
VGE Series

Compressors for
Turbines and Gas Engines Feeding

VGE Series

After many years of experience in the construction, commissioning and maintenance of natural gas compressor and in cooperation with some distributors, Adicomp has developed a new high performance and standardized series to feed turbines and gas engines.

HOW IT WORKS

Our natural gas compression and treatment stations are designed onto an easy handling skid, composed of an oil-injected rotary screw block, directly coupled to an electric motor.

At the suction side, the dry gas is sucked, filtered and then it flows to the rotors through a control valve.

During the gas compression process, oil is injected inside the rotary screw chamber to perform three main functions: lubrication, sealing and heat absorption.

After the compression stage, most of the oil is removed thanks to specific filters and then the gas flows through an air cooler to lower its temperature.

A mechanical by-pass valve recirculates the exceeding gas to modulate the capacity from the value achieved at minimum speed of the electric motor, down to 0%.

When the system stops, the circuit is depressurized by conducting the gas into a specific expansion buffer or bleeding it out to the atmosphere.



Plug & Play

All Adicomp compressors are designed and made to maximize an easy installation. No special operations are required, except of installation on site and electricity and gas supply. Everything is already set up in the company and, thanks to the commissioning service, you can fine-tune the set-up of the package on site.



Energy savings, flow control

At Adicomp, we keep an eye on energy savings and our compressors are designed to adapt to the flow of gas, which usually is not constant. To do this, our packages are all fitted with inverters and by-pass valves.



The strength of the screw

The core of Adicomp's compressor package is the screw block unit that like all main components is specifically selected according to the required performance and conditions. Adicomp is one of few companies officially qualified and authorized to integrate the most important rotary screw block brands such as Termomeccanica.



Experience counts

In almost 25 years of activity, we provided several hundreds of compressors worldwide, facing extremely different solutions that allowed us to acquire a high level of know-how acknowledged by the market.

MAIN FEATURES OF THE CONTROL SYSTEM



VNC Remote Monitoring

Remote control with mobile devices



Diagnostics Function

Collects and solves issues remotely



User-Friendly

Intuitive operation interfaces for users



Supports PDF and TXT Reader

PDF and TXT files supported



LUA Language

Simple and easy structural programming language to meet various demands



Power Isolation

Protects the HMI from accidental surge interference



DOPSoft 4.0

New software DOPSoft 4.0 offers more complete functions and a better interface



Ethernet Communication

Connects to a master device or PLC with high-speed Ethernet communication



Pressing times >10,000,000

Effective pressing times increased through strict endurance tests



Narrow frame

Enlarged visual display for better user experience



Operating Temperature 0°C ~ 50°C

Compliant with industrial operating environments



Embedded Linux System

Open system for flexible and stable program development



IP65 Rating

The front case protects the HMI from snow, rain, and dust



QRcode Scanning

Generates QRcodes with self-defined content for mobile device identification



Communication Isolation

COM and Ethernet ports with built-in isolation circuits enhance communication stability



FTP/eMail Supported

Simple data transmission and real-time status report important recordings



Multimedia Functions

Captures image with an external camera or replays important recordings



Supports GIF Graphic Elements

Easy setting to play vivid GIF elements



Multilingual Input

16 languages input for easy operation



CE / UL Certified

Compliant with CE and UL standards

* The package will be supplied already wired with the electrical cabinet (cables length: 5m).

VGE Series

Main features

COMBINED GAS/OIL COOLER

(EV) EXPANSION VESSEL

SCREW BLOCK

OIL SEPARATOR

(INV) VARIABLE SPEED DRIVEN MOTOR

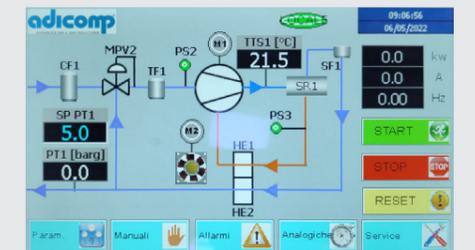
OIL TANK



(WS) WEATHER PROOF CANOPY



HMI



VGE Series

Main features

(OF) OPEN FRAME

Open frame version suitable for indoor installation and ambient temperature +3°C/+40°C.

(INV) INVERTER

The compressor is driven by a VFD that regulates pressure and flowrate by changing rotors speed. Normally, the inverter acts in the range between 100% and 50% of capacity.

(SF) SUCTION FILTER

A coarse type suction filter is placed upstream the compressor.

(EV) EXPANSION VESSEL

Gas tight package - Expansion vessel for depressurization. Available from VGE4 to VGE11.

(BV) BLEED VALVE

Valve used to depressurize the system by blowing the gas to the atmosphere through the vent line. Available from VGE11 to VGE37.

(BY1) MECHANICAL BY-PASS VALVE

A mechanical by-pass valve recirculates the exceeding gas to modulate the capacity from the value achieved at minimum speed of the electric motor, down to 0%.

(Ex) ATEX Zone 2

The compressor is certified ATEX Zone2. The electrical cabinet is designed for indoor installation and non-hazardous area.

(TCP/IP) MODBUS TCP/IP

Modbus TCP/IP communication for remote control system.

Options

(S) SILENCED (OPTIONAL)

Sound proof enclosure, suitable for indoor installation and ambient temperature +3°C/+40°C (no weather proof).

(WS) WEATHER PROOF (OPTIONAL)

Compressor is designed and built for ambient temperature from -10°C to +40°C, with a special rooftop and outdoor painting treatment that makes the package weatherproof.

(CM) MEDIUM OIL FILTRATION (OPTIONAL)

High efficiency coalescent filter that decreases the amount of oil in the gas from 3-5 mg/m³ to 0.1 mg/m³

WEATHERPROOF ELECTRICAL CABINET (OPTIONAL)

Electrical cabinet designed for outdoor installation (-10°C/+40°C) and non-hazardous area.

GAS DETECTOR (OPTIONAL)

Gas transmitter designed to measure concentrations of combustible gases in the range of 0-100% Lower Explosive Limit (LEL). Available only for compressors built into a canopy, our options "S" or "WS".

(RID) INLET PRESSURE REDUCER (OPTIONAL)

Pressure reduction valve to adjust the value in accordance to the performance required.

INLET SHUT-OFF VALVE (OPTIONAL)

Solenoid valve to isolate the compressor from the upstream system.

Main technical data

VGE Specifically designed in compliance with ATEX or NEC/Nema/UL standards for electrical apparatus and PED or ASME for pressure equipments.

COMPRESSOR TECHNICAL SPECIFICATIONS		VGE4	VGE5.5	VEG9	VG11	VG15	VG18.5	VG22	VG30	VG37	
Inlet gas conditions	Design pressure	mbarg	15/30 (*)	15/30 (*)	15/30 (*)	15/30 (*)	15/30 (*)	15/30 (*)	15/30 (*)	15/30 (*)	
	Temperature	°C	+3/+40	+3/+40	+3/+40	+3/+40	+3/+40	+3/+40	+3/+40	+3/+40	
	Relative humidity	%	0	0	0	0	0	0	0	0	
Performance	Operating pressure	barg	5,5/6,0	5,5/6,0	5,5/6,0	5,5/6,0	5,5/6,0	5,5/6,0	5,5/6,0	5,5/6,0	
	Free gas delivery (max.)	Nm ³ /h	32	48	74	95	120	139	193	249	309
	Discharge gas temperature	°C (above ambient)	+10/+15	+10/+15	+10/+15	+10/+15	+10/+15	+10/+15	+10/+15	+10/+15	+10/+15
Operational limits	Ambient conditions (OF) or (S) - indoor	°C	+3/+40	+3/+40	+3/+40	+3/+40	+3/+40	+3/+40	+3/+40	+3/+40	+3/+40
	Ambient conditions (WS) - outdoor	°C	-10/+40	-10/+40	-10/+40	-10/+40	-10/+40	-10/+40	-10/+40	-10/+40	-10/+40
	Residual oil in the gas	mg/Nm ³	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
	Residual oil in the gas (CM)	mg/Nm ³	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1
	Noise level (OF)	dB(A) at 1 meter	75	75	80	82	82	84	84	86	86
	Noise level (S) or (WS)	dB(A) at 1 meter	70	70	75	75	75	80	80	80	80
	Power absorbed at the shaft (max.)	kW	4	5,5	9	11	15	18,5	22	30	37
	Installed main motor (IE3)	kW	5,5	7,5	11	15	18,5	22	30	37	45
Installation data	Installe fan motor (IE3)	kW	0,13	0,13	0,13	0,37	0,37	0,37	0,37	0,75	0,75
	Power supply EU	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
	Power supply US	V/ph/Hz	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60
	Dimensions (OF) or (S)	cm	140x68x90h	140x68x90h	140x68x90h	170x96x150h	170x96x150h	170x96x150h	200x120x185h	200x120x185h	200x120x185h
	Dimensions (WS)	cm	140x68x122h	140x68x122h	140x68x122h	170x96x182h	170x96x182h	170x96x182h	200x120x217h	200x120x217h	200x120x217h
	Connection IN - OUT	Rp - Rp	1"1/4 - 3/4"	1"1/4 - 3/4"	1"1/4 - 3/4"	DN50-1"	DN50-1"1/4	DN80-1"1/4	DN80-1"1/4	DN80-DN40	DN80-DN40

* For pressure values higher than 30mbarg, please contact Adicom for a detailed selection

adiconp®

ADVANCED AIR & GAS SOLUTIONS



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Termomeccanica Group

