

*Reciprocating compressors  
for process gases and air*



**Boil-Off Gas oil-free reciprocating  
compressors for LNG**

*Low temperatures, high performances*

## Flexible and efficient BOG compressors: always the right solution in the right place

Flexible, efficient and high-performance oil-free cryogenic reciprocating compressors, operating at **inlet gas temperatures down to  $-170^{\circ}\text{C}$** , designed for compression and re-liquefaction of Boil-Off Gas (BOG).

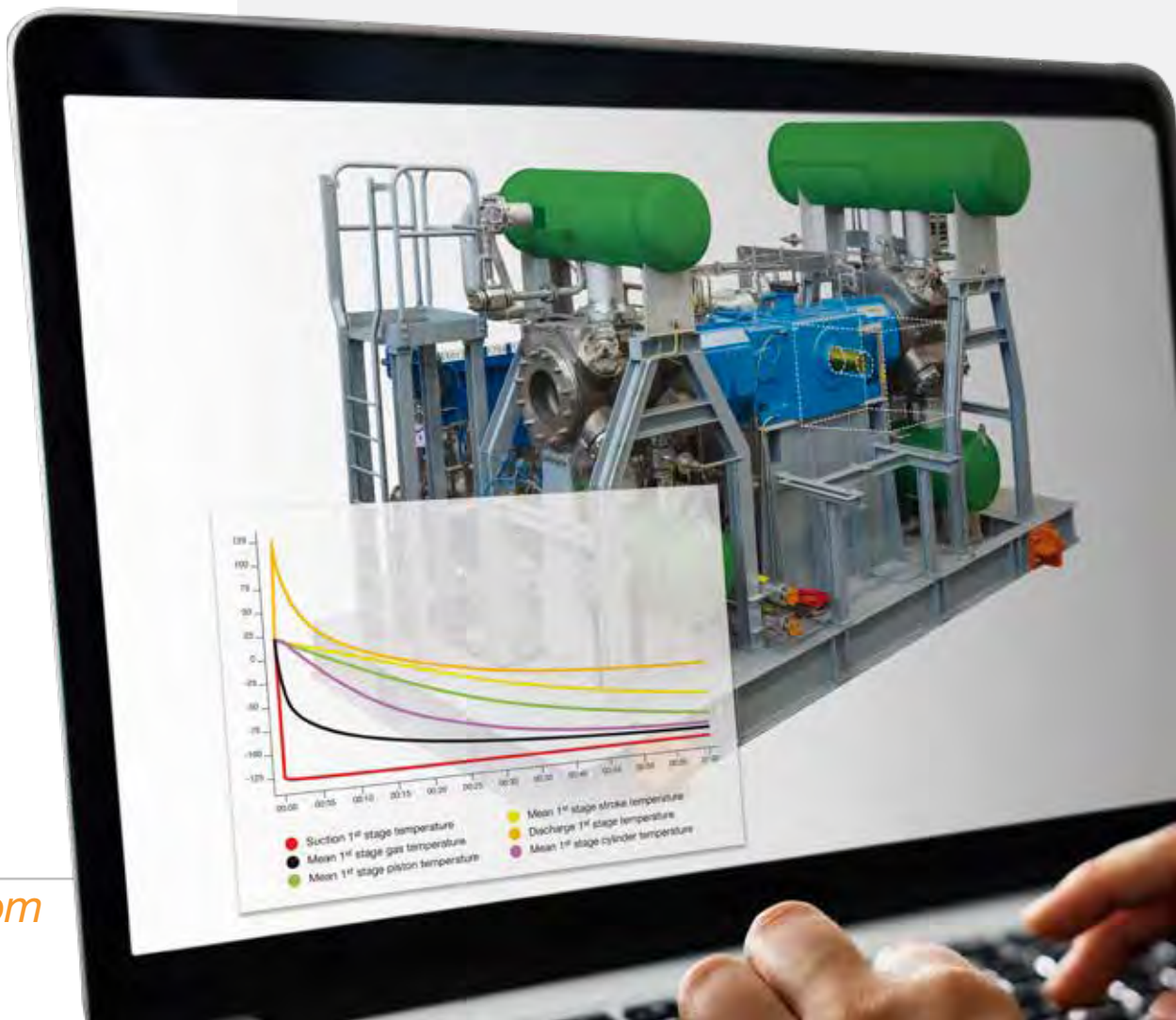
**We have a proven track record in this sector, with numerous BOG compressors installed worldwide and all together totalling over a couple of millions working hours to date.**

### DIGITAL DESIGN - DIGITAL TWIN

Thanks to thermodynamic simulation software, proprietary modeling allows the investigation and simulation - on the digital twin model - of thermodynamic phenomena, even transient ones, occurring during compressor operation, enabling the analysis and selection of the most appropriate materials from the point of view of operation and cost optimization.

**Realistic process prediction ensures perfect compressor efficiency.**

- ✓ Specific selection of materials for wear components in contact with the cryogenic gas, such as piston rings, piston sliders, seals, etc., to ensure machine reliability and minimize maintenance.
- ✓ The intake and delivery valves are made of special steel alloys to give them the mechanical characteristics of high strength, toughness and fatigue strength even at low temperatures.
- ✓ Perfect thermal insulation of the process gas to ensure that compression takes place without heat transfer from the inside to the outside and vice versa.



## COMPETITIVE ADVANTAGES



### SIAD Macchine Impianti at the service of Green Industry

BOG compressors contribute to the ecological transition. By allowing the recovery of evaporated methane, they reduce waste and the release of greenhouse gases into the atmosphere.



### BOG COMPRESSOR DURING TESTING WITH BOIL-OFF NITROGEN ( $-170^{\circ}\text{C}$ ) at the SIAD production site in Bergamo, Italy

Watch the video  
YouTube





BOG compressors - Courtesy of DIG (Depositi Italiani GNL), Small Scale LNG, Ravenna, Italy

## BOG compressor range

FRAME	MAX POWER KW	MAX COMBINED ROD LOAD N	STROKE mm	CROSSHEADS	STAGES	MIN/MAX SPEED rpm
T	75	15,000	100	1/2/3	1-5	300/1,200
W	200	45,000	100	1/2/3	1-5	300/1,200
M	525	95,000	150	1/2/3	1-5	300/750
P	1,100	133,000	215	1/2/3	1-5	300/750
HM	700	95,000	150	2/4	1-6	300/750
HP	1,400	165,000	165 - 200	2/4	1-6	300/750
HD	2,400	240,000	165 - 275	2/4	1-6	300/750
HSF	6,400	350,000	135 / 160 / 185	2/4/6	1-6	490/1,200
HT	8,700	625,000	290 - 340	2/4/6	1-6	300/500

## Applications

### Cold gases transport and storage:

- ✓ LNG receiving terminal
- ✓ LNG carrier
- ✓ LNG bunker vessel
- ✓ FPSO
- ✓ FSRU
- ✓ Merchant ship
- ✓ Cruise ships and ferry

### Oil & gas exploration and production:

- ✓ FLNG

For information:  
[siadmi\\_compr@siad.eu](mailto:siadmi_compr@siad.eu)



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**NATURAL GAS TREATMENT AND LIQUEFACTION PLANT "SMART LNG" by SIAD MI**



# Global technical support services

Close to you,  
wherever you are

- ✓ **Global presence**  
Thanks to a worldwide network of owned and certified Service Centres, SIAD MI guarantee a rapid intervention to support your compressors and plants across all five continents.
- ✓ **Highly specialized technicians**  
More than 100 certified technicians ensure the highest quality service assistance to customers throughout the world.
- ✓ **Constant updating and advanced technology**  
SIAD MI technical staff periodically train the Service Centres through dedicated training courses which include the award of specific certifications. Thanks to the latest generation of tools, the Service Centres ensure advanced, timely and efficient assistance.
- ✓ **Continuous assistance**  
SIAD MI 24/7 Global Assistance is the service that operates 24 hours a day, every day of the year, dedicated to managing the requests from SIAD MI's customers worldwide.



## BOG COMPRESSORS: SMART AND ALWAYS CONNECTED

As with all SIAD MI compressors and plants, even the compressors dedicated to the compression or re-liquefaction of the Boil-Off Gas (BOG), they can be continuously monitored through the SIADMI4U platform. It is a remote monitoring and diagnostics system that allows you to view, analyze and manage, in real time, through a smartphone or PC, all the operating parameters of a compressor or a plant.

Watch the video  
YouTube



For information:  
[siadmi\\_support@siad.eu](mailto:siadmi_support@siad.eu)

[siadmi.com](http://siadmi.com)

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## Industrial Gases

### SIAD S.p.A.

Via San Bernardino, 92  
IT-24126 BERGAMO  
Tel. +39 035 328111  
www.siad.com - siad@siad.eu  
GPS: N 45 40.57 - E 9 39.44

### AUSTRIA

SIAD Austria GmbH  
Bergwerkstrasse 5  
AT-5120 ST. PANTALEON  
Tel. +43 (6277) 7447-0  
www.siad.at - siad\_austria@siad.eu  
GPS: N 48 01.34 - E 12 51.36

### BULGARIA

SIAD Bulgaria EOOD  
4, Amsterdam str. P. O. Box 28  
BG-1528 SOFIA  
Tel. +359 (2) 9785636  
www.siad.bg - siad@siad.bg  
GPS: N 42 39.15 - E 23 24.43

### CZECH REPUBLIC

SIAD Czech spol. s r.o.  
Prague Office Park II - K Hájmům 2606/2b  
CZ-155 00 PRAHA 5  
Tel. +420 235097520  
www.siad.cz - siad@siad.cz  
GPS: N 50 03.21 - E 14 19.32

### FRANCE

SIAD France SAS  
Parc d'activité de Signes, espace Arusha  
Avenue de Berlin  
FR-83870 SIGNES  
Tel. +33 (0) 498181463  
www.siad.com - siad\_france@siad.eu  
GPS: N 43 25.68 - E 5 60.05

### GERMANY

SIAD Germany GmbH  
Ziffling 1  
DE-93497 Willmering bei CHAM  
Tel. +49 (0)9971 858010  
www.siad.com - siad\_germany@siad.eu  
GPS: N 49 23.78 - E 12 67.81

### HUNGARY

SIAD Hungary Kft.  
Zsigmondy u. 38.  
HU-3527 MISKOLC  
Tel. +36 (46) 501130 - Fax +36 (46) 501131  
www.siad.hu - siad\_hungary@siad.eu  
GPS: N 48 07.25 - E 20 48.07

### POLAND

SIAD Poland sp. z o.o.  
ul. Kokotek 66  
PL-41-700 RUDA ŚLĄSKA  
Tel. +48 32 7711650  
www.siad.pl - siad@siad.pl  
GPS: N 50 18.25 - E 18 51.55

### ROMANIA

SIAD Romania S.R.L.  
Drumul Osiei, 75-79, Sector 6  
RO-062395 BUCUREȘTI  
Tel. +40 (21) 3103658 - Fax +40 (21) 3149806  
www.siad.ro - siad@siad.ro  
GPS: N 44 26.26 - E 25 59.10

### RUSSIA

LLC SIAD Rus  
Bolshaya Dmitrovka street 12/1 - build 1, 3 floor  
RU-107031 MOSCOW  
Tel. +7 (495) 7213026  
www.siad.ru - siad@siad.ru  
GPS: N 55 45.41 - E 37 36.53

### SLOVAKIA

SIAD Slovakia spol. s r.o.  
Rožňavská č. 17  
SK-831 04 BRATISLAVA  
Tel. +421 (2) 44460347  
www.siad.sk - siad@siad.sk  
GPS: N 48 10.29 - E 17 09.47

### UKRAINE

LLC SIAD Ukraine  
Konstantinovskaya street, 2A  
UA-04071 KIEV  
Tel. +7 495 9871217

### LLC Remtekhgaz

Kolomoyshevskaya street, 28  
UA-50106 KRIVYI ROG  
Tel. +38 093 3978017  
www.rtg.com.ua

### Arroweld Italia S.p.A.

Via Monte Pasubio, 137  
IT-36010 ZANÈ - VI  
Tel. +39 0445 804444  
www.arroweld.com - arroweld@arroweld.com  
GPS: N 45 43.18 - E 11 26.21

### Bieffe Saldatura S.r.l.

Via Canubia, 9/1  
IT-12100 MADONNA DELL'OLMO - CN  
Tel. +39 0171 414711  
www.bieffesaldatura.com - info@bieffesaldatura.com  
GPS: N 44 25.30 - E 7 33.36

### Tecnoservizi Ambientali S.r.l.

Via San Bernardino, 92  
IT-24126 BERGAMO  
Tel. +39 035 328111  
www.tecnoserviziambientali.eu - info@tsrfl.com  
GPS: N 45 40.57 - E 9 39.44

### Roboteco S.p.A.

Via Carlinga, 43  
IT-24035 CURNO - BG  
Tel. +39 035 5780303  
www.roboteco-italargon.it - info@roboteco-italargon.it  
GPS: N 45 40.35 - E 9 36.25

## Engineering

### SIAD Macchine Impianti S.p.A.

Via Canovine, 2/4  
IT-24126 BERGAMO  
Tel. +39 035 327611  
www.siadmi.com - siadmi@siadmi.eu  
GPS: N 45 40.53 - E 9 39.44

### SIAD Americas LLC

Engineered Equipment  
2001 Timberloch Place  
Suite 500  
The Woodlands, TX 77380  
Tel. +1 346 380 1288  
www.siad-americas.com - info@siad-americas.com  
GPS: N 30 15.74 - W 95.46 76.188

### SIAD Engineering (Hangzhou) Co., Ltd.

17/F, Yizhan Business Bld., No.1 Wenyi West Rd., Xihu District  
Hangzhou, 310012, Zhejiang Province, CHINA  
Tel. +86 0571 85880480  
www.siadmi.cn/hz - siad\_cn@siadmi.eu  
GPS: N 30 29 32.47 - E 120 12 43.68

### SIAD Engineering Trading (Shanghai) Co., Ltd.

Rm.412, No. 5 building, No. 999 Ningqiao Rd.  
Shanghai Pudong, 201206, CHINA  
Tel. +86 021 50550066  
www.siadmi.cn/sh - siad\_cn@siadmi.eu  
GPS: N 31 15.19 - E 121 37.4

### SIAD Macchine Impianti Middle East F.Z.C.

Warehouse H1-03, Gate 1  
P.O. Box 1248  
Ajman Free Zone - UAE  
Tel. +971 (0) 6 7427339  
www.siadmi.com - siadmi\_me@siadmi.eu  
GPS: N 25 24.47 - E 55 27.12

### Russian Branch of SIAD Macchine Impianti S.p.A.

Bolshaya Dmitrovka street 12/1 - build 1, 3 floor  
RU-107031 MOSCOW  
Tel. +7 (495) 7213026  
www.siadmi.ru - siad@siadmi.eu  
GPS: N 55 45.41 - E 37 36.53

### Representative Office of SIAD Macchine Impianti S.p.A.

in the Republic of Uzbekistan  
Amir Temur Ave. 88A, Simurg Business Center  
UZ-100084 TASHKENT  
Tel. +998 712050212  
www.theiadgroup.com - siadmi\_uz@siadmi.eu  
GPS: N 41 20.02 - E 69 17.06

### SIAD Macchine Impianti S.p.A. Sucursal de España

Pl. El Cascajal, Calle Urologías 1-3  
ES-28220 Pinto - MADRID  
Tel. +34 673 789513  
www.siadmi.com - siadmi\_es@siadmi.eu  
GPS: N 40 25.02 - E 3 71.31

### SIAD Macchine Impianti S.p.A. Niederlassung Deutschland

Am Flughafen, 12  
DE-60549 Frankfurt - GERMANY  
Tel. +49 69 509589488  
www.siadmi.com - siadmi\_germany@siadmi.eu  
GPS: N 50 05.26 - E 8.56.86

### ESA S.p.A.

Via Enrico Fermi, 40  
IT-24035 CURNO - BG  
Tel. +39 035 6227411  
www.esapyronics.com - esa@esacombustion.it  
GPS: N 45 41.11 - E 9 37.19

### Belgian Branch of ESA S.p.A.

Zoning Industriel, 4ème rue  
BE-6040 JUNET  
Tel. +32 71 256970  
www.esapyronics.com - marketing@pyronics.be  
GPS: N 50 27.9 - E 4 27.14

### German Branch of ESA S.p.A.

Büttenberger Str. 174 A  
DE-58256 ENNEPENTAL  
www.esapyronics.com - Klein@esapyronics.com  
GPS: N 51 29.94 - E 7 32.76

### ESA Manufacturing Pvt. Ltd.

Plot No. J-17, MIDC, Bhosari  
IN-411 026 PUNE  
Tel. +91 9822801452  
www.esapyronics.com - esaIndia@esapyronics.com  
GPS: N 18 63.14 - E 73 83.32

### Tecno Project Industriale S.r.l.

Via Enrico Fermi, 40  
IT-24035 CURNO - BG  
Tel. +39 035 4551811  
www.tecnoproject.com - info@tecnoproject.com  
GPS: N 45 41.11 - E 9 37.19

### PENTATEC S.r.l.

Via Carlinga, 43  
IT-24035 CURNO - BG  
Tel. +39 035 461673  
www.pentatecsrl.com - commerciale@pentatecsrl.com  
GPS: N 45 41.06 - E 9 37.17

### Tecno Project Industrial Ltda

Rua Pais de Gales, 161  
Dist. Ind. Bandeirantes  
SALTO - SP - CEP 13.326-195 BRAZIL  
Tel. +55 11 40215654  
www.tecnoproject.com.br - tpi@tecnoproject.com.br  
GPS: S 23 11.32 - W 47 19.08

## Healthcare

### MEDIGAS ITALIA S.r.l.

Via Edison, 6  
IT-20057 ASSAGO - MI  
Tel. +39 02 4888111  
www.medigas.it - info@medigas.it  
GPS: N 45 24.17 - E 45 24.17

### MAGALDI LIFE S.r.l.

Via Case Rosse, 19/a  
IT-84131 SALERNO  
Tel. +39 089 383004  
www.magaldilife.it - info@magaldilife.it  
GPS: N 40 38.42 - E 14 51.52

## LPG, Natural Gas and Biomethane

### SLOVENIA

ISTRABENZ PLINI d.o.o.  
Bertoki, Sermín 8A  
SI-5000 KOPEČ  
Tel. +386 5 6634600 - Fax +386 5 6634699  
www.istrabenzplini.si - info@istrabenzplini.si  
GPS: N 45 33.10 - E 13 45.53

### PLINARNA MARIBOR d.o.o.

Plinarniška ulica 9  
SI-2000 MARIBOR  
Tel. +386 2 2284300 - Fax +386 2 2522272  
www.plinarna-maribor.si - info@plinarna-maribor.si  
GPS: N 46 55.92 - E15 65. 71

### GTG Plin d.o.o.

Bukovžlak 65b  
SI-3000 CELJE  
Tel. +386 (0)3 42 60 760  
www.gtg-plin.com - prodaja@gtg-plin.com  
GPS: N 46 24.15 - E 15 30.02

### BOSNIA AND HERZEGOVINA

ISTRABENZ PLINI d.o.o.  
Polkraj bb  
BIH-71370 BREZA  
Tel. +387 32 789300 - Fax +387 32 789302  
www.istrabenzplini.ba - istrabenzplini@istrabenzplini.ba  
GPS: N 44 00.17 - E 18 15.1

### CROATIA

ISTRABENZ PLINI d.o.o.  
Pristanište Podbok 3  
HR-51222 BAKAR  
Tel. +385 51 455300 - Fax +385 51 761175  
www.istrabenzplini.hr - istrabenzplini@istrabenzplini.hr  
GPS: N 45 17.37 - E 14 33.54

### SERBIA

ISTRABENZ PLINI d.o.o.  
Cara dušana 20  
RS-22310 SIMANOVCI  
Tel. +381 22 322477  
office\_begrad@istrabenzplini.si  
GPS: N 44 48.59 - E 20 27.47

### DIME Società Agricola S.r.l.

Via San Bernardino, 92  
IT-24126 BERGAMO  
Tel. +39 035 328111  
GPS: N 45 40.57 - E 9 39.44



SIAD Macchine Impianti S.p.A.  
Società unipersonale soggetta all'attività di direzione e coordinamento di SIAD S.p.A.  
IT-24126 Bergamo, Italy - Via Canovine, 2/4  
Share Capital € 25,000,000 paid up  
VAT and Fiscal Nr.: (IT) 00228420162  
R.E.A. BG-72619 - Export: BG 006107

Telephone +39 035 327611

siadmi.com - siadmi@siad.eu

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