



COMPANY PROFILE 2024



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THE COMPANY

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- Society
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OUR COMPANY

SOME NUMBERS

- Employees
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2

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- CNG
- Hydrogen

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- SA50
- SA200
- DA300
- DA500

3

THE SERVICE

CUSTOMER ORIENTED

R&D SOFTWARE

QUALITY



ABOUT US

MILESTONES

A FAMILY BUSINESS THAT HAS
GONE INTERNATIONAL, KNOWN
FOR ITS DEDICATION WORLDWIDE



1969

Carlo Bauzone **founds** Fornovo Gas.

1985

The company starts **distributing methane gas** by means of tankers and truck trailers.

2004

First reciprocating compressor fully developed by Fornovo Gas' technology.

2005

First oil-free reciprocating compressor installation for biomethane application

2011

Expansion of the headquarters with the construction of a new operational facility dedicated to R&D.

2018

Development of the horizontal reciprocating compressor **DA500**

2019

Fornovo Gas operates in **60 countries**.

2021

A range of **hydrogen reciprocating compressors** is created.

2022

Fornovo Gas is one of the first 1000 Italian companies to become a **Benefit Corporation**.

BENEFIT SOCIETY

Fornovo Gas is an example of how a company can integrate **business goals** with an **ethical vision**. The benefit company model is based on the principles of **social responsibility** and **sustainability**.

As a company we decided to adopt this model to **contribute to a better world**.

To achieve sustainable development, it is important to harmonize **3 basic elements**:

1

ENVIRONMENTAL PROTECTION



2

SOCIAL INCLUSION



3

RESPONSIBLE GOVERNANCE



1

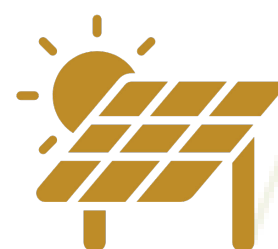
ENVIRONMENTAL PROTECTION



GOAL

REDUCE CO2 EMISSION

WITH



INSTALLATION OF SOLAR PANELS

Decreasing our CO2 emission of 50% by 2024

=

ZERO CO2 emission by 2025



SUSTAINABILITY CREDITS

Acquisition of 150 sustainability credits

=

150 tons of CO2

2 SOCIAL INCLUSION



GOAL

GREAT WORKPLACE ENVIRONMENT

BY Investing in **training** and **development** of its employees, **promoting skills** and **personal growth** :



SPECIFIC TRAINING COURSES

Managerial team building, **trainings** regarding ESG and various **specific programs** for the development of **young talents**.



WELFARE

More than **100.000 euro**/per year



BONUSES

More than **78.000 euro**/per year in bonuses for: **childbirth**, **parenting** and work-life balance, and culture or **obtaining a degree**



SMART WORKING

Offering **flexibility**, time and cost savings, **productivity**, contributing to **sustainability**, and improving **employee well-being**.

2 SOCIAL INCLUSION

GOAL SUPPORT OUR COMMUNITY

BY



SPONSORING

The **local** youth **soccer team**



SUPPORT

Some of the **town's major** summer
events



DONATE

to the **Italian Red Cross** worth
46.000 euro in 2023



DONATE

to those impacted by the **flood in**
Emilia Romagna in 2023



PROMOTING

The **sustainable** and **responsible Forestal management** of the
Tuscan-Emilian Apennine Biosphere Reserve



3

RESPONSIBLE GOVERNANCE



GOAL

EFFECTIVE BUSINESS MANAGEMENT

WITH

TRANSPARENCY

Fornovo Gas adopts **transparent** and **accountable** governance practices, ensuring the **trust of stakeholders**.

ETHICAL VALUES

The company is committed to following **ethical values** and **respecting human rights**, contributing to a more **egalitarian society**.

OUR COMPANY



CERTIFIED QUALITY

ISO 9001- ISO 14001- ISO 45001

55

EXPERIENCE

In the compression
market for 55 years



MADE IN ITALY

All products are
designed and
manufactured in Italy

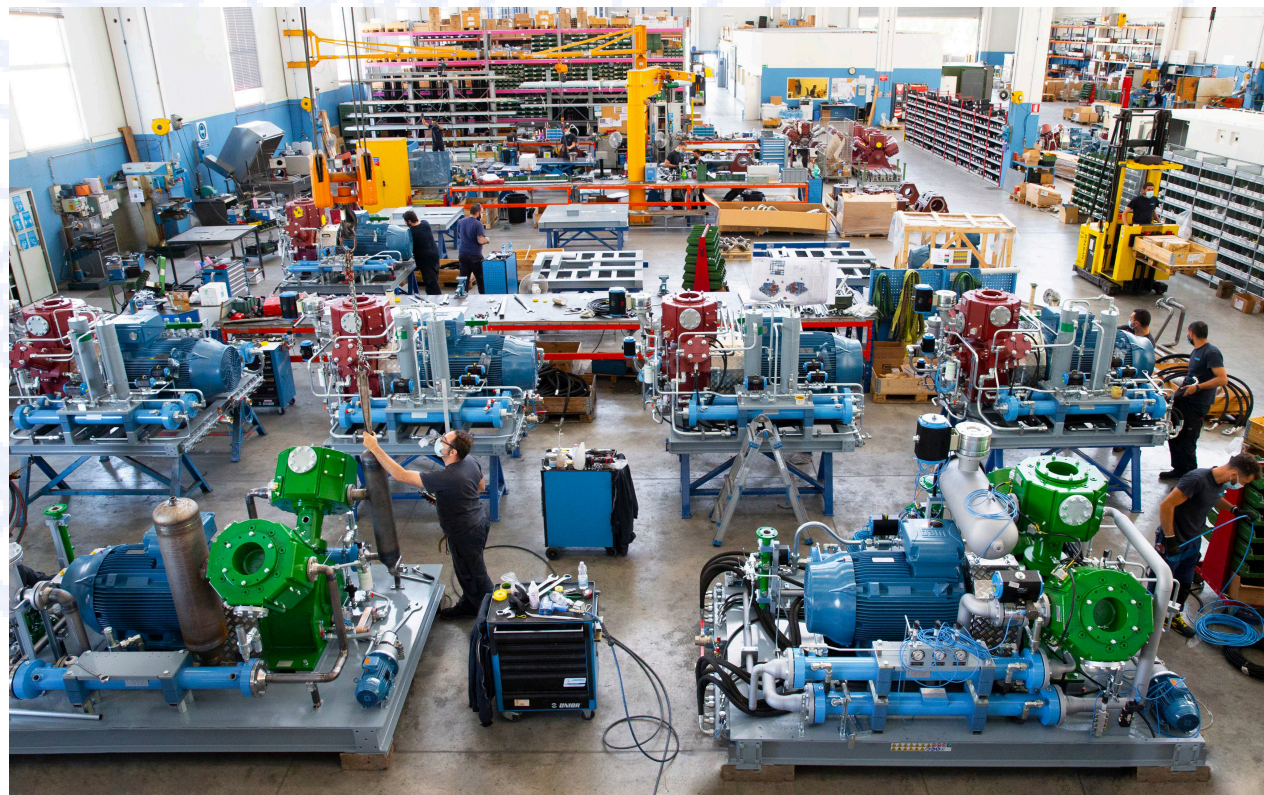


WORLDWIDE

Hundreds of customers
all over the world

OUR WORKPLACE

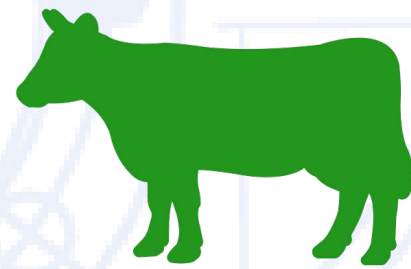
5.193 _{mq}
WORKSHOP



1.055 _{mq}
OFFICES



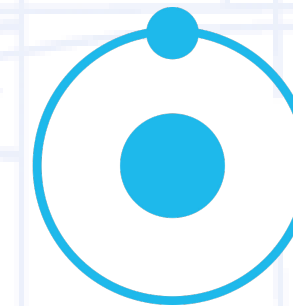
APPLICATIONS



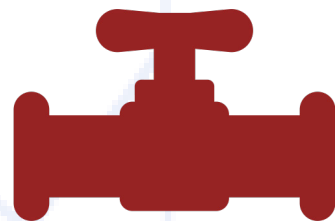
BIOGAS-BIOMETHANE-BIOLNG



CO₂



HYDROGEN



OIL & GAS



FUEL GAS BOOSTING

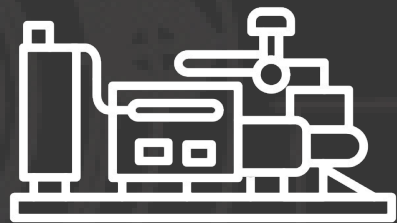


CNG

INDUSTRY

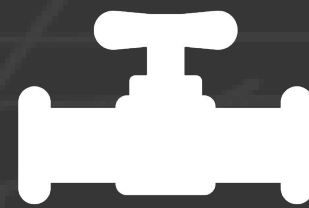
FORNOVO GAS supplies compressors for many different applications in industry, such as co-generation plants and gas turbine boosting

APPLICATIONS



POWER GENERATION

FUEL GAS BOOSTING
WELL HEAD WELL DEPLETION
GAS STORAGE, INJECTION AND LIFT
FLARE AND VENT GAS RECOVERY
REFINERY, MINERY, GAS SERVICES
TECHNICAL GASES
BOIL OFF GAS RECOVERY
SMALL SCALE LNG PRODUCTION PLANT



OIL & GAS

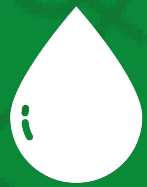


TECHNICAL GASES

BIOGAS

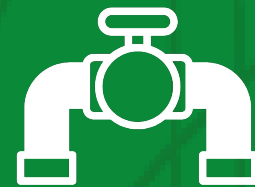
Hundreds of compressors installed in Biogas and Biomethane production plants across Europe and around the world have made Fornovo Gas an acknowledged world leader in Green Energy Excellence.

APPLICATIONS

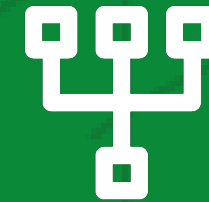


BIOMETHANE LIQUEFACTION

GRID INJECTION
BIO-LNG PLANT
CO2 LIQUEFACTION PLANT
CYLYNDER TRAILER FILLING
BOIL OFF GAS RECOVERY



BIOMETHANE INJECTION



BIOMETHANE DISTRIBUTION



BIOMETHANE STORAGE

CNG

We have more than 50 years of experience in the design and production of superior quality CNG compressors and CNG solutions, installed all around the world with the support of our network of carefully selected, international partners

APPLICATIONS



CNG MOTHER STATION



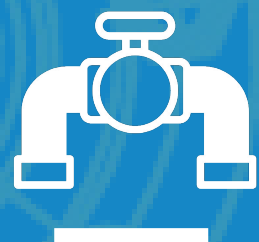
CNG DAUGHTER STATION



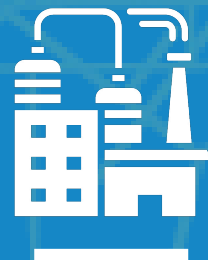
NGV STATION

HYDROGEN

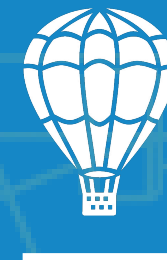
APPLICATIONS



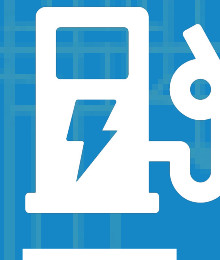
PIPELINE INJECTION



INDUSTRIAL ENERGY/ FEADSTOCK



SYNGAS BOOSTING



POWER TO GAS

ADVANTAGES



EASIER MAINTENANCE



EXCELLENT FLEXIBILITY



LOW COST OPERATIONS



ULTRA HIGH PURITY

PRODUCT RANGE



POWER kW	MODEL	CYLINDER										APPLICATION									
		Bore (mm)	Acting	Strokes (mm)	MAWP (bar g)	Cooling					Distance Piece Type	Features Options	CH4	Bio CH4	N2	CO2	Sour Gas	Toxic Gas	H2	Syngas	
1800	DA500	500	DOUBLE ACTING	80 110	17,5						B-C	Bone dry gas seals									
		400			34,7						B-C										
		300			62						B-C	Ni-plated surface treatment									
		220			70,5						B-C										
		185			100						B-C	Cylinder lubrication system									
		150			140						B-C										
		115			275						B-C										
		370-190	48				B-C				Packings Nitrogen buffer										
		240-140	143				B-C														
		160-80	275				B-C														
		100-55	500				B-C														
315	DA300	320	DOUBLE ACTING	100	10						B	Bone dry gas seals									
		240			40						B										
		150			90						B	Ni-plated surface treatment									
		90			133						B										
		90	220				B														
		200-130	90				B														
		100-50	275				B														
		100-50	375				B														
55	SA200	150	SINGLE ACTING	65	50						B-C	Bone dry gas seals									
		80			100						B-C	Ni-plated surface treatment									
		50-25	TANDEM		306						B-C										
		40-20			500						B-C	Packings Nitrogen buffer									
7	SA50	65	SINGLE ACTING	40	14					-	-										
		45			14																
		37			42																

COMPRESSOR FEATURES

SA50

COMPACT, LOW POWER, V-TYPE HEAVY DUTY COMPRESSOR

SINGLE ACTING CYLINDERS

PRESSURIZED CRANKCASE UP TO 5 BAR

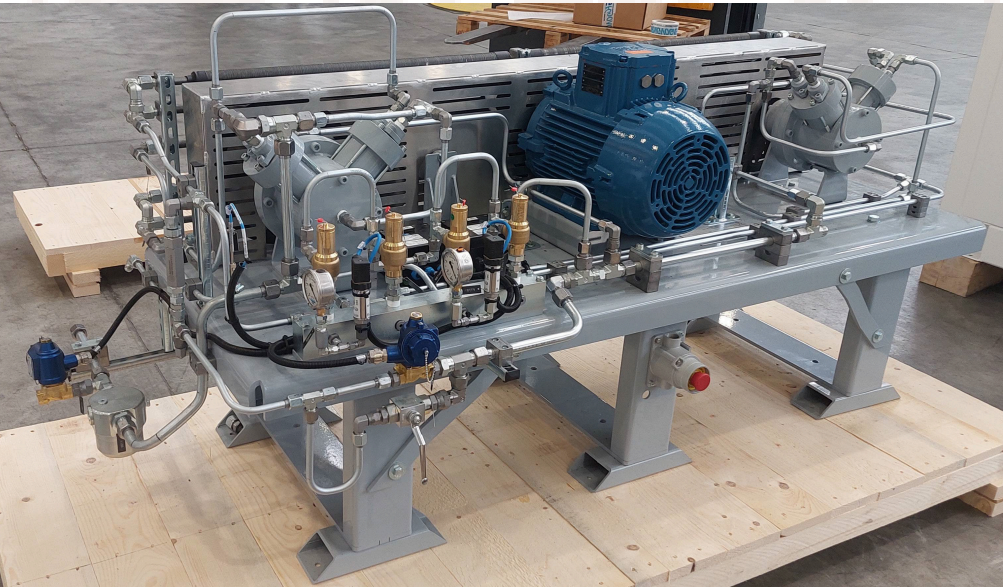
FULL OIL-LESS COMPRESSION (NO OIL NEEDED)

AVAILABLE AS A SINGLE OR DOUBLE SHAFT CONFIGURATION

UP TO THREE COMPRESSION STAGES

TYPICAL APPLICATION: VENT GAS RECOVERY

REFERENCE



Model	SA50
Nr. of Stages	3
Shaft Power	3,7 kW
Inlet pressure	0,45 bar g
Outlet pressure	12 bar g
Flowrate	24 Nm3/h



Model	SA50
Nr. of Stages	2
Shaft Power	1,4 kW
Inlet pressure	0,02 bar g
Outlet pressure	15 bar g
Flowrate	8,8 Nm3/h

POWER
kW

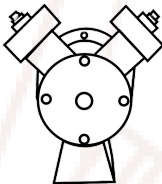
MODEL

CYLINDER

APPLICATION

7

SA50



Bore
(mm)

Acting

Strokes
(mm)

MAWP
(bar g)

Cooling



Distance
Piece Type

Features
Options

CH4

Bio
CH4

N2

CO2

Sour
Gas

Toxic
Gas

H2

Syngas

65
45
37

SINGLE
ACTING

40

14
14
42

○
○
○

○
○
○

OIL LESS

-

-



COMPRESSOR FEATURES

SA200

CROSSHEAD EQUIPPED, LOW-POWER, V/W-TYPE HEAVY DUTY COMPRESSOR

SINGLE ACTING/TANDEM CYLINDERS

DISTANCE PIECE TYPE B AND C AVAILABLE WITH DIFFERENT BUFFER OPTIONS

NON-LUBED CYLINDERS

UP TO FIVE COMPRESSION STAGES

TYPICAL APPLICATIONS: NATURAL GAS, TECHNICAL GASES, HYDROGEN

REFERENCE



Model	SA200
Nr. of Cylinders	2
Shaft Power	13 kW
Inlet pressure	14 bar A
Outlet pressure	30 bar A
Flowrate	226 Nm3/h



Model	SA200
Nr. of Cylinders	3
Shaft Power	36 kW
Inlet pressure	29 bar g
Outlet pressure	75 bar g
Flowrate	403 Sm3/h

POWER
kW

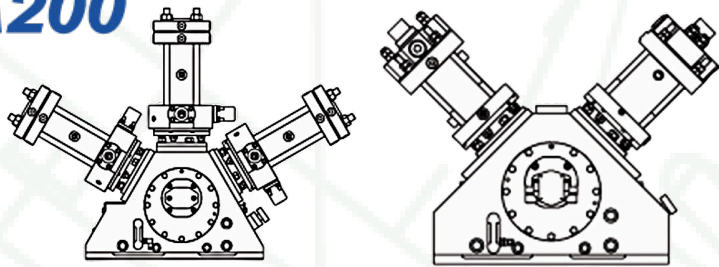
MODEL













CYLINDER

APPLICATION

55

SA200



Bore (mm)	Acting	Strokes (mm)	MAWP (bar g)	Cooling 				Distance Piece Type	Features Options	CH4	Bio CH4	N2	CO2	Sour Gas	Toxic Gas	H2	Syngas
150	SINGLE ACTING	65	50			<div>NO LUBE</div>	<div>OIL FREE</div>	B-C	Bone dry gas seals	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
80			100					B-C	Ni-plated surface treatment	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	
50-25	TANDEM		306					B-C		<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	
40-20			500					B-C		Packings Nitrogen buffer	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>



COMPRESSOR FEATURES

DA300

CROSSHEAD EQUIPPED, V/W-TYPE HEAVY DUTY COMPRESSOR

DOUBLE ACTING/TANDEM CYLINDERS

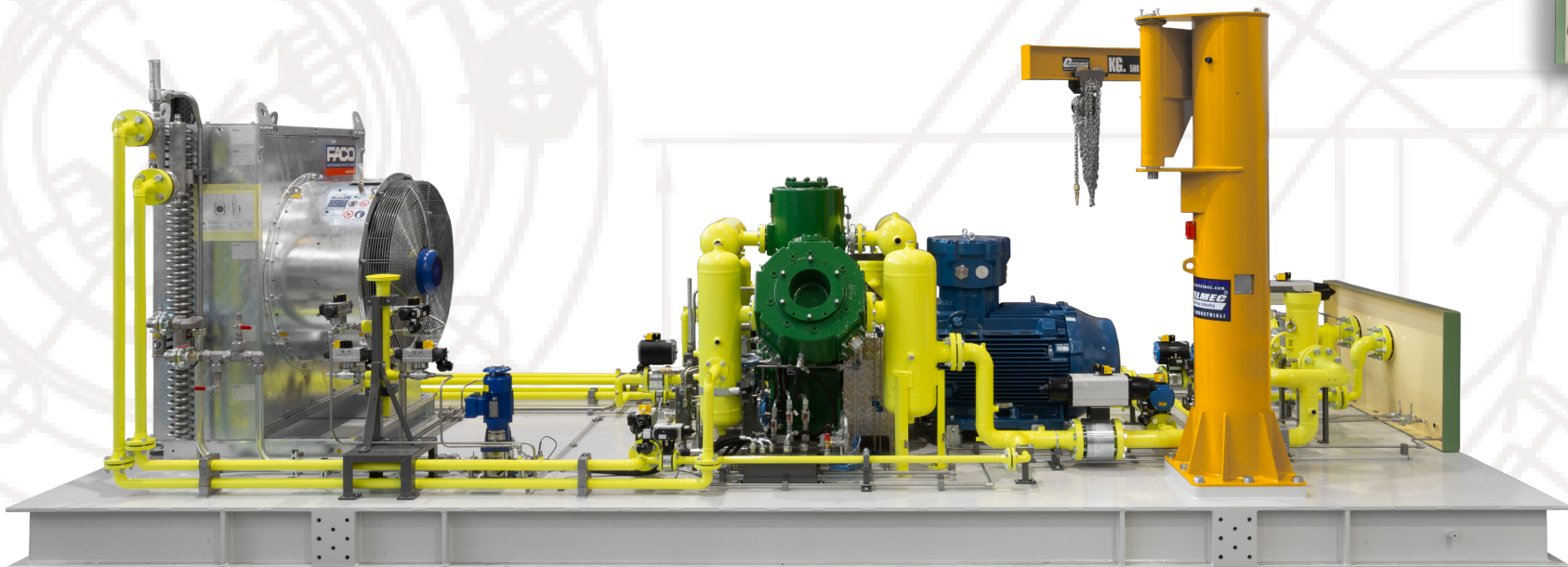
DISTANCE PIECE TYPE B AVAILABLE

NON-LUBED CYLINDERS

UP TO FIVE COMPRESSION STAGES

TYPICAL APPLICATIONS: CNG, BIOGAS, BIOMETHANE INJECTION, FUEL GAS AND CO2 APPLICATION

REFERENCE



Model	3DA300 VFD
Nr. of Cylinders	3
Shaft Power	64-108 kW
Inlet pressure	3-7,5 bar g
Outlet pressure	76 bar g
Flowrate	375-873 Nm3/h

POWER
kW

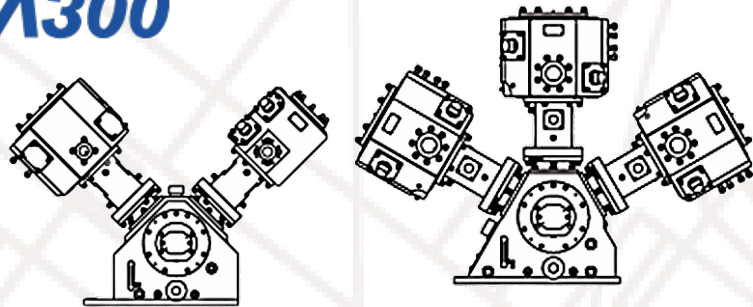
MODEL

CYLINDER

APPLICATION

315

DA300



Bore (mm)	Acting	Strokes (mm)	MAWP (bar g)	Cooling			Distance Piece Type	Features Options	CH4	Bio CH4	N2	CO2	Sour Gas	Toxic Gas	H2	Syngas
320	DOUBLE ACTING	100	10	●	●	NO LUBE	OIL FREE	Bone dry gas seals Ni-plated surface treatment	■	■	■	■				
240			40	●	●											
150			90	●	●											
90			133	○	●											
90			220	○	●											
200-130	TANDEM		90	●	○											
100-50			275	●	●											
100-50			375	○	●											
							B									
							B									
							B									
							B									
							B									
							B									
							B									
							B									



COMPRESSOR FEATURES

DA500

BALANCED AND OPPOSED API 11P/ISO 13631 COMPRESSOR

DOUBLE ACTING/TANDEM CYLINDERS

DISTANCE PIECE TYPE B AND C AVAILABLE WITH DIFFERENT BUFFER OPTIONS

NON-LUBED CYLINDERS OR LUBED CYLINDERS

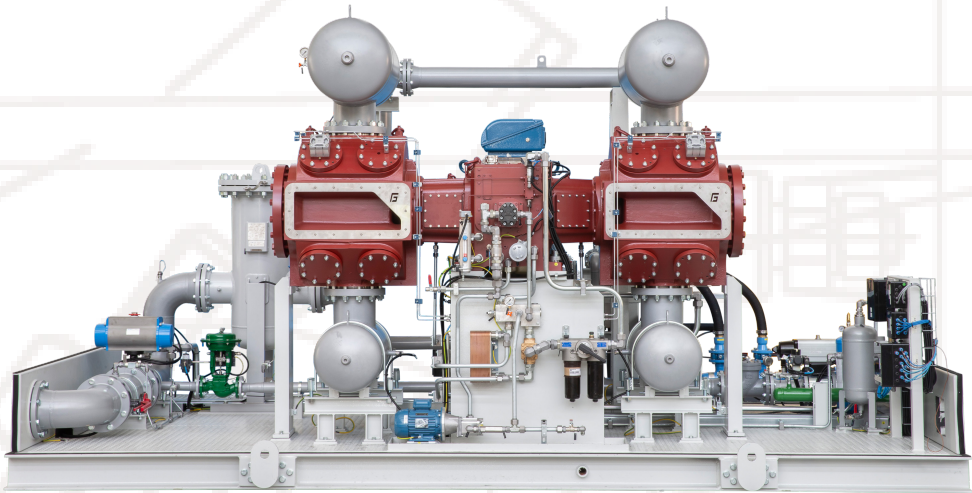
UP TO FIVE COMPRESSION STAGES

**TYPICAL APPLICATIONS: NATURAL GAS, CNG, BIOGAS, BIOMETHANE INJECTION,
FUEL GAS, TECHNICAL GASES, HYDROGEN**

REFERENCE



Model	DA500
Nr. of Cylinders	4
Shaft Power	600 Kw
Inlet pressure	1,5 bar g
Outlet pressure	91 bar g
Flowrate	5967 Sm3/h



Model	DA500
Nr. of Cylinders	2
Shaft Power	500 Kw
Inlet pressure	2-4 bar g
Outlet pressure	6,5 bar g
Flowrate	5019 Nm3/h

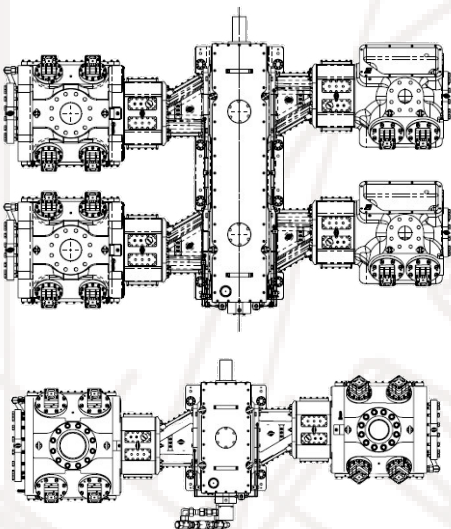
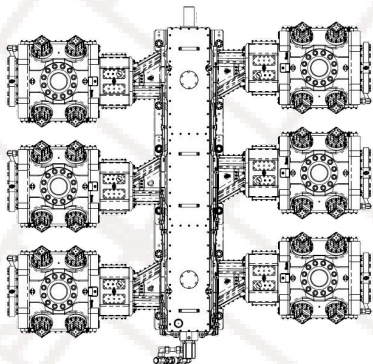
POWER
kW

MODEL

CYLINDER

APPLICATION

1800 DA500



Bore (mm)	Acting	Strokes (mm)	MAWP (bar g)	Cooling air water		Distance Piece Type	Features Options	CH4	Bio CH4	N2	CO2	Sour Gas	Toxic Gas	H2	Syngas
500	DOUBLE ACTING	80 100	17,5			NO LUBE OIL FREE LUBE	Bone dry gas seals								
400			34,7				Ni-plated surface treatment								
300			62				Cylinder lubrication system								
220			70,5				Packings Nitrogen buffer								
185			100												
150			140												
115	TANDEM		275												
370-190			48												
240-140			143												
160-80			275												
100-55			500												



NO LUBE

Piston rings and rod seals are made from special **low friction** and **self-lubricating materials**, in order to keep working **temperatures** sufficiently **low** to ensure **reliability** and **lifetime** of the seals



NO CONTAMINATION
of the gas environment
with cylinder lube oil



CYLINDER LUBE OIL
circuit not necessary

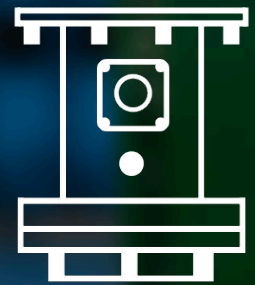


ONLY CRANKCASE OIL
needed



LOW QUANTITY OF OIL
during disposal process

OIL FREE SYSTEM



**DISTANCE PIECE TYPE B
according to API 618**



**NO FILTER REQUIRED
downstream of the
compressor**



**NO CONSUMPTION
of Crankcase Lubrication
Oil**



**NO CONTAMINATION
of the compressed gas**

0

**NO OIL
in the gas**

ADVANTAGES



MINIMAL VIBRATION

Thanks to its optimized balancing



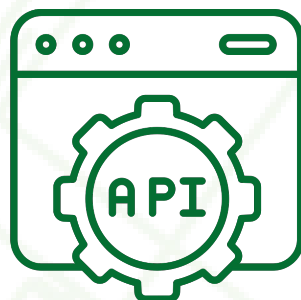
OIL FREE

Our oil-free solution ensures no oil in the discharge, without the use of any oil separator



NOISE REDUCTION

The noise is minimal thanks to low vibrations and pulsations



API COMPLIANCE

DA500 complies with API11P and API618P with minor deviations



OPTIMIZED SPACE

Thanks to the compact machine layout



EASIER MAINTENANCE

HYD SYSTEM




HOERBIGER

HIGH PERFORMANCE CYLINDERS

- **Piston rod** with **special treatment** to **prevent embrittlement**
- **Piston seals** and **valves** specifically designed for H2



DISTANCE PIECE TYPE C

- **Gaskets** and **seals** optimized to **prevent H2 leakage**
- **Purging** of distance piece with inert gas

SERVICE



SPARE PARTS



COMMISSIONING & START UP



MAINTENANCE CONTRACT



FIELD INTERVENTION



TECHNICAL TRAINING



SERVICE CENTERS TRAINED WORLDWIDE



LOGISTICS

CUSTOMER ORIENTED

Additional services we offer to our clients:



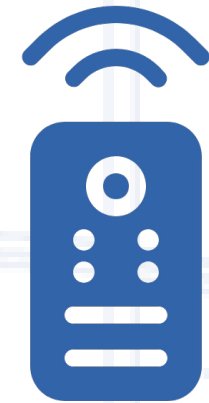
SOFTWARE R&D



ENGINEERING SUPPORT



**QUALIFIED SERVICE
CENTER NETWORK**



REMOTE CONTROL

Possibility to fully sensor
the machines for remote
control

R&D SOFTWARE

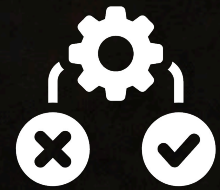
Rapid Effective Development

Fornovo Gas developed a **proprietary system** called **R&D**, which is a **simulation software**.

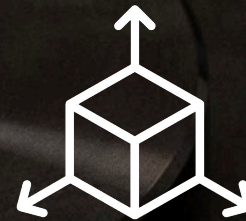
It allows to model in advance the **optimal configuration of compressors** in relation to the process in which they are inserted and to perform predictive **analysis of process feasibility, optimising costs and performance** of the process itself.



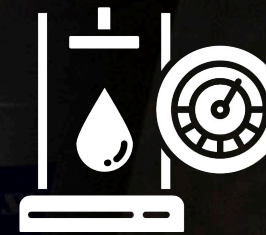
QUALITY



**TESTING
ON EVERY COMPRESSOR**



**3D QUALITY CONTROL ON
CRITICAL COMPONENTS**



**HYDRAULIC TEST PERFORMED
ON ALL PRESSURE PARTS**

CERTIFICATIONS

ISO9001:2015

Quality Management system

ISO14001:2015

Health and Safety Management

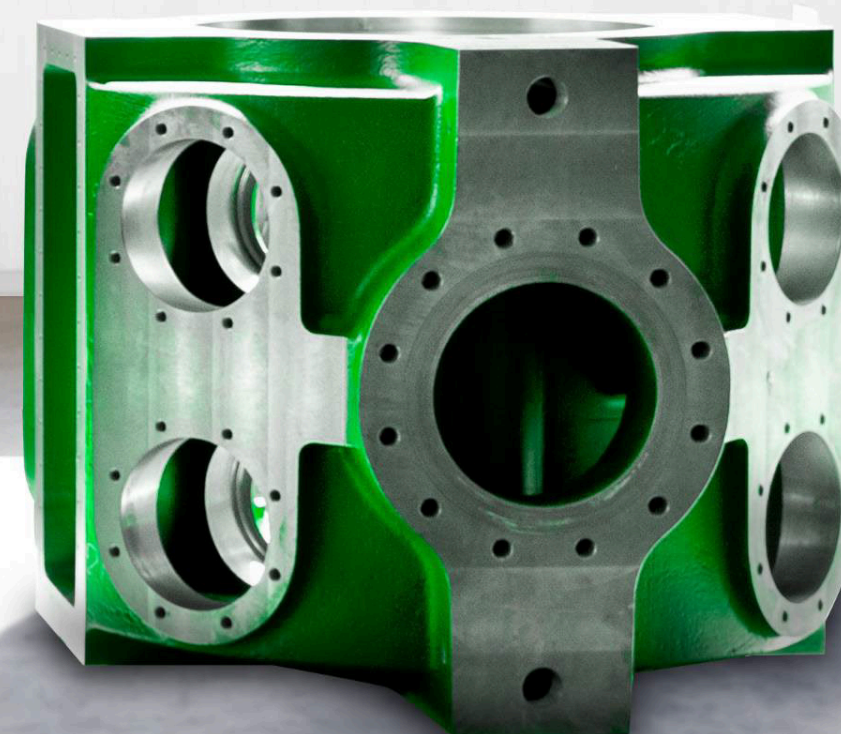
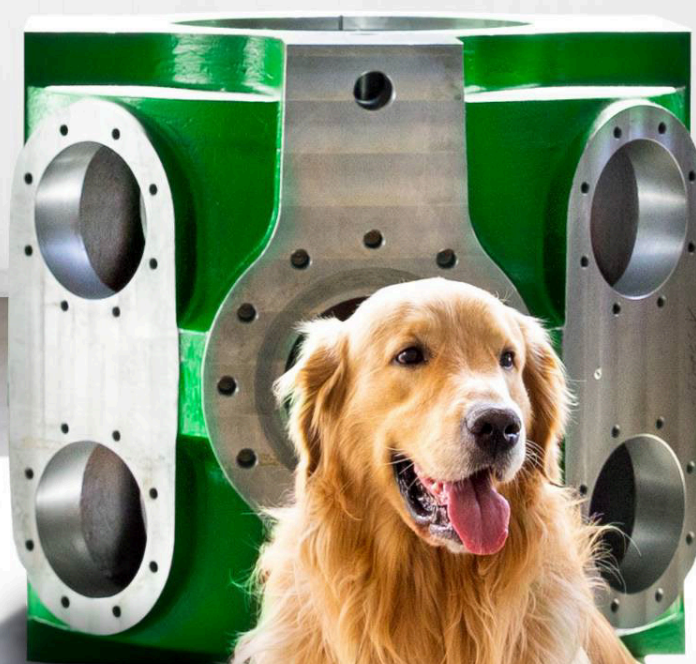
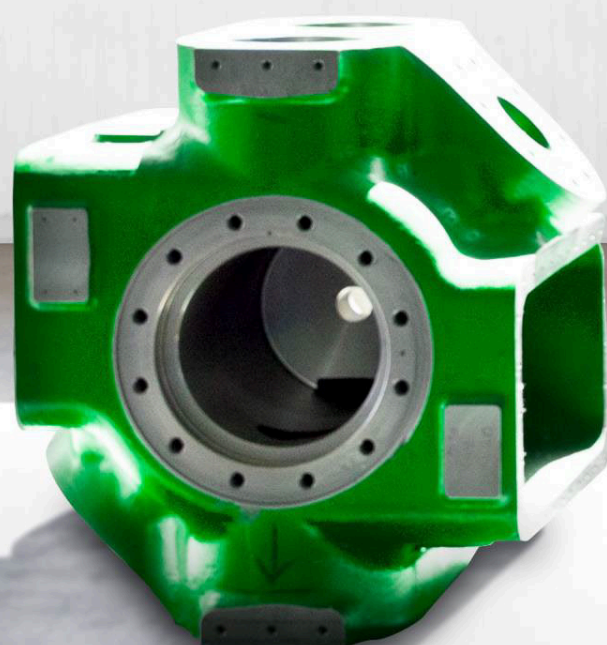
ISO45001:2018

Enviromental Management system

***F*FORNOVOGAS**

WE MOVE ENERGY

...ALWAYS BY YOUR SIDE



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