

OIL FREE COMPRESSORS



TESTRITE

The oil free compressors are suitable for LPG, coolers, ammonia, DME, CFC, HCFC, methylamine, dimethylamine, SF₆, etc.

MAIN FEATURES

- Oil-free compressors
- Twin-cylinder, positive-displacement, reciprocating compressors
- Pump induced lubrication
- Treated pistons in light alloy
- Special system with self-lubricating seals
- Chromium plated piston rods made of hardened carbon steel
- Crossheads made of special aluminium alloy
- Connecting rods with sliding friction bearings
- Oil sump

TIGHT compressors combine sturdiness and small dimensions in order to provide the maximum performance in the compression of technical gases, for stationary or transport uses.

TIGHT produces single-stage, two-stage or dual-seal compressors depending on the product to be treated. The maximum working pressure is 18 barg for single stage and 20 barg for two-stage compressors (35 barg by request with special seals).

TIGHT oil-free compressors can handle a full range of air and technical gases without oil contamination.

ADVANTAGES OF THE TIGHT COMPRESSORS

- Connection to the pipe by flanges or welded connections to minimize the risk of leakage
- Lack of threaded pipe connections
- 4-way valve installed in the block with flanged connection
- Compact arrangement for easy installation and service
- Mechanical trap for the liquid with a stop valve located in non-pressurized closure (PED certificate)
- Steel base with supports to reduce vibration
- 2 year warranty
- Tight compressors have all certifications required by European standards:
 - ISO 9001
 - PED 97/23/EC certification
 - Certification II 2 G T3 ATEX 94/9/EC
 - Directive 98/73/EC

SINGLE STAGE COMPRESSOR

Model	TIGHT 32	TIGHT 48	TIGHT 60	TIGHT 80	TIGHT 100	TIGHT 108
Power [kW]	5,5	7,5	11	18,5	22	22
Compressor	A668	A668	A668	A938	A938	A938
Bore-stroke [mm]	108x73	108x73	108x73	120x83	120x83	120x83
RPM	400	580	730	710	890	975
Pist. Vol. Displ. [m ³ /h]	32	48	60	80	100	108

TWO-STAGE COMPRESSOR

Model	TIGHT DS40	TIGHT DS55
Power [kW]	7,5	11
Compressor	A668/63	A938/74
Bore-stroke [mm]	ØxL	Ø xL
1st stage mm ØxL	108x73	120x83
2nd stage mm ØxL	63x73	74x83
RPM	1.000	975
Max. Pressure [barg]	20	20
Pist. Vol. Displ. [m ³ /h]	40	55
F.A.D. at 20 barg [Sm ³ /h]	26	36



tecnogas

E-mail: tecnogas@polaris.it • www.gruppotechogas.it



n° 160307



Dichiarazione di conformità CERTIFICATE OF CONFORMITY



La Ditta / The company

Tecnogas S.r.l.
43036 Fidenza (Parma)
Via Chiusa Ferranda, 15/A

Dichiara con la presente che i prodotti / Herewith declares that the products

Prodotti/ Products

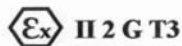
Modelli / Models

COMPRESSORE TIGHT A938 e TIGHT A668-A668DT

TIGHT 32, 48, 60, 80, 100, 108

Numero di serie / Serial Number : **T6021/05**

Modo di protezione / Protection mode



Fascicolo tecnico / Technical file

TIGHT

Sono in accordo alle norme sottostanti / Are in accordance with the below regulations

Direttive CEE applicabili / Applicable EC Directives

98/37/CE e (ATEX) 94/9/CE

In quanto sono conformi alle seguenti norme europee / In accordance with the following European regulations

EN 13463-1 ; EN 1127-1 ; EN 13463-5

Data / Date **23/05/2005**


Il Legale Rappresentante / The Legal Representative

Sig. Carlo Vettori

Progettazione • Costruzione • Manutenzione Macchine e Impianti G.P.L. e Metano

TECNOGAS s.r.l. 43036 FIDENZA (Parma) - Via Chiusa Ferranda, 15/A - Tel. +39.0524.532111 - Fax +39.0524.81952
00050 PANTANO DI GRANO (Roma) - Via degli Idrocarburi, 27 - Tel. +39.06.65000631 - Fax +39.06.65000797
Iscri. C.C.I.A.A. di Parma n. 01752420347 - Cod. Fisc. e Part. IVA CEE IT 01752420347 - R.E.A. PR: 175845 - Cap. Soc. € 800.000,00 i.v.

TIGHT
compressor

	DECLARATION OF CONFORMITY (According to Enclosure VII of the Directive 97/23/CE)	TECNOGAS S.r.l. Via Chiusa Ferranda Fidenza (Parma) Tel 0524532103
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Description of the Pressure Assembly

A.

Description	Serial Number	Project Number
Liquid Trap for Electro-compressor TIGHT	A/T9001/05 a A/T9030/05 e Da A/T6001/05 a A/T6030/05	0506000036_0

B.

Equipment	Working Pressure (Bar)	Working temperature (°C)	Hydraulic Pressure (Bar)	Fluid held		Capacity (L) or DN
				Nature	State	
Liquid trap body	17.65	60	25.24	LPG	Gas	11 litres
Safety valve	17.65	60	25.24	LPG	Gas	
Hoses	17.65	60	25.24	LPG	Gas	-
Total						11 litres

C. The pressure assembly is classified in the II category in conformity with Enclosure II of the Ministerial Decree no. 93 dtd 25/02/00 and has been verified according to the A1 Form on the basis of Art. No.10 and of Enclosure III of the Ministerial Decree no. 93 dtd 25/02/00.

D. 0100 ISTITUTO SUPERIORE PER LA PREVENZIONE E LA SICUREZZA DEL LAVORO (I.S.P.E.S.L.) Via Alessandria 220/E - 00198 ROMA

E. CE Certificate mod. A1 No. PC01/05A1 dtd 03/02/05

F. Harmonized and not harmonized regulations applied to the design and construction:

- ☐ Collection I.S.P.E.S.L. "M" (ed.1995)
- ☐ Collection I.S.P.E.S.L. "S" (ed.1995)
- ☐ Collection I.S.P.E.S.L. "E" (ed.1995)
- ☐ Collection I.S.P.E.S.L. "VSR" (ed.1995)
- ☐ UNI EN 287-1 ed. 1993
- ☐ UNI EN 288-3 ed. 1992

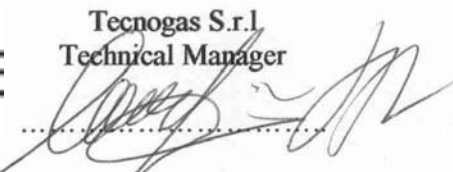
In the light of the above mentioned information,

WE DECLARE

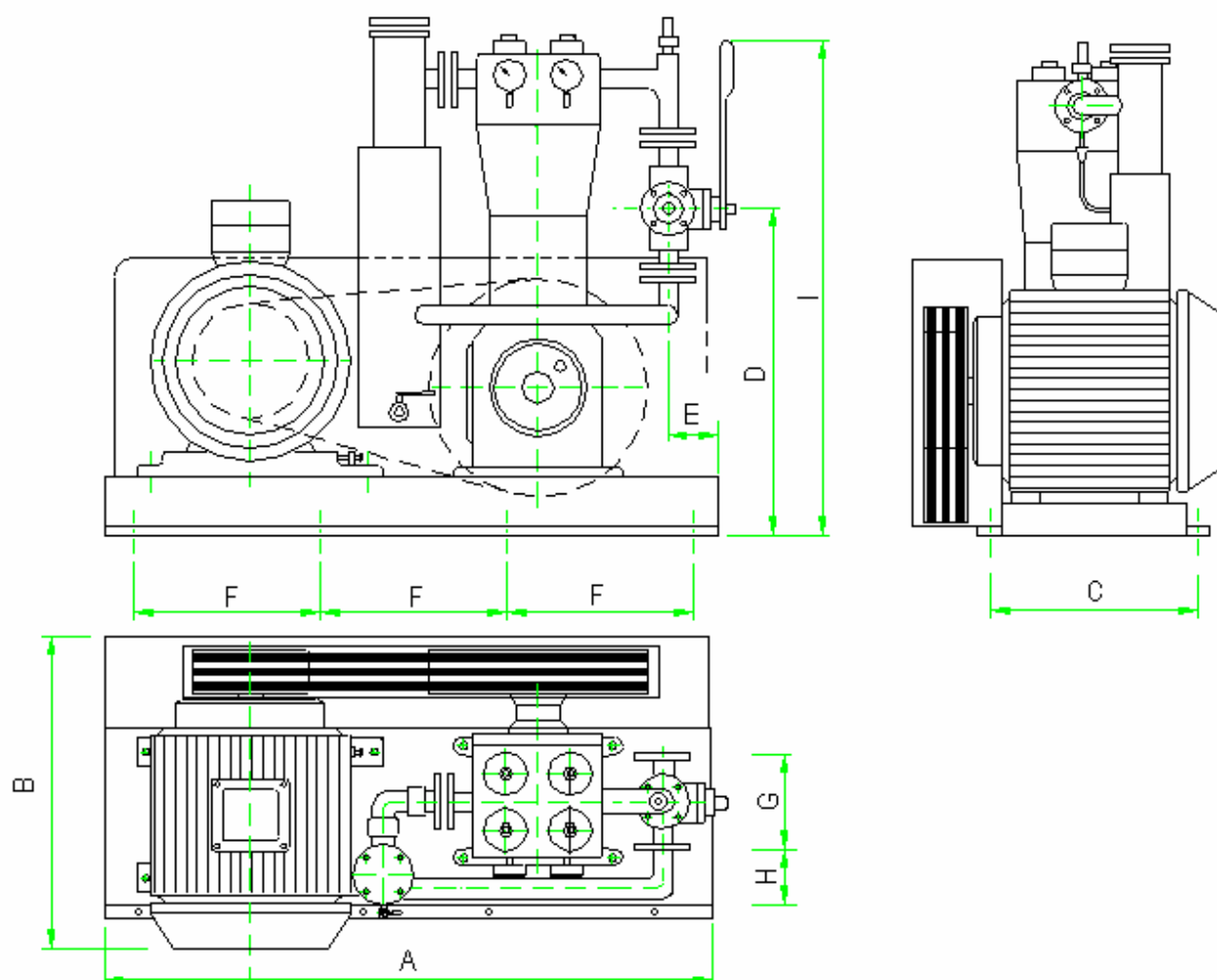
that the pressure assembly described in the points A and B and verified according to the points C, D, E and F, satisfies the essential safety requirements indicated in the Enclosure I of the Directive 97/23/CE.

We also declare that the assembly has been successfully submitted to an hydraulic pressure test at the pressure indicated in the schedule of point B and that it has been marked CE with the following data:

Year of construction		2005
Setting pressure of the safety valve		17.65 bar
Product Group	Group 1	LPG
Serial Number		Da A/T9001/05 a A/T9030/05 e Da A/T6001/05 a A/T6030/05
Testing date		03/02/05

DIMENSIONS



	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]
TIGHT A668 32-48	1.100	530	/	590	80	/	120	/	870
TIGHT A668 60	1.100	750	450	590	80	/	120	170	870
TIGHT A938 80-100-108	1.300	760	542	590	95	30	125	300	870

TIGHT COMPRESSOR model A668 32

- Oil free compressor, positive displacement, twin-cylinder, vertical, oil free and single-stage.
- Main features:
 - Bore-stroke: 108x73 mm
 - RPM: 400
 - Vol. Displaced: 32 m³/h
 - Optimum compression value: 4
 - Maximum operating pressure: 20 bar
 - Bursting pressure: 80 bar
 - Maximum operating temperature: 130 °C
 - Pump induced lubrication
 - Oil sump
 - Ventilation cooling
 - Suction-output flange F 1-1/2" NPT
- Flame-proof electric motor, 4 poles induction, feed 380V 50 Hz, power 5,5 kW.
- Certificated ATEX and PED
- Accessories included:
 - Steel basement with antivibration supports and slides for belt regulation.
 - N°3 b-type belts, pulley, motor and protection sump
 - Mechanical liquid trap with net filter
 - Delivery, suction, oil pressure gauges
 - 4-way valve DN40 PN40
 - Safety valves (max. pressure 17,6 bar)

TIGHT COMPRESSOR model A668 48

- Oil free compressor, positive displacement, twin-cylinder, vertical, oil free and single-stage.
- Main features:
 - Bore-stroke: 108x73 mm
 - RPM: 580
 - Vol. Displaced: 48 m³/h
 - Optimum compression value: 4
 - Maximum operating pressure: 20 bar
 - Bursting pressure: 80 bar
 - Maximum operating temperature: 130 °C
 - Pump induced lubrication
 - Oil sump
 - Ventilation cooling
 - Suction-output flange F 1-1/2" NPT
- Flame-proof electric motor, 4 poles induction, feed 380V 50 Hz, power 7,5 kW.
- Certificated ATEX and PED
- Accessories included:
 - Steel basement with antivibration supports and slides for belt regulation.
 - N°3 b-type belts, pulley, motor and protection sump
 - Mechanical liquid trap with net filter
 - Delivery, suction, oil pressure gauges
 - 4-way valve DN40 PN40
 - Safety valves (max. pressure 17,6 bar)

TIGHT COMPRESSOR model A668 60

- Oil free compressor, positive displacement, twin-cylinder, vertical, oil free and single-stage.
- Main features:
 - Bore-stroke: 108x73 mm
 - RPM: 730
 - Vol. Displaced: 60 m³/h
 - Optimum compression value: 4
 - Maximum operating pressure: 20 bar
 - Bursting pressure: 80 bar
 - Maximum operating temperature: 130 °C
 - Pump induced lubrication
 - Oil sump
 - Ventilation cooling
 - Suction-output flange F 1-1/2" NPT
- Flame-proof electric motor, 4 poles induction, feed 380V 50 Hz, power 11 kW.
- Certificated ATEX and PED
- Accessories included:
 - Steel basement with antivibration supports and slides for belt regulation.
 - N°3 b-type belts, pulley, motor and protection sump
 - Mechanical liquid trap with net filter
 - Delivery, suction, oil pressure gauges
 - 4-way valve DN40 PN40
 - Safety valves (max. pressure 17,6 bar)

TIGHT COMPRESSOR model A938 80

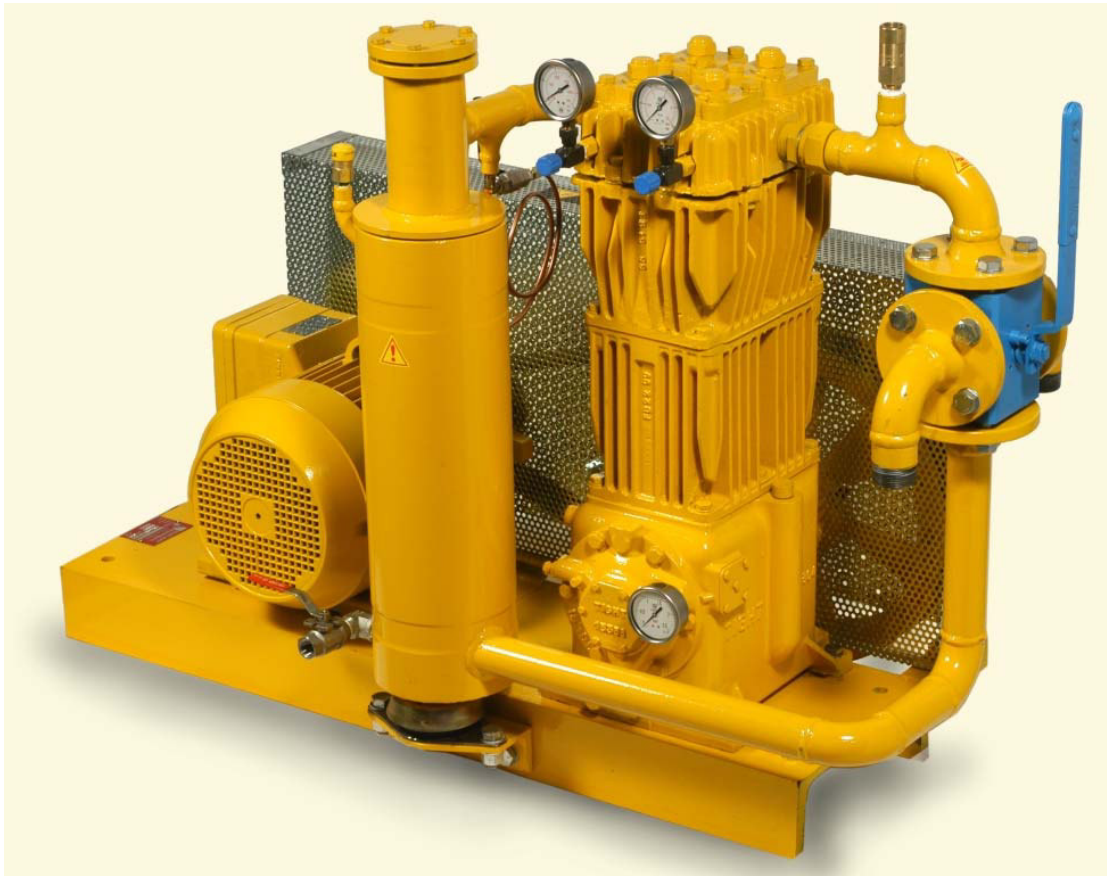
- Oil free compressor, positive displacement, twin-cylinder, vertical, oil free and single-stage.
- Main features:
 - Bore-stroke: 120x83 mm
 - RPM: 710
 - Vol. Displaced: 80 m³/h
 - Optimum compression value: 4
 - Maximum operating pressure: 20 bar
 - Bursting pressure: 80 bar
 - Maximum operating temperature: 130 °C
 - Pump induced lubrication
 - Oil sump
 - Ventilation cooling
 - Suction-output flange F 2" NPT
- Flame-proof electric motor, 4 poles induction, feed 380V 50 Hz, power 18,5 kW.
- Certificated ATEX and PED
- Accessories included:
 - Steel basement with antivibration supports and slides for belt regulation.
 - N°3 b-type belts, pulley, motor and protection sump
 - Mechanical liquid trap with net filter
 - Delivery, suction, oil pressure gauges
 - 4-way valve DN50 PN40
 - Safety valves (max. pressure 17,6 bar)

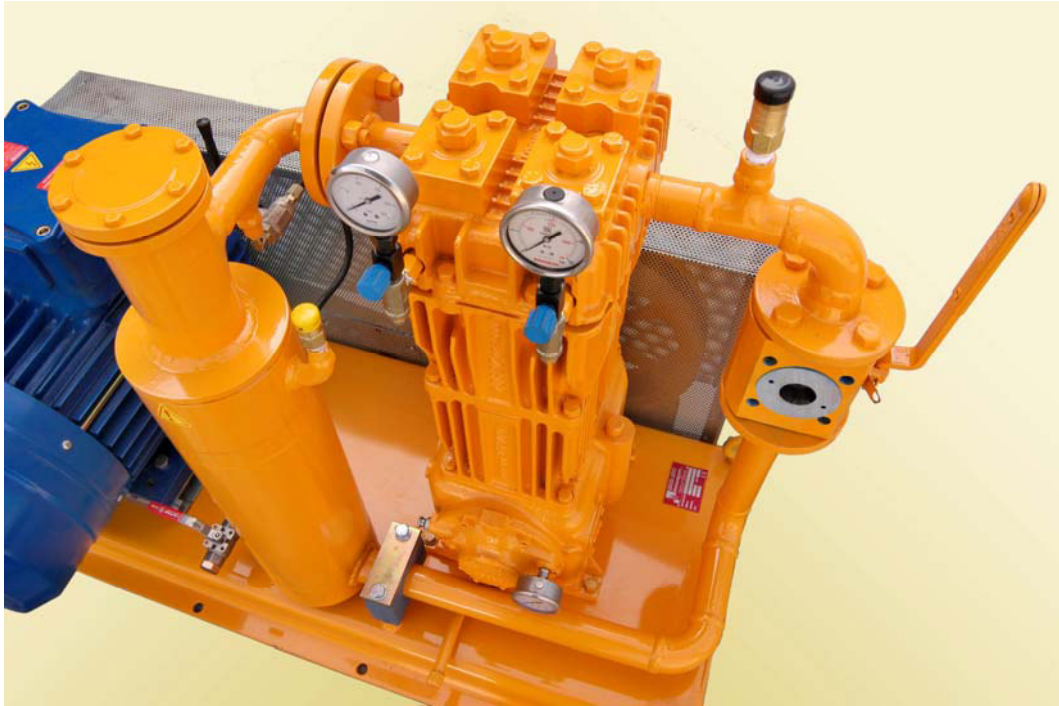
TIGHT COMPRESSOR model A938 100

- Oil free compressor, positive displacement, twin-cylinder, vertical, oil free and single-stage.
- Main features:
 - Bore-stroke: 120x83 mm
 - RPM: 890
 - Vol. Displaced: 100 m³/h
 - Optimum compression value: 4
 - Maximum operating pressure: 20 bar
 - Bursting pressure: 80 bar
 - Maximum operating temperature: 130 °C
 - Pump induced lubrication
 - Oil sump
 - Ventilation cooling
 - Suction-output flange F 2" NPT
- Flame-proof electric motor, 4 poles induction, feed 380V 50 Hz, power 22 kW.
- Certificated ATEX and PED
- Accessories included:
 - Steel basement with antivibration supports and slides for belt regulation.
 - N°3 b-type belts, pulley, motor and protection sump
 - Mechanical liquid trap with net filter
 - Delivery, suction, oil pressure gauges
 - 4-way valve DN50 PN40
 - Safety valves (max. pressure 17,6 bar)

TIGHT COMPRESSOR model A938 108

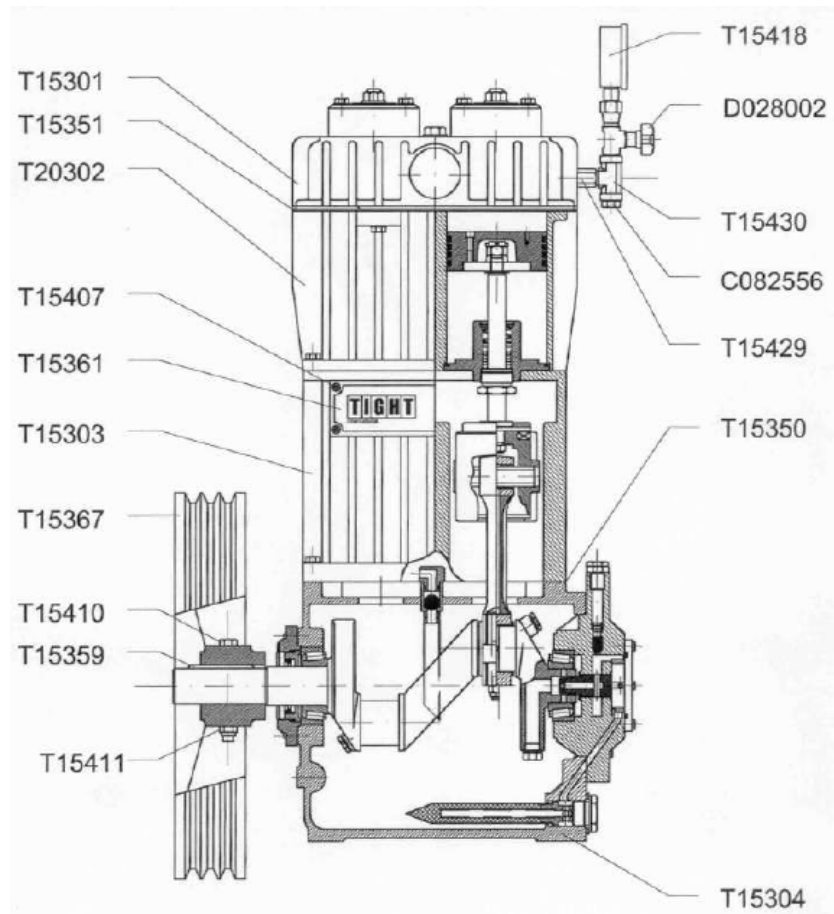
- Oil free compressor, positive displacement, twin-cylinder, vertical, oil free and single-stage.
- Main features:
 - Bore-stroke: 120x83 mm
 - RPM: 975
 - Vol. Displaced: 108 m³/h
 - Optimum compression value: 4
 - Maximum operating pressure: 20 bar
 - Bursting pressure: 80 bar
 - Maximum operating temperature: 130 °C
 - Pump induced lubrication
 - Oil sump
 - Ventilation cooling
 - Suction-output flange F 2" NPT
- Flame-proof electric motor, 4 poles induction, feed 380V 50 Hz, power 22 kW.
- Certificated ATEX and PED
- Accessories included:
 - Steel basement with antivibration supports and slides for belt regulation.
 - N°3 b-type belts, pulley, motor and protection sump
 - Mechanical liquid trap with net filter
 - Delivery, suction, oil pressure gauges
 - 4-way valve DN50 PN40
 - Safety valves (max. pressure 17,6 bar)





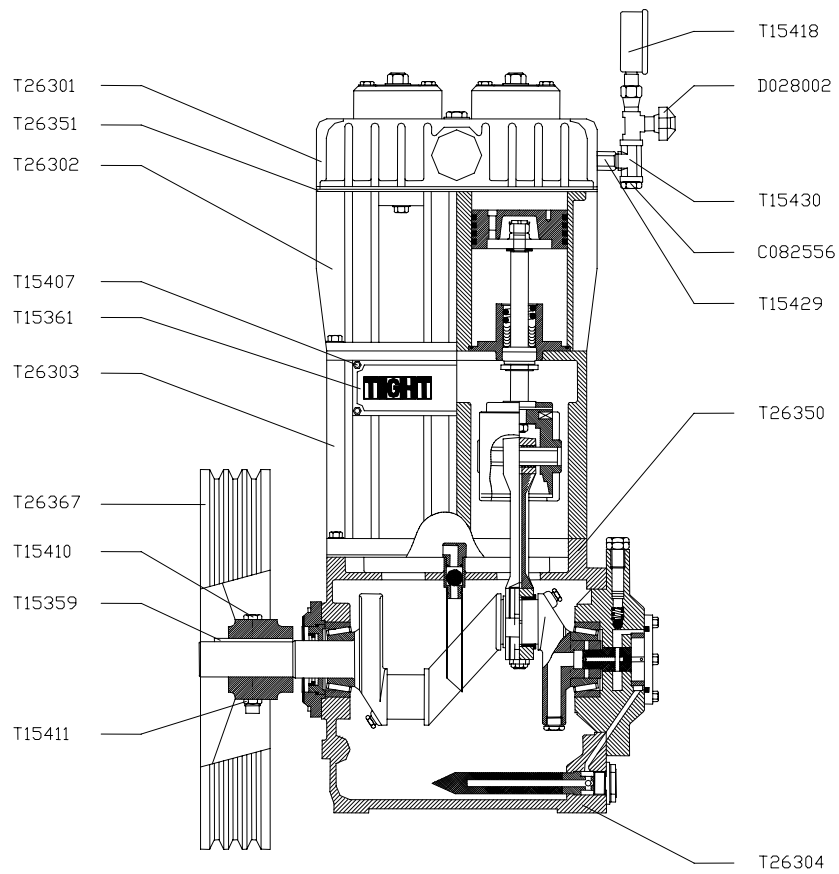


CUTWAY VIEW OF THE WHOLE COMPRESSOR A668



ITEM	REF.	DESCRIPTION	QTY.
1	T 15301	Cylinder head	1
2	T 15303	Intermediate casing	1
3	T 15304	Main casing	1
4	T 15350	Oil pan gasket	1
5	T 15351	Head gasket	1
6	T 15359	Pulley key	1
7	T 15361	Plate	1
8	T 15367	Self-ventilated pulley	1
9	T 15407	Coutersunk screw M4x10	8
10	T 15410	Pulley nut	2
11	T 15411	Pulley self-locking nut	2
12	T 15418	Vacuum pressure gauge	1
13	T 15429	Damper	2
14	T 15430	The cock-holder	2
15	T 20302	Cylinder block	1
16	D028002	1/4" needle cock	2
17	C082556	1/4" male cup	2

CUTWAY VIEW OF THE WHOLE COMPRESSOR A938



ITEM	REF.	DESCRIPTION	QTY.
1	T 15359	Pulley key	1
2	T 15361	Plate	1
3	T 15407	Coutersunk screw	8
4	T 15410	Pulley nut	2
5	T 15411	Pulley self-locking nut	2
6	T 15418	Vacuum pressure gauge	1
7	T 15429	Damper	2
8	T 15430	Tee cock-holder	2
9	T 26301	Cylinder head	1
10	T 26302	Cylinder block	1
11	T 26303	Intermediate casing	1
12	T 26304	Main casing	1
13	T 26350	Oil pan gasket	1
14	T 26351	Head gasket	1
15	T 26367	Self-ventilated pulley	1
16	D028002	1/4" needle cock	2
17	C082556	1/4" male cup	2



**ДЕРЖАВНИЙ КОМІТЕТ УКРАЇНИ З ПРОМИСЛОВОЇ БЕЗПЕКИ,
ОХОРОНИ ПРАЦІ ТА ГІРНИЧОГО НАГЛЯДУ**
(Держгірпромнагляд)

ДОЗВІЛ

на початок експлуатації об'єкта

№ 135.07.30-29.56.4

Дозволяється фірмі «TECNOGAS S.r.l.»
Італія

експлуатація обладнання підвищеної небезпеки:

- компресори та компресорні установки у вибухозахищеному виконанні, для зрідженого вуглеводневого газу (пропан-бутану), а також: аміаку, діметилового ефіру, монометиламіну, хлориду метилу, хлориду вінілу, хладагенту HFC 134-а, природного газу типів: A668; A938; A668/63; A938/74, модельного ряду TIGHT 32; TIGHT 48; TIGHT 60; TIGHT 80; TIGHT 100; TIGHT 108; TIGHT DS 40; TIGHT DS 55;

- посудини, що працюють під тиском для транспортування і збереження зріджених вуглеводневих газів об'ємом: 4000, 5000, 7500, 9000, 11000, 12000, 14000, 15000, 16000, 17000, 18000, 20000, 21000, 23000, 26000, 27000, 28000, 52000, 54000 літрів,
виробництва фірми «TECNOGAS S.r.l.» (Італія)

на підставі заяви власника від 29.12.06 р., висновку експертизи Східного ЕПЦ від 21.12.06 р. № 63.2-04-3508.06, експлуатаційної документації

за умови дотримання вимог законів та інших нормативно-правових актів з охорони праці та промислової безпеки

Дозвіл діє з 11.01.2007 р. по 11.01.2010 р.

Заступник
голови Комітету



О.І.Долматов

Дата видачі 11 січня 2007 року