SSG Series

# GAS MIXTURE

ADVANCED GAS COMPRESSORS

SSG Series

# Wet and dry gases applications

HTS23

SUCTION PRESSURE:
**25 < 1000 mbar(g) | *0,3 < 15 psi(g)***

OPERATING PRESSURE:
**15 < 24.5 bar(g) | *218 < 355 psi(g)***

FREE GAS DELIVERY:
**850 < 1500 Nm3/h | *530 < 935 SCFM***

ADSORBED POWER:
**132 < 250 kW | *175 < 340 hp***

Available with or without Integrated gas treatment system, this SSG series is a key industrial solution widely used in refrigeration, gas upgrading & gas grid injection applications, conditioning, petrochemical, chemical engineering and other fields. Its working principle and wide range of applications provide important compression and processing capabilities, enabling any process to be carried out efficiently.

## HOW IT WORKS

The wet gas is sucked through a suction filter acting also as a water separator with automatic condensate drain system, then the gas passes through a suction valve. All the components in contact with the gas are made in stainless steel or duly protected, due to the presence of $H_2S$, $CO_2$ and other aggressive contaminants into the gas. During the gas compression process, the oil is injected inside the two-stage rotary screw chamber to perform three main functions: lubrication, sealing and heat absorption, cooler and it is treated before leaving the package. Working in a close circuit with a gas/oil receiver, oil is pressurized to flow trough an oil cooler, then filtered before being injected again into the screw compression chamber. The gas flows through the minimum pressure /no-return valve into a cooler and it is treated before leaving the package. 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 to the availability or demand of biogas.
Providing adequate conditions maintenance intervals are extended at 8000 operating hours.

### TWO-STAGE MAKES THE DIFFERENCE

The two-stage compression element is proven to increase efficiency and reliability at high pressure in the harsh conditions.
This series of Two-stage screw gas compressors integrates the new HTS23 element enable to reach up to 10-12% higher efficiency that the equivalent single-stage solution.

- An incredible energy saving resulting on much less running costs (savings of 50,000-60,000 euro/year for a 200 kW model);
- When biomethane injection into a grid operating at pressures of 23-24 bar(g) | *333-349 psi(g)* is required, there is no need to install a final gas booster, resulting in large savings in capital costs.

### ONE OF THE 10000 SYSTEMS INSTALLED

## SSG160-16.5 IPTG Compression system

- POWER INSTALLED: 200 kW | *270 Hp*
- INLET PRESSURE: 100 mbar(g) | *1,4 psi(g)*
- WORKING PRESSURE: 16,5 bar(g) | *239 psi(g)*
- FLOW RATE: 1050 $Nm^3/h$ | *654 SCFM*
- AMBIENT TEMPERATURE: -10/+40 °C | *+14/+104 °F*
- LOCATION: FRANCE

**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.

**Full control over operation**
Thanks to the use of a state-of-art PLC programming you can control the operation of all parts of the compression package, thereby ensuring a perfect use, even remotely.

**Heat recovery**
Up to 75% of the heat generated by the screw compressor can be recovered and used to feed with hot water various utilities and thereby reduce overall energy costs. How? Thanks to the heat recovery through dedicated heat exchangers between hot oil /warm water and/or the hot compressed gas/warm water.

**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.

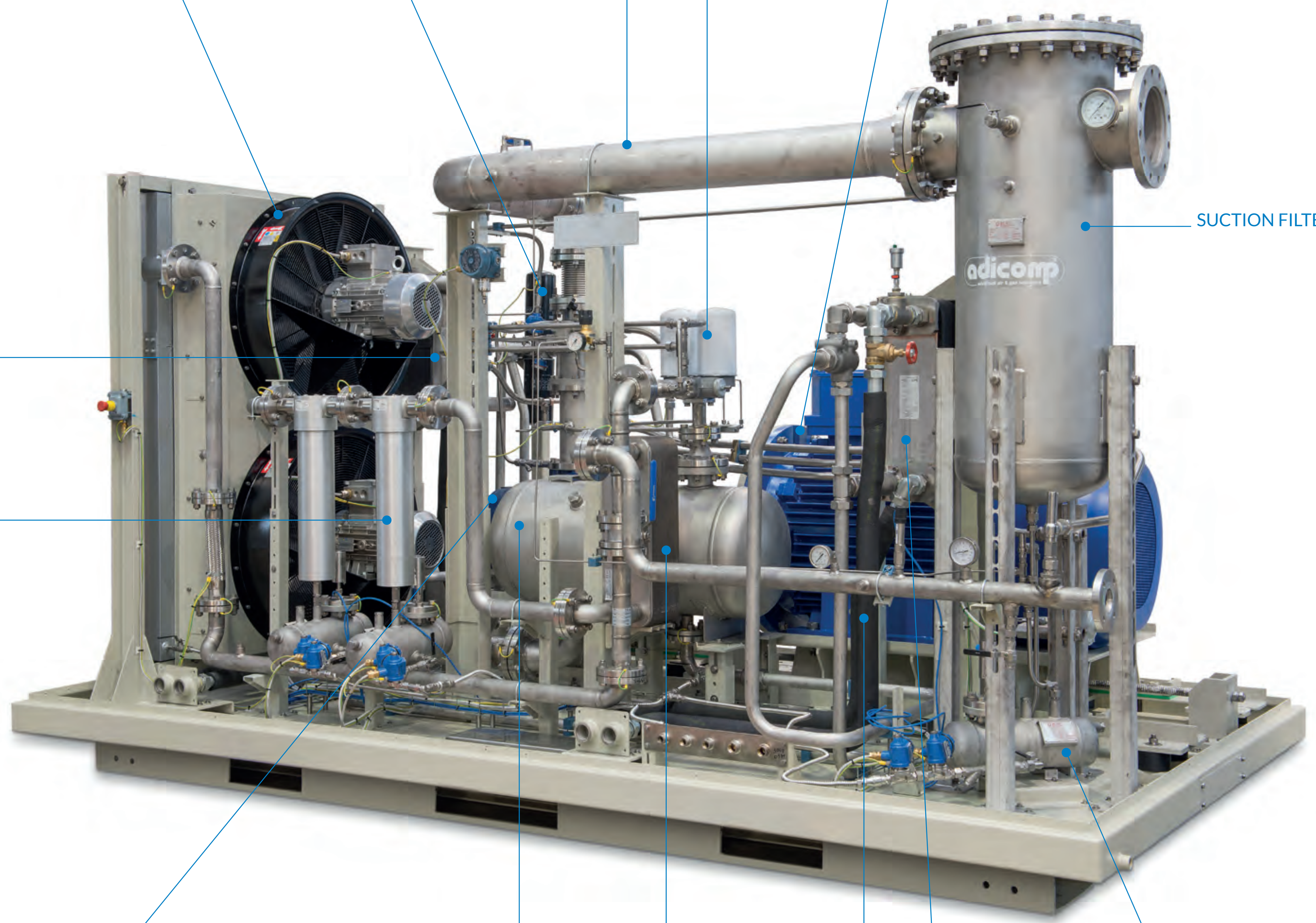
**Air or water cooled**
All Adicomp compressors can be either air cooled or water cooled.

**Experience counts**
Adicomp has been one of the first companies able to compress raw biogas coming from the digester, landfill and waste water plant. 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.

**Customized approach**
At Adicomp, products are manufactured to meet specific customer needs. Not vice versa. We listen to customer requirements and then transmit them to the engineering department to provide the best solutions. Flexible and reliable, always.

**Gas quality**
Adicomp's compressors, designed with its own integrated gas treatment system, always ensure the required gas quality.

## Product overview




## Available Options

- (S) SILENCED & (SS) SUPER SILENCED
- (WP)-(WS) WEATHERPROOF
- (IW) SUCTION DEWATERING SYSTEM
- (SF) SUCTION FILTER
- (EV) EXPANSION VESSEL
- (BV) BLEED VALVE
- (GOH) WATER COOLED
- (OW) OUTLET DEWATERING SYSTEM
- (CM)-(CF) MEDIUM AND FINE FILTRATION
- (GH) RE- HEATING GAS SYSTEM
- (HR) HEAT RECOVERY
- (BY1) MECHANICAL BYPASS VALVE
- (BY2) PROPORTIONAL BYPASS VALVE
- (TC) CONTROLLED OUTLET GAS TEMPERATURE
- (LM) FILTERS PRESSURE INDICATOR
- (PL) - PLC
- (MB) MODBUS, (PB) PROFIBUS & (PN) PROFINET REMOTE CONTROL SYSTEMS
- (CC) ACTIVE CARBON COLUMN (
- (SR) SILOXANE REMOVAL SYSTEM

## 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*

CONTAINER 40FT
Outdoor installation
-40°C/+40°C| *-40°F/+104°F*

# Designed for worldwide installation

## SSG series codes & standards

**MODELS**

| | |
|---|---|
| SSG132 | SSG200 |
| SSG160 | SSG250 |

**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

# Global Presence & Customer Service


Headquartered in Italy, Adicomp provides products and services all over the world through an extensive network of local offices and plants. With more than 25 years of experience and almost 10.000 skids in operation worldwide, Adicomp has grown to be a truly global international company, with a direct presence in over 50 countries and customers in more than 110. The primary driver for that worldwide footprint has been the need and willingness to operate close to our customers.

**SPARE PARTS**


Adicomp's spare parts ensure high quality and efficiency, offering tailored solutions for maintenance and fleet management. We provide global delivery and handle logistics for optimal transport solutions.

**WORLDWIDE SERVICE PARTNERS**

Adicomp offers global on-site support with skilled engineers, ensuring fast, quality service and international certifications. They provide assistance from design to installation and after-sales, ensuring reliability and customer satisfaction.

ADVANCED GAS COMPRESSORS

LRQA CERTIFIED

ISO 9001 - ISO 14001
ISO 45001

UKAS MANAGEMENT SYSTEMS
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