PARS
COMPRESSOR

OLD BUT GOLD

فهرست

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THE
FIRST

INTRODUCTION

معرفی شرکت پارس کمپرسور

- اولین تولید کننده کمپرسورهای هوای فشرده درکشور از سال ۱۳۵٤
- اولین تولید کننده انواع کمپرسورهای هوای اسکرو (Oil inject - Oil free) در کشور
- اولین شرکت با بالاترین تعداد رفرنس فروش محصولات درصنعت کمپروسور سازی کشور
- اولین شرکت دارنده تکنولوژی ساخت واحد هوا ساز تحت لیسانس شرکت Aerzen آلمان
- اولین دارنده تکنولوژی ساخت و تجهیز ایستگاه های CNG درکشور تحت لیسانس FTI کانادا
- اولین شرکت دارنده بیشترین تعداد احداث جایگاه CNG در کشور با بیش از ۵۰۰ جایگاه
- اولین شرکت دارنده تکنولوژی صادرات گاز با روش CNG در کشور
- اولین و تنها شرکت دارنده تکنولوژی ساخت کمپرسور های مخصوص استارت هواپیما درکشور
- اولین و تنها دارنده تکنولوژی ساخت کمپرسورهای اسکرو و فرآیندی گاز جهت استفاده در صنایع نفت، گاز و پتروشیمی تحت لیسانس شرکت FTI کانادا

OLD BUT GOLD

- The First Manufacturer of Screw Compressors in IRAN
- The First Manufacturer of Air End in IRAN
- The First Manufacturer of CNG Compressors in IRAN
- The First Manufacturer of jet Starter Compressors in IRAN
- The First Company to Export NG by CNG method in IRAN

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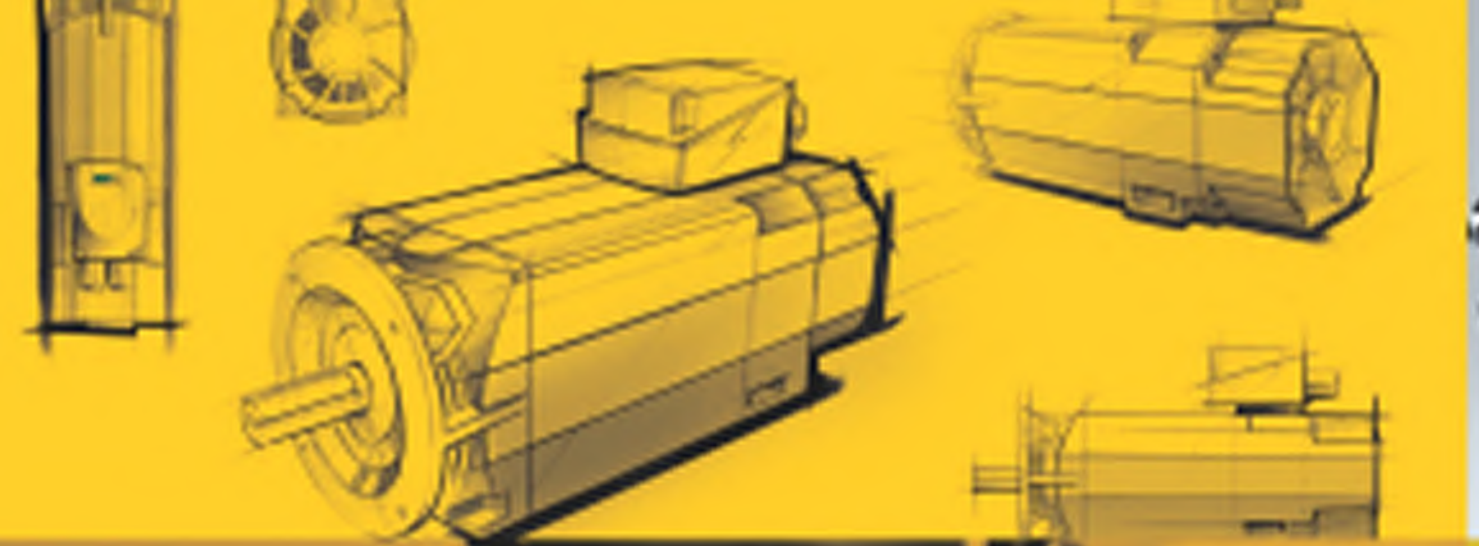

TECHNICAL AND ENGINEERING

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واحد فنی و مهندسی

واحد فنی و مهندسی شرکت تولیدی و صنعتی پارس کمپرسور با داشتن کادری مجرب از متخصصین خبره و با بهره‌مندی از دانش روز دنیا، قادر به ارائه کلیه خدمات فنی و مهندسی اعم از مشاوره و طراحی در زمینه های کاری شرکت می باشد.

از جمله فعالیت های انجام شده در این واحد:

- طراحی کمپرسورهای فرآیندی
- طراحی کمپرسورهای اسکرو
- طراحی مخازن تحت فشار
- طراحی انواع درایرهای جذبی و تبریدی
- طراحی انواع بلوئر برای مصارف سیمان، آرد، آب و فاضلاب و . . .
- اعمال تغییرات در طراحی، جهت بهینه نمودن کمپرسور و متعلقات آن
- طراحی انواع سیستمهای کنترل برای کمپرسور، بلوئر و درایر

DESIGNED by:
TECHNICAL AND ENGINEERING UNIT

- Process Compressors
- Screw Compressors
- High Pressure Tanks
- Adsorption & Refrigerant Dryers
- Positive Displacement Blowers
- Controller Panel

CNC AND MACHINING

واحد ماشین کاری

واحد ماشین کاری شرکت تولیدی و صنعتی پارس کمپرسور با بیش از ۷ دستگاه انواع ماشین آلات CNC پیشرفته، در سایز و ظرفیت های مختلف، توانایی تولید بسیاری از قطعات و متعلقات کمپرسورهای هوا و CNG را دارا می باشد.

از جمله قابلیتهای این واحد میتوان به موارد زیر اشاره نمود:

- تولید روتور ایراند B100، B150 و B250
- ساخت قطعات بیرشفت از جمله شاتون، سیلندر، اویل پمپ، بلوک سیلندر، کراس هد و ...
- ساخت انواع قطعات ماشین کاری مربوط به صنایع مختلف از جمله صنایع خودروسازی و ...

PRODUCTS by:

CNC UNIT

- Bear Shaft Parts
- Cross head
- Rotors
- Oil Pump

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MILLING

High-Tech Milling Machines

واحد تراش کاری

واحد تراش کاری شرکت تولیدی و صنعتی پارس کمپرسور با بیش از ۱۰ دستگاه انواع ماشین آلات پیشرفته تراش، در سایز و ظرفیت های مختلف توانایی تولید بسیاری از قطعات و متعلقات کمپرسورهای هوا و CNG را دارا می باشد.

از جمله قابلیتهای این واحد می توان به موارد زیر اشاره نمود:

- ساخت انواع متعلقات کمپرسورهای هوا شامل کوپلینگ، پولی ها، شیرهای اطمینان، شیرهای یک طرفه، میکرو فیلترها و . . .
- ساخت انواع متعلقات کمپرسورهای CNG
- ساخت انواع قطعات تراش کاری مربوط به صنایع مختلف از جمله صنایع خودروسازی و ...

PRODUCTS by:

MILLING UNIT

- Air Compressor Parts
- Couplings
- CNG Compressor Parts
- Safety Valves
- Micro Filters
- General Parts of OEM Companies

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WELDING

Separators
Water Trap
Silencers
Structures
Dryers
Cylinders

واحد آهنگری

نظر به اهمیت برخی قطعات کلیدی در ساخت مجموعه کمپرسور های هوا و گاز و به منظور بالا بردن کیفیت محصولات تولیدی، شرکت تولیدی و صنعتی پارس کمپرسور، نسبت به تولید برخی قطعات و متعلقات مربوطه اقدام می نماید، از جمله:

- انواع مخازن با ظرفیت ۲۵۰ تا ۳۵۰۰۰ لیتر
- انواع شاسی و مقاطع فلزی
- انواع تفکیک کننده ها، درایرها، تله های آبگیر و سایلنسرها

PRODUCTS by:

WELDING UNIT

- Separators
- Water Trap
- Silencers
- Structures
- Dryers
- Cylinders

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ELECTRICITY

واحد برق

واحد برق شرکت تولیدی و صنعتی پارس‌کمپرسور با داشتن مهندسین و تکنسینهای مجرب، قابلیت تولید بخش زیادی از قطعات و ملزومات الکترونیکی کمپرسورهای هوا و گاز را داراست.

از جمله توانایی‌های این واحد می‌توان به موارد زیر اشاره نمود:

- ساخت تابلو برق انواع کمپرسورهای هوا و گاز مجهز به PLC
- ساخت کنترلر
- ساخت تابلو برق مربوط به انواع بلوئر
- ساخت تابلو قدرت CNG
- ساخت تابلو کنترل انواع درایر مجهز به PLC و رطوبت سنج
- ساخت انواع تابلوهای برق ضد انفجار EXD
- ساخت انواع تابلوهای برق مربوط به صنایع مختلف

PRODUCTS by:

ELECTRICITY UNIT

- CNG Electrical Panels
- EXD Electrical Panels
- PLC Electrical Panels
- Controller Panels
- Soft Starter

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QUALITY CONTROL

واحد کنترل و تضمین کیفیت

کیفیت محصولات و خدمات درشرکت تولیدی و صنعتی پارس کمپرسور از اهمیت ویژه ای برخوردار بوده و شاهد این ادعا، ٤٠ سال خدمت و تولید مستمردرصنعت ساخت دستگاههای فشرده سازی هوا و گاز می باشد.

کیفیت محصولات شرکت در حد استانداردهای اروپایی است و برای تثبیت این مهم، واحد کنترل کیفیت شرکت زیر نظر مستقیم مدیریت عامل از ابتدای مراحل خرید و ساخت قطعات و ملزومات مورد نیاز کمپرسور و تجهیزات مربوطه تا مراحل تولید و ساخت محصول نهایی، نظارت دقیق صورت داده وحتی ازکوچکترین مغایرت، جهت پیشبرد اهداف شرکت در ارتقاءِ کیفیت محصولات خود نمی گذرد.

از جمله وظایف این واحد می توان به موارد زیر اشاره نمود:

- انطباق‌محصول نهایی با استانداردهای بین المللی نظیر AWSD11,ANSI,ASMEB31.3,DIN,API
- تست صدا
- تست دبی
- تست فشار
- تست جوش PT & RT
- تست نشتی
- تست ویبره
- تست دما
- تست آمپر ولتاژ دستگاه

Production line & Final Product Tests
According to the Highest Level of Standards

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PRODUCTS

محصولات :

SCREW COMPRESSORS

OIL FREE Single Stage

Air Flow Range	Working Pressure Range	Electric Power
4.6 ~ 243 m3/min	0.75 ~ 2 Bar	11kw ~ 710 kw

OIL FREE Double Stage

Air Flow Range	Working Pressure Range	Electric Power
5.16 ~ 43 m3/min	7 ~ 10 Bar	45kw ~ 132 kw

OIL INJECTED Belt Drive

Air Flow Range	Working Pressure Range	Electric Power
1.06~ 35m3/min	7 ~ 15 Bar	5.5kw ~ 200 kw

OIL INJECTED Direct Drive

Air Flow Range	Working Pressure Range	Electric Power
1.19 ~ 44.29 m3/min	7 ~ 13 Bar	11kw ~ 315 kw

BLOWER

Air Flow Range	Working Pressure Range	Electric Power
0.55 ~ 246 m3/min	300 ~ 1000 mbar	1.5kw ~ 500 kw

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ACCESSORIES

متعلقات جانبی

ACCESSORIES

WATER TRAP

Capacity	Working Pressure Range
5 ~ 130 m3/min	7 ~ 16 bar

AIR RECEIVER

Capacity	Working Pressure Range
500 ~ 35000 Lit	7 ~ 16 bar

DRYER

Capacity	Working Pressure Range	Type
0.5 ~ 140 m3/min	7 ~ 16 bar	Adsorption
0.5 ~ 90 m3/min	7 ~ 16 bar	Refrigerant

AIR FILTER

Capacity	Working Pressure Range	Type
0.66 ~ 523 m3/min	7 ~ 16 bar	Dust
0.66 ~ 523 m3/min	7 ~ 16 bar	Micro

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SPECIAL PRODUCTS

محصولات خاص

SPECIAL PRODUCTS

SCREW COMPRESSOR API 619 iso10440

Working Pressure Range	Power Range	Gas Flow Range
Up To 70 bar	0.1~ 3 MW	Up to 100,000 Cm/h

RECIPROCATING COMPRESSOR API 618 iso13707

Working Pressure Range	Power Range	Gas Flow Range
Up To 450 bar	0.1~10 MW	100~100,000 Cm/h

For Compressing Co2, Hc, Hydrogen, Ethylene, Natural Gas,...

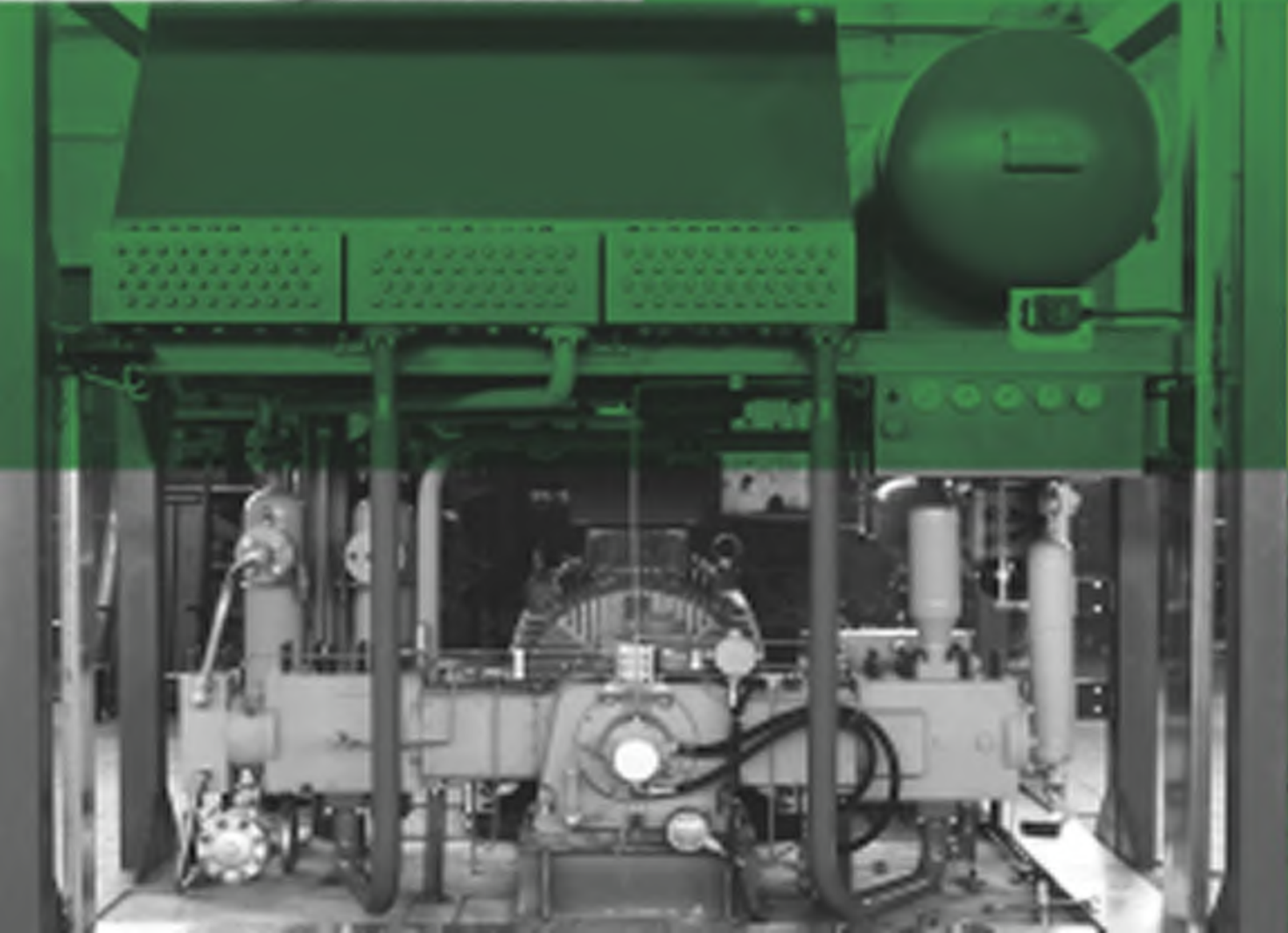
HYDROGEN DISPENSER

Filling Pressure	Max. Flow Rate	Operating Temperature	Electrical Requirements
350 bar	Up to 20 kg/min	-20℃ to +60℃	220 V, 50 Hz, 3A

AIR STARTER

Capacity	Working Pressure Range	Tank Pressure	Tank Capacity
1230 lit	27 ~ 45 psi	40 bar	5000 lit
1230 lit	27 ~ 45 psi	40 bar	7000 lit

CNG STATION



ایستگاه‌های CNG

شرکت تولیدی و صنعتی پارس‌کمپرسور برای اولین بار در سال ۱۳۸۱همزمان با تصمیم دولت محترم جهت گازسوز نمودن ناوگان عمومی و خصوصی کشور اقدام به انتقال تکنولوژی ساخت ایستگاههای افزایش فشار و تزریق گاز طبیعی به خودرو ازشرکت FTI کانادا نمود.

در حال حاضر این شرکت بیش از ۵۰۰ پکیج کامل CNG شامل‌ساختار و بدنه ایستگاه، سیستم خشک کن گاز طبیعی، کمپرسورهای افزایش فشار، مخازن نگه داری‌گاز با فشار بالا، تجهیزات الکترونیکی و دستگاههای تزریق‌گاز به خودرو درسراسر کشور تجهیز نموده است که این بالاترین رکورد ساخت ایستگاه CNG درکشور توسط یک شرکت خصوصی می باشد.

محصولات تولیدی شرکت در این بخش:

CNG STATION

CNG Comperssor	
Capacity	250~1500 Nm3/hr
Inlet Pressure	4 ~ 17 bar
Dis. Pressure	17 ~ 250 bar
Electromotor	55 ~ 185 kw

DISPENSER	
Capacity	20 kg/min
No. of Nozzle	1 ~ 2
Oper. Pressure	200 bar
Max. Working Pressure	250 bar

STORAGE Cylinders	
Capacity	1200~ 8000 lit
Oper. Pressure	275 bar
Oper. Temp.	30~ 60 °C.

DRYER	
Capacity	50~150 Nm3/hr
Inlet Pressure	4 bar
Ambient Temperature	15 ~ 40 °C
Power consumption	25 ~ 50 kw

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AFTER SALES SERVICE

خدمات پس از فروش

شرکت تولیدی و صنعتی پارس کمپرسور، جهت ایجاد انسجام در انجام دقیق و به موقع خدمات پس از فروش بیش از ۱۰/۰۰۰ رفرنس محصولات تولیدی در بخش هوا و نزدیک به ۵۰۰ جایگاه CNG، حاصل ۴۰ سال فعالیت درخشان در صنعت ساخت ماشین آلات و کمپرسور های هوا و گاز، این مهم را توسط تیمی متشکل از افراد با توان تکنیکی و تجربه بالای کسب شده طی سال های بسیار به انجام می رساند تا با خدمات مناسب بتواند رضایت مشتریان که گرانبهاترین سرمایه شرکت می باشند را کسب نماید.

از جمله وظایف این واحد می توان به موارد زیر اشاره نمود:

- نصب و راه اندازی تولیدات پارس کمپرسور در هردو بخش هوا و گاز (CNG)
- تعمیر و نگهداری کمپرسورهای گاز و تعمیرات اساسی جایگاه های CNG
- تعمیر و نگهداری کمپرسورهای هوا
- آموزش جهت بهره برداری از کلیه محصولات
- انجام خدمات مشاوره ای در برآورد میزان هوای فشرده مورد نیاز کارگاه ها و کارخانجات کشور

After Sales Services

- CNG Station Overhaul
- Maintenance Services for CNG & Air
- After Sales Services for CNG & Air
- Consulting Services

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Transferring
of Natural GAS

صادرات گاز طبیعی

شرکت تولیدی وصنعتی پارس کمپرسور برای اولین بار درکشور موفق به اخذ مجوز صادرات گاز طبیعی از شرکت ملی گاز ایران به روش CNG تا ظرفیت ۲۰ میلیون متر مکعب در روز به کشورهای حوزه خلیج فارس، پاکستان و هندوستان شده است.

در این روش گاز طبیعی پس از عملیات خشک سازی از طریق کمپرسورهای CNG با فشار ۲۵۰ بار، به داخل مخازن انتقال پیدا کرده و پس از حمل به مقصد مورد نظر، توسط سیستم تقلیل فشار آماده مصرف می گردد.

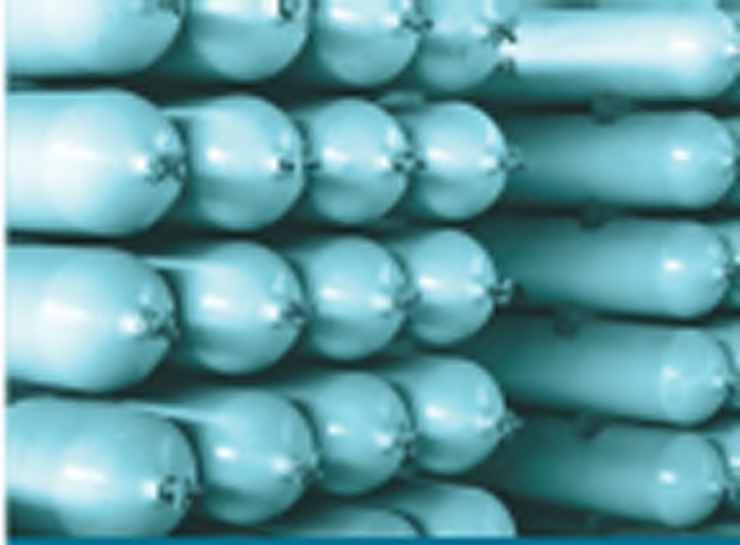
انتقال گاز طبیعی

برخی نیروگاه های کشور به دلیل دوری از شبکه سراسری گاز طبیعی از این نعمت بهره مند نبوده و مجبور به استفاده از سوخت‌های فسیلی هستند که هم هزینه و هم آلایندگی آنها به مراتب بیشتر از گاز طبیعی می باشد.

شرکت پارس کمپرسور با داشتن تکنولوژی انتقال گاز به روش CNG قادر است کلیه نیروگاه ها و سایر نقاط کشور را که به شبکه گازطبیعی دسترسی ندارند مجهز به این نعمت الهی گرداند.

Transferring of Natural GAS

- The First Company Exporting Gas by CNG method
- Up to 20 mm^3/day
- Approved by N.I.G.C
- An Enormous & Massive Project



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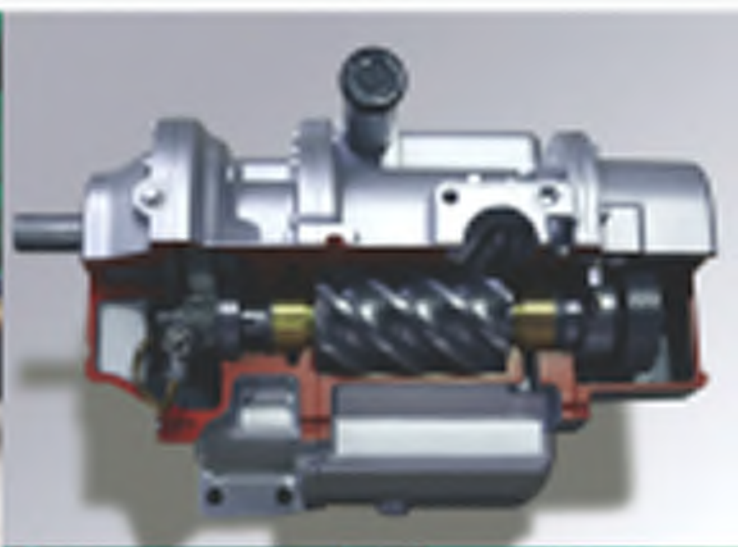
EXCLUSIVE AGENCY



نمایندگی انحصاری

شرکت تولیدی و صنعتی پارس کمپرسور از ابتدای تاسیس تاکنون با اخذ نمایندگی انحصاری محصولات استراتژیک مربوط به صنعت ساخت کمپرسورهای هوا و گاز، ضمن یکپارچه سازی فروش محصولات مذکور در کشور، توانسته است نسبت به انتقال تکنولوژی ساخت و بومی سازی آنها نیز اقدام نماید.

برخی از برندهایی که این شرکت نمایندگی انحصاری آنها را دارد شامل:

GHH RAND

FTI International Group Inc.

Knox Western

AIRMAN

EXCLUSIVE AGENCY OF DOMINANT BRANDS

in Compressor Technology

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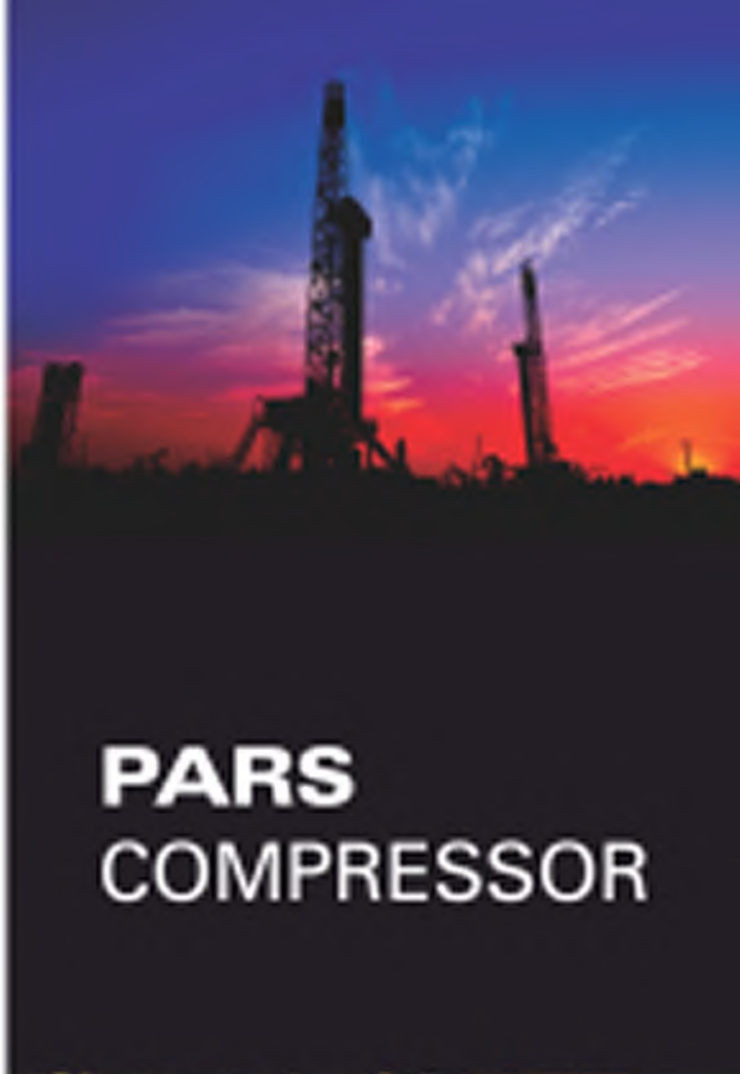
رفرنس فروش محصولات

شرکت تولیدی و صنعتی پارس کمپرسور طی ٤٠ سال فعالیت مستمر در تولید هوای فشرده و با دارا بودن تکنولوژی روز دنیا در ساخت انواع کمپرسورهای‌اسکرو، دمنده، CNG ومتعلقات جانبی مربوطه، توانسته است نیاز تمامی صنایع تولیدی، صنعتی و معدنی کشور را تامین نموده و گامهای موثری را در جهت جلوگیری از خروج ارز و رسیدن به خودکفایی بردارد.

محصولات این شرکت در لیست تامین بسیاری از صنایع و شرکت های بزرگ قرار دارد از جمله :

- صنایع نفت و گاز
- صنایع پتروشیمی
- صنایع خودرو سازی
- صنایع فولاد
- صنایع معدنی
- صنایع آب و فاضلاب
- صنایع سیمان
- صنایع ساختمانی
- صنایع راه سازی
- صنایع غذایی
- صنایع دارویی و بهداشتی
- صنایع هواپیما یی



GUARANTEE AND SUPPORT

گـارانـتی

گارانـتی مـحصولات شرکت تولیدی و صنعتی پارس کمپرسور ۱۲ ماه از زمان تحویل کالا و یا ۲۰۰۰ ساعت کـارکرد پس از راه انـدازی دستـگاه (هر کدام زودترمحقق گردد) می باشد، شایان ذکر است انجام خدمات مذکور در مدت زمان گارانتی رایگان بوده و همچنین انجام خدمات و تامین قطعات یدکی به مدت ۱۰سال از طرف شرکت تضمین می گردد .

10 Years Services
12 Month / 2000 Hours Guarantee

PARS COMPRESSOR

AIR PRODUCTS
Instrument Air Compressor Package

FOR 45YEARS,WE HAVE
INCREASED OUR CUSTOMERS' PRODUCTIVITY

PARS COMPRESSOR

OLD BUT GOLD

The leader in oil-free compressed
air technology in IRAN

Pars Compressor Mfg & Ind Co. has been manufacturing air compressor packages since 1975.This company is the oldest and largest manufacturer of screw compressors and is known as a leading company compressors

The First Manufacturer of Screw Compressor in IRAN
The First Manufacture of Air End in IRAN

For decades, we have been a trusted partner for our customers in various process industries and we made thousands of screw rotors at **PARS COMPRESSOR** through our unique Holroyd machines for Screw air compressors and also Dryer packages (Heatless/heating) type to make dry air suitable for Instrument air services in **Oil**, gas and petrochemical industries with more than 100 packages during past years.
Pars Compressor was cooperating with **GHH**-Rand and Atlas Copco as an **OEM** for packaging air compressors with their oil free **AIR-ENDS.**

First Choice in oil-free air technology

Over the past 45 years **PARS COMPRESSOR** has pioneered the development of oil-free air technology, resulting in a range of air compressors and blowers that provide 100% pure, clean air for different applications, especially for Instrument actuators thorough his own dry air packages as well.

Zero risk of contamination.
Zero risk of damaged or unsafe products.
Zero risk of losses from operational downtime.
Zero risk of damaging your company's hard-won professional reputation.

Customized design

No application or environment or customer is the same. This is why we deliver products that are made according to your specifications and requirements. Do you have space restrictions, severe ambient conditions, is it difficult to do maintenance or do you have any other concern, we are ready to help you find a solution.

At **PARS COMPRESSOR** we are specialized in providing packages

according to the requirements of our customers. We are able to adapt our design and make a package suitable to fit in an existing space. Whether it is a replacement of an existing package or additional equipment on existing platform, our package will be designed with space and tie-in point restrictions in mind reducing the need for changes in the field.

One responsible supplier

We can supply a full range of products, for example producing plant air, instrument air and high pressure nitrogen. The products can be placed on one common skid where all interconnecting piping, wiring and control systems are installed by **PARS COMPRESSOR.** We take full responsibility and warranty for all items installed on the package. As a customer you only need to deal with one supplier during the entire lifetime of the package (including engineering and built up in project phase).

Service and optimization for your compressed air system

Sustainable economic performance, reduced energy, costs and improved profitability: Our services get you there faster.
Requirements for service and maintenance are just as varied as the range of compressed air systems available.
These requirements range from original replacement parts and premium maintenance agreements to system optimization.
With our perfectly tailored and extendable aftermarket products, we have the ideal solutions for worry-free compressed air systems and high availability.
service team are at your disposal regardless of whether you have purchased a compressor or dryer from us.
We can optimize your energy consumption, boost your availability and safeguard the reliability and efficient operation of your compressed air system for many years, or even decades, to come. Regular inspections of your systems, enable you to take advantage of the technical progress made and help you to steadily boost your efficiency.

Overview of AIR PRODUCTS portfolio in PARS COMPRESSOR Portfolio of Air packages in Pars Compressor:

- Oil free/oil Injected Screw air compressor
- Oil free/lubricated reciprocating air compressor
- Integrally Geared Centrifugal air compressor

Air Dryer Systems portfolio

- Heatless Adsorption Dryers
- Heated Adsorption Dryers
- Air Refrigerated Dryers
- Membrane Dryers

Nitrogen Generation Package

Membrane Type
PSA Type

AIR SEPARATION UNITS (ASU)

Through Cryogenic process to produce compressed air, Liquid nitrogen, Gaseous nitrogen, Liquid oxygen, Gaseous oxygen and sometimes Argon as side product.

DRY SCREW AND OIL INJECTED AIR COMPRESSOR PACKAGES:

For decades, we have been a trusted partner for our customers in various process industries and we made thousands of screw rotors at **PARS COMPRESSOR** through our unique Holroyd machines for Screw air compressors and also Dryer packages (Heatless/heating) type to make dry air suitable for Instrument air services in Oil, gas and petrochemical industries with more than 100 packages during past years.
Pars Compressor was cooperating with **GHH**-Rand and Atlas Copco as an **OEM** for packaging air compressors with their oil free **AIR-ENDS.**

We offer a complete range of oil-lubricated and oil-free air compressors suitable for any application and environment. All our products can be customized to your specifications and requirements. We are free to choose any compressor brand from **PARS COMPRESSOR** or upon your request or best suitability for the application.

They are available in a wide range of capacities, however, the pressures are limited to 11 bar(g) for the oil-free screw compressor and 13 bar(g) for oil-lubricated type depending on the ambient temperatures.The range of each compressor type can be found here. Do you need to go higher in capacity or pressure? Check out our reciprocating and centrifugal compressors or contact our sales team, they are ready to help you find your solution.

PARS COMPRESSOR

OLD BUT GOLD

The leader in oil-free compressed
air technology in IRAN

SINGLE STAGE OIL FREE

VM Series

Model	Power	Pressure	Free Air Delivery	Dimensions			Weight
	KW	bar	m^3 / min	L (mm)	W (mm)	H (mm)	Kg
VM 10	18.5 ~ 75	2 ~ 3.5	2.9 ~ 9.7	2600	1150	1773	1500
VM 20	37 ~ 115	2 ~ 3.5	6.6 ~ 20.8	2600	1150	1773	1650
VM 30	55 ~ 160	2 ~ 3.5	10.9 ~ 31.7	2800	1150	1773	1690
VM 45	75 ~ 250	2 ~ 3.5	16.1 ~ 46.1	3300	1650	2000	2820
VM 75	110 ~ 335	2 ~ 3.5	26 ~ 75	4000	1775	2310	4020
VM 85	132 ~ 400	2 ~ 3.5	26 ~ 84	4000	1775	2310	6000
VM 140	200 ~ 630	2 ~ 3.5	38.7 ~ 143.1	4350	2000	2650	8500

VML Series

Model	Power	Pressure	Free Air Delivery	Dimensions			Weight
	KW	bar	m^3 / min	L (mm)	W (mm)	H (mm)	Kg
VML 18	11 ~ 55	0.75 ~ 2	4.6 ~ 17	1500	1250	1570	780
VML 35	30 ~ 132	0.75 ~ 3	12.3 ~ 36.3	2800	1150	1773	1670
VML 60	45 ~ 200	0.75 ~ 4	21.5 ~ 62.3	3100	1650	2000	2790
VML 95	75 ~ 315	0.75 ~ 5	34.8 ~ 97.8	3750	1775	2310	4000
VML 150	110 ~ 500	0.75 ~ 6	52.5 ~ 147.8	5150	2300	2500	5500
VML 250	160 ~ 710	0.75 ~ 7	88.6 ~ 243.3	5500	2600	3000	7800

OLD BUT GOLD

DOUBLE STAGE OIL FREE SCREW COMPRESSOR

Model	Power	Pressure	Free Air Delivery		Water Cooled			
					Dimensions			Weight
	KW / HP	bar	m^3 / min	cfm	L (mm)	W (mm)	H (mm)	Kg
PCF 60	45 / 60	7	6.67	235.43	2500	1350	2110	2500
		10	5.16	182.22				
PCF 75	55 / 75	7	8.28	292.22	2500	1350	2110	2600
		10	8.77	238.22				
PCF 100	75 / 100	7	11.52	406.7	2500	1350	2110	2700
		10	10	353.14				
PCF 125	90 / 125	7	13.17	464.97	2500	1350	2110	2760
		10	12.08	426.71				
PCF 150	110 / 150	7	16.67	588.57	2500	1350	2110	3100
		10	15.66	553.02				
PCF 180	132 / 180	7	21.67	765.14	2501	1350	2110	3250
		10	18.33	647.42				

Performance data based on the intake of air 1bar , 20 °C

PORTABLE (AIRMAN)

Compressor						Engine				Dimension Weight				
Model	Type	Pressure	Free Air Delivery		Air Outlet	Type	Power	No. of Cylinder	Fuel Oil	Dimension			Total Weight	Tyre Size
		bar	m^3/ min	cfm	DN / Pcs		KW rpm		Lit	L (mm)	W (mm)	H (mm)	Kg	
PDS390S	Single Stage Oil Cooled Rotary Twin Screw	10.5	8.9	314.29	50 / 1 20 / 4	4 cycle Water Cooled Direct Injection Type Turbo	110 2400	6	182 13	3810	1800	1780	2040	650-14 8PR*4W
PDSF530S	Single Stage Oil Cooled Rotary Twin Screw	10.7	15.0	529.71	50 / 1 20 / 2	4 cycle Water Cooled Direct Injection Type	118 2500	6	270 23	3650	1685	2070	3230	650-14 8PR*4W
PDSF830S	Single Stage Oil Cooled Rotary Twin Screw	10.5	23.5	829.88	50 / 2 20 / 1	4 cycle Water Cooled Direct Injection Type Turbo	206 2200	6	400 45	4000	1900	2130	4400	650-14 8PR*4W
PDSG460S	Single Stage Oil Cooled Rotary Twin Screw	13	12.5	441.43	50 / 1 20 / 2 10 / 1	4 cycle Water Cooled Direct Injection Type Turbo	223 2000	6	270 23	4000	1900	2130	4400	650-14 8PR*4W
PDSG750S	Single Stage Oil Cooled Rotary Twin Screw	13	21.2	748.66	50 / 1 20 / 2	4 cycle Water Cooled Direct Injection Type Turbo	223 2000	6	400 45	4000	1900	2130	4400	650-14 8PR*4W
PDSF920S PDSG820S	Single Stage Oil Cooled Rotary Twin Screw	13	36.0	1271.30	50 / 1 20 / 1	4 cycle Water Cooled Direct Injection Turbo charger with after cooler	324/320 (238/235) 2200/2200	6	555 49	4350	2000	2445	5300	7.50-16 10PR*4W
PDSG1300S	Single Stage Oil Cooled Rotary Twin Screw	13	36.0	1271.30	80 / 1	4 cycle Water Cooled Direct Injection Turbo charger with after cooler	364 1800	6	700 80	4650	1870	2050	8000	
PDSH850S	Single Stage Oil Cooled Rotary Twin Screw	17.5	24.0	847.54	50 / 1 20 / 1	4 cycle Water Cooled Direct Injection Turbo charger with after cooler	310 2000	6	555 49	4350	1900	2350	5650	7.50-16 10PR*4W
PDSJ750S	Two Stage Oil Cooled Rotary Twin Screw	21.1	21.2	748.66	50 / 1 20 / 1	4 cycle Water Cooled Direct Injection Turbo charger with after cooler	228 2000	6	555 49	4300	1900	2230	5350	7.50-16 10PR*4W
PDSK900S	Two Stage Oil Cooled Rotary Twin Screw	24.8	25.5	900.51	50 / 1 20 / 1	4 cycle Water Cooled Direct Injection Turbo charger with after cooler	327.3 1800	8	610 85	4670	2100	2315	6950	

HIGH PRESSURE

PORTABLE (AIRMAN)

Compressor						Engine				Dimension Weight				
Model	Type	Pressure	Free Air Delivery		Air Outlet	Type	Power	No. of Cylinder	Fuel Oil	Dimension			Total Weight	Tyre Size
		bar	3 m / min	cfm	DN / Pcs		KW rpm		Lit	L (mm)	W (mm)	H (mm)	Kg	

PORTABLE

PDS130S	Single Stage Oil Cooled Rotary Twin Screw	7.1	3.5	123.60	20 / 2	4 cycle Water Cooled Direct Injection Type	28 3300	3	70 6	2470	1510	1360	830	5-10 6PR*2W
PDS185S	Single Stage Oil Cooled Rotary Twin Screw	7.1	5.0	176.57	20 / 3	4 cycle Water Cooled Direct Injection Type	37.9 3000	4	95 10	2740	1510	1360	915	175R13 8PR*2W
PDS265S	Single Stage Oil Cooled Rotary Twin Screw	7.1	7.5	264.86	20 / 3 50 / 1	4 cycle Water Cooled Direct Injection Type Turbo	62 2600	4	114 10	3020	1600	1615	1410	650-14 8PR*2W
PDS390S	Single Stage Oil Cooled Rotary Twin Screw	7.1	11.0	388.45	20 / 4	4 cycle Water Cooled Direct Injection Type Turbo	80.9 2400	4	180 13	3810	1800	1780	2040	650-14 8PR*2W
PDS655S	Single Stage Oil Cooled Rotary Twin Screw	7.1	18.5	653.31	50 / 1 20 / 2	4 cycle Water Cooled Direct Injection Type	118 2500	6	270 23	3650	1685	2070	3225	650-14 8PR*4W
PDS750S	Single Stage Oil Cooled Rotary Twin Screw	7.1	21.2	748.66	50 / 1 20 / 2	4 cycle Water Cooled Direct Injection Type Turbo	144.5 2100	6	310 23	3650	1685	2070	3335	650-14 8PR*4W
PDSE900S	Single Stage Oil Cooled Rotary Twin Screw	8.8	25.0	882.85	50 / 2 20 / 1	4 cycle Water Cooled Direct Injection Type Turbo	280 2200	6	400 45	4000	1900	2150	4600	650-14 8PR*4W

PORTABLE
AIRMAN

STATIONARY OIL INJECTED SCREW COMPRESSOR (BELT DRIVE)

Model	Power	Pressure	Free Air Delivery		Dimension			Weight
	KW / HP	bar	m^3/ min	cfm	L (mm)	W (mm)	H (mm)	Kg
PC 75	55 / 75	7	9.2	327.71	2000	1400	1590	1640
		8	8.9	314.65				
		10	7.8	276.86				
		13	6.4	226.36				
		15	5.7	201.29				
PC 100	75 / 100	7	12.5	442.48	2000	1400	1590	1730
		8	11.8	417.76				
		10	10.4	368.33				
		13	8.9	317.47				
		15	8.1	288.52				
PC 125	90 / 125	7	14.8	522.65	2300	1600	1980	2000
		8	13.7	486.63				
		10	12.3	437.19				
		13	10.9	385.98				
		15	9.2	325.60				
PC 150	110 / 150	7	17.7	625.76	2301	1601	1981	2350
		8	16.3	578.09				
		10	14.6	517.35				
		13	12.8	454.49				
		15	12.1	428.36				
PC 180	132 / 180	7	22.4	792.45	2200	1840	2160	3300
		8	21.2	748.66				
		10	18.6	660.02				
		13	15.4	545.60				
		15	14.8	525.12				
PC 220	160 / 220	7	26.6	940.06	2200	1840	2160	3400
		8	25.4	900.15				
		10	22.1	781.15				
		13	18.5	655.07				
		15	17.9	632.47				

STATIONARY OIL INJECTED SCREW COMPRESSOR (BELT DRIVE)

Model	Power	Pressure	Free Air Delivery		Dimension			Weight
	KW / HP	bar	m^3/ min	cfm	L (mm)	W (mm)	H (mm)	Kg
PC 20	15 / 20	7	2.5	89.70	1100	980	1060	400
		8	2.2	80.16				
		10	1.7	61.09				
		13	1.0	37.43				
		15	0.8	30.72				
PC 25	18.5 / 25	7	3.1	111.95	1100	980	1060	410
		8	2.9	102.41				
		10	2.4	87.58				
		13	1.6	59.33				
		15	1.2	45.56				
PC 30	22 / 30	7	3.8	134.19	1100	980	1060	420
		8	3.5	124.66				
		10	2.9	105.24				
		13	2.3	81.22				
		15	1.7	60.03				
PC 40	30 / 40	7	4.9	174.45	1460	1000	1360	720
		8	4.5	159.97				
		10	3.9	140.55				
		13	3.2	116.18				
		15	2.9	103.82				
PC 50	37 / 50	7	5.8	205.53	1460	1000	1360	760
		8	5.4	191.40				
		10	4.7	168.09				
		13	4.0	142.67				
		15	3.6	128.19				
PC 60	45 / 60	7	6.5	232.37	1460	1000	1360	810
		8	6.3	222.48				
		10	5.4	193.87				
		13	4.6	164.56				
		15	4.1	144.79				

Standard condition (20°C, 1bar)

STATIONARY OIL INJECTED SCREW COMPRESSOR (DIRECT DRIVE)

Model	Power	Pressure	Free Air Delivery		Dimension			Weight
	KW / HP	bar	m^3 / min	cfm	L (mm)	W (mm)	H (mm)	Kg
Pc15	11 / 15	7	1.2	44.85	1460	1000	1360	380
Pc20	15 / 20	7	2.2	79.46	1460	1000	1360	400
		10	1.2	43.44				
		13	1.1	42.02				
Pc25	18.5 / 25	7	2.7	98.53	1100	980	1060	410
		10	2.5	88.29	2200	1300	1630	
		13	1.1	42.02	1460	1000	1360	410
Pc30	22 / 30	10	2.7	96.41	1460	1000	1360	420
		13	2.4	87.23	2200	1300	1630	440
Pc40	30 / 40	10	2.7	96.41	1460	1000	1360	720
		13	2.6	94.64				
Pc50	37 / 50	7	5.5	194.23	1460	1000	1360	760
		10	5.4	191.76				
Pc60	45 / 60	13	5.3	189.28	1460	1000	1360	810
Pc100	75 / 100	7	11.2	396.58	2200	1600	2000	1730
		10	10.2	361.62	2970	1840	2100	1730
Pc125	90 / 125	10	11.0	391.28	2200	1600	2000	2000
		13	10.9	385.98				
Pc180	132 / 180	7	22.4	792.45	2970	1840	2100	3300
Pc220	160 / 220	10	22.1	781.15	3500	2400	2100	3400
Pc270	200 / 270	7	44.2	1564.06	2200	1840	2160	3700
		13	21.8	769.85	2970	1840	2100	3700
Pc340	250 / 340	7	44.2	1564.06	2200	1840	2160	4000
Pc420	315 / 420	10	43.6	1541.46	3500	2400	2100	4000
Pc480	355 / 480	13	43.0	1519.21	3500	2400	2100	4000

Performance data based on the intake of air 1bar, 20 °C

OIL FREE/OIL LUBRICATED RECIPROCATING AIR COMPRESSOR PACKAGES

Our Manufacturer standard made oil free reciprocating air compressor packages are built for low flow and high pressure ranges of air products.
Pars compressor by using compressor bare block from **GHH**-Rand, **AIRMAN, COMPARE**, …. Will make small to medium size of Air packages.
Our reciprocating type compressor packages are capable of continuous duty with low levels of maintenance and are suitable for high temperature environments. Our reciprocating compressors can be delivered in different setups: horizontal, vertical or V-type.
Depending on the application and available space we can help you decide which type would be best suitable for your request. Reciprocating compressors are available in a wide range of capacities and can go up to very high pressures.

Features:

Easy and low maintenance level
Low noise frequency
Suitable for high temperature environments and high pressures
Suitable for earthquake areas
Available in oil-lubricated and oil-free
All **compressor brands** are possible

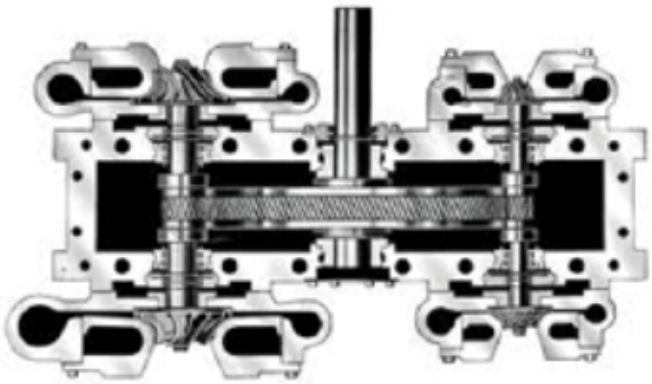
OIL FREE/OIL
LUBRICATED RECIPROCATING
AIR COMPRESSOR PACKAGES

CENTRIFUGAL AIR COMPRESSOR PACKAGES

Our centrifugal compressor packages are built using cutting-edge aerodynamic technology and proven, heavy-duty components as per API-672. They deliver the high Capacity **FAD** rates and pressure levels necessary for such important processes as plant air in petrochemical or industrial gas installations.

Utilizing multi-stage compression with as many as eight stages on a single gearbox, our centrifugal compressors can be supplied the high flow and pressure levels that might otherwise require additional machinery. Our centrifugal air compressors can handle flow volumes from 3500-50 000 Nm3/h and generate pressures up to 32 bar, and beyond. Exclusive impeller design and control options, such as variable inlet- and diffuser-guide vanes, ensure that pressure and flow rates remain constant even as factors such as ambient temperature or back pressure change.

Pars Compressor Centrifugal air packages are tailor made packages and in base of customer requirements, Control system and capacity could be modified accordingly.



Utilizing **multi-stage compression**

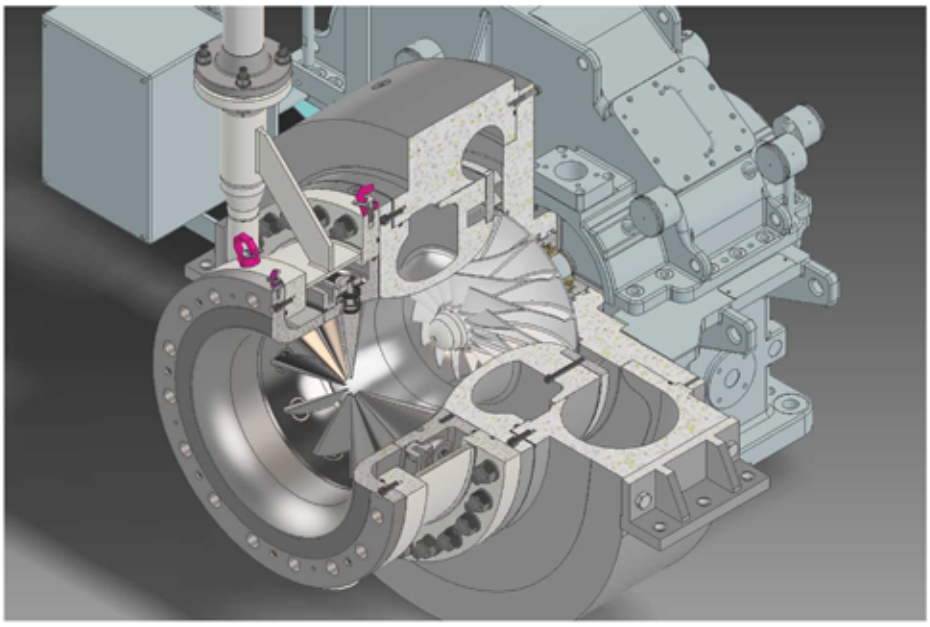
Suction pressure: 1 Bara to 8 Bara
Discharge pressure: up to 35 Bara
Suction Temperature: 40- to 50°C
Effective inlet flow range: 3500- 50 000 Nm3/Hr.
Number of stages: 1 to 6
Impeller type: open
Seals: Carbon ring+ Labyrinth
Capacity/Pressure Control: Variable inlet guide vanes/Inlet throttle valve
API: 672
Oil system: Manufacturer standard+ API -614
Coupling: Dry
Test Code: ASME PTC-10

ENTRIFUGAL COMPRESSOR-INTEGRALLY GEARED AS PER API-617FOR PROCESS GAS APPLICATION

Durable and reliable systems are essential to fulfil requirements in view of challenging ambient and process conditions. Besides offering standard solutions we provide high specified compressor solutions according to API 617, API 672, ASME, DIN and others. We ensure to deliver the best technical solution as per compressor solutions including our customer needs. We produce bare shaft units as well as complete all auxiliary equipment.

Our range for integrally geared compressors are extremely wide:

- Up to 100 bar (a)
- Up to flow rate of 200.000 Nm^3/h
- Up to 6-stage geared compressors
- All gas mixtures



AIR DRYER PACKAGES

When water vapor is compressed it becomes, well, water. Water running through compressed air lines, through pneumatic components, through magnetic coils and in motors can inhibit the proper function of industrial machines and affect their productive output. Moisture does this in a number of ways:

- It yields rust and oxidation.
- It displaces necessary lubricant, causing greater wear on parts.
- It dilutes paint that may be applied with compressed air.
- It can freeze under certain conditions, rendering parts inoperable.
- It can corrupt the air or gas thereby adversely affecting gauge and meter readings.

Needless to say, excess moisture leads to higher operating costs coming from repairs and delays.
Water vapor is in the air we breathe, at least most of the time, in various percentages. Compression raises the temperature of the air and consolidates the water vapor within it. As the air cools, the water is condensed in those machine segments that are downline from the compressor -- tanks, hoses, valves etc -- and remains to wreak its havoc. In short, moisture cannot be prevented but it must be removed after compression.

Air Drying Methods

There are a variety of air dryer packages that perform the task using differing techniques. Some of these are described below:

1. Dryers (heatless/heated types)

Dessicant materials include activated alumina, silica gel and molecular sieve. The porous surfaces of these dessicants adsorb water molecules from the air and hold onto them until the compression process ceases, at which point the dessicants are stripped of the H2O content and are then re-usable.
Heated adsorption dryers include heating components
Heatless can also dessicants for water vapor removal.

ADSORPTION HEATLESS **AIR DRYER**

Model	Capacity	Air Connection	Dimension			Dessicant Weight per Tower	Total Weight
	m^3/ min	Inch	Length (mm)	Width (mm)	Height (mm)	Kg	Kg
PD-30 D	0.5	1	550	250	1080	8.5	50
PD-60 D	1	1	690	290	1490	17	70
PD-150 D	2.5	1 1/2	690	350	1600	21	105
PD-240 D	4	2	820	350	1750	38	130
PD-420 D	7	2	880	500	1770	61	180
PD-720 D	12	2 1/2	1000	500	1850	86	235
PD-840 D	14	2 1/2	1050	600	1990	106	315
PD-960 D	16	2 1/2	1050	600	2100	124	340
PD-1080 D	18	2	1050	600	2120	140	360
PD-1320 D	22	(4F)	1310	750	2195	182	505
PD-1710 D	28.5	(4F)	1310	750	2205	235	625
PD-2160 D	36	(4F)	1310	750	2225	280	640
PD-2580 D	43	(5F)	1520	830	2360	351	865
PD-3000 D	50	(5F)	1520	830	2380	413	960
PD-3600 D	60	(5F)	1870	1000	2420	570	1130
PD-4800 D	80	(5F)	1870	1000	2420	670	1230

Standard Condition
Inlet Compressed air at 7bar and 35°C
Ambient Tempreture at 20°C
Outlet Pressure Dew Point -20°C ~ -40°C

فرمول محاسبه درایر جذبی

Multiplier for different inlet pressures in bar (g) (IP1)

bar (g)	4	5	6	7	8	9	10	11	12	13	14	15	16
Multiplier (IP1)	0.61	0.75	0.9	1	1.12	1.25	1.37	For a selection consult your distributor					

Multiplier for different inlet temperatures in °C (IT1)

+5	+30	+35	+40	+45	+50
1.00	1.00	1.00	0.92	0.77	0.6

Example

Air volume (V1) at dryer inlet : 900 m3/h

Inlet pressure (IP1) : 10 bar (g)

Inlet temperature (IT1) : +40 °C

V2: Required dryer capacity, corrected for 35 °C ,7bar (g)

Calculation

$$V2: \frac{V1}{IP1 \times IT1} = \frac{900}{1.37 \times 0.60} = 1095 \text{ m3/h}$$

شرایط استاندارد

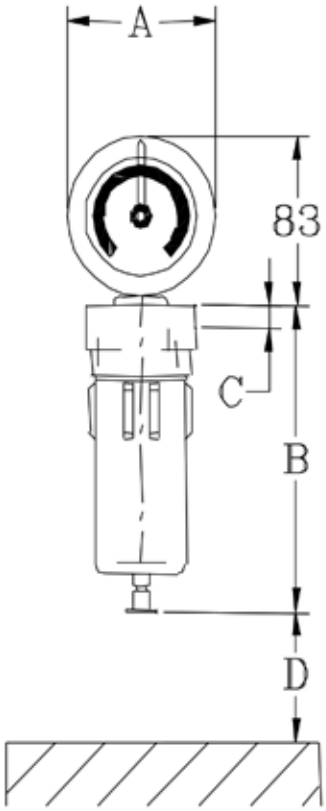
- دمای هوای ورودی ۳۵ درجه سانتیگراد با فشار ۷ بار
- دمای هوای محیط ۲۰ درجه سانتیگراد
- دمای نقطه شبنم خروجی ۲۰- درجه سانتیگراد تا ۴۰ – درجه سانتیگراد

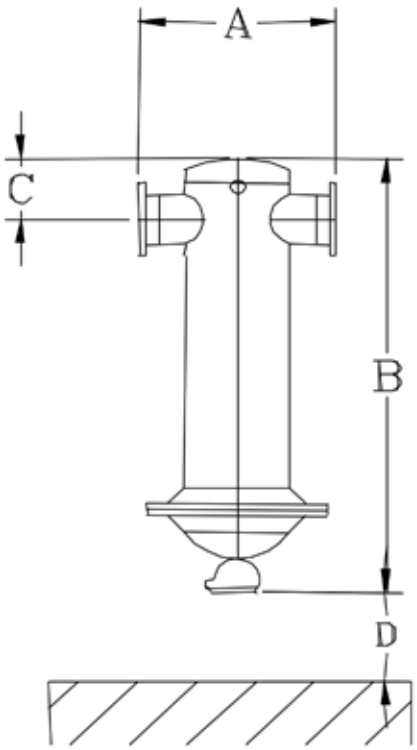
AIR FILTER ENGINEERING

Capacity	Air Connection	Dimension				Weight
m^3/ min	in	A (mm)	B (mm)	C (mm)	D (mm)	(Kg)
0.6	G1/2	87	175	21	60	1.3
0.9	G1/2	87	209	21	75	1.4
1.3	G1/2	87	209	21	90	1.4
1.9	G1/2	87	279	21	90	1.7
3.3	G1	130	315	43	135	4.2
5.7	G1 1/2	130	415	43	235	4.8
9	G1 1/2	130	515	43	335	5.6
13.3	G1 1/2	130	715	43	525	8.4
17.4	G2	164	823	48	520	11.4
26.1	G2 1/2	164	1073	48	770	13
37.5	G3	250	1052	74	610	20
46.6	G3	250	1202	74	760	27.5
26.1	DN80	380	1260	170	530	54
37.5	DN80	440	1310	200	530	80
46.6	DN80	440	1310	200	530	80
52.3	DN100	500	1440	230	550	108
78.4	DN100	500	1440	230	550	110
104.7	DN150	640	1590	280	550	151
156.9	DN150	790	1660	300	550	212
209.2	DN200	790	1745	340	550	232
261.6	DN200	840	1780	360	550	357
313.9	DN250	940	1930	420	600	455
418.6	DN250	940	1930	420	600	462
523.3	DN300	940	1960	450	600	528

Standard condition (20°C, 1bar)

Filter Grade	Particle Removal Down to	Oil Removal Down to	Nominal Initial Pressure Drop
	Micron (μ)	mg/m^3	bar g
Pre	3	------	0.03
Dust	1	0.5	0.05
Micro	0.01	0.01	0.09
After	------	0.003	0.10





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2. Refrigerated Air Dryers

Refrigeration drying works in tandem with the process of cooling. In order to squeeze the maximum amount of vapor from the compressed air, refrigerant dryers generally obtain a 35 degree Fahrenheit temperature -- the maximum dew point for condensation. Hot compressed air enters the system to be cooled by the refrigeration component. During this operation, liquid droplets begin to form. These beads of moisture are then separated and trapped by a drain while the dried air then passes through the refrigerated compressed air dryer. This description, by the way, is simplified because many such systems can cool, re-heat and re-cool for optimal moisture removal.

Refrigerated Air Dryers

AIR REFRIGERANT DRYER

Capacity	Air Connection	Dimension			Total Weight
m^3 / min	Inch	Length (mm)	Width (mm)	Height (mm)	Kg
0.5	3/8	320	320	381	19
1	3/4	394	368	568	28
1.3	3/4	394	368	568	30
1.6	3/4	500	500	568	41
2.5	3/4	483	500	510	42
3	1	330	735	525	46
4.2	1	330	735	525	51
4.9	1	330	735	525	55
6.7	1 1/2	410	905	718	73
8.3	1 1/2	410	905	718	86
10.4	1 1/2	490	953	760	86
13.3	2	490	953	760	95
16.7	2	590	1052	801	109
20	2	590	1052	801	125
25	DN80	1232	1033	2115	480
30	DN80	1232	1033	2115	520
37.5	DN100	1243	1301	2116	690
45	DN100	1243	1301	2116	690
52.5	DN150	1400	1500	2112	880
60	DN150	1400	1500	2112	880
75	DN150	1400	1500	2112	1050
90	DN150	1400	1500	2112	1200

The Capacity of the Dryer is Based on the intake volume of the air compressor at 20°C 1bar

3. Membrane Air Dryers

Membrane dryers operate just as the name implies: a sheath-like bundle of hollow, poly-sulfone fibers allows air to pass through while capturing the water vapor. The vapor -- and some of the dried air -- disperses over the membrane surface area while the remaining air moves on toward its destination. Afterward, the trapped vapors are flushed out of the system by means of an air purge mechanism. There are variants of this technology: A nitrogen separation membrane produces nitrogen from air. A like membrane of hollow fibers, allows "fast gases", i.e. oxygen, carbon dioxide and, yes, water vapor, to permeate while retaining the "slow" nitrogen gas. This nitrogen is called the product while the other compounds are dubbed permeate. Purified nitrogen from an N2 membrane is often used in the manufacturing of fertilizers, dyes, nitric acids, nylon fabric and even explosives. An oxygen separation membrane is made from ceramic materials and replaces a less efficient method whereby air is cooled enough to liquefy the oxygen and separate it from the other air components. With membrane technology, only the O2 can permeate the surface while the remainder is kept back from the flow. Pure oxygen is actually an environmentally friendly medium in which to burn fossil fuels since it yields a purer carbon dioxide that can be captured and injected deep into the crust of the earth. Pure oxygen is also used in submarines and in health care venues.

In Summary

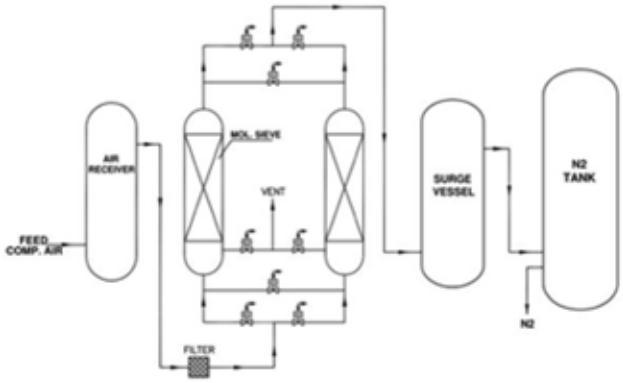
Given the damage and malfunctions caused by water droplets and vapors in industrial machinery that runs on compressed air, drying that air before it is put to use is of paramount importance. There are multiple means by which vapor can be extracted from compressed air, each with a set of advantages and disadvantages. Adsorption, refrigeration and membranes are but three of the techniques that effectively rid compressed air of moisture and protecting industrial machine integrity.

Nitrogen Generation Packages

The largest component of breathable air is nitrogen gas -- 78 percent in fact. A noble gas that is not subject to chemical reaction, nitrogen is unnecessary for the survival of humans. On the other hand, it is essential to plant life and is thus a major ingredient in organic and chemical fertilizers. Yet it is so much more. In liquid form nitrogen serves as a refrigerant. It is used in chemical processing, and in the manufacturing of clothing fabrics, wall paper and other articles in home decor. One efficient way to obtain this ubiquitous element is through air compression.

When air is compressed, its constituents are likewise. So, an air compressor is in this respect also a nitrogen compressor. It would seem that compression would make nitrogen generation more difficult since the molecules become increasingly compact. Yet, in fact, the more concentrated the nitrogen molecules, ironically, the simpler it is to filter them. Using a membrane nitrogen generator is one method of doing this.

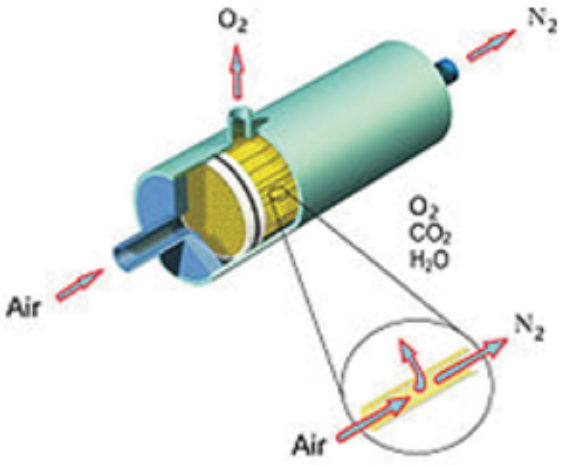
Consisting of hollow fibers with miniscule pores, the membrane blocks the nitrogen while allowing the oxygen and other air components to pass on through. More complex systems will purify the air of water vapors and hydrocarbons before trapping the nitrogen. Another technique for nitrogen apprehension from compressed air is based on the manipulation of pressure. A pressure swing adsorption (PSA) nitrogen air compressor sends the pressurized flow through a column or sieve, the surface of which is populated with carbon granules. These fragments attract the oxygen of the air so that O2 molecules adhere to the column inside surface while the nitrogen passes through. At this point, the nitrogen flows through a de-pressurized column. In like manner, PSA generators can also have pre-treatment elements before nitrogen extraction.



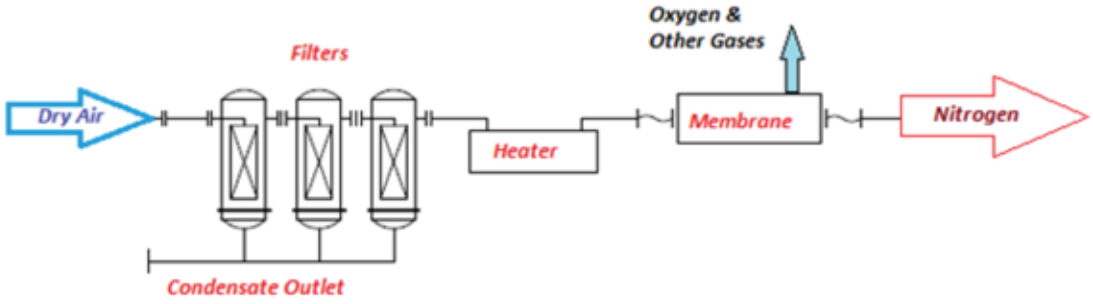
Many air compressors cannot always deliver the necessary pressure for a particular job. A nitrogen booster compressor can supplement the usual compression instruments by jacking up the pressure four to six times what they are able.

• MEMBRANE TYPE NITROGEN GENERATION PACKAGE

We offer a complete range of nitrogen generators suitable for any application and environment. All our products can be customized to your specifications and requirements. Our nitrogen generators are calculated, engineered and built in-house. membrane type nitrogen generator packages are the ultimate space-saving solution for generating nitrogen. Our membrane type packages have a small footprint, are easy in maintenance and can deliver the required purity (up to 99.9%) within a few minutes making them very suitable for intermittent use. Membrane type nitrogen generators are a very cost-efficient substitute for bottle supply, especially in remote areas, on offshore platforms.



All our nitrogen generators are custom-engineered and calculated in-house to fit the required purity, pressure and flow. Depending on the flow and subsequent costs the membrane nitrogen generator can be fitted with large or small membranes. Do you need to produce large capacities of nitrogen at very high purities? Check out our PSA type nitrogen generator as a cost efficient substitute or contact our sales team, they are ready to help you find your solution.



Pressure Range: 5.13 Barg
Temperature: 5-50°C
Capacity: 7-1500 Nm3/hr

Features:

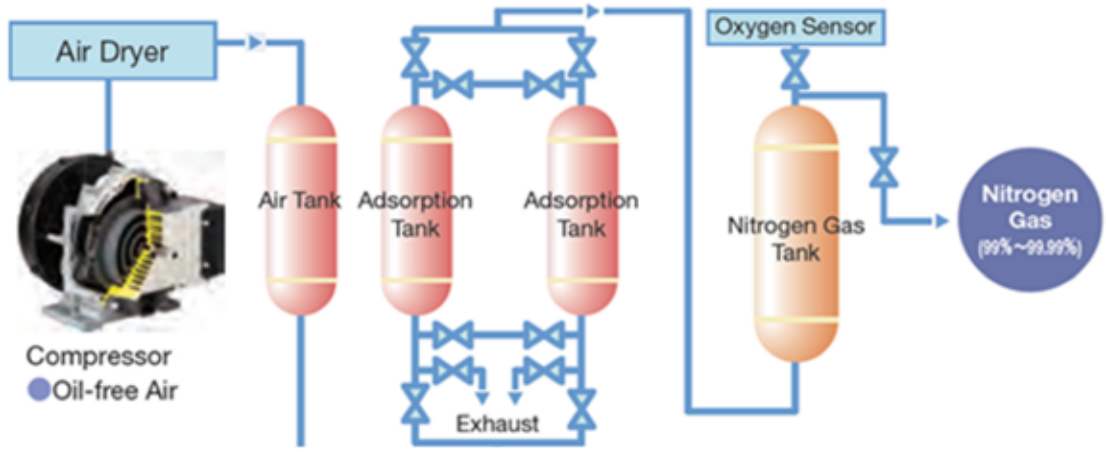
- Small footprint
- Easy and low level of maintenance
- Purity reached within minutes

• PSA TYPE NITROGEN GENERATION PACKAGE

PSA type nitrogen generator packages are the solution for high capacity and high purity nitrogen supply. Our **PSA** type packages can deliver up to 99.99% pure nitrogen and can

Nitrogen Generator Flow Chart

PSA (Pressure Swing Adsorption)

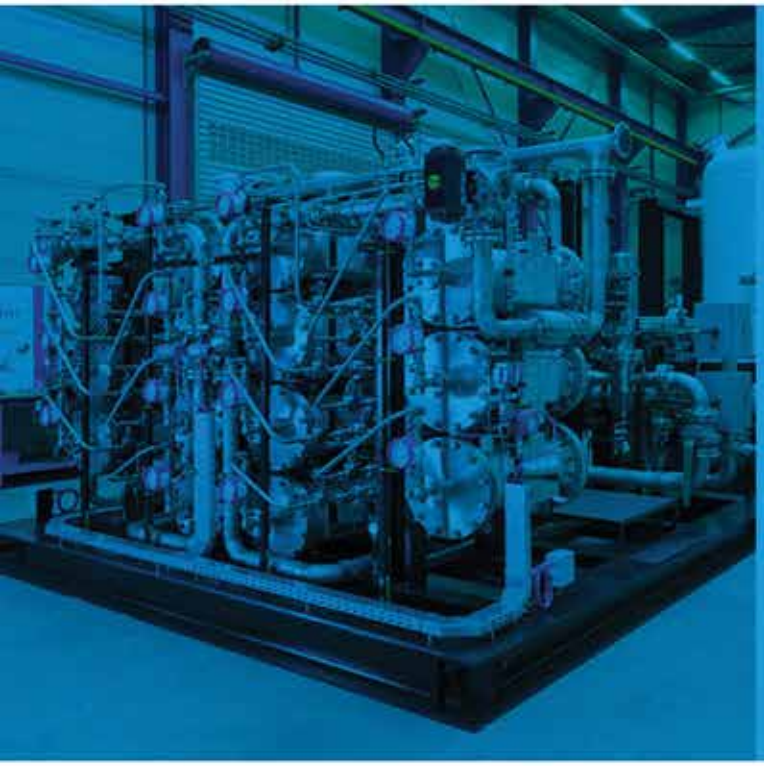


PSA type packages are not suitable for intermittent use since it can take days to reach the right purity.
All our nitrogen generators are custom-engineered and calculated in-house to fit the required purity.

Features:

Suitable for high flows
Up to 99.99% pure Nitrogen possible

Pressure Range: 4-34 Barg
Temperature: 5-50C°
Capacity: up to 3000 Nm3/hr



Nitrogen
Generator

AIR SEPARATION UNIT-ASU

Pars compressor joints to reputable ASU technology owners like HANGZHOU HANGYANG and SIAD ITALY for design manufacturing and installation of ASU plants in utility part of Oil/gas and petrochemical companies or stell plant to provide required liquid/gaseous Oxygen, nitrogen and ... from atmospheric air.

Overview

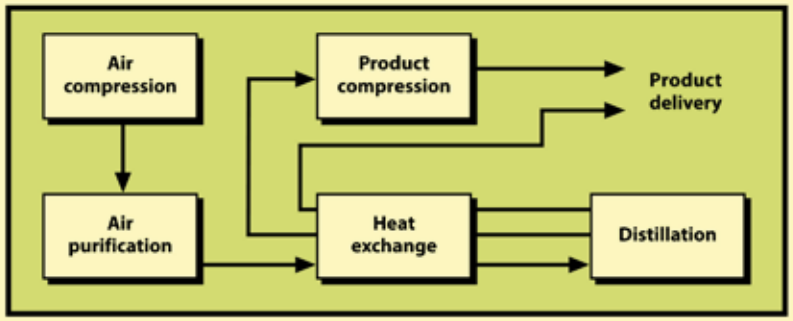
Air separation is the most common process used to extract one or all of the main constituents of atmospheric air. The three main components are Nitrogen (%78.1), Oxygen (%20.9), and Argon (%9). The remaining gases in the air are in trace amounts and normally not recovered. In very large air separation units (ASU) Neon, Xenon and Krypton are recovered in small amounts. Cryogenic air separation utilizes the differing condensing/ boiling points of the components of air to enable separation by distillation at cryogenic temperatures.

At atmospheric pressure the main components of air have the following condensing/boiling points:

- Nitrogen-320.4° F
- Oxygen-297.3° F
- Argon-302.5° F

Since air is a simple mixture, liquefying and distilling air provides a process to successfully separate the Nitrogen, Oxygen and Argon. All ASU's use this process.

Fundamental processes involved in the cryogenic separation of air



Basic Air Separation Unit (ASU) Components

Main Air Compressor (MAC)

The MAC compresses atmospheric air, generally to 60-90 PSIG and delivers it to the system. These compressors are normally driven by electric motors or steam turbines. Inter-stage coolers are provided to remove heat of compression between each stage of compressor of which there are normally 2-3.

Front End Clean Up

Modern ASUs utilize a Pre-purifier Unit (PPU), which removes moisture, CO2 and most hydrocarbons from the air. Moisture and CO2 must be removed to prevent ice and dry ice from forming later in the process. A PPU is typically made up of a chiller to cool the air to 40-55F, a condensate separator to remove free water and 2 vessels filled with desiccant and mole sieve material, which adsorbs the contaminants while allowing the air to pass through. One bed is always on line to the process, while the other bed is regenerated with heated waste Nitrogen to remove accumulated contaminants. Beds automatically switch every 5-8 hours. The air from the PPU is very close to moisture and CO2 free. Some older ASUs utilize reversing heat exchangers to accomplish front end clean up. These systems contain special cryogenic heat exchangers that freeze out the moisture and CO2, allowing clean air to flow to the distillation process. The passes in the heat exchanger are switched every 3-10 minutes by a series of butterfly and check valves.
One pass removes contaminate while the other is regenerated by outgoing waste gases. Though moisture and CO2 removal by reversing heat exchangers is economical both in capital cost and operating cost.

Cold box

The cold box contains the cryogenic heat exchangers, distillation columns and associated valves and piping, Because parts of this system are very cold, all components are mounted inside the cold box and then encased in insulation. Cold boxes can be rectangular or cylindrical and are usually tall, some over 200', depending on capacity and type of Argon system.
Modern cold boxes are filled with perlite insulation, which is light and easy to install and remove, when necessary. Older cold boxes may be tightly packed with cryogenic rock wool, which is hand packed to 14 pounds per cubic foot. It is very time consuming to install and remove.

Expander

All ASUs except some very small units have expanders. Expanders provide the required refrigeration to produce liquids in the distillation column system. Air, Nitrogen or Waste Nitrogen is fed to the expander, causing the wheel to turn and transfer energy to a compressor, generator or oil brake. This transfer of energy causes the gas to cool. As the process continues, the outlet temperature of the expander eventually reaches design temperature while cooling the column system.

Liquid Argon System

There are 2 common types of liquid Argon systems. Many plants don't provide Argon separation equipment at all. In these cases, most Argon simply exits the ASU with the waste gas. The first type utilizes a crude Argon column that concentrates Argon to 2-3% O2 content from a feed from the low pressure column of 88-92% O2. This crude Argon is warmed and mixed with Hydrogen before entering a catalytic reactor, where the H2 and O2 combine to make water, This wet Argon is then dried and again cooled to cryogenic temperatures after which the H2 and N2 are removed in a separator and distillation column, respectively.
Cryogenic Argon systems depend solely on distillation for purification. Since it takes a great number of trays or packing to separate Argon from Oxygen, these columns can be over 200 feet tall, Many new plants use cryogenic Argon systems to avoid using an Argon compressor and Hydrogen in the process. The downside is the long recovery time to achieve purity after a start up or upset to the process, many times over 48 hours.

(ASU) Different Types of Air Separation Units

All gaseous product

On site gas generators are by far the most common type of ASU. These plants can produce Oxygen only, Oxygen and Nitrogen or Oxygen, Nitrogen and Argon or just Nitrogen. In all cases the gases that are not fully purified are used for refrigeration and vented to atmosphere. These units separate the air in liquid form, but utilize the refrigeration from the liquids before they exit the cold box. The products come off the cold box at fairly low pressure and ambient temperature. Product compressors are then used to increase the products to required header pressure. In some processes liquid products are pumped through the main heat exchangers where they are warmed to ambient temperature at the required pressure. Gas generators typically produce between 10-2000 short tons of combined product.

All Liquid Product

This is normally considered a merchant plant. All desired product is liquefied for shipment in cryogenic transport trailers or rail cars. Generally, these units make liquid Oxygen (LOX), liquid Nitrogen (LIN) and liquid Argon (LAR), though in some oil/gas production areas there are large liquid Nitrogen only ASUs. These products are delivered into cryogenic tanks at the users site, where it is either warmed back to a gas before use or used as a liquid. Typically, the only users that utilize liquid products are food freezers, oil field service companies or other processes that require very cold temperatures.
Liquid plants are typically sized to produce from 150 to 1000 short tons per day of combined product. These ASU's have an additional section of equipment called a Nitrogen Liquefaction Unit (NLU) to provide the necessary refrigeration to liquefy all products. The NLU is generally the largest power user by far in an ASU.

Combined Liquid and Gas Product

Commonly called "piggyback plants", these ASUs produce mostly gaseous product for pipeline use but also have NLU's to produce liquid products for shipment off site.
Piggyback plants are generally sized from 300 to 1000 short tons combined product.

REFERENCE LIST

ردیف	نام کارخانه / شرکت تولیدي/کارفرما/بهره بردار	مدل دستگاه	تعداد
1	ایران ژاپن (پتروشیمي بندرامام)	PC- 340	2
2	شرکت نفت فلات قاره ایران	TZW- 70/S4-36	4
	" "	PDF185S	2
	" "	PDS655S	1
3	بازرگانی پتروشیمی	PC- 270	1
4	پتروشیمی آبادان	PC- 220	1
	" "	PC- 180	1
	" "	PC- 25	1
5	پتروشیمی خارك	PC- 180	1
	" "	PC- 25	1
	" "	750PRT	1
6	پتروشیمی رازی	PC- 180	2
	" "	PC- 40	2
	" "	PC- 30	1
7	پتروشیمی اصفهان	PC- 40	1
8	پتروشیمی تبریز	PC- 30	3
9	پتروشیمي خراسان	PC- 180	2
10	پتروشیمي اراك	PC- 150	1
11	شرکت نفت	PRT	4
12	صنایع تجهیزات نفت	PC- 60	2
13	کالاي نفت تهران	PC- 25	7
	" "	PC- 125	25
	" "	PC- 60	2
	" "	H-P	1
14	نفت بهران	PC- 40	1
	" "	PC- 30	2
	" "	PC- 25	2
15	نفت پارس	PC- 60	1
	" "	PC10-(NK40)	2
	" "	GM10S/DN80	7
	" "	GM15L/DN80	3
	" "	GM3S/DN50	2

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16	نفت پژوهش	PC- 30	8
	" " "	PC- 50	4
17	نفت ستاد بازسازی	PRT	2
18	نفت ستاد بازسازی پتروشیمی اراک	PRT	8
19	نفت ستاد بازسازی پتروشیمی خراسان	PRT	4
20	خدمات و پشتیبانی صنعت نفت	PC- 125	2
21	پتروشیمی شیراز	PC- 30	1
22	پالایش نیرو	NK- 60	1
23	فرآورده هاي نفتی کویر یزد	PC- 30	1
24	پتروشیمی مبین	PC- 100	1
25	نفت و گاز کارون	HL103523-500	1
26	کالای نفت تهران	GM3S	1
27	کالای پتروشیمی (پتروشیمی رازی)	PC- 180	1
28	صنایع شیمیایی ساوه	PC- 30	1
29	طراحی و مهندسی و تامین قطعات و مواد شیمیایی صنایع پتروشیمی (spec)	PCF- 180	2
30	سوخت آما	PC- 30	2
31	اسکان شیمی	PC- 30	1
32	شرکت ملی گاز ایران- ۲ ایستگاه آب شیرین سیرجان (شرکت ایران ایتوک)	PCF100-(DT7/8)	1
33	شرکت ملی نفت مناطق مرکزی ایران	PDS390S	3
34	ملی مناطق نفت خیزجنوب - شرکت بهره برداری نفت گچساران	PDS265S	1
35	مدیریت توسعه صنایع پتروشیمی	GM35S(DN150)	4
36	شرکت ملی گاز ایران	PDSF750S	1
37	پشتیبانی ساخت و تهیه کالای نفت تهران	Mehrer کمپرسور هوا	4
38	بهران توس	PC- 30	1
39	شرکت ملی گاز ایران- منطقه ۵ عملیات	AGK- 0551	1
40	پترو پارت	**PC- 15(NK40)**	2
41	پالایش نفت آبادان	PDS655S- 4B2	5
42	پالایش نفت تهران	**PC- 150**	2
43	مهندسی توسعه نفت	PCF- 150	1
	" " "	PCF- 100	1
44	فرآورده هاي نفتي زمر آسیا	NK- 40	2
45	آ.ب.ب تجهیزات نفت	PC- 40	1

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ردیف	نام کارخانه / شرکت تولیدی/کارفرما/بهره بردار	مدل دستگاه	تعداد
46	ملی حفاری ایران	PC- 50	2
47	نفت و گاز گچساران	PDSK900S	2
48	شرکت اورینتال اویل کیش ook	PC- 60	1
49	پالایش نفت تهران	PDSE900-411	5
50	عملیات اکتشاف نفت	PC- 50	2
51	ایتوک ایران (ایستگاه تقویت فشار گاز پل کله)	PC- 220	2
52	ایتوک ایران (ایستگاه تقویت فشار گاز دهق)	PC- 180	2
53	مهندسی و توسعه گاز ایران (ایستگاه آباده)	PC- 220	2
54	مهندسی و توسعه گاز ایران (ایستگاه خاوران)	PC- 220	2
55	شرکت ملی مناطق نفت خیز جنوب	PDSF 830-4B1	1
56	شیمی پتروشیمی ایران	PC- 25	1
57	CTEP - پترو پارس	GA500A- 10	5


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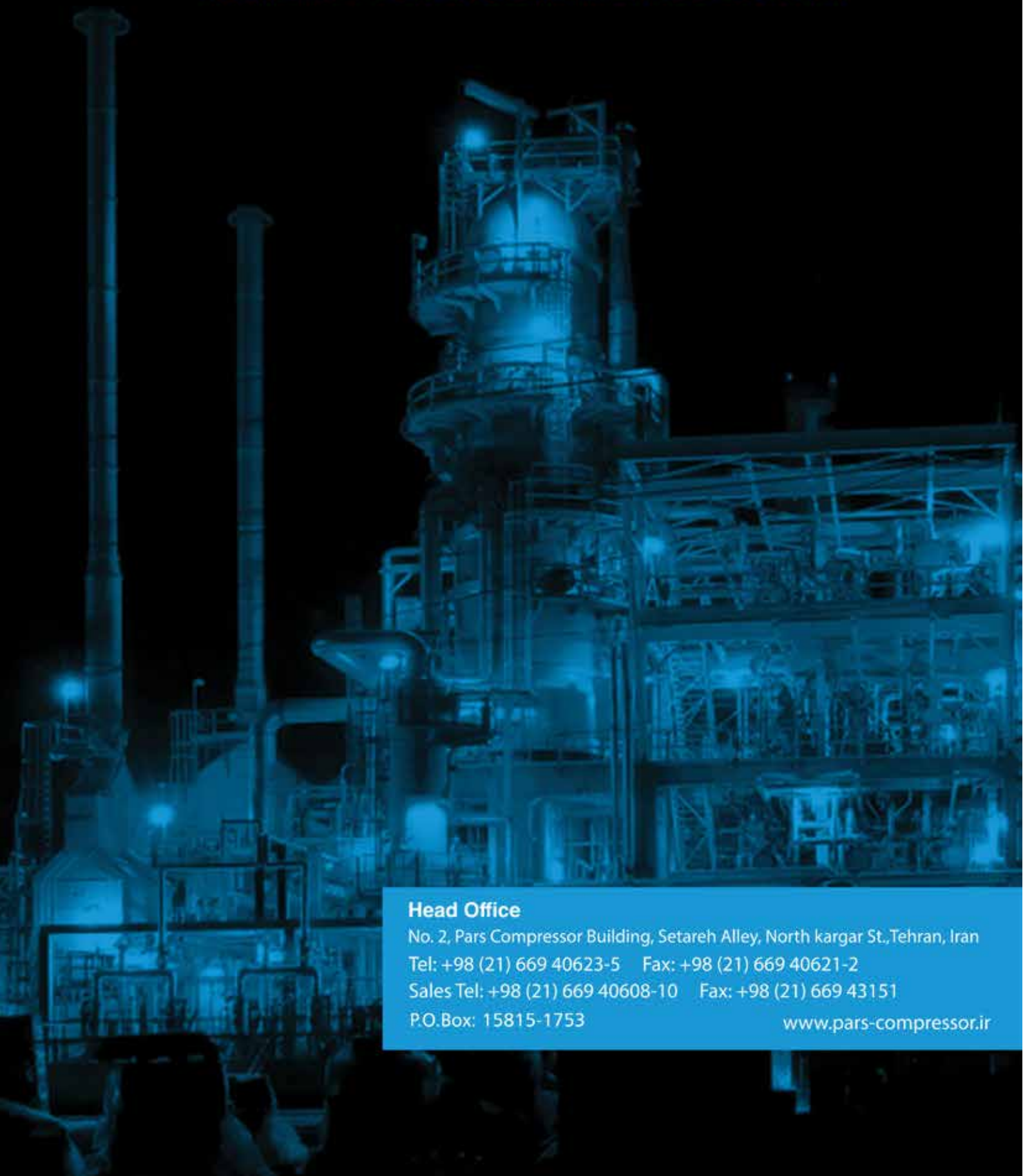

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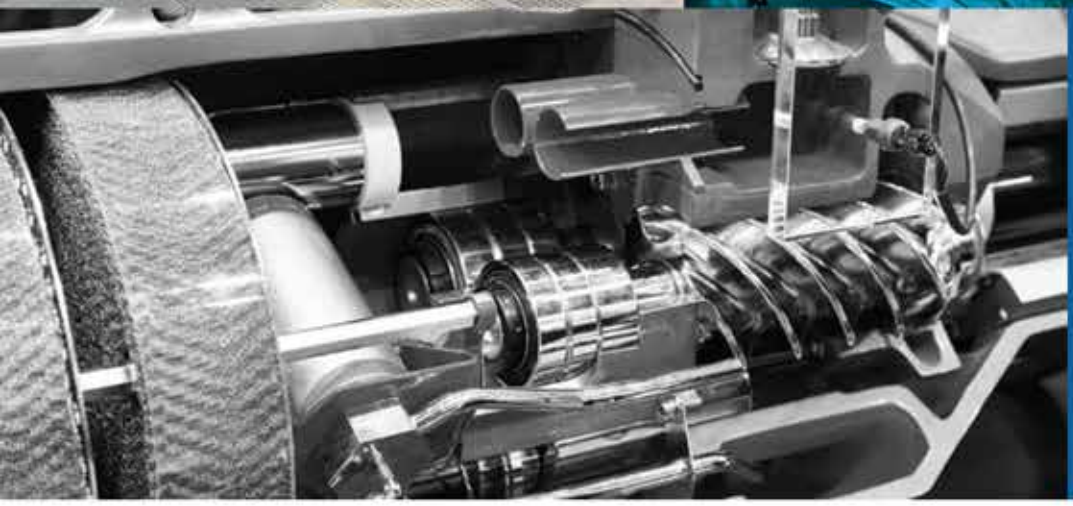

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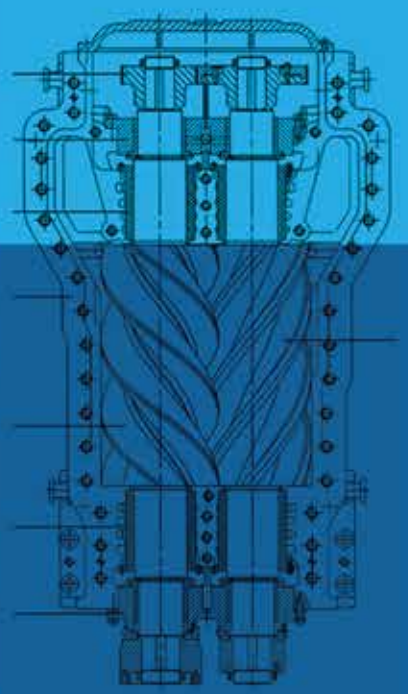

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Pars Compressor

Stands For Quality, Innovation and Quick Response

For decades, we have been a trusted partner for our customers in various process industries and we made thousands of screw rotors At PARS COMPRESSOR through our unique Holroyd machines for Screw compressors.
We believe that innovation is a constant process. We never stop looking for more efficient, reliable and robust technologies for our customers in the process industries in addition to air compressors.
We supply some of the most reliable and efficient process gas screw compressors in accordance with API619-/ISO 1-10440 for the iron and steel, chemical, petrochemical, upstream/downstream units and industrial gases industries.

Experience
40 years experience in system design of screw compressor unit process

R & D
Relying on the military platform
Process simulation and selection design software of screw compressor for proprietary intellectual property

Test
Screw compressor test platform of 3000kw . Steam decompression screw expander test platform of 1000kw

Manufacture
Automatic screw rotor producing equipment . The rotor processing diameter could up to 1000mm

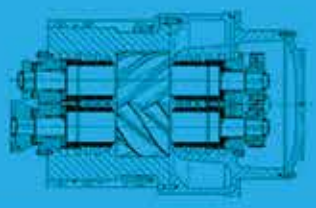
PARS COMPRESSOR in conjunction with technology transfer through FTI-Canada and SMDERI711- has started cooperation in joint venture agreement

Recently, Pars Compressor as a professional compressor manufacturer has formed a complete system of compressor design, selection, application, manufacturing, machining, test, commissioning and maintenance based on international standards with technology transfer from FTI-Canada and help of SMDERI (shanghai marine diesel engine research institute).

PARS
COMPRESSOR
پارس کمپرسور

FTI
FTI International Group Inc.

CSSC 中国船舶集团有限公司第七一一研究所
SHANGHAI MARINE DIESEL ENGINE RESEARCH INSTITUTE



Dry Screw Process Gas Screw Compressors
(API619-/ISO 10440-1)

An overview of technological advantages:

This design is very economical in compressing low gas volume flows, and is not sensitive to process gas molecular weight changes. It can be applied for all type of gases not limited to hazardous, explosive, corrosive and flammable gases.

- Suitable for polymerizing, contaminated (dust and droplets) or thermally unstable gases, flare gas recovery units, gas gathering, low suction pressure
- High pressure ratio, excellent partial-load behavior, no risk of surge
- Excellent -24hour global aftersales support via PARS compressor after sales network

Advantages:

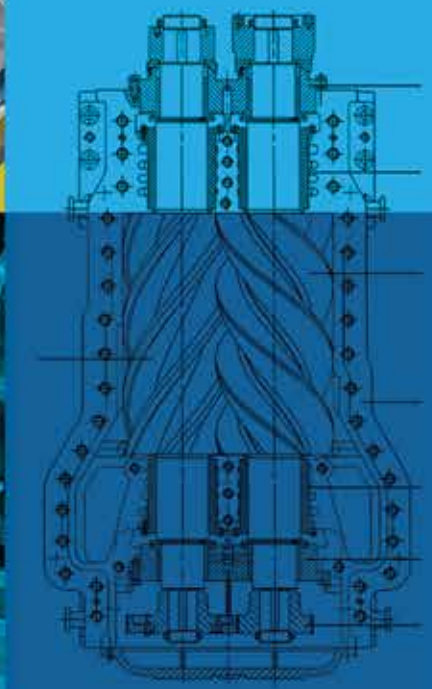
Due to their robust design, PARS COMPRESSOR screw compressors have outstanding advantages when operating with the following gases:

Gases with low mole weight:

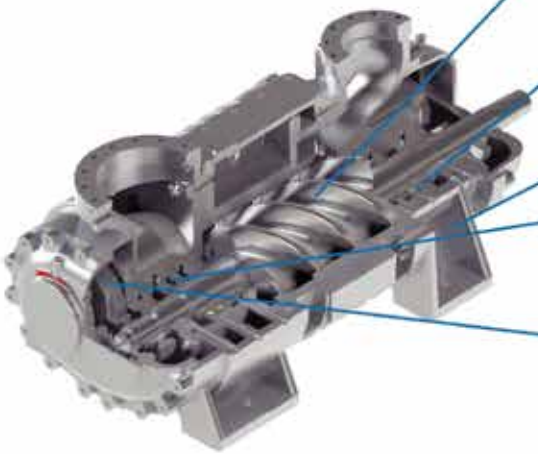
As positive displacement compressors they are ideal for light gases like hydrogen.
Gases with varying mole weight:
Therefore they are an ideal technology for flare gas or recycle compressor applications.
Dirty and polymerizing gases:
Screw compressors have a very rigid rotor and casing design.
They can handle extremely dirty and dusty gases.

Pars Compressors screw compressors cover the full spectrum of oil & gas and industrial applications including:

- Oil & gas production
- Refinery
- Flare gas recovery
- Butadiene extraction
- Styrene monomer production
- Hydrogen purification
- Power generation
- Soda Ash production
- Steel production (Coke Oven Gas)
- Refrigeration
- Hydrogen Sulfide
- Methyl chloride
- Chlorine
- Hydrocarbon Mix



Principle



Rotor

Own a series of screw rotor profile patents of invention, to ensure the compression e... convey of the best.

Seals

Seals in process gas screw compressor take double e...sels on preventing medium gas leak and isolating process gas from being polluted by lube oil. We designed di...erent combination types of front seals and main seals.

Casing

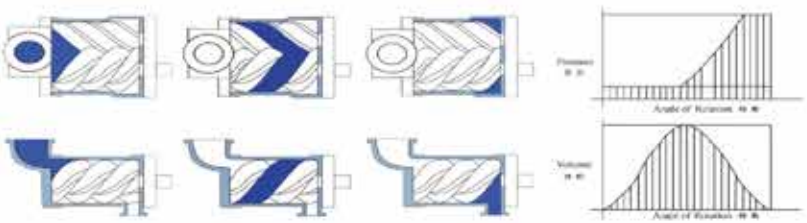
According to the actual process requirements, the targeted selections of the compressor casing split types, material, input and output ports will be selected.

Bearing

According to the speed and force of the compressor, di...erent bearing forms are selected to ensure that the compressor can run continuously for a long time.

T

The torque movement and synchronize locating between rotors is completed by a pair of timing gears, which can ensure the screw rotor never touch each other wherever it is positive rotation or negative rotation.



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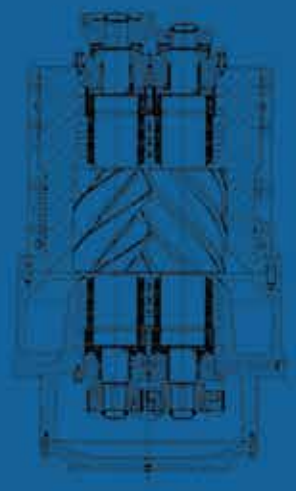

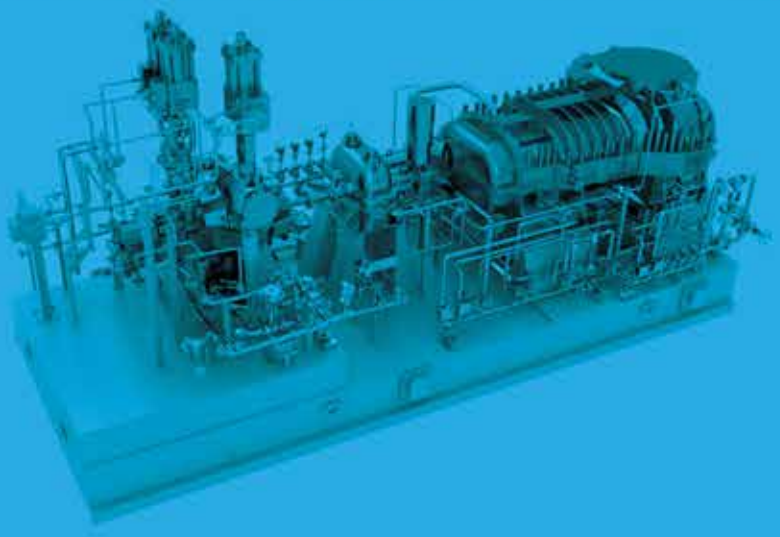

Overview of portfolio of oil-free screw compressors

TYPE P ARS-V

The vertical split casing
Allows high pressure operation.
Volume flows: 200 – 20,000 m3/h (120 – 12,000 cfm)
Discharge pressure: ≤ 70 bar

TYPE PARS-H

Designed for huge volume flows.
Horizontal split casing
Allows easy maintenance even for huge compressor sizes.
Volume flows: 4,000 – 100,000 m3/h (2,400 – 59,000 cfm)
Discharge pressure: ≤ 16 bar

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REFERENCE LIST IN IRAN:

Aghajari 01 Compressor station:

Persian Gulf Bid Boland Gas Refinery is currently designed to receive 2000 MMSCFD feed gas including 1700 MMSCFD sour gas from NGLs 900 & 1000 and 300 MMSCFD sweet gas from NGLs 1200 & 1300.
Regarding the dependency of the feeds' availability to the projects defined upstream of NGLs 900 & 1000 and gathering of the associated gas streams upstream of NGLs 1200, 1300 & 1500, CLIENT tends to perform Basic Design & FEED on these areas. The project goal is to ensure the gathering and treatment of the existing flared gas streams and transferring them to Persian Gulf Bid Boland Gas Refinery.

Feed gas for Bid Boland -II gas refinery is providing from low pressure Flare gas, heavy, Sour and wet gas

PROJECT:	Supplying feed from Flared Gas Streams to Persian Gulf Bid Boland Refinery, Basic Design & FEED Preparation
OWNER:	National Iranian South Oilfields Company (NISOC)
CLIENT:	Persian Gulf Bidboland Gas Treating (PGBGT)
MC Managing Consultant:	Petrochemical Industries Development Managing Company (PIDMCO)
EPC Contractor:	Petrochemical industries design & engineering company(PIDEC)
Awarded Time:	2022
Delivery time:	2024
Quantity:	6X Dry Screw gas compressors
Manufacture:	SMDERI+PARS COMPRESSOR

Aghajari 03 Compressor station:

PROJECT:	Supplying feed from Flared Gas Streams to Persian Gulf Bid Boland Refinery Basic Design & FEED Preparation
OWNER:	National Iranian South Oilfields Company (NISOC)
CLIENT:	Persian Gulf Bidboland Gas Treating (PGBGT)
MC Managing Consultant:	Petrochemical Industries Development Managing Company (PIDMCO)
EPC Contractor:	Petrochemical industries design & engineering company(PIDEC)
Awarded Time:	2022
Delivery time:	2024
Quantity:	4X Dry Screw gas compressors
Manufacture:	SMDERI+PARS COMPRESSOR

Aghajari 04 Compressor station:

PROJECT:	Supplying feed from Flared Gas Streams to Persian Gulf Bid Boland Refinery Basic Design & FEED Preparation
OWNER:	National Iranian South Oilfields Company (NISOC)
CLIENT:	Persian Gulf Bidboland Gas Treating (PGBGT)
MC Managing Consultant:	Petrochemical Industries Development Managing Company (PIDMCO)
EPC Contractor:	Petrochemical industries design & engineering company(PIDEC)
Awarded Time:	2022
Delivery time:	2024
Quantity:	4X Dry Screw gas compressors
Manufacture:	SMDERI+PARS COMPRESSOR

Aghajari 05 Compressor station:

PROJECT:	Supplying feed from Flared Gas Streams to Persian Gulf Bid Boland Refinery Basic Design & FEED Preparation
OWNER:	National Iranian South Oilfields Company (NISOC)
CLIENT:	Persian Gulf Bidboland Gas Treating (PGBGT)
MC Managing Consultant:	Petrochemical Industries Development Managing Company (PIDMCO)
EPC Contractor:	Petrochemical industries design & engineering company(PIDEC)
Awarded Time:	2022
Delivery time:	2024
Quantity:	4X Dry Screw gas compressors
Manufacture:	SMDERI+PARS COMPRESSOR

PARS COMPRESSOR

Technical Catalogue

SCREW GAS COMPRESSORS

API 619/ISO 10440-1 DRY SCREW / OIL INJECTED

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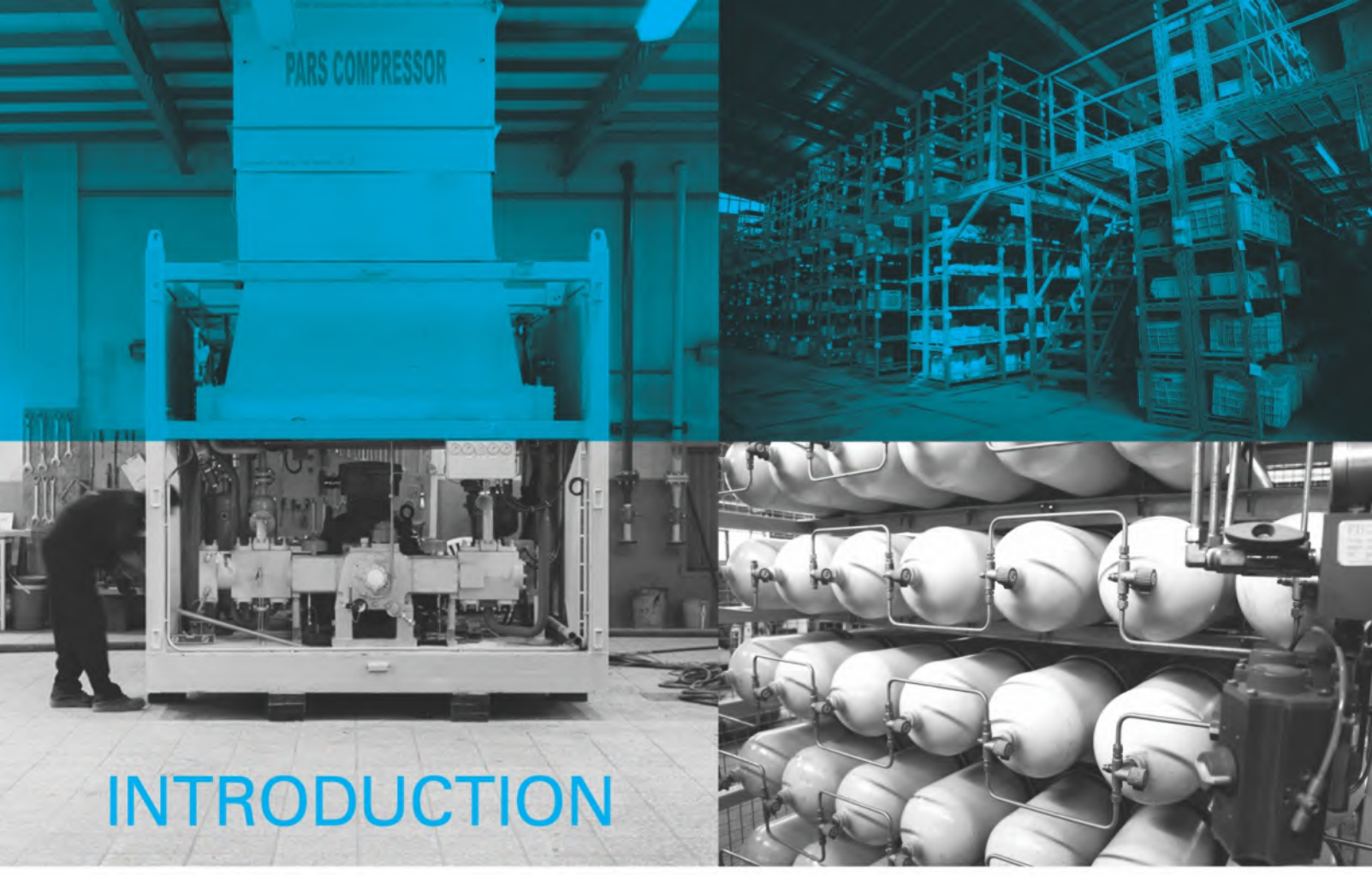

INTRODUCTION

معرفی شرکت پارس کمپرسور

- اولین تولید کننده کمپرسورهای هوای فشرده درکشور از سال ۱۳۵٤
- اولین تولید کننده انواع کمپرسورهای هوای اسکرو (Oil inject - Oil free) در کشور
- اولین شرکت با بالاترین تعداد رفرنس فروش محصولات درصنعت کمپرسور سازی کشور
- اولین شرکت دارنده تکنولوژی ساخت واحد هوا ساز تحت لیسانس شرکت Aerzen آلمان
- اولین دارنده تکنولوژی ساخت و تجهیز ایستگاه های CNG درکشور تحت لیسانس FTI کانادا
- اولین شرکت دارنده بیشترین تعداد احداث جایگاه CNG در کشور با بیش از ۵۰۰ جایگاه
- اولین شرکت دارنده تکنولوژی صادرات گاز با روش CNG در کشور
- اولین و تنها شرکت دارنده تکنولوژی ساخت کمپرسور های مخصوص استارت هواپیما درکشور
- اولین و تنها دارنده تکنولوژی ساخت کمپرسورهای اسکرو و فرآیندی گاز جهت استفاده در صنایع نفت، گاز و پتروشیمی تحت لیسانس شرکت FTI کانادا

- The First Manufacturer of Screw Compressors in IRAN
- The First Manufacturer of Air End in IRAN
- The First Manufacturer of CNG Compressors in IRAN
- The First Manufacturer of jet Starter Compressors in IRAN
- The First Company to Export NG by CNG method in IRAN

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ADSORPTION HEATLESS **AIR DRYER**

Model	Capacity	Air Connection	Dimension			Dessicant Weight per Tower	Total Weight
	m^3/ min	Inch	Length (mm)	Width (mm)	Height (mm)	Kg	Kg
PD-30 D	0.5	1	550	250	1080	8.5	50
PD-60 D	1	1	690	290	1490	17	70
PD-150 D	2.5	1 1/2	690	350	1600	21	105
PD-240 D	4	2	820	350	1750	38	130
PD-420 D	7	2	880	500	1770	61	180
PD-720 D	12	2 1/2	1000	500	1850	86	235
PD-840 D	14	2 1/2	1050	600	1990	106	315
PD-960 D	16	2 1/2	1050	600	2100	124	340
PD-1080 D	18	2	1050	600	2120	140	360
PD-1320 D	22	(4F)	1310	750	2195	182	505
PD-1710 D	28.5	(4F)	1310	750	2205	235	625
PD-2160 D	36	(4F)	1310	750	2225	280	640
PD-2580 D	43	(5F)	1520	830	2360	351	865
PD-3000 D	50	(5F)	1520	830	2380	413	960
PD-3600 D	60	(5F)	1870	1000	2420	570	1130
PD-4800 D	80	(5F)	1870	1000	2420	670	1230

Standard Condition
Inlet Compressed air at 7bar and 35°C
Ambient Tempreture at 20°C
Outlet Pressure Dew Point -20°C ~ -40°C

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فرمول محاسبه درایر جذبی

Multiplier for different inlet pressures in bar (g) (IP1)

bar (g)	4	5	6	7	8	9	10	11	12	13	14	15	16
Multiplier (IP1)	0.61	0.75	0.9	1	1.12	1.25	1.37	For a selection consult your distributor					

Multiplier for different inlet temperatures in °C (IT1)

+5	+30	+35	+40	+45	+50
1.00	1.00	1.00	0.92	0.77	0.6

Example

Air volume (V1) at dryer inlet :	900 m3/h
Inlet pressure (IP1) :	10 bar (g)
Inlet temperature (IT1) :	+40 °C
V2:	Required dryer capacity, corrected for 35 °C ,7bar (g)

Calculation

$$V2: \frac{V1}{IP1 \times IT1} = \frac{900}{1.37 \times 0.60} = 1095 \text{ m3/h}$$

شرایط استاندارد

- دمای هوای ورودی ۳۵ درجه سانتیگراد با فشار ۷ بار
- دمای هوای محیط ۲۰ درجه سانتیگراد
- دمای نقطه شبنم خروجی ۲۰- درجه سانتیگراد تا ۴۰ – درجه سانتیگراد

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AIR FILTER ENGINEERING

Capacity	Air Connection	Dimension				Weight
m^3/ min	in	A (mm)	B (mm)	C (mm)	D (mm)	(Kg)
0.6	G1/2	87	175	21	60	1.3
0.9	G1/2	87	209	21	75	1.4
1.3	G1/2	87	209	21	90	1.4
1.9	G1/2	87	279	21	90	1.7
3.3	G1	130	315	43	135	4.2
5.7	G1 1/2	130	415	43	235	4.8
9	G1 1/2	130	515	43	335	5.6
13.3	G1 1/2	130	715	43	525	8.4
17.4	G2	164	823	48	520	11.4
26.1	G2 1/2	164	1073	48	770	13
37.5	G3	250	1052	74	610	20
46.6	G3	250	1202	74	760	27.5
26.1	DN80	380	1260	170	530	54
37.5	DN80	440	1310	200	530	80
46.6	DN80	440	1310	200	530	80
52.3	DN100	500	1440	230	550	108
78.4	DN100	500	1440	230	550	110
104.7	DN150	640	1590	280	550	151
156.9	DN150	790	1660	300	550	212
209.2	DN200	790	1745	340	550	232
261.6	DN200	840	1780	360	550	357
313.9	DN250	940	1930	420	600	455
418.6	DN250	940	1930	420	600	462
523.3	DN300	940	1960	450	600	528

Standard condition (20°C, 1bar)

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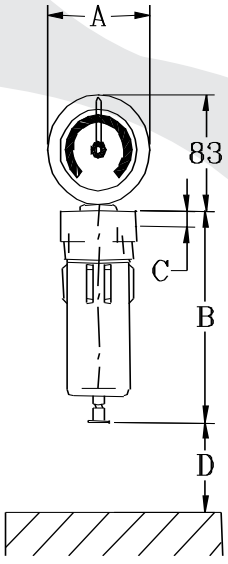
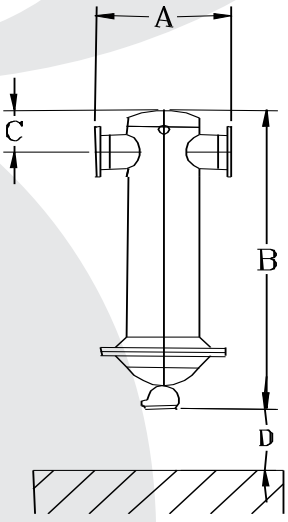
Filter Grade	Particle Removal Down to	Oil Removal Down to	Nominal Initial Pressure Drop
	Micron (μ)	mg/m^3	bar g
Pre	3	------	0.03
Dust	1	0.5	0.05
Micro	0.01	0.01	0.09
After	------	0.003	0.10





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SINGLE STAGE OIL FREE

VM Series							
Model	Power	Pressure	Free Air Delivery	Dimensions			Weight
	KW	bar	m^3 / min	L (mm)	W (mm)	H (mm)	Kg
VM 10	18.5 ~ 75	2 ~ 3.5	2.9 ~ 9.7	2600	1150	1773	1500
VM 20	37 ~ 115	2 ~ 3.5	6.6 ~ 20.8	2600	1150	1773	1650
VM 30	55 ~ 160	2 ~ 3.5	10.9 ~ 31.7	2800	1150	1773	1690
VM 45	75 ~ 250	2 ~ 3.5	16.1 ~ 46.1	3300	1650	2000	2820
VM 75	110 ~ 335	2 ~ 3.5	26 ~ 75	4000	1775	2310	4020
VM 85	132 ~ 400	2 ~ 3.5	26 ~ 84	4000	1775	2310	6000
VM 140	200 ~ 630	2 ~ 3.5	38.7 ~ 143.1	4350	2000	2650	8500

VML Series							
Model	Power	Pressure	Free Air Delivery	Dimensions			Weight
	KW	bar	m^3 / min	L (mm)	W (mm)	H (mm)	Kg
VML 18	11 ~ 55	0.75 ~ 2	4.6 ~ 17	1500	1250	1570	780
VML 35	30 ~ 132	0.75 ~ 3	12.3 ~ 36.3	2800	1150	1773	1670
VML 60	45 ~ 200	0.75 ~ 4	21.5 ~ 62.3	3100	1650	2000	2790
VML 95	75 ~ 315	0.75 ~ 5	34.8 ~ 97.8	3750	1775	2310	4000
VML 150	110 ~ 500	0.75 ~ 6	52.5 ~ 147.8	5150	2300	2500	5500
VML 250	160 ~ 710	0.75 ~ 7	88.6 ~ 243.3	5500	2600	3000	7800

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DOUBLE STAGE OIL FREE SCREW COMPRESSOR

Model	Power	Pressure	Free Air Delivery		Water Cooled			
					Dimensions			Weight
	KW / HP	bar	m^3/ min	cfm	L (mm)	W (mm)	H (mm)	Kg
PCF 60	45 / 60	7	6.67	235.43	2500	1350	2110	2500
		10	5.16	182.22				
PCF 75	55 / 75	7	8.28	292.22	2500	1350	2110	2600
		10	8.77	238.22				
PCF 100	75 / 100	7	11.52	406.7	2500	1350	2110	2700
		10	10	353.14				
PCF 125	90 / 125	7	13.17	464.97	2500	1350	2110	2760
		10	12.08	426.71				
PCF 150	110 / 150	7	16.67	588.57	2500	1350	2110	3100
		10	15.66	553.02				
PCF 180	132 / 180	7	21.67	765.14	2501	1350	2110	3250
		10	18.33	647.42				

Performance data based on the intake of air 1bar , 20 °C

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PORTABLE (AIRMAN)

HIGH PRESSURE

Compressor						Engine				Dimension Weight				
Model	Type	Pressure	Free Air Delivery		Air Outlet	Type	Power	No. of Cylinder	Fuel Oil	Dimension			Total Weight	Tyre Size
		bar	m^3/ min	cfm	DN / Pcs		KW rpm		Lit	L (mm)	W (mm)	H (mm)	Kg	
PDS390S	Single Stage Oil Cooled Rotary Twin Screw	10.5	8.9	314.29	50 / 1 20 / 4	4 cycle Water Cooled Direct Injection Type Turbo	110 2400	6	182 13	3810	1800	1780	2040	650-14 8PR*4W
PDSF530S	Single Stage Oil Cooled Rotary Twin Screw	10.7	15.0	529.71	50 / 1 20 / 2	4 cycle Water Cooled Direct Injection Type	118 2500	6	270 23	3650	1685	2070	3230	650-14 8PR*4W
PDSF830S	Single Stage Oil Cooled Rotary Twin Screw	10.5	23.5	829.88	50 / 2 20 / 1	4 cycle Water Cooled Direct Injection Type Turbo	206 2200	6	400 45	4000	1900	2130	4400	650-14 8PR*4W
PDSG460S	Single Stage Oil Cooled Rotary Twin Screw	13	12.5	441.43	50 / 1 20 / 2 10 / 1	4 cycle Water Cooled Direct Injection Type Turbo	223 2000	6	270 23	4000	1900	2130	4400	650-14 8PR*4W
PDSG750S	Single Stage Oil Cooled Rotary Twin Screw	13	21.2	748.66	50 / 1 20 / 2	4 cycle Water Cooled Direct Injection Type Turbo	223 2000	6	400 45	4000	1900	2130	4400	650-14 8PR*4W
PDSF920S PDSG820S	Single Stage Oil Cooled Rotary Twin Screw	13	36.0	1271.30	50 / 1 20 / 1	4 cycle Water Cooled Direct Injection Turbo charger with after cooler	324/320 (238/235) 2200/2200	6	555 49	4350	2000	2445	5300	7.50-16 10PR*4W
PDSG1300S	Single Stage Oil Cooled Rotary Twin Screw	13	36.0	1271.30	80 / 1	4 cycle Water Cooled Direct Injection Turbo charger with after cooler	364 1800	6	700 80	4650	1870	2050	8000	
PDSH850S	Single Stage Oil Cooled Rotary Twin Screw	17.5	24.0	847.54	50 / 1 20 / 1	4 cycle Water Cooled Direct Injection Turbo charger with after cooler	310 2000	6	555 49	4350	1900	2350	5650	7.50-16 10PR*4W
PDSJ750S	Two Stage Oil Cooled Rotary Twin Screw	21.1	21.2	748.66	50 / 1 20 / 1	4 cycle Water Cooled Direct Injection Turbo charger with after cooler	228 2000	6	555 49	4300	1900	2230	5350	7.50-16 10PR*4W
PDSK900S	Two Stage Oil Cooled Rotary Twin Screw	24.6	25.5	900.51	50 / 1 20 / 1	4 cycle Water Cooled Direct Injection Turbo charger with after cooler	327.3 1800	6	610 85	4670	2100	2315	6950	

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PORTABLE (AIRMAN)

Compressor						Engine				Dimension Weight				
Model	Type	Pressure	Free Air Delivery		Air Outlet	Type	Power	No. of Cylinder	Fuel Oil	Dimension			Total Weight	Tyre Size
		bar	3 m / min	cfm	DN / Pcs		KW rpm		Lit	L (mm)	W (mm)	H (mm)	Kg	
PORTABLE														
PDS130S	Single Stage Oil Cooled Rotary Twin Screw	7.1	3.5	123.60	20 / 2	4 cycle Water Cooled Direct Injection Type	28 3300	3	70 6	2470	1510	1360	830	5-10 6PR*2W
PDS185S	Single Stage Oil Cooled Rotary Twin Screw	7.1	5.0	176.57	20 / 3	4 cycle Water Cooled Direct Injection Type	37.9 3000	4	95 10	2740	1510	1360	915	175R13 8PR*2W
PDS265S	Single Stage Oil Cooled Rotary Twin Screw	7.1	7.5	264.86	20 / 3 50 / 1	4 cycle Water Cooled Direct Injection Type Turbo	62 2600	4	114 10	3020	1600	1615	1410	650-14 8PR*2W
PDS390S	Single Stage Oil Cooled Rotary Twin Screw	7.1	11.0	388.45	20 / 4	4 cycle Water Cooled Direct Injection Type Turbo	80.9 2400	4	180 13	3810	1800	1780	2040	650-14 8PR*2W
PDS655S	Single Stage Oil Cooled Rotary Twin Screw	7.1	18.5	653.31	50 / 1 20 / 2	4 cycle Water Cooled Direct Injection Type	118 2500	6	270 23	3650	1685	2070	3225	650-14 8PR*4W
PDS750S	Single Stage Oil Cooled Rotary Twin Screw	7.1	21.2	748.66	50 / 1 20 / 2	4 cycle Water Cooled Direct Injection Type Turbo	144.5 2100	6	310 23	3650	1685	2070	3335	650-14 8PR*4W
PDSE900S	Single Stage Oil Cooled Rotary Twin Screw	8.8	25.0	882.85	50 / 2 20 / 1	4 cycle Water Cooled Direct Injection Type Turbo	280 2200	6	400 45	4000	1900	2150	4600	650-14 8PR*4W

OLD BUT GOLD

AIR REFRIGERANT DRYER

Capacity	Air Connection	Dimension			Total Weight
m^3 / min	Inch	Length (mm)	Width (mm)	Height (mm)	Kg
0.5	3/8	320	320	381	19
1	3/4	394	368	568	28
1.3	3/4	394	368	568	30
1.6	3/4	500	500	568	41
2.5	3/4	483	500	510	42
3	1	330	735	525	46
4.2	1	330	735	525	51
4.9	1	330	735	525	55
6.7	1 1/2	410	905	718	73
8.3	1 1/2	410	905	718	86
10.4	1 1/2	490	953	760	86
13.3	2	490	953	760	95
16.7	2	590	1052	801	109
20	2	590	1052	801	125
25	DN80	1232	1033	2115	480
30	DN80	1232	1033	2115	520
37.5	DN100	1243	1301	2116	690
45	DN100	1243	1301	2116	690
52.5	DN150	1400	1500	2112	880
60	DN150	1400	1500	2112	880
75	DN150	1400	1500	2112	1050
90	DN150	1400	1500	2112	1200

The Capacity of the Dryer is Based on the intake volume of the air compressor at 20°C 1bar

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POSITIVE DISPLACMENT BLOWER

Power	Differential Pressure	Free Air Delivery	Dimension			Outlet	Weight
min-max KW	mbar	m^3 / min	L (mm)	W (mm)	H (mm)	DN / Inch	Kg
1.5 - 7.5	300 - 900	0.55 - 4.12	960	650	920	50 / 2	180
1.5 - 15	300 - 1000	0.77 - 5.70	960	800	980	50 / 2	220
1.5 - 15	300 - 1000	0.77 - 5.70	960	800	980	80 / 3	220
2.2 - 15	300 - 700	1.22 - 8.21	1000	800	1000	80 / 3	225
3 - 30	300 - 1000	2.08 - 9.94	980	800	1130	80 / 3	260
11 - 30	300 - 1000	10.1 - 11.6	1130	1080	1200	100 / 4	260
4 - 30	300 - 700	3.7 - 17.3	1150	1080	1350	100 / 4	360
5.5 - 55	300 - 1000	5.06 - 24.2	1150	1080	1400	100 / 4	415
5.5 - 55	300 - 1000	5.06 - 24.2	1150	1080	1400	125 / 5	415
7.5 - 75	300 - 700	7.36 - 34.7	1350	1230	1530	150 / 6	550
11 - 90	300 - 1000	11.8 - 40.3	1160	1230	1580	150 / 6	725
15 - 75	300 - 700	17.9 - 43.5	1350	1230	1670	150 / 6	715
37 - 90	300 - 700	47.9 - 55.1	1320	1420	1650	200 / 8	890
15 - 132	300 - 1000	16.7 - 59.0	1470	1420	1640	200 / 8	1050
18.5 - 160	300 - 700	19.1 - 83.9	1450	1470	1820	200 / 8	1261
18.5 - 160	300 - 700	19.1 - 83.10	1450	1470	1820	250 / 10	1261
30 - 200	300 - 1000	29 - 90.3	1750	1470	1950	251 / 10	2240
31 - 200	300 - 1000	29 - 90.3	1750	1470	1950	300 / 12	2240
37 - 200	300 - 700	43.4 - 134	1780	2050	2545	300 / 12	2041
55 - 355	300 - 1000	68.4 - 152	1880	2050	2740	300 / 12	2296
75 - 355	300 - 700	96.8 - 227	2120	2435	3310	400 / 16	3202
90 - 500	300 - 1000	100 - 246	2300	2453	3310	400 / 16	3742

Performance data based on the intake of air 1bar , 20 °C

OLD BUT GOLD

STATIONARY OIL INJECTED SCREW COMPRESSOR (BELT DRIVE)

Model	Power	Pressure	Free Air Delivery		Dimension			Weight
	KW / HP	bar	m^3/ min	cfm	L (mm)	W (mm)	H (mm)	Kg
PC 75	55 / 75	7	9.2	327.71	2000	1400	1590	1640
		8	8.9	314.65				
		10	7.8	276.86				
		13	6.4	226.36				
		15	5.7	201.29				
PC 100	75 / 100	7	12.5	442.48	2000	1400	1590	1730
		8	11.8	417.76				
		10	10.4	368.33				
		13	8.9	317.47				
		15	8.1	288.52				
PC 125	90 / 125	7	14.8	522.65	2300	1600	1980	2000
		8	13.7	486.63				
		10	12.3	437.19				
		13	10.9	385.98				
		15	9.2	325.60				
PC 150	110 / 150	7	17.7	625.76	2301	1601	1981	2350
		8	16.3	578.09				
		10	14.6	517.35				
		13	12.8	454.49				
		15	12.1	428.36				
PC 180	132 / 180	7	22.4	792.45	2200	1840	2160	3300
		8	21.2	748.66				
		10	18.6	660.02				
		13	15.4	545.60				
		15	14.8	525.12				
PC 220	160 / 220	7	26.6	940.06	2200	1840	2160	3400
		8	25.4	900.15				
		10	22.1	781.15				
		13	18.5	655.07				
		15	17.9	632.47				

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STATIONARY OIL INJECTED SCREW COMPRESSOR (BELT DRIVE)

Model	Power	Pressure	Free Air Delivery		Dimension			Weight
	KW / HP	bar	m^3/ min	cfm	L (mm)	W (mm)	H (mm)	Kg
PC 20	15 / 20	7	2.5	89.70	1100	980	1060	400
		8	2.2	80.16				
		10	1.7	61.09				
		13	1.0	37.43				
		15	0.8	30.72				
PC 25	18.5 / 25	7	3.1	111.95	1100	980	1060	410
		8	2.9	102.41				
		10	2.4	87.58				
		13	1.6	59.33				
		15	1.2	45.56				
PC 30	22 / 30	7	3.8	134.19	1100	980	1060	420
		8	3.5	124.66				
		10	2.9	105.24				
		13	2.3	81.22				
		15	1.7	60.03				
PC 40	30 / 40	7	4.9	174.45	1460	1000	1360	720
		8	4.5	159.97				
		10	3.9	140.55				
		13	3.2	116.18				
		15	2.9	103.82				
PC 50	37 / 50	7	5.8	205.53	1460	1000	1360	760
		8	5.4	191.40				
		10	4.7	168.09				
		13	4.0	142.67				
		15	3.6	128.19				
PC 60	45 / 60	7	6.5	232.37	1460	1000	1360	810
		8	6.3	222.48				
		10	5.4	193.87				
		13	4.6	164.56				
		15	4.1	144.79				

Standard condition (20°C, 1bar)

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STATIONARY OIL INJECTED SCREW COMPRESSOR (DIRECT DRIVE)

Model	Power	Pressure	Free Air Delivery		Dimension			Weight
	KW / HP	bar	m^3 / min	cfm	L (mm)	W (mm)	H (mm)	Kg
Pc15	11 / 15	7	1.2	44.85	1460	1000	1360	380
Pc20	15 / 20	7	2.2	79.46	1460	1000	1360	400
		10	1.2	43.44				
		13	1.1	42.02				
Pc25	18.5 / 25	7	2.7	98.53	1100	980	1060	410
		10	2.5	88.29	2200	1300	1630	
		13	1.1	42.02	1460	1000	1360	410
Pc30	22 / 30	10	2.7	96.41	1460	1000	1360	420
		13	2.4	87.23	2200	1300	1630	440
Pc40	30 / 40	10	2.7	96.41	1460	1000	1360	720
		13	2.6	94.64				
Pc50	37 / 50	7	5.5	194.23	1460	1000	1360	760
		10	5.4	191.76				
Pc60	45 / 60	13	5.3	189.28	1460	1000	1360	810
Pc100	75 / 100	7	11.2	396.58	2200	1600	2000	1730
		10	10.2	361.62	2970	1840	2100	1730
Pc125	90 / 125	10	11.0	391.28	2200	1600	2000	2000
		13	10.9	385.98				
Pc180	132 / 180	7	22.4	792.45	2970	1840	2100	3300
Pc220	160 / 220	10	22.1	781.15	3500	2400	2100	3400
Pc270	200 / 270	7	44.2	1564.06	2200	1840	2160	3700
		13	21.8	769.85	2970	1840	2100	3700
Pc340	250 / 340	7	44.2	1564.06	2200	1840	2160	4000
Pc420	315 / 420	10	43.6	1541.46	3500	2400	2100	4000
Pc480	355 / 480	13	43.0	1519.21	3500	2400	2100	4000

Performance data based on the intake of air 1bar, 20 °C

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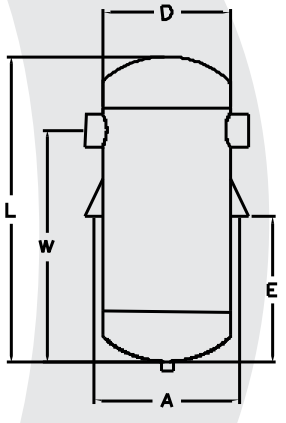
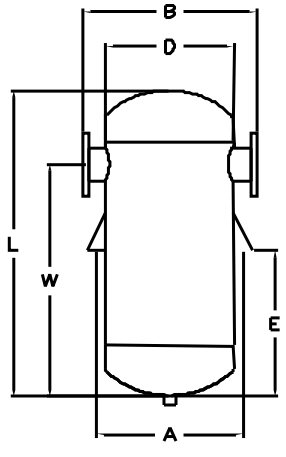
WATER TRAP

Model	Capacity	Inlet/Outlet Connection	Drain Connection	Dimension						Total Weight
	m^3 / min	Inch	Inch	L (mm)	W (mm)	D (mm)	A (mm)	E (mm)	B (mm)	Kg
CS-5	5	1 1/4	1/2	460	350	168	------	------	------	14
CS-10	10	2	1/2	600	453	219	------	------	------	32
CS-20	20	3	1/2	740	545	273	345	260	500	60
CS-50	50	4	1/2	800	570	324	395	290	530	70
CS-80	80	6	1/2	840	570	356	420	305	570	115
CS-130	130	6	1/2	1080	810	406	470	365	633	125

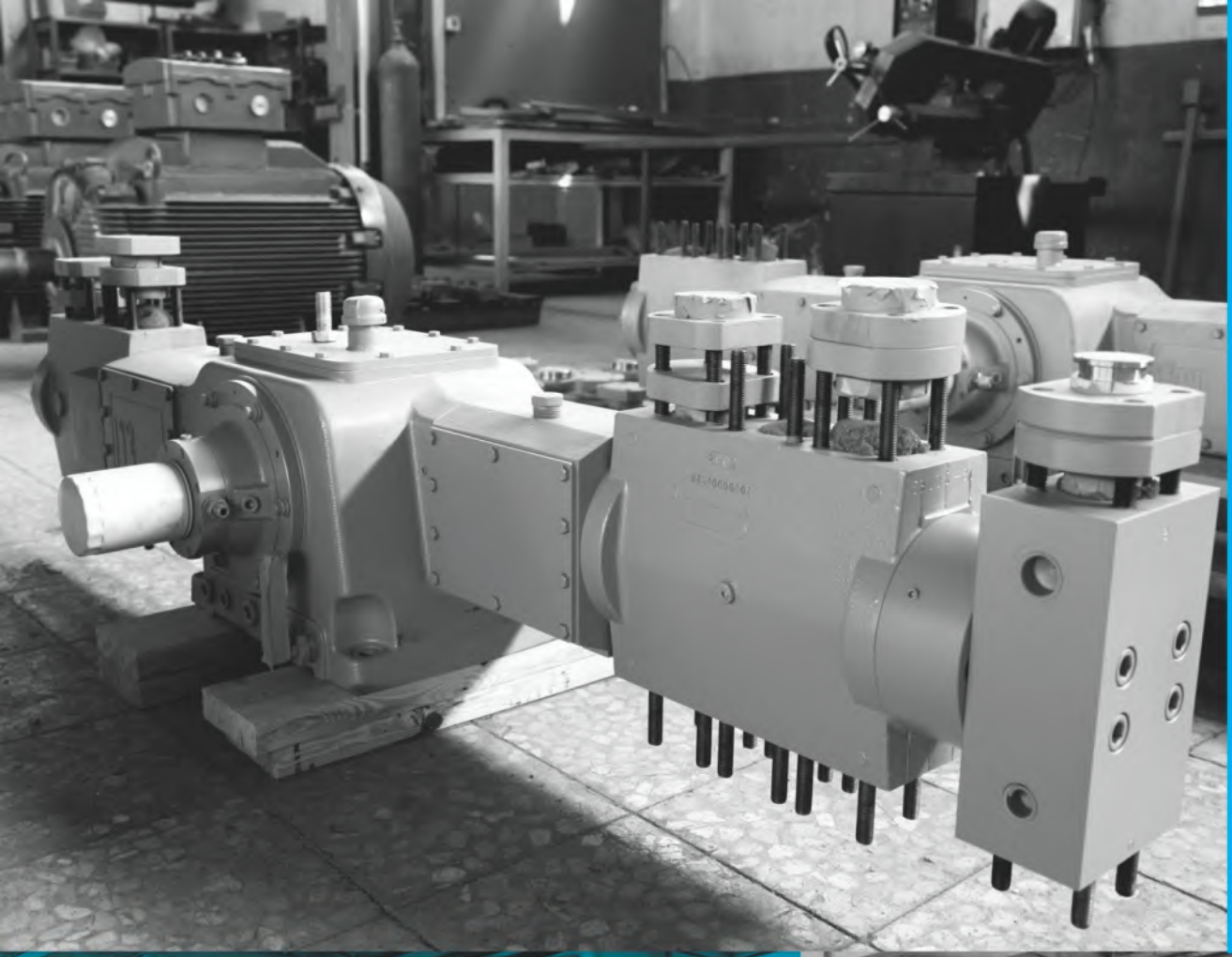
Design and Test Standard :

ASME Sec8, Div.1





Design data : P= 13 Bar & T= 85 °C



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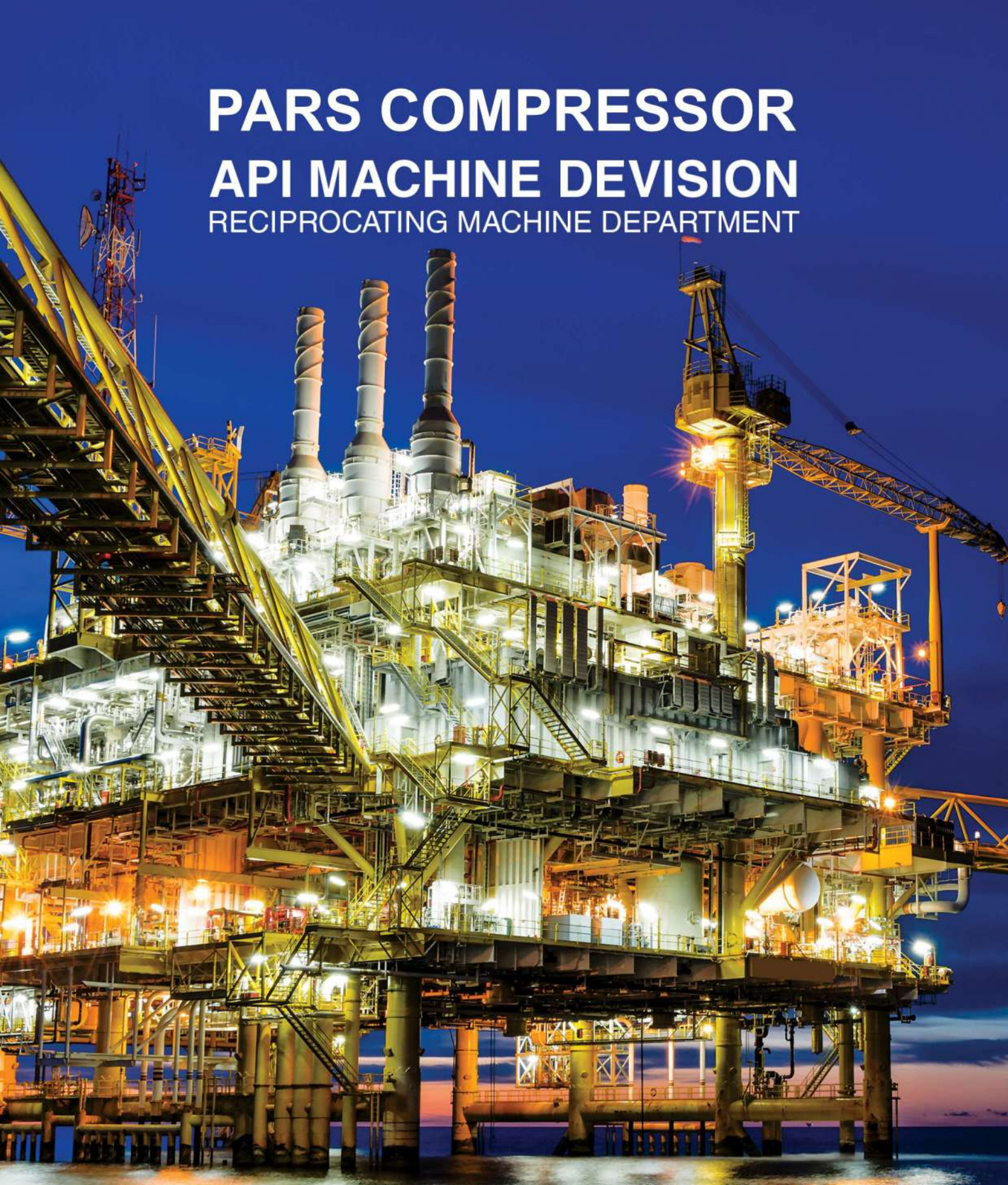
API MACHINE DEVISION
RECIPROCATING MACHINE DEPARTMENT



RECIROCATING COMPRESSORS
AS PER
API-618

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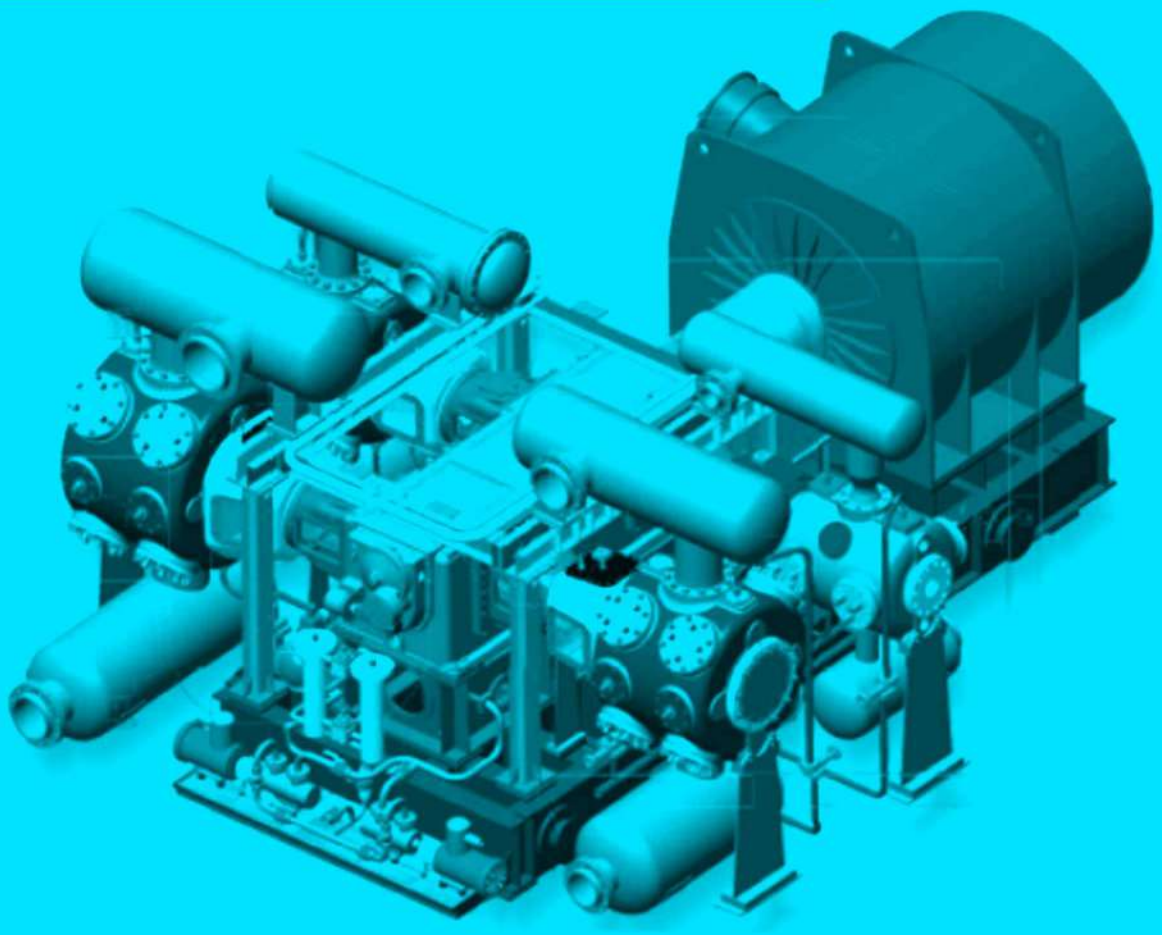
API MACHINE DEVISION

RECIPROCATING MACHINE DEPARTMENT

RECIPROCATING COMPRESSORS



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Pars Compressor Mfg & ind Co. Has been Manufacturing air compressor Packages since 1975. This company is the oldest and largest Manufacturer of screw compressors and is known as a leading company compressors.

During the last 3 decades and since the establishment of this company, it is one of the largest manufacturer of mining and industrial compressors in the whole Middle East region. This Company has qualified in OIL ministry long list and NISOC AVL as air compressor package manufacturer and selected as qualified manufacturer for R&D projects about API compressor machines.
Recently We have started manufacturing and/or packaging Reciprocating gas compressors in accordance with API618- in a joint venture agreement with reputable international scale compressor manufacturers.
Our partners (NEA, SIAD and ABC) would provide the compressor bare block and we w ill complete the package with our in house technology/data.

We offer a complete range of oil-lubricated and oil-free gas compressors suitable for any application and environment based on API- 618. All our products can be customized to your specifications and requirements.
Our reciprocating type compressor packages are capable of continuous duty with low levels of maintenance and are suitable for high temperature environments. Our reciprocating compressors can be delivered in different setups: horizontal (opposed) as per API -618 vertical or V-type for general applications. Depending on the application and available space we can help you decide which type would be best suitable for your request. Reciprocating compressors are available in a wide range of capacities and can go up to very high pressures. The ange of each compressor type can be found here.

Features:

- Easy and low maintenance level
- Low noise frequency
- Suitable for high temperature environments and high pressures
- Suitable for earthquake areas
- Available in oil-lubricated and oil-free

The following is only a short list of all available options that can be included on our reciprocating compressors:

- Compressor design according to API 618
- LV, MV or HV electric motor with 50 Hz
- Diesel engine with hydraulic, pneumatic, electric or mechanical starter (different options can be combined)
- Generator can be included connected to diesel engine to make package self-sufficient
- Steam turbine drive
- Air coolers designed according to API661 and/or TEMA-C for shell and tube heat exchangers
- Closed cooled water system with/without water chiller
- Seawater cooling
- Complete control system with redundant and/or SIL certified PLC
- Control panel with HMI for operation via keypad or touch screen
- Stainless steel components such as oil system, process piping, control panels, coolers, instruments and separators
- ATEX explosion proof equipment, suitable for operation in Zone 1 or Zone 2 environment
- Tropicalization for extreme high ambient temperatures up to 55ºC
- Vibration monitoring system by 4-20 mA detectors or sophisticated Bently system.

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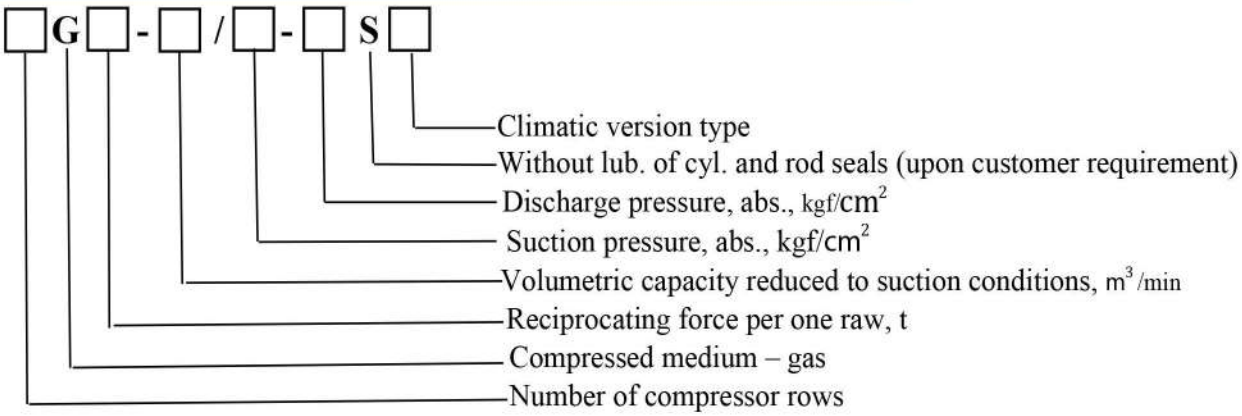
Main Types of Reciprocating Compressors Designation:

No.	Base designation	Number of rows	Maximum reciprocating force. (N)	shaft rotational speed, rpm	Type of bearings
1	2GM2.5	2	2.5	1000	roller
2	4GM2.5	4	2.5	1000	roller
3	2GM4	2	4.0	750	sliding
4	2GM10	2	10.0	600	sliding
5	4GM10	4	10.0	600	sliding
6	2GM10A	2	10.0	1000	sliding
7	2GM16	2	16.0	375	sliding
8	4GM16	4	16.0	375	sliding
9	4GM25	4	25.0	375	sliding
10	6GM25A	6	25.0	1000	sliding
11	GT1	1	1.0	1000	roller
12	2GT1.6	2	1.6	1000	roller
13	6W	6	1.6	1500	roller

Reciprocating compressor designation structure:

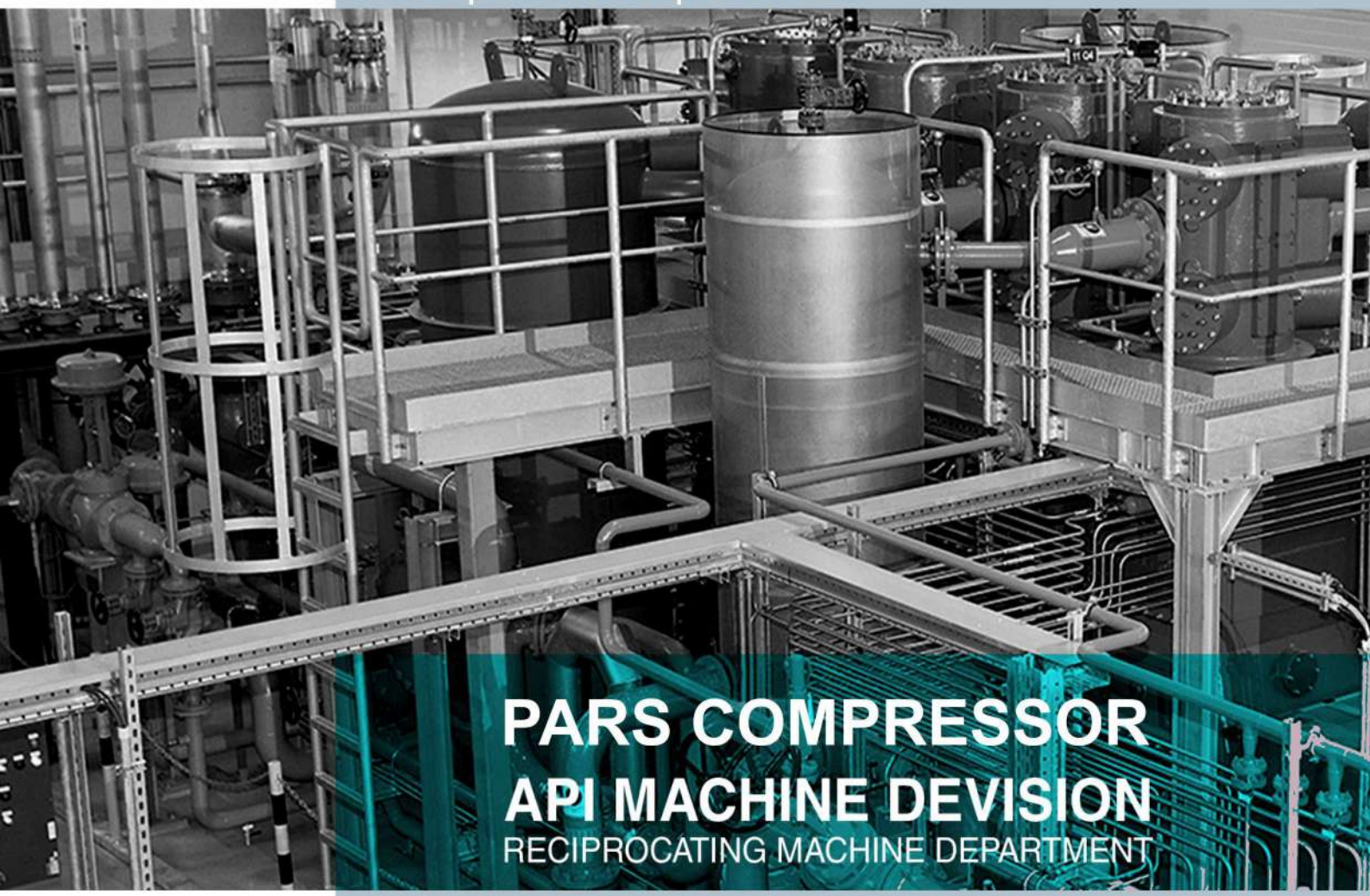


Compressor designation example:

4GM10- 48/2-57S UHL4

4	-	number of rows;
G	-	gas (compressed medium);
M10	-	opposite with reciprocating force for one row– 10 t:
48	-	volumetric capacity reduced to suction conditions, m^3/min:
2	-	absolute suction pressure, kgf/cm^2;
57	-	absolute discharge pressure, kgf/cm^2;
S	-	version without lubrication of cylinders and rods seals;
UHL4	-	project climate specification number (example)

www.pars-compressor.ir



Basic Design Solutions:

Design solutions	Compressor base:						
	M 2.5	M 4	M 10	M 10A	M 16	M 25	M 25A
Number of rows	2, 4	2	2, 4		2, 4	4	6
Number of main bearings	2, 3, 4	2	3, 5	2	3, 5	5	7
Moving mechanism lubrication	Sprinkling	Circulation under pressure					
Lube oil pump drive		-	Crank shaft driven / Auxiliary electric motor				
Bearing gear	no	no	yes	no	yes	yes	no
End of crankshaft	Keyed/flange						
Lubrication of cylinders and rod seals	With lubrication	With lubrication/ w/o lubrication	With lubrication/ w/o lubrication	With lubrication	With lubrication/ w/o lubrication	With lubrication/ w/o lubrication	With lubrication
Intermediate insert	Type A, B, C, D (as per API 618)						
Main parts manufacturing method:							
Crankcase	Casting						
Crankshaft	Stamping	Forging					
Connecting rod	Stamping	Forging			Forging/Stamping	Forging	
Connectingrod bolt	Forging or machining of bar stock						
Connectingrod nut	Forging or machining of bar stock						
Crosshead	Casting			Forging	Casting		
Crosshead pin	Forging or machining of bar stock						
Crosshead nut	Forging or machining of bar stock						
Intermediate insert	Casting						
Cylinder	Casting/Forging/Forging+welding						
Cylinder sleeve	Casting						
Cylinder cover	Casting/Forging						
Piston	Casting/Forging/ welding						
Rod	Forging or machining of bar stock						
Rod nut	Forging or machining of bar stock						
Valve cover	Forging						
Rod seal casing andflange	Forging						
Valve body	Forging						
Valve plate	Sheet machining						
Valve spring	Broaching						

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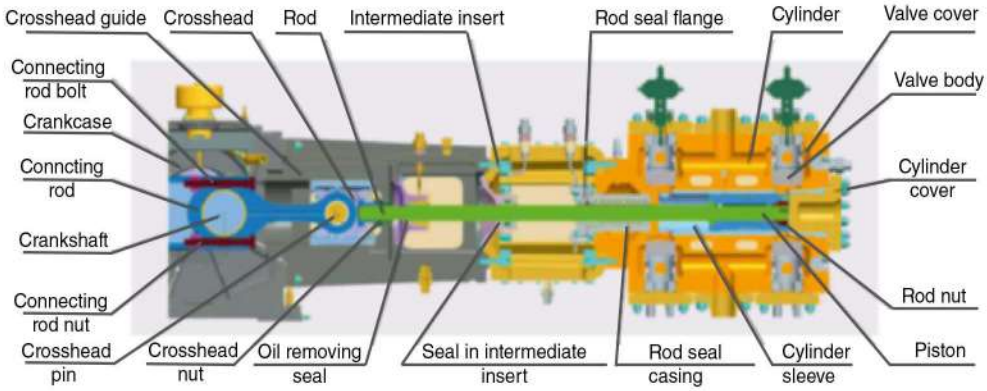
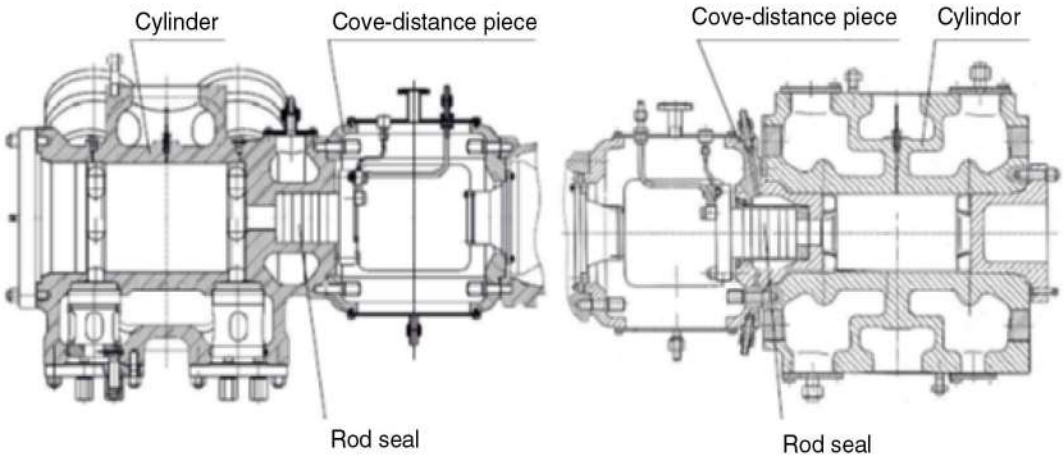


Compressor

1. Forged steel crankshaft for heavy duties.
2. Horizontally balanced opposite rows.
3. Crossheads made of casted steel with iron shoes (Babbitt filled) or aluminum shoes. Forced lube oil supply under pressure to upper and lower sliding surfaces for minimum wear.
4. Forged steel connecting rods.
5. Barring gear

Cylinders and piston groups

1. Cylinders with bottom part and rod seals mounted therein and without bottom part with rod seals mounted into intermediate insert
2. Guide (journal) rings of pistons for lubricated and non-lubricated operation.
3. Indication of cylinder cavities.
4. Rod seals purging
5. Rod seals cooling with cooling fluid (water, anti-freezing agent) or oil.
6. Cylinders structure without cooling or with cooling with cooling fluid.
7. Piston rods made of alloyed or corrosion resistant steel.



Valves

Disk, ring or band automatic valves depending on compressed gas and average speed of piston.

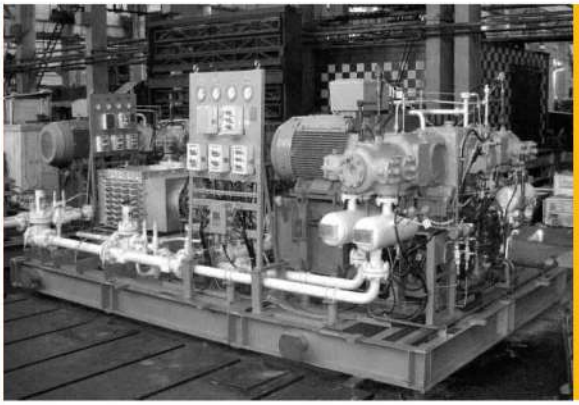
Capacity regulation devices (unloaders)

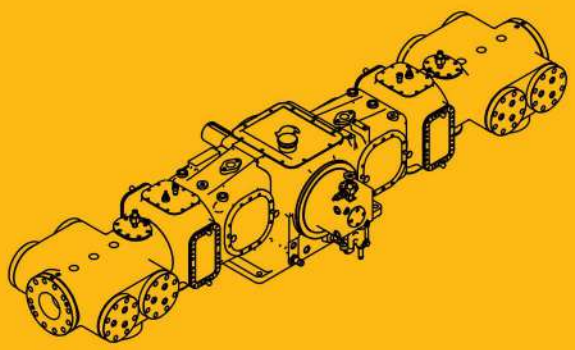
1. Additional dead space.
2. Pressing of plates of suction valves (Hoerbiger, CPI, …).

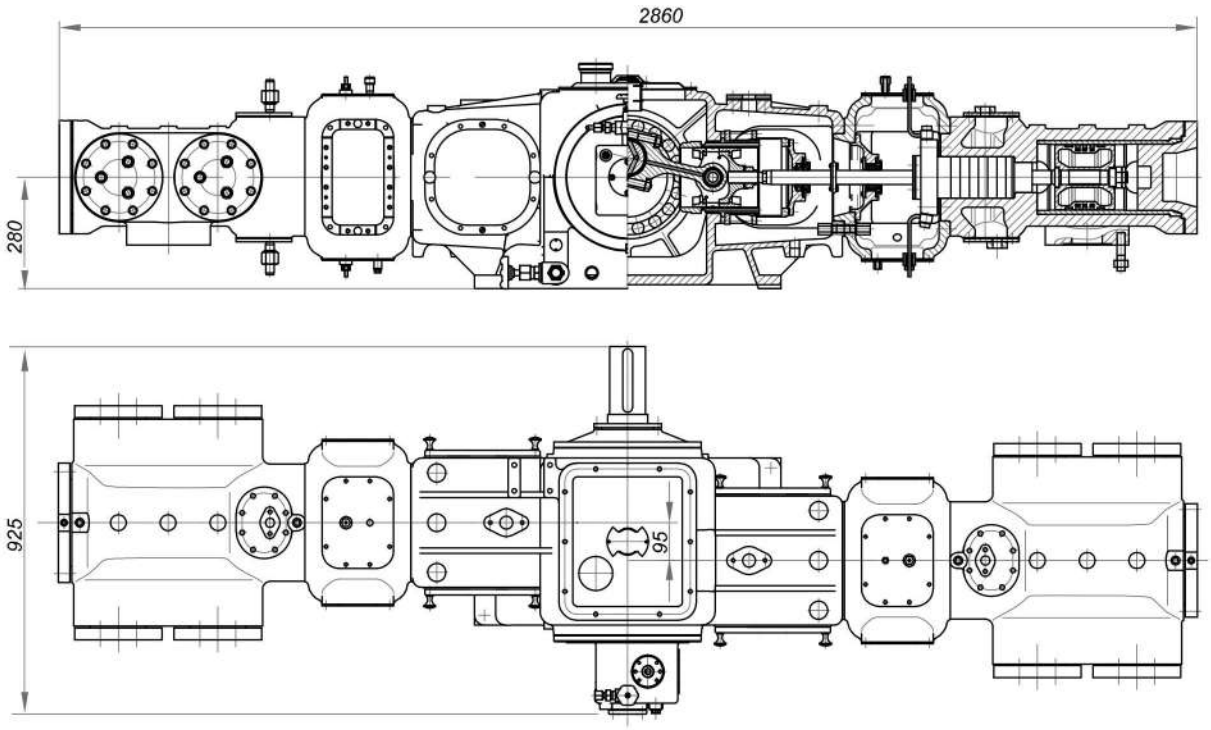
Pulsation suppression device

Buffer suction and discharge vessels for each compressor stage.

Compressor on 2GM2.5 base

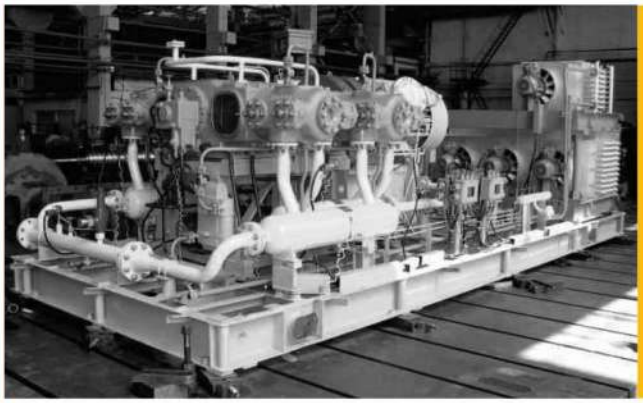


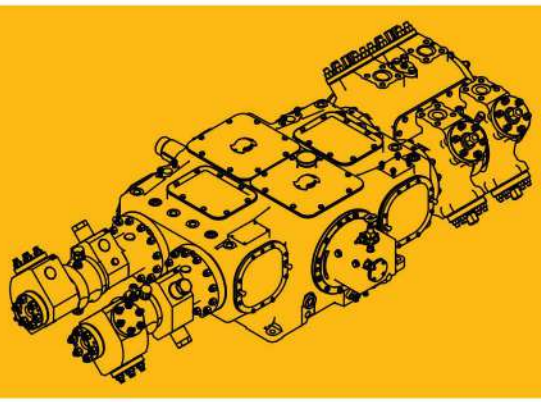


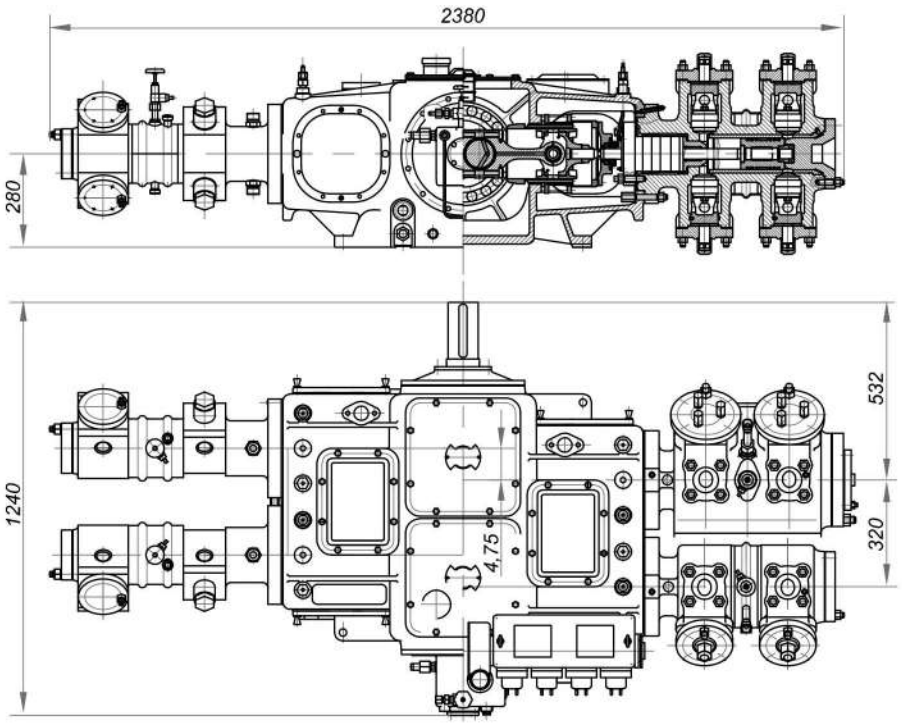


Specifications		
Type of compressor		reciprocating, double row on opposite base 2GM2.5
Reciprocating force	t	2.5
Number of rows		2
Piston stroke	mm	100
Maximum rotational speed of crankshaft	rpm	1000
Maximum capacity at compressor shaft	kW	130
Type of bearings		roller bearings

Compressor on 4GM2.5 base

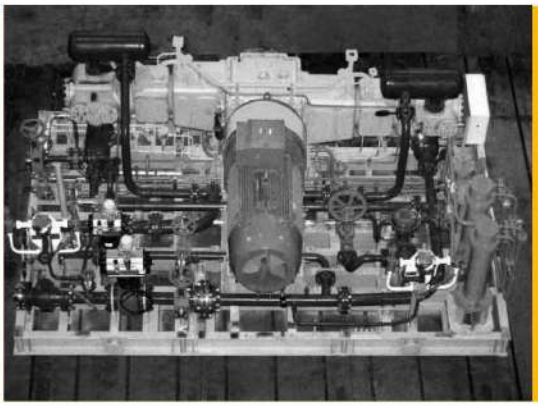


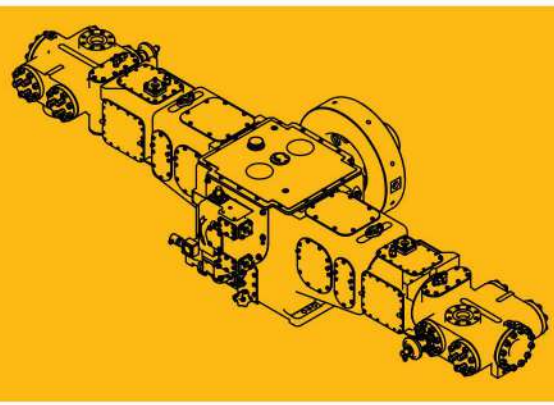


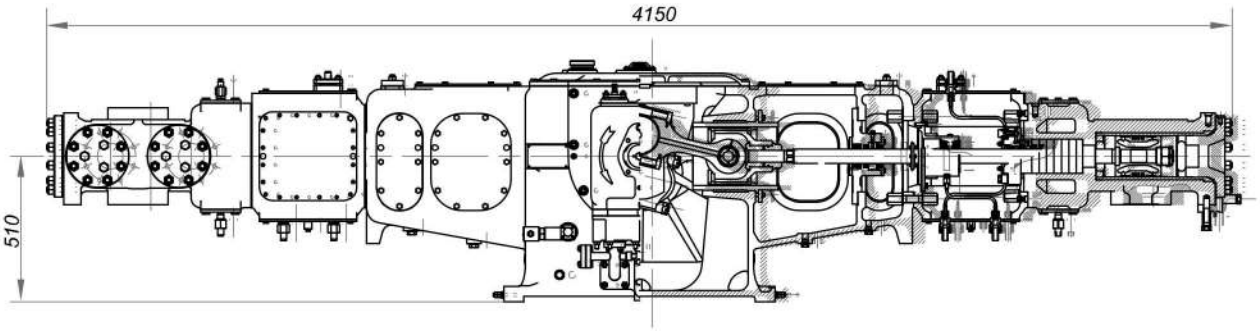


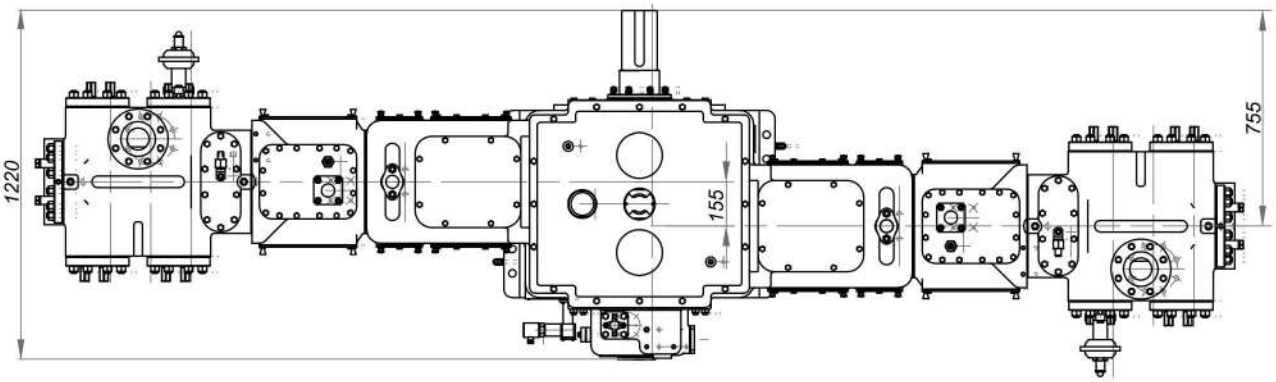
Specifications		
Type of compressor		reciprocating, four row on opposite base 4GM2.5
Reciprocating force	t	2,5
Number of rows		4
Piston stroke	mm	100
Maximum rotational speed of crankshaft	rpm	1000
Maximum capacity at compressor shaft	kW	260
Type of bearings		roller bearings

Compressor on 2GM4 base



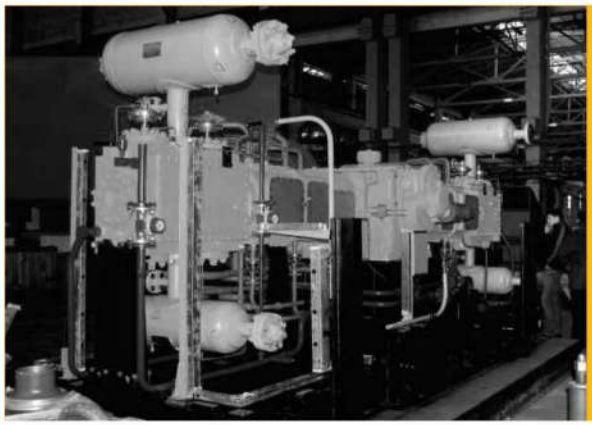


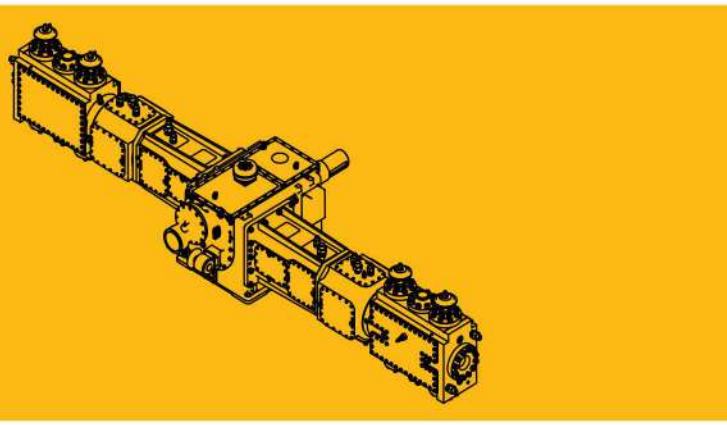


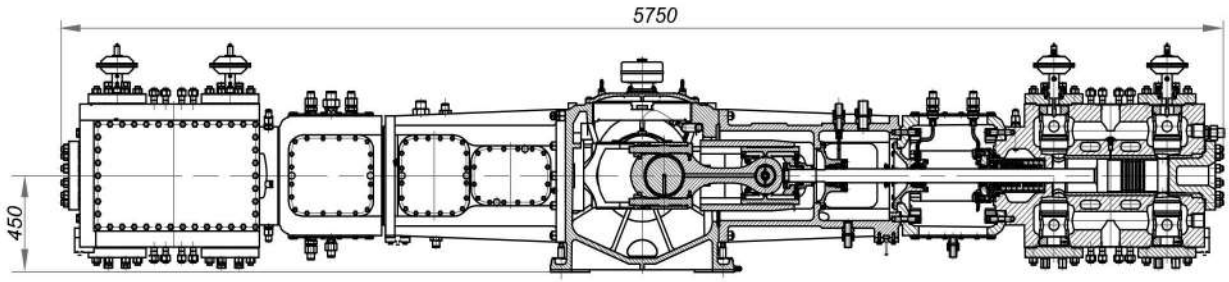


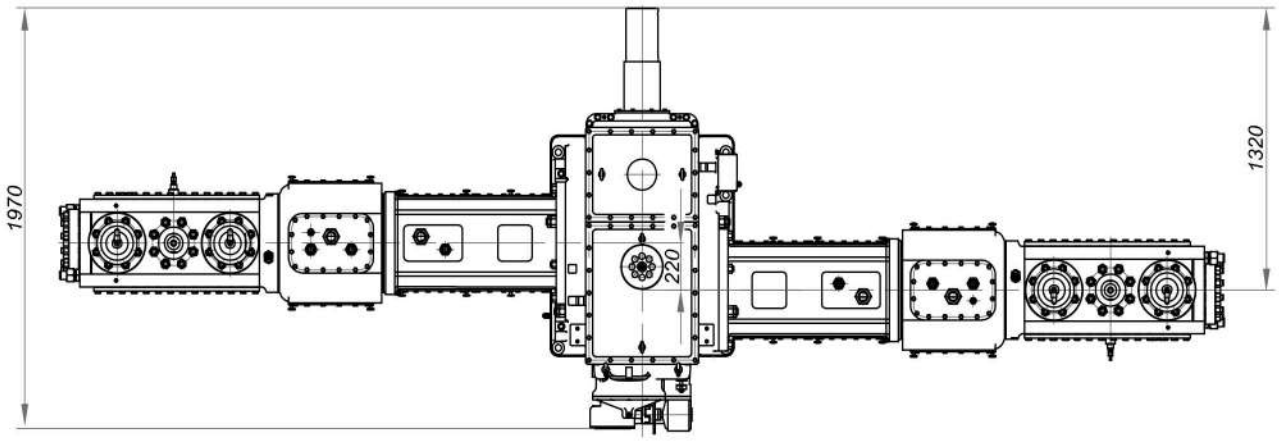
Specifications		
Type of compressor		reciprocating, double row on opposite base 2GM4
Reciprocating force	t	4
Number of rows		2
Piston stroke	mm	150
Maximum rotational speed of crankshaft	rpm	750
Maximum capacity at compressor shaft	kW	200
Type of bearings		sliding bearings

Compressor on 2GM10 base



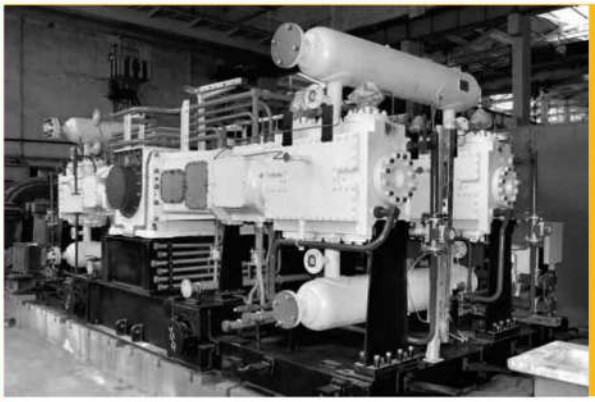


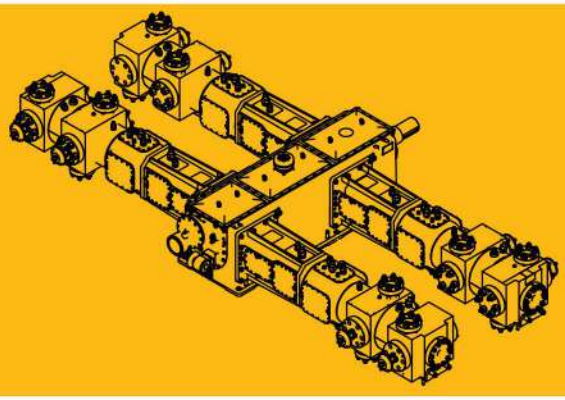


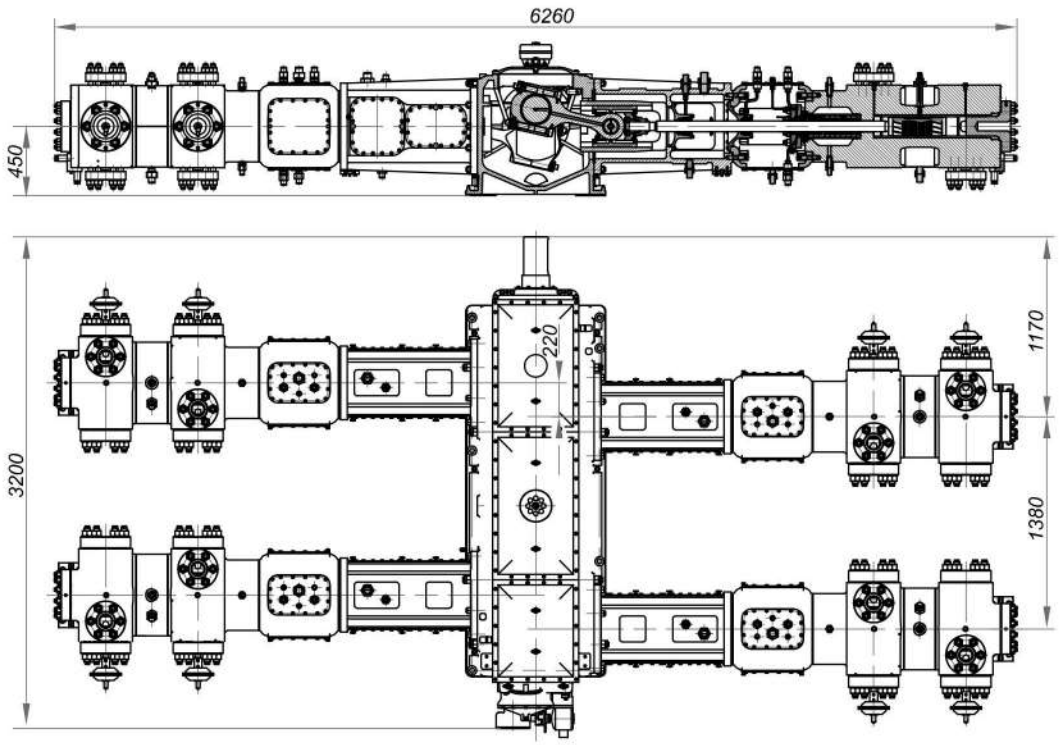


Specifications		
Type of compressor		reciprocating, double row on opposite base 2GM10
Reciprocating force	t	10
Number of rows		2
Piston stroke	mm	220
Maximum rotational speed of crankshaft	rpm	600
Maximum capacity at compressor shaft	kW	580
Type of bearings		sliding bearings

Compressor on 4GM10 base

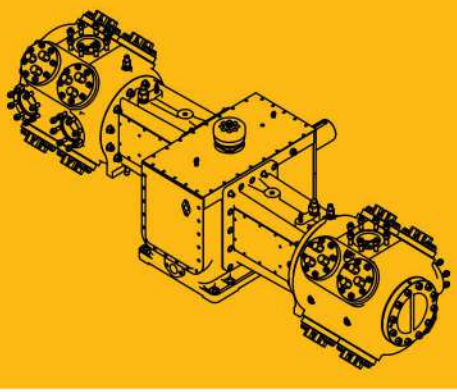


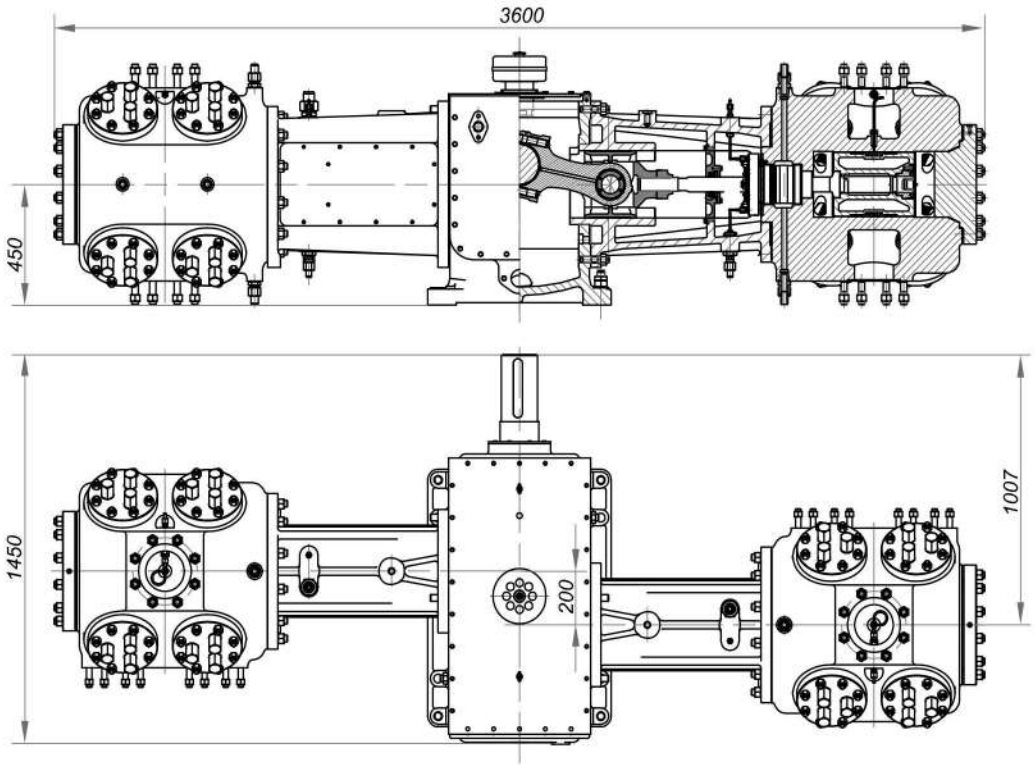




Specifications		
Type of compressor		reciprocating, double row on opposite base 4GM10
Reciprocating force	t	10
Number of rows		4
Piston stroke	mm	220
Maximum rotational speed of crankshaft	rpm	600
Maximum capacity at compressor shaft	kW	1000
Type of bearings		sliding bearings

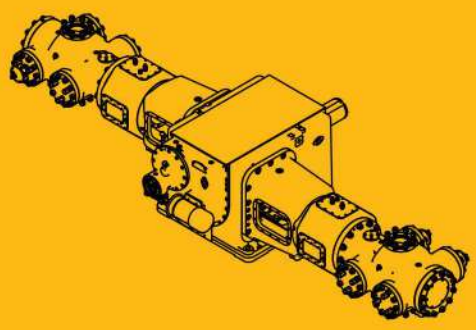
Compressor on 2GM10A base

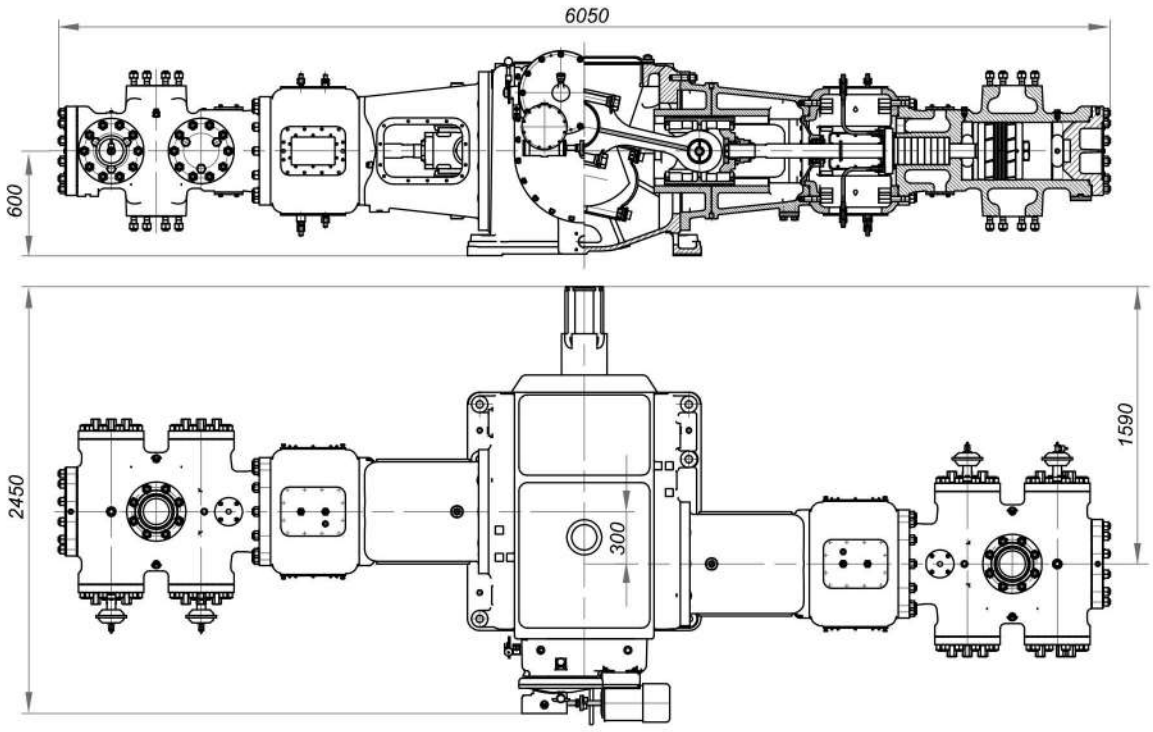




Specifications		
Type of compressor		reciprocating, double row on opposite base 2GM10A
Reciprocating force	t	10
Number of rows		2
Piston stroke	mm	150
Maximum rotational speed of crankshaft	rpm	1000
Maximum capacity at compressor shaft	kW	580
Type of bearings		sliding bearings

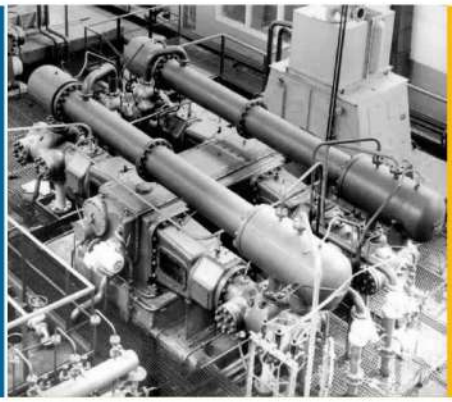
Compressor on 2GM16 base

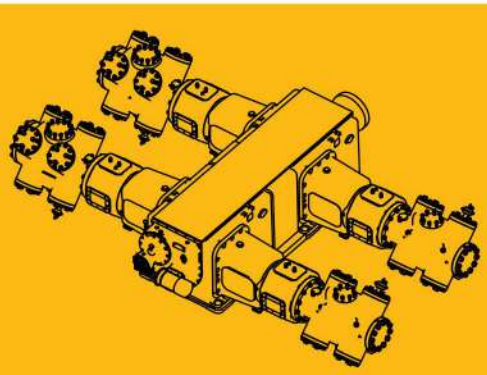


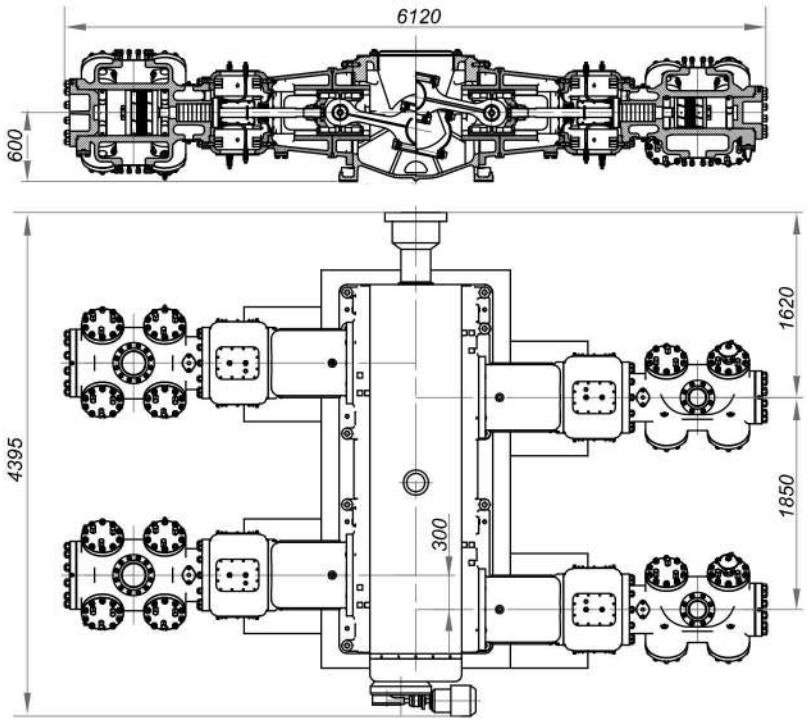


Specifications		
Type of compressor		1.reciprocating, double row on opposite base 2GM16
Reciprocating force	t	16
Number of rows		2
Piston stroke	mm	320
Maximum rotational speed of crankshaft	rpm	375
Maximum capacity at compressor shaft	kW	1110
Type of bearings		sliding bearings

Compressor on 4GM16 base

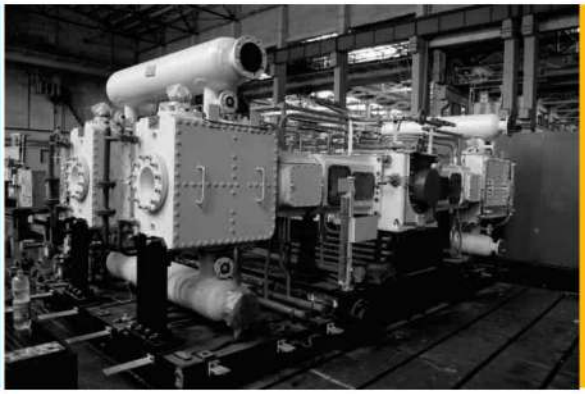


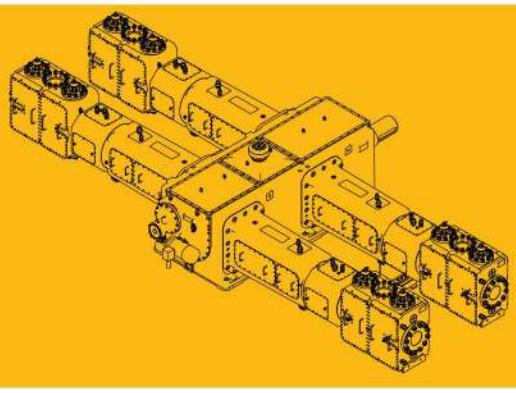


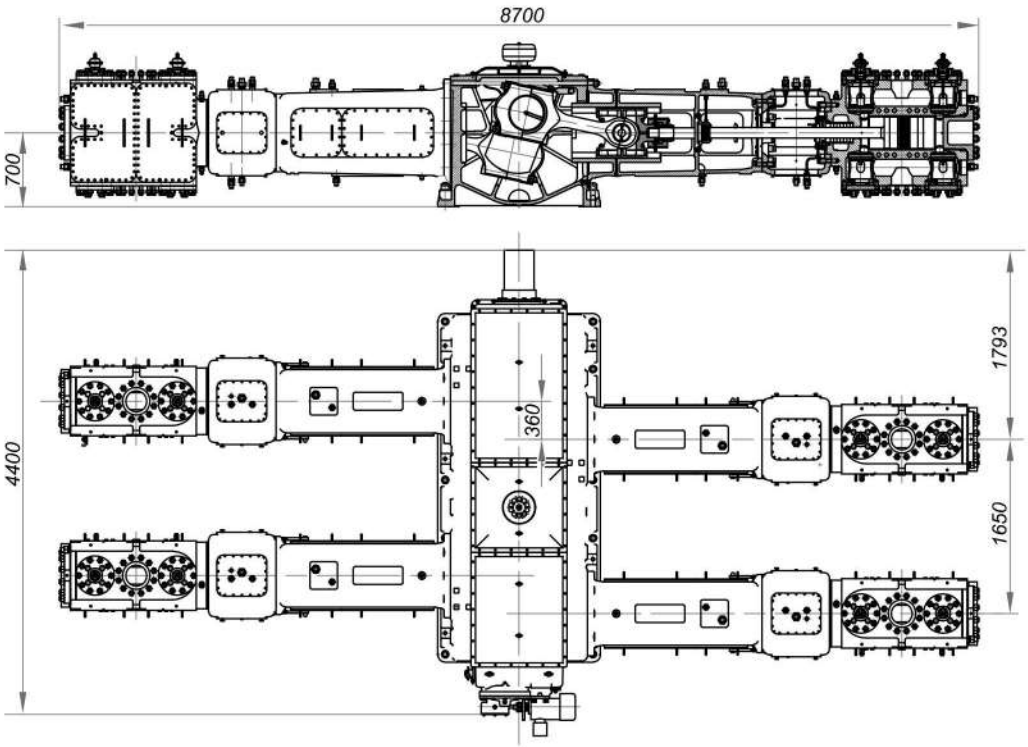


Specifications		
Type of compressor		reciprocating, double row on opposite base 4GM16
Reciprocating force	t	16
Number of rows		4
Piston stroke	mm	320
Maximum rotational speed of crankshaft	rpm	375
Maximum capacity at compressor shaft	kW	2200
Type of bearings		sliding bearings

Compressor on 4GM25 base

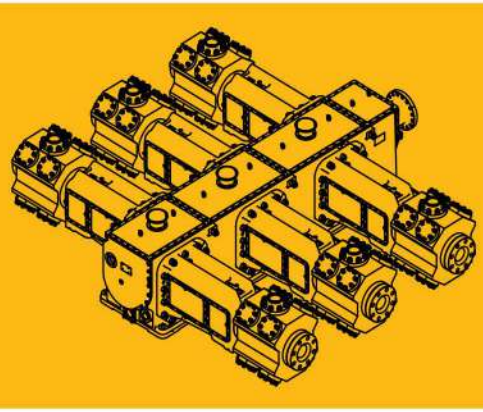


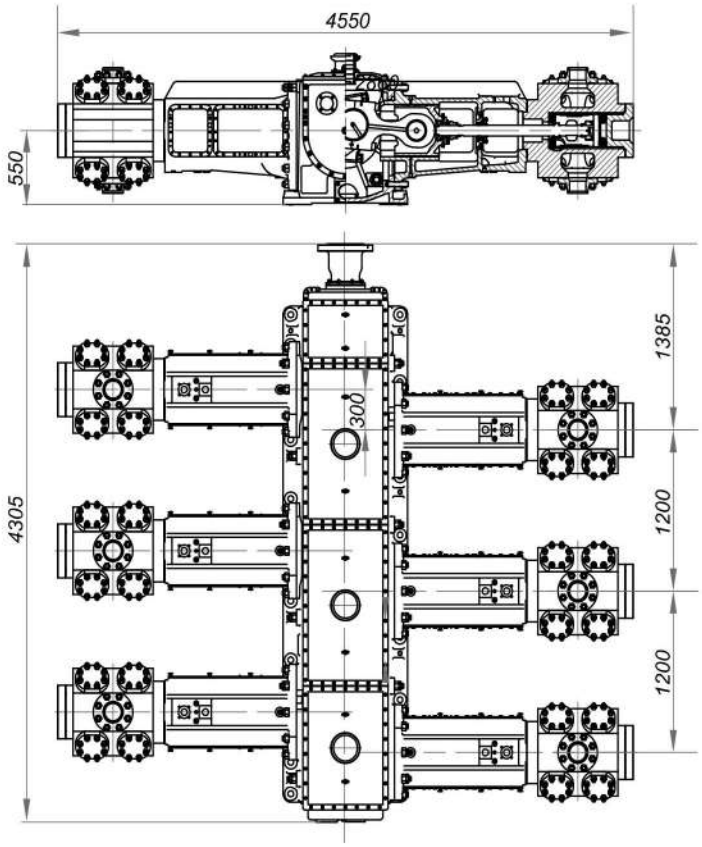




Specifications		
Type of compressor		reciprocating, double row on opposite base 4GM25
Reciprocating force	t	25
Number of rows		4
Piston stroke	mm	400
Maximum rotational speed of crankshaft	rpm	325
Maximum capacity at compressor shaft	kW	3100
Type of bearings		sliding bearings

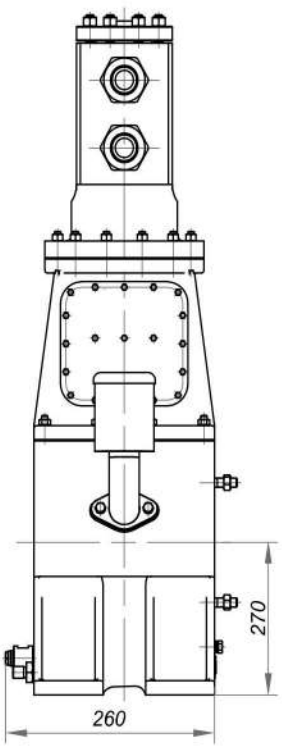
Compressor on 6GM25A base

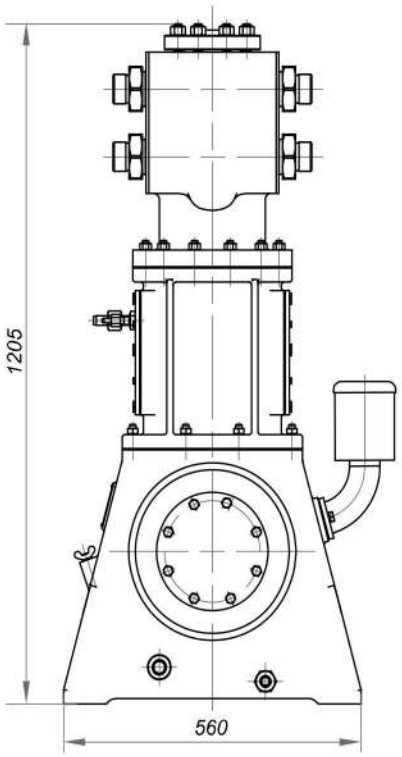




Specifications		
Type of compressor		reciprocating, six row on opposite base 6GM25A
Reciprocating force	t	25
Number of rows		6
Piston stroke	mm	150
Maximum rotational speed of crankshaft	rpm	1000
Maximum capacity at compressor shaft	kW	4700
Type of bearings		sliding bearings

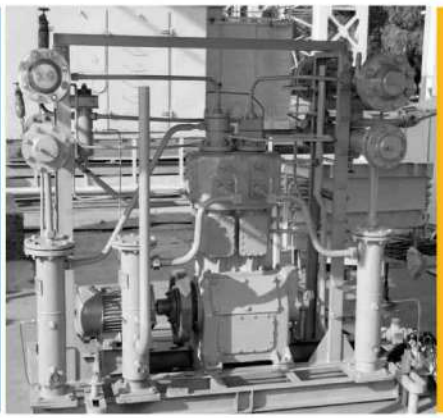
Compressor on GT1 base

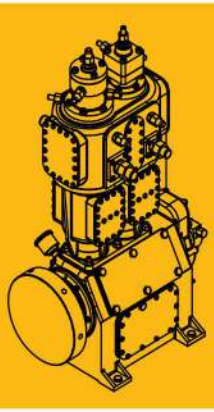


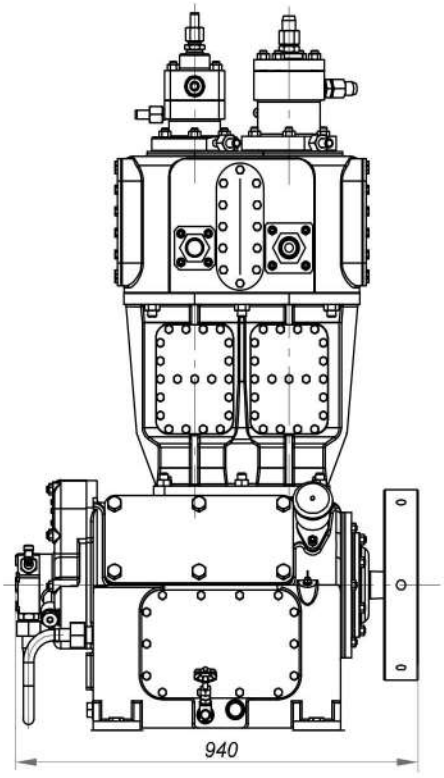


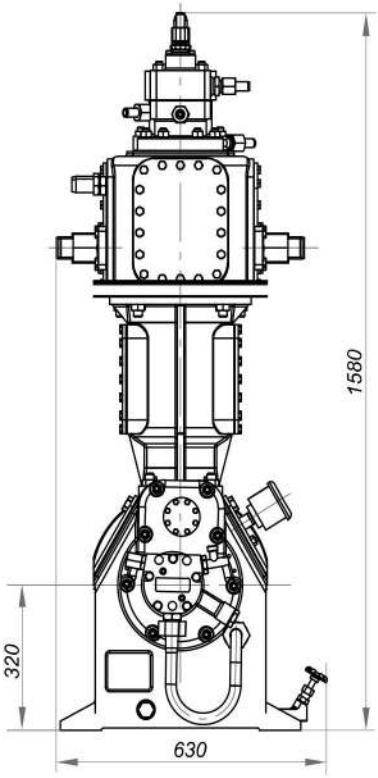
Specifications		
Type of compressor		reciprocating, vertical, crosshead, based on GT1
Reciprocating force	t	1.0
Number of rows		1
Piston stroke	mm	60
Maximum rotational speed of crankshaft	rpm	1000
Maximum capacity at compressor shaft	kW	20
Type of bearings		roller bearings

Compressor on 2GT1.6 base



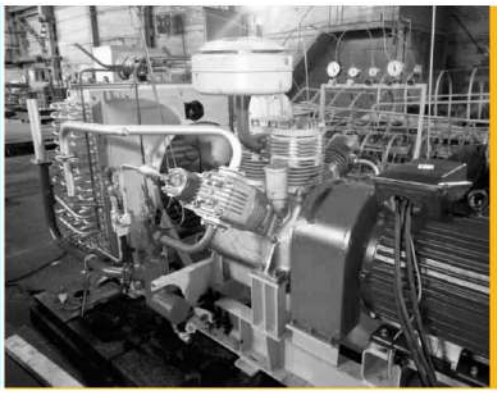


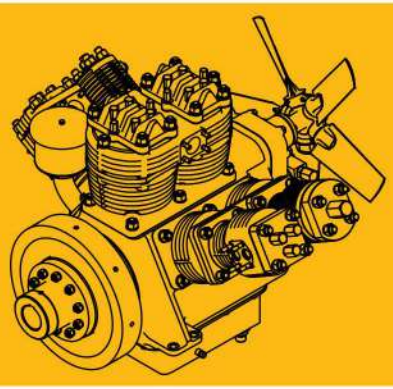


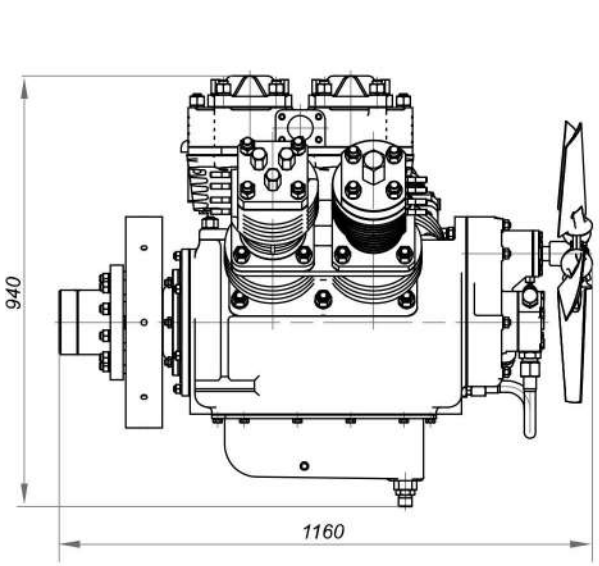


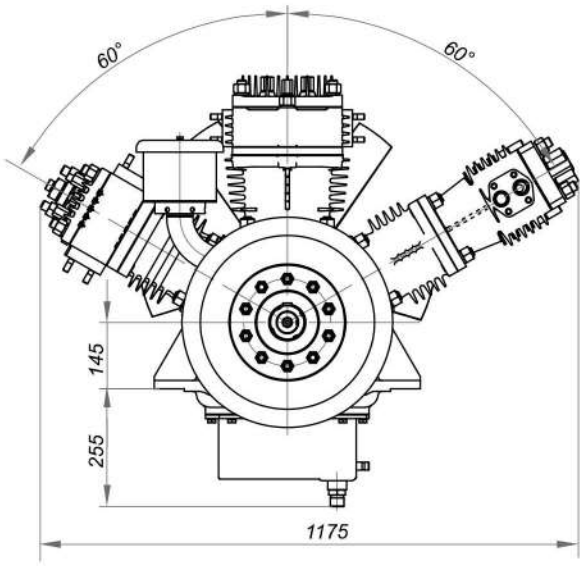
Specifications		
Type of compressor		reciprocating, vertical, crosshead, based on 2GT 1.6
Reciprocating force	t	1.6
Number of rows		2
Piston stroke	mm	60
Maximum rotational speed of crankshaft	rpm	1000
Maximum capacity at compressor shaft	kW	45
Type of bearings		roller bearings

Compressor on 6W base









Specifications		
Type of compressor		reciprocating, crosshead, W-shaped, with cylinders' air cooling
Reciprocating force	t	1.6
Number of rows		6
Piston stroke	mm	60
Maximum rotational speed of crankshaft	rpm	1500
Maximum capacity at compressor shaft	kW	75
Type of bearings		roller bearings

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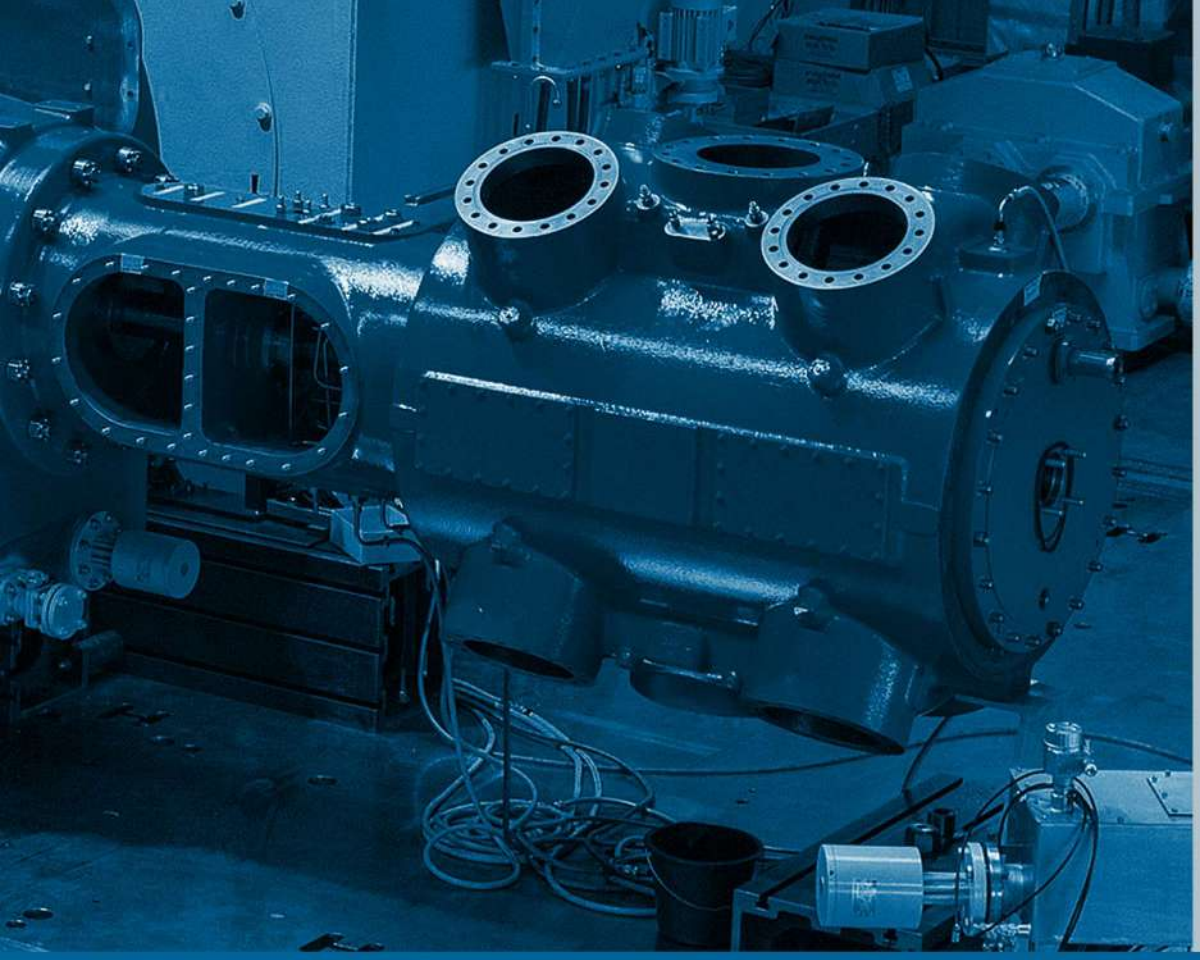

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