 bar)
Operating pressure	90 bis 310 bar
Set pressure of limit pressure safety valve	Set value as per job, max. 310 bar
Number of stages	3
Number of cylinders	3
Cylinder bore 1. stage	TI 190 - 230 =88 mm , TI 325 = 105 mm
Cylinder bore 2. stage	TI 190 - 230 =28 mm , TI 325 = 88 mm
Cylinder bore 3. stage	TI 190 - 230 =12 mm, TI 325 = 28 mm
Cylinder bore 4. stage	TI 325 = 12 mm
Piston stroke	40 mm
Required drive input	4 - 5,5 KW
Intermediate pressure 1st stage	TI 190-240 12 bar, TI 325 7 bar
Safety valves setting 1st stage	20 bar
Intermediate pressure 2nd stage	TI 190-240 60 bar , TI 325 19 bar
Safety valves setting 2nd stage	60 bar 20 bar
Intermediate pressure 3rd stage TI 325	65 bar
Safety valves setting 3rd stage TI 325	80 bar
Direction of rotation	Anticlockwise
Cooling	Air cooling
Lubrication	Splash lubrication with oil whizzer pin
Compressorblock oil capacity	Approx. 3,5 Litre
Oil type	IDE High Solution synthetic
Max. ambient temperature	+5°C...+45°C (+43°F...+113°F)
Max. permissible inclination of compressor	5° (only if the oil level is normal)
Weight compressorblock	Approx.. 60 Kg
Condensate drain manual	Approx. every 15 minutes
Electric three-phase squirrel cage motor, Safety class IP 54, Form B3, 2.850 r.p.m.	(190) 4,0 kW, 400V, 50 Hz. (190) IX 240- 6 kW, 8 PS Gasoline (240) 5,5 kW, 400V, 50 Hz. (240) IX 270- 6,6 kW, 9,0 PS Gasoline (325) 7,5 kW, 400V, 50 Hz. (325) IX 340- 8,1 kW, 11,0 PS Gasoline
IDE Benzin combustionengine 4 cycle IX 240, IX 270, IX 340.	
Sizes: l x w x h Electric / Combustion	1006 x 550 x 670 / 1350 x 550 x 670
Weight	app. 84-96 kg

Until further notice and subject to typing errors and alterations