



METHANE

VGE Series

adcomp[®]
ADVANCED GAS COMPRESSORS

VGE Series

Dry gases applications



VGE 4.0

SUCTION PRESSURE:
0.025 < 0.1 bar(g) | 0.36 < 1.45 psi(g)

OPERATING PRESSURE:
5.0 < 5.5 bar(g) | 72.5 < 80 psi(g)

FREE GAS DELIVERY:
0 < 193 Nm³/h | 0 < 120 SCFM

ADSORBED POWER:
4 < 22 kW | 5 < 29 hp

COMMITTED TO EXCEPTIONAL SOLUTIONS

After many years of experience in designing, manufacturing and commissioning natural gas compressors in cooperation with some distributors, Adicomp has developed a new high performance series of compressor suitable to feed mainly microturbines and gas engines.

HOW IT WORKS

The function of the gas feed compressor is to elevate the pressure as well as improving the gas quality.

At the suction side of every Adicomp compressor, 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.

A sophisticated control system in the Adicomp series manage the operating pressure upstream or downstream the unit, and automatically adjusts compressor speed to modulate output according the availability or demand of biogas.

Providing adequate conditions maintenance intervals are extended at 8000 operating hours.

MAIN APPLICATIONS

Thanks to proven gas compression design, our equipment provides high reliability in your operation. Each gas compressor is designed for low maintenance in its field of operation, ensuring long intervals between servicing and easy access for technicians.

These dry gas compression and treatment packages are designed onto an easy to handle skid or enclosure composed of an oil-injected rotary gas screw block, directly coupled to an electric motor and controlled by an inverter.

Available with or without gas treatment system, this series has been designed for the following main applications :

- MICROTURBINES FEEDING
- PRE CHAMBER FEEDING
- BOILER FEEDING

ONE OF THE 10000 SYSTEMS INSTALLED

VGE9 Natural gas compressor

- POWER INSTALLED: 11 kW | 15 Hp
- INLET PRESSURE: 10 mbar(g) | 0,14 psi(g)
- WORKING PRESSURE: Up to 6 bar(g) | 87 psi(g)
- FLOW RATE: 0<37<74 Nm³/h | 0<23<46 SCFM
- AMBIENT TEMPERATURE: -10/+40 °C | +14/+104 °F
- LOCATION: UNITED KINGDOM



The strength of the rotary screw technology

The best for continuous and heavy-duty operation, it's easy to maintain; with very little moving and contacting parts, wear and tear are minimized. In addition to the very high energy efficiency achievable while VSD controlled, the rotary screw technology offers many other advantages, including ability to provide a steady flow, handle temperature extremes and variations in demand, reduced noise and no need of special foundations.



Plug & Play

All Adicomp compressors are designed and made to maximize and facilitate the installation. No special operations are required, except for the installation on site, electricity and gas supply. Everything is already wired, connected, tested 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. Our compressors are designed to reduce their power consumption as much as possible by always adapting the capacity to the end user needs. Adicomp compressors are fully controlled by VSD, by-pass valve and/ or slide valve.

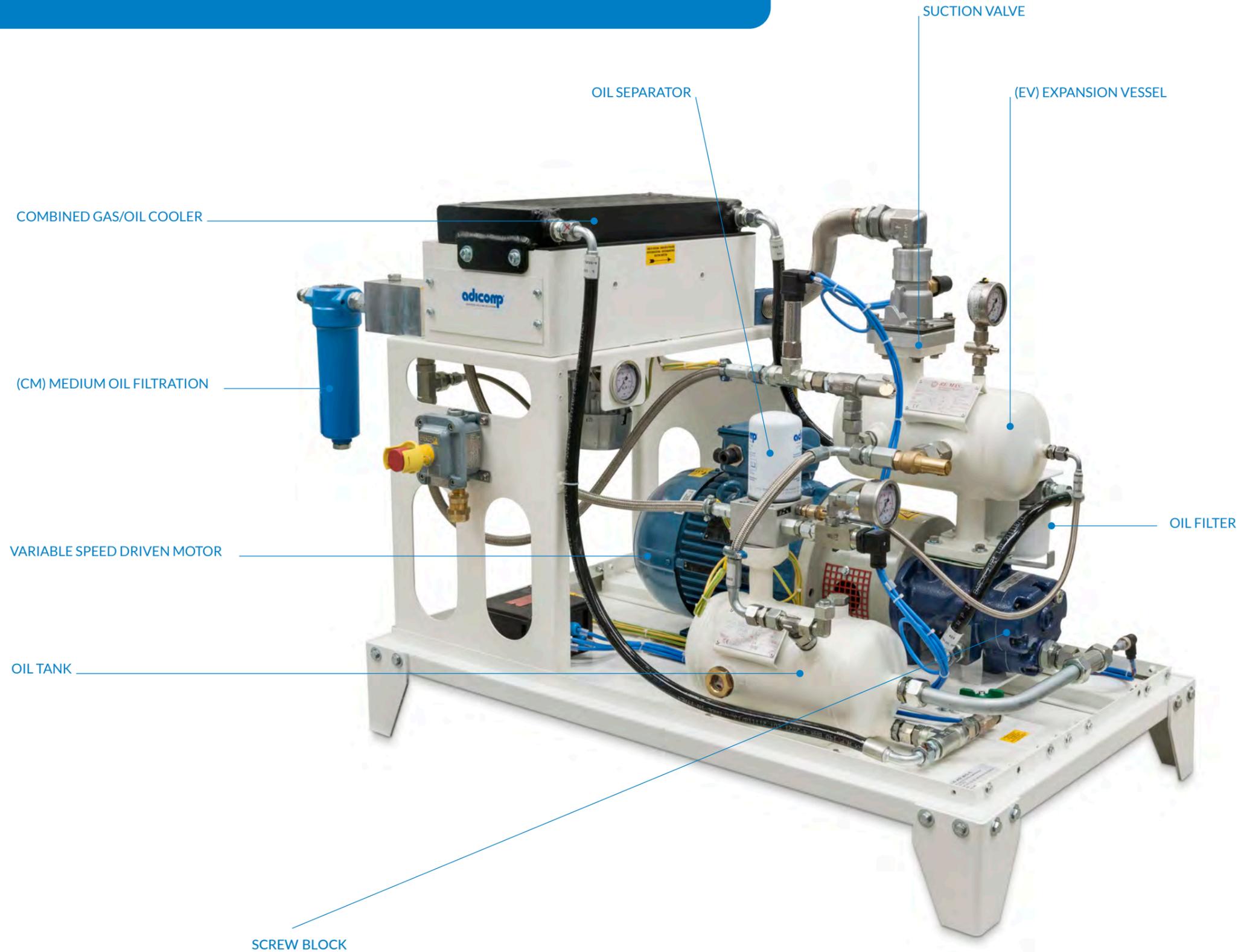


Experience counts

In over 25 years we provided 10000 systems worldwide, facing extremely different applications that allowed us to acquire a high level of know-how acknowledged by the market.



Product overview



Technical properties

- AIR COOLED
- VSD CONTROLLED
- DIRECTLY DRIVEN
- HEAVY-DUTY TEFC ELECTRIC MOTOR
- ELECTRONICALLY CONTROLLED WITH ON BOARD HMI
- FULLY INTEGRATED SYSTEM BUILT ON A EASY HANDLING STEEL SKID
- DESIGNED FOR PLUG AND PLAY INSTALLATION
- INTEGRATED PARTICULATE FILTER
- TCP/IP MODBUS REMOTE TELEMETRY
- INTEGRATE BY-PASS VALVE
- PRESSURE SENSORS, TEMPERATURE TRANSMITTERS, GAUGES AND VALVES
- DESIGNED FOR HAZARDOUS AREA CLASSIFICATION ATEX/NEC

Available Options

- (S) SOUND-PROOF ENCLOSURE (INDOOR INSTALLATION)
- (WS) SOUND & WEATHER-PROOF ENCLOSURE (OUTDOOR INSTALLATION)
- (CM) MEDIUM OIL FILTRATION 0.1 MG/M3
- WEATHERPROOF ELECTRICAL CABINET
- GAS DETECTOR
- (RID) INLET GAS REDUCER
- INLET SHUT-OFF VALVE

Possible configurations

OPEN FRAME
Indoor installation
+3°C/+40°C | +37.5°F/ +104°F



WEATHERPROOF
Outdoor installation
-30°C/+40°C | -22°F/ +104°F



Compressor technical data

		VGE4	VGE5.5	VGE9	VGE11	VGE15	VGE18.5	VGE22
Inlet pressure	mbarg psig	25-100 0.36-1.45	25-100 0.36-1.45	25-100 0.36-1.45	25-100 0.36-1.45	25-100 0.36-1.45	25-100 0.36-1.45	25-100 0.36-1.45
Inlet temperature	°C °F	30 86	30 86	30 86	30 86	30 86	30 86	30 86
Inlet relative humidity	% %	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Installation conditions (OF) & (S) - indoor	°C °F	+3/+40 +37.4/+104	+3/+40 +37.4/+104	+3/+40 +37.4/+104	+3/+40 +37.4/+104	+3/+40 +37.4/+104	+3/+40 +37.4/+104	+3/+40 +37.4/+104
Installation conditions (WS) - outdoor	°C °F	-10/+40 +14/+104	-10/+40 +14/+104	-10/+40 +14/+104	-10/+40 +14/+104	-10/+40 +14/+104	-10/+40 +14/+104	-10/+40 +14/+104
Noise level (OF)	dB(A) at 1 meter dB(A) at 3ft	75 75	75 75	80 80	82 82	82 82	84 84	84 84
Noise level (S) & (WS)	dB(A) at 1 meter dB(A) at 3ft	70 70	70 70	75 75	75 75	75 75	80 80	80 80
Operating pressure	barg psig	5.0-5.5 72.5-80	5.0-5.5 72.5-80	5.0-5.5 72.5-80	5.0-5.5 72.5-80	5.0-5.5 72.5-80	5.0-5.5 72.5-80	5.0-5.5 72.5-80
Maximum free gas delivery	Nm³/h SCFM	30 19	44 27	70 44	95 59	120 75	139 86	193 120
Discharge gas temperature	°C (above ambient) °F (above ambient)	+10/+15 +18/+27	+10/+15 +18/+27	+10/+15 +18/+27	+10/+15 +18/+27	+10/+15 +18/+27	+10/+15 +18/+27	+10/+15 +18/+27
Residual oil in compressor gas	mg/m ³ mg/m ³	3-5 3-5	3-5 3-5	3-5 3-5	3-5 3-5	3-5 3-5	3-5 3-5	3-5 3-5
Residual oil in compressor gas with (CM)	mg/m ³ mg/m ³	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1	0.1 0.1
Maximum power absorbed at shaft	kW HP	4 5.36	5.5 7.37	9 12	11 14.7	15 20	18.5 25	22 29
Installed main motor	kW HP	5.5 7.5	7.5 10	11 15	15 20	18.5 25	22 30	30 40
Installed fan motor	kW HP	0,13 0,25	0,13 0,25	0,13 0,25	0,37 0,55	0,37 0,55	0,37 0,55	0,37 0,55
Power supply EU	V/ph/Hz V/ph/Hz	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 V/ph/Hz	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60	480/3/60
Power supply CA	V/ph/Hz V/ph/Hz	575/3/60	575/3/60	575/3/60	575/3/60	575/3/60	575/3/60	575/3/60
Dimensions (OF) or (S)	mm ft	1325x678x905h 4'35x2'22x2'97h	1325x678x905h 4'35x2'22x2'97h	1325x678x905h 4'35x2'22x2'97h	1879x900x1320h 6'16x2'95x4'33h	1879x900x1320h 6'16x2'95x4'33h	1879x900x1320h 6'16x2'95x4'33h	1879x900x1320h 6'16x2'95x4'33h
Dimensions (WS)	mm ft	1325x678x1225h 4'35x2'22x4'01h	1325x678x1225h 4'35x2'22x4'01h	1325x678x1225h 4'35x2'22x4'01h	1879x900x1639h 6'16x2'95x5'37h	1879x900x1639h 6'16x2'95x5'37h	1879x900x1639h 6'16x2'95x5'37h	1879x900x1639h 6'16x2'95x5'37h
Connection IN/OUT	Rp/Rp - EN1092/Rp ANSI	1 1/4" - 3/4" 1 1/4" - 3/4"	1 1/4" - 3/4" 1 1/4" - 3/4"	1 1/4" - 3/4" 1 1/4" - 3/4"	DN80-1 1/2" 3" - 1 1/2"			

*Any deviations from the referenced conditions above will modify the stated performance results. Consult with your Adicomp representative for additional information

Designed for worldwide installation

VGE series codes & standards



EU

Hazardous area classification: ATEX zone II
 Pressure vessel code compliance: PED
 Electrical code compliance: ISO60079
 Certified manufacturing organization: ISO 9001-2015 -14001:2015 -45001:2018



USA

Hazardous Area Classification: Class 1, Div 2 as defined per NEC, NFPA70
 Pressure Vessel Code Compliance: ASME
 Electrical Code Compliance: UL/Control panels and assemblies
 Certified manufacturing organization: ISO 9001-2015 -14001:2015 -45001:2018
 UL 508A, Standard for Industrial Control Panels
 UL 698A, Standard for Industrial Control Panels Relating to Hazardous (Classified) Locations
 NFPA 70 National Electric Code
 ASME B31.3, Process Piping



CA

Hazardous Area Classification: Class 1, Div 2 as defined per NEC, NFPA70
 Pressure Vessel Code Compliance: ASME -CRN
 Electrical Code Compliance: UL/Control panels and assemblies
 Certified manufacturing organization: ISO 9001-2015 -14001:2015 -45001:2018
 UL 508A, Standard for Industrial Control Panels
 UL 698A, Standard for Industrial Control Panels Relating to Hazardous (Classified) Locations
 NFPA 70 National Electric Code
 ASME B31.3, Process Piping



BR

Hazardous area classification: ATEX zone II
 Pressure Vessel Code Compliance: ASME-NR13
 Electrical Code Compliance: ISO60079 - NR10 Control panels and assemblies
 Certified manufacturing organization: ISO 9001-2015 -14001:2015 -45001:2018
 ASME B31.3, Process Piping



IN

Hazardous Area Classification: Atex zone II (PESO)
 Pressure Vessel Code Compliance: ASME
 Electrical Code Compliance: ISO60079 Control panels and assemblies
 Certified manufacturing organization: ISO 9001-2015 -14001:2015 -45001:2018
 ASME B31.3, Process Piping

