



Termomeccanica Industrial Compressors

Termomeccanica Group

SCREW COMPRESSORS

for air applications





Termomeccanica Industrial Compressors

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ABOUT US



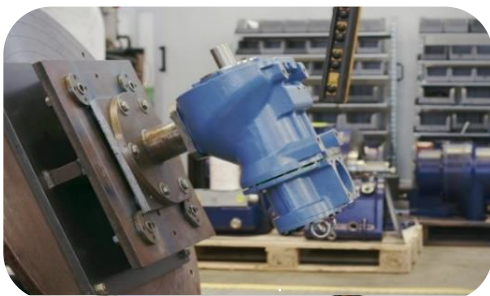
Termomeccanica was established in 1912 in La Spezia as "Cerpelli & C." and later became a stock company in the 1930s, taking the name of "**Termomeccanica Italiana S.p.A.**"

In January 1995, further to the dissolution of EFIM, the state-owned group it belonged to, the activities and shares of Termomeccanica Italiana S.p.A. were transferred to privately-owned and -managed Termomeccanica S.p.A. with the aim to continue the company's strong heritage in the manufacturing and turn-key plants sectors.

Today, Termomeccanica is an Italian industrial group, which is amongst the main players of both the Environmental and Mechanical sectors:

TM.I.C. Srl Termomeccanica Industrial Compressors is the Italian leader in developing, manufacturing and commercializing oil injected screw compressors for air and gas applications.

TM.E. SpA Termomeccanica Ecologia is a turn-key EPC contractor for Environmental & Industrial plants for the Production of Energy (Waste to Energy and Renewable Energy) and Technological Water Treatments (potabilization, desalination and waste water purification for civil and industrial uses).



TM.I.C. has become a globally recognized player thanks to the excellence that permeates throughout the company and guarantees unrivalled quality to customers.

Our company not only designs and manufactures oil injected bare shaft screw compressors for **Air & Gas applications** which are internationally acknowledged for their outstanding performance, long-life and innovation but also offers high-speed delivery and service to its worldwide customer base.

In particular, product design is optimized through the use of **CFD & FEA** and 100% of production is tested before leaving the factory.

INDEX

SCA-ITA Series (*Bare-shaft Single Stage*)

- Product Range
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- SCA13
- SCA14
- SCA21
- SCA30
- SCA36 **NEW**
- ITA18
- ITA23

SCI Series (*Integrated Single Stage*)

- Standard & Aluminium Design
- Product Range
- Features & Sizes
- SCI7
- SCI8
- SCI10

ITA-TS Series (*Two Stage*)

- Features

Gas Ends Series

TM.I.C. World

SCA SERIES

Screw Compressor Air-ends

Shaft seal

A new configuration of the seal ring, including a two-lip seal, a dust lip in PTFE and a dust ring, assures great reliability, long life and resistance to impurities.

Casing

All casing machining work is performed with modern computer numerical control machines, which allow continuous control and testing, thus guaranteeing our casings quality.

Painting

All TMIC screw compressors are painted with a modern and environmentally friendly protective paint. This surface finish effectively protects the castings against corrosion, even after many years of operation.



Rotors

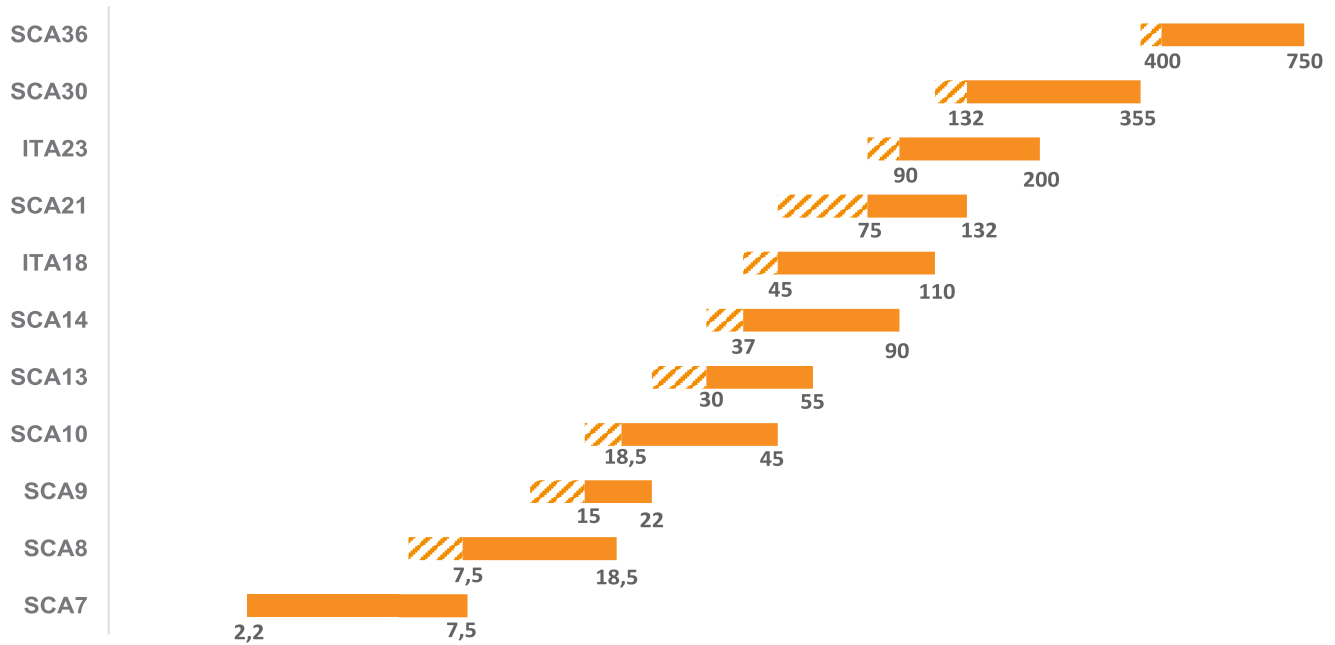
The heart of every screw compressor is its air end, this is why TMIC pays particular care to its manufacturing process. The company uses the latest-generation CNC machines and top-grade materials so as to guarantee the best tolerances and highest reliability. Special attention is also given to the final grinding process. A multistep computer-aided rotor control system also contributes to giving 100% accuracy to each TMIC rotor profile.

Bearing

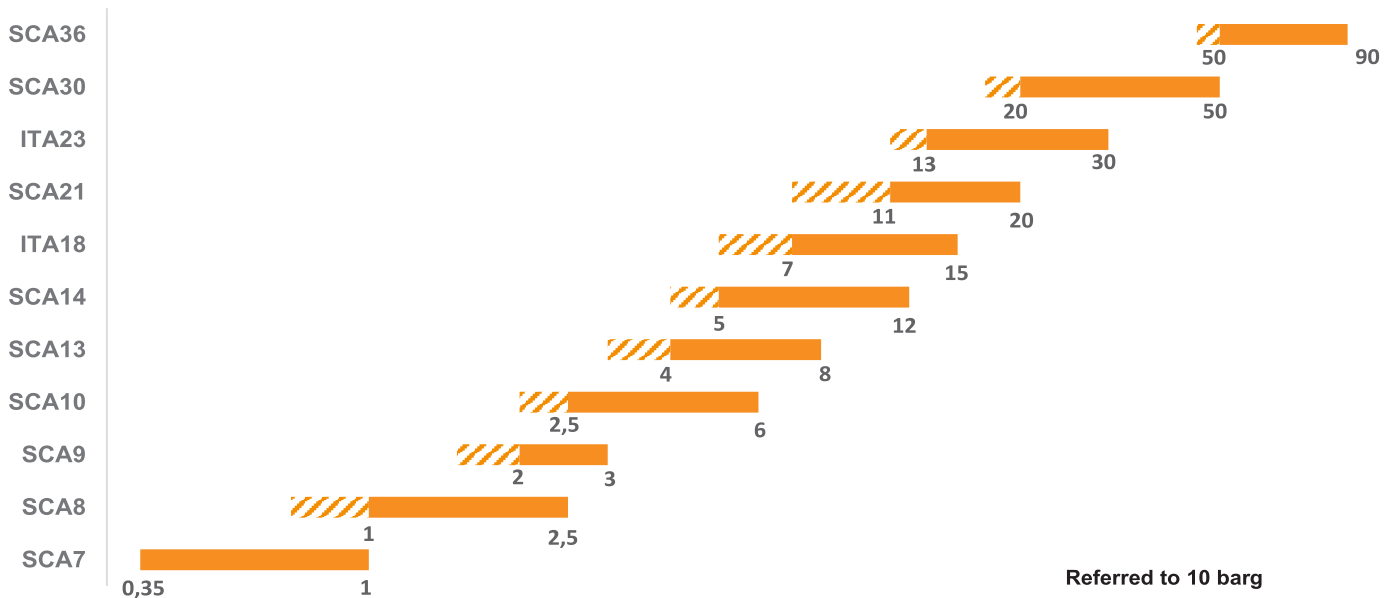
Given the rotational speeds and bearing loads they work at, TMIC compressors are equipped with top quality bearings that ensure the high-capacity and long-life request.

PRODUCT RANGE

Power Range (kW)



Flow Range (m3/min)



FEATURES & SIZES

Product features

High volumetric efficiency

Low running cost

Low air discharge temperature

Low noise level

PTFE double lip seal

Standard discharge pressure range from 3 to 15 barg (43.5 to 220 psig)

Higher pressure upon request

Sizes

SCA7 SCA7L

SCA8 SCA8DA – SCA8DR – SCA8GA – SCA8GR

SCA9 SCA9DR – SCA9GR

SCA10 SCA10DR – SCA10GR

SCA13 SCA13DR – SCA13GR

SCA14 SCA14DR – SCA14GR

ITA18 ITA18DR – ITA18GR

SCA21 SCA21DR – SCA21GR

ITA23 ITA23DR – ITA23GR

SCA30 SCA30DR – SCA30GR

SCA36 SCA36GR

A Axial outlet

R Radial outlet

D Direct or belt driven coupling

G Gear box

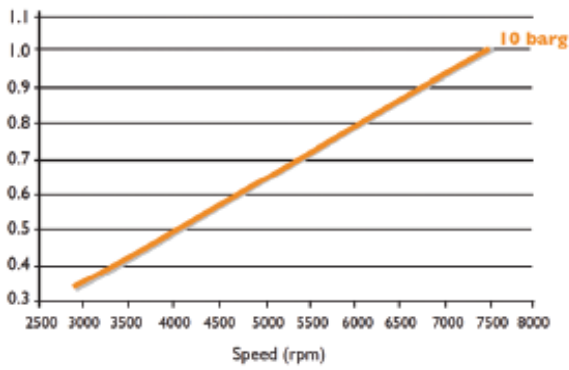
SCA7



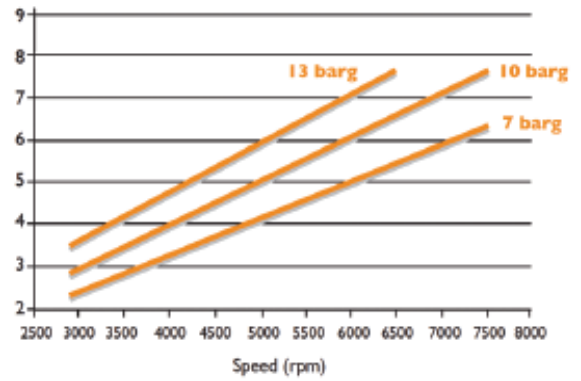
Features

- Drive: Male
- Lobe combination: 5/6
- Weight: 10kg-22 lbs

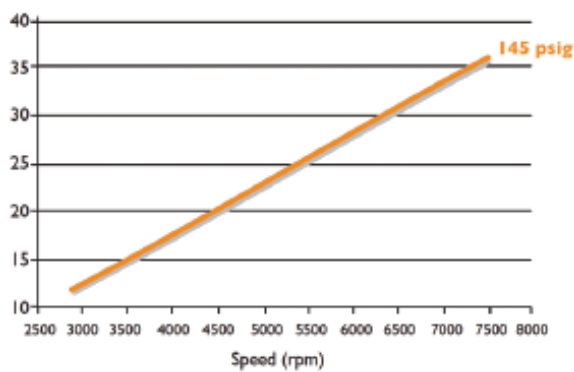
Air Capacity (m³/min)



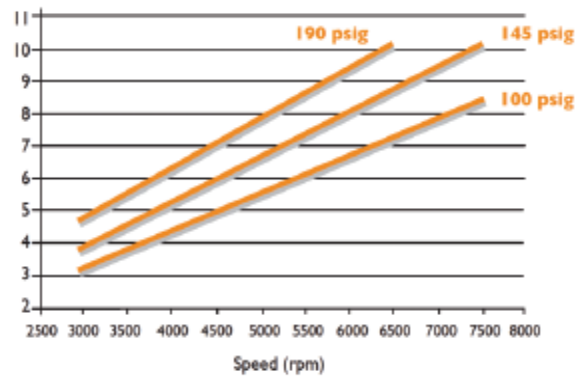
Power (KW)



Air Capacity (cfm)



Power (HP)



SCA8



SCA8 DA

Drive: Male
Lobe combination: 5/6
Weight: 18 kg - 40 lbs



SCA8 GA

Drive: Male
Lobe combination: 5/6
Weight: 30 kg - 66 lbs



SCA8 DR

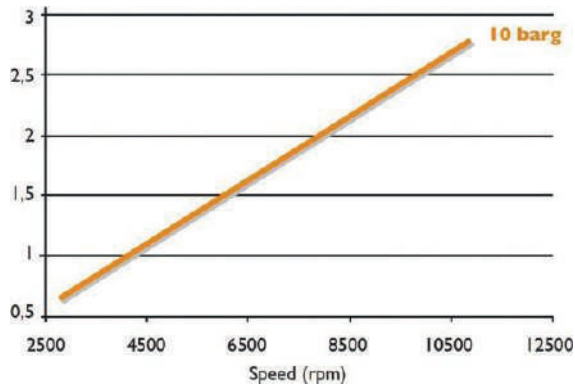
Drive: Male
Lobe combination: 5/6
Weight: 18 kg - 40 lbs



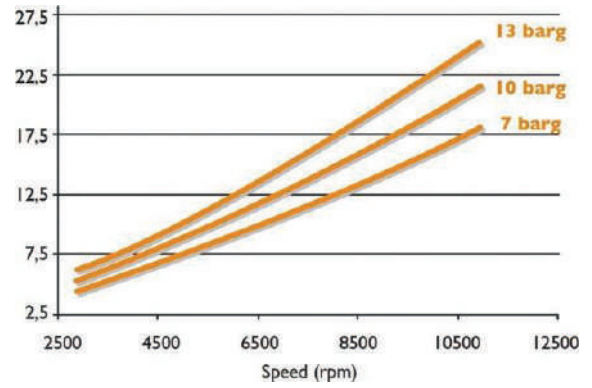
SCA8 GR

Drive: Male
Lobe combination: 5/6
Weight: 30 kg - 66 lbs

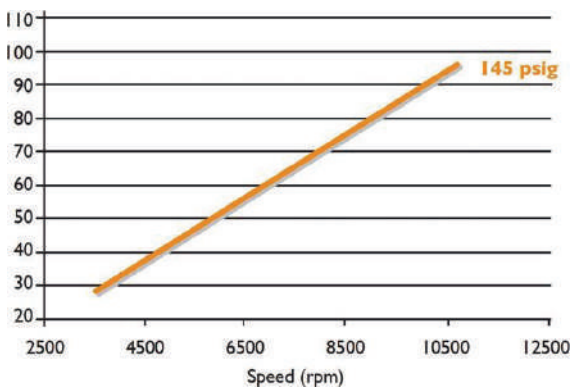
Air Capacity (m³/min)



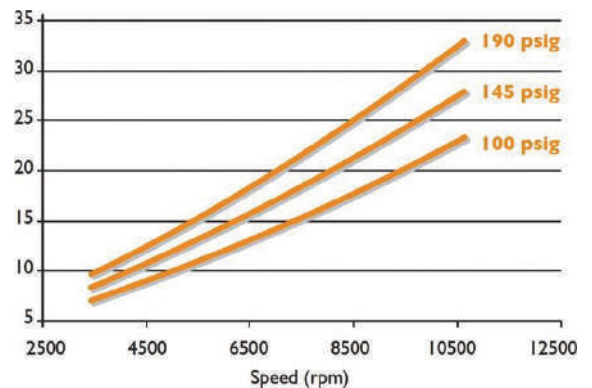
Power (KW)



Air Capacity (cfm)



Power (HP)



SCA9



SCA9DR

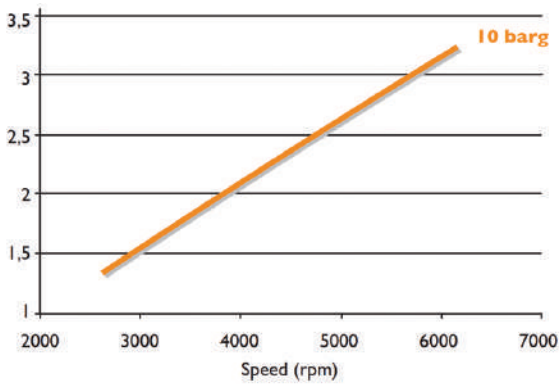
Drive: Male
 Lobe combination: 5/6
 Weight: 39 kg - 86 lbs



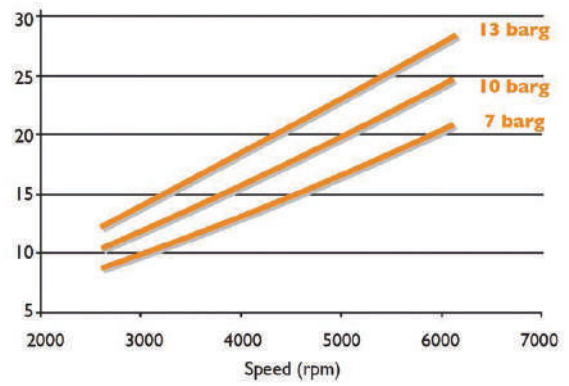
SCA9GR

Drive: Male
 Lobe combination: 5/6
 Weight: 61 kg - 134 lbs

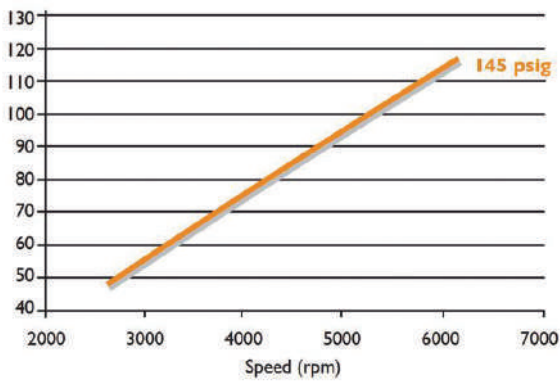
Air Capacity (m³/min)



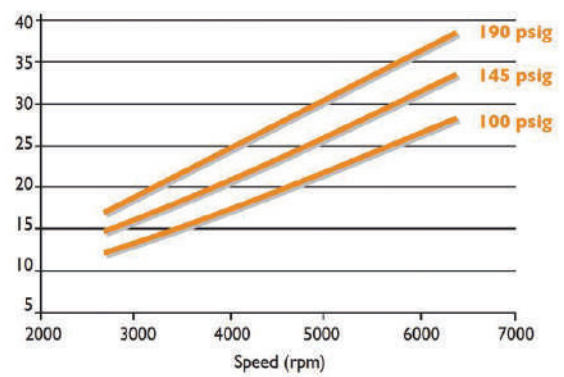
Power (KW)



Air Capacity (cfm)



Power (HP)



SCA10



SCA10DR

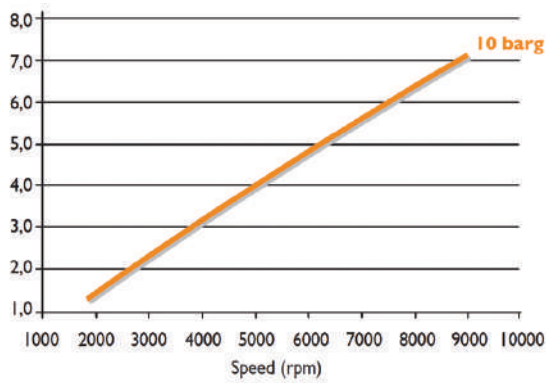
Drive: Male
 Lobe combination: 5/6
 Weight: 45 kg – 90 lbs



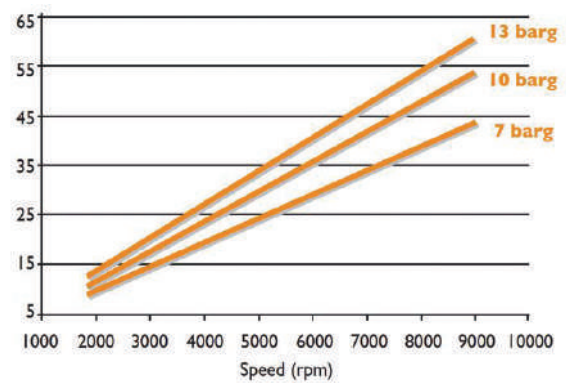
SCA10GR

Drive: Male
 Lobe combination: 5/6
 Weight: 67 kg - 144 lbs

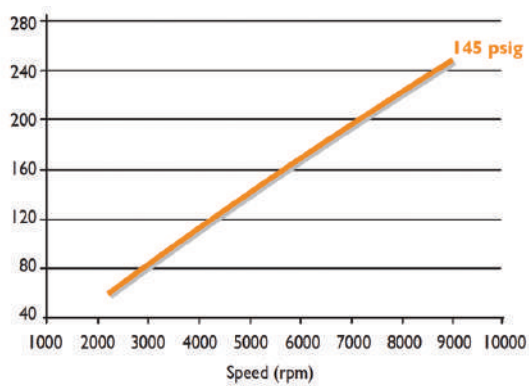
Air Capacity (m³)



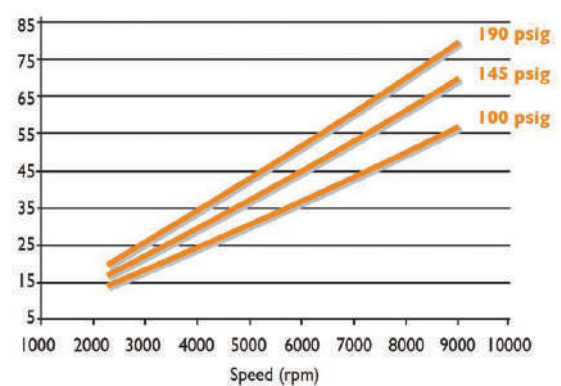
Power (KW)



Air Capacity (cfm)



Power (HP)



SCA13



SCA13DR

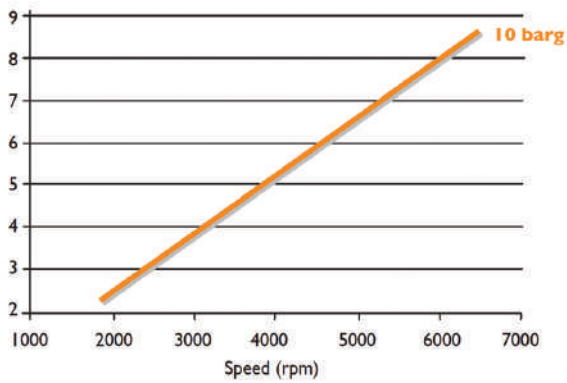
Drive: Male
 Lobe combination: 5/6
 Weight: 74 kg - 163 lbs



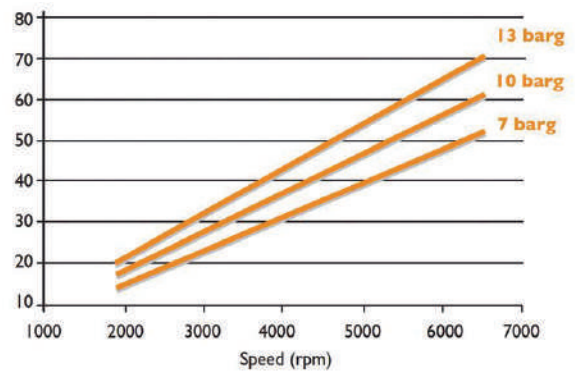
SCA13GR

Drive: Male
 Lobe combination: 5/6
 Weight: 99 kg - 218 lbs

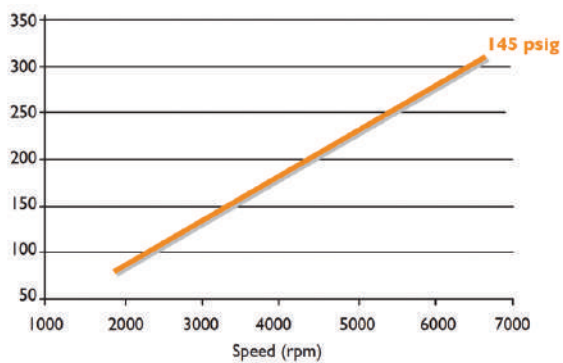
Air Capacity (m³/min)



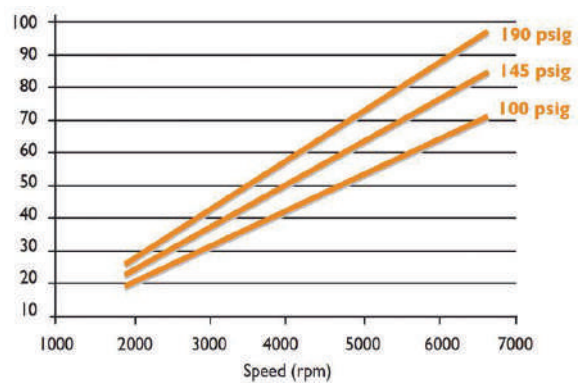
Power (KW)



Air Capacity (cfm)



Power (HP)



SCA14



SCA14DR

Drive: Male

Lobe combination: 5/6

Weight: 108 kg – 238 lbs



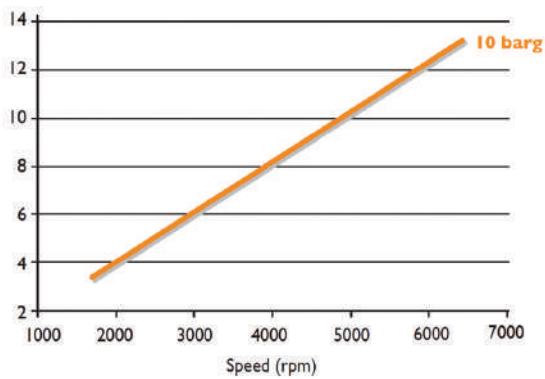
SCA14DR

Drive: Male

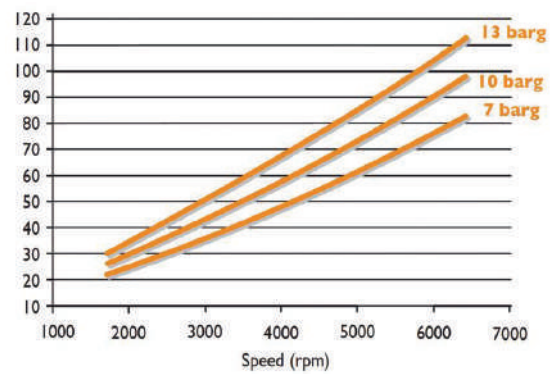
Lobe combination: 5/6

Weight: 140 kg – 309 lbs

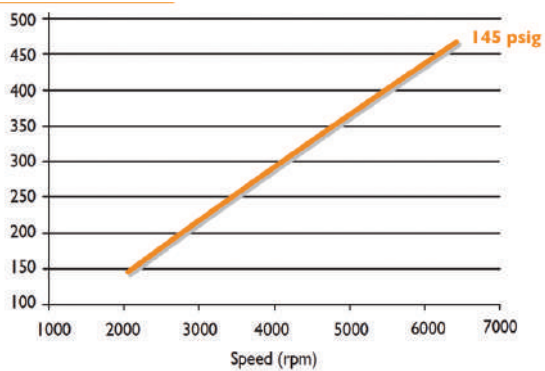
Air Capacity (m³/min)



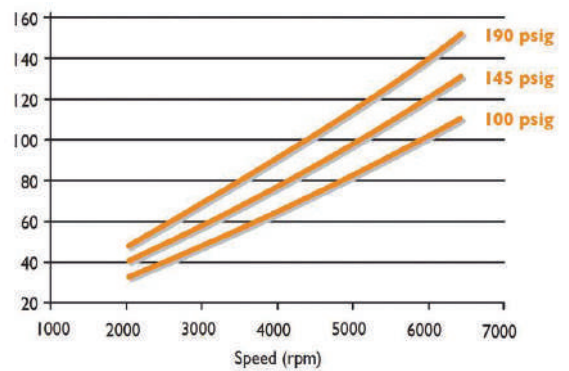
Power (KW)



Air Capacity (cfm)



Power (HP)



SCA21



SCA21DR

Drive: Male

Lobe combination: 5/6

Weight: 263 kg – 580 lbs

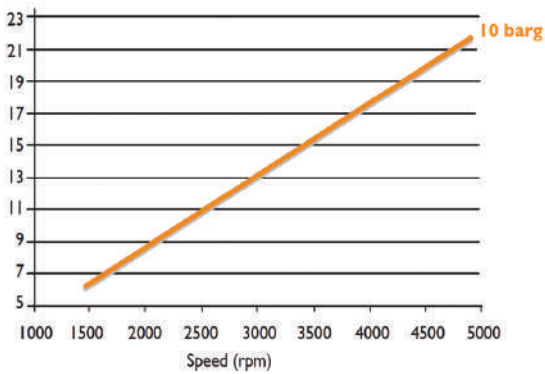
SCA21DR

Drive: Male

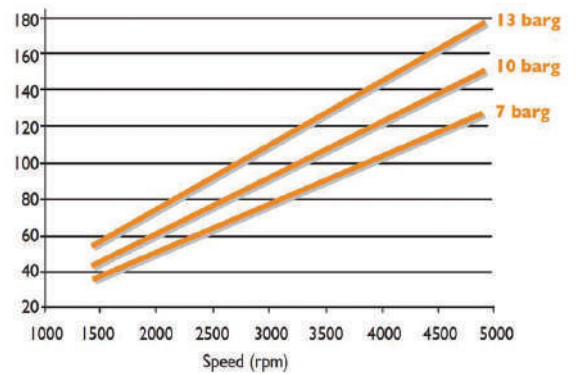
Lobe combination: 5/6

Weight: 309 kg – 631 lbs

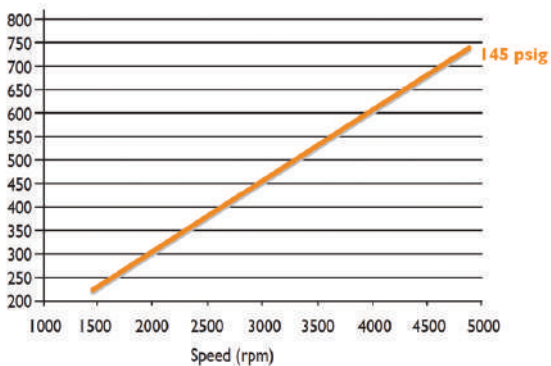
Air Capacity (m³/min)



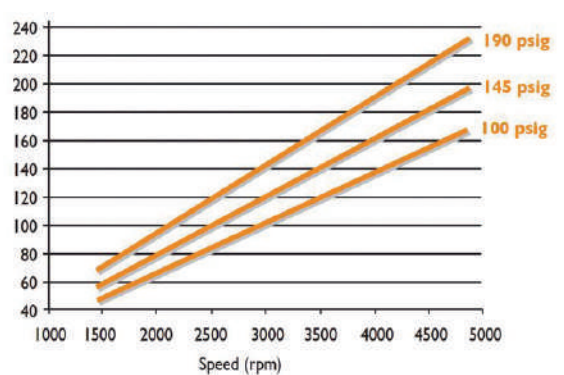
Power (KW)



Air Capacity (cfm)



Power (HP)



SCA30



SCA30DR

Drive: Male

Lobe combination: 5/6

Weight: 900 kg – 1984 lbs

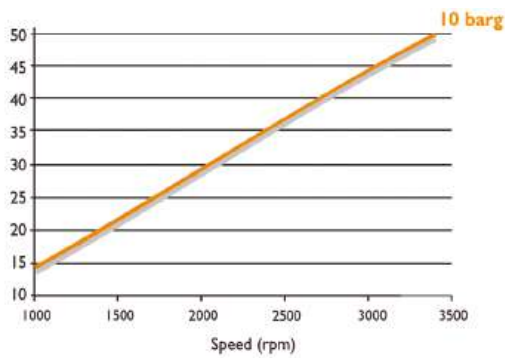
SCA30DR

Drive: Male

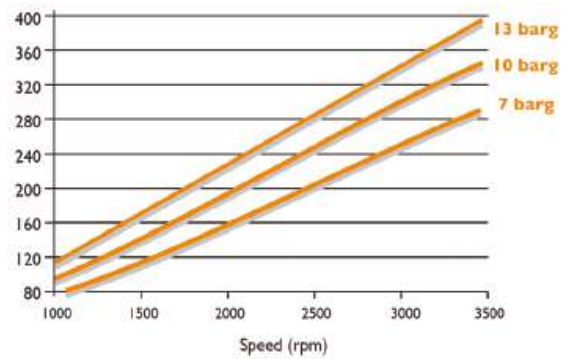
Lobe combination: 5/6

Weight: 1040 kg – 2293 lbs

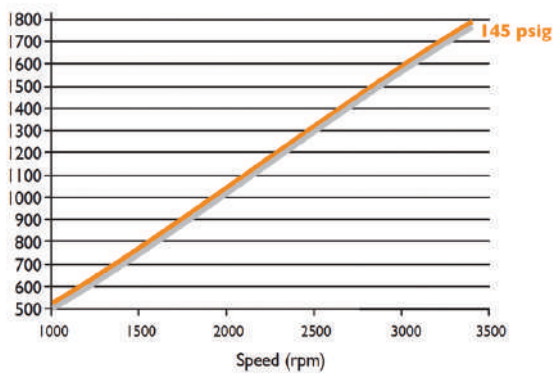
Air Capacity (m³/min)



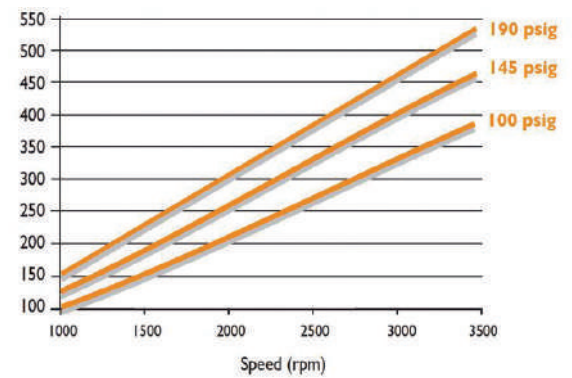
Power (KW)



Air Capacity (cfm)



Power (HP)



SCA36GR

NEW 
PRODUCT



OPERATION RANGE

Flow Range: 45-90 m³/min [1575- 3200 cfm]

Power Range: 400- 900 kW [540- 1200 hp]

FEATURES

Drive: Male

Lobe combination: 5/6

Weight: 2100 kg

ITA SERIES

Improved Termomeccanica Air Ends



A machine fully dedicated to Air applications

- Rotor profile entirely designed by TMIC
- Optimized compact design
- Reduced speed operation
- High efficiency
- Low noise
- ITA discharge pressure range - from 3 to 15 barg (43.5 to 220 psig)

Sizes

ITA18 ITA18DR- ITA18GR

ITA23 ITA23DR- ITA23GR

A Axial outlet
R Radial outlet
D Direct or belt driven coupling
G Gear box

ITA18



ITA18DR

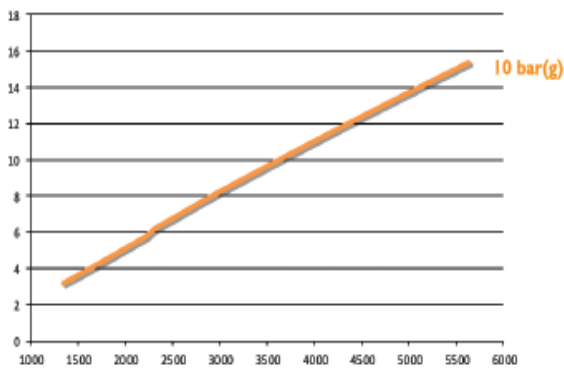
Drive: Male
 Lobe combination: 5/6
 Weight: 130 kg - 287 lbs



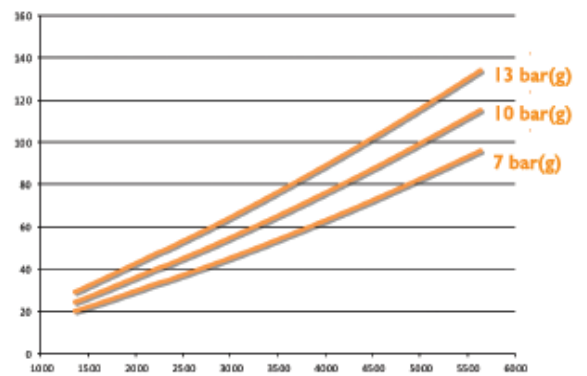
ITA18GR

Drive: Male
 Lobe combination: 5/6
 Weight: 167 kg - 368 lbs

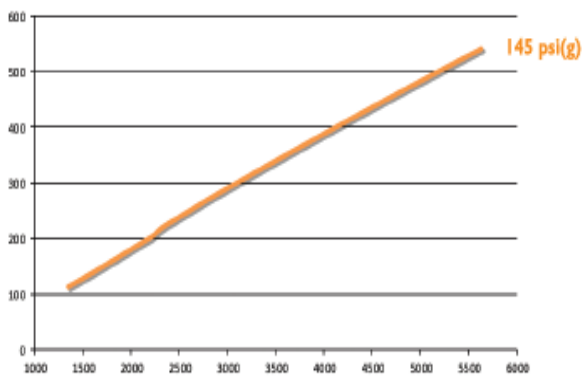
Air Capacity (m³/min)



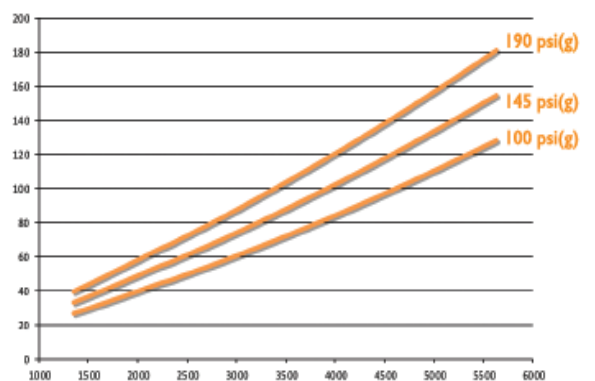
Power (KW)



Air Capacity (cfm)



Power (HP)



ITA23



ITA23DR

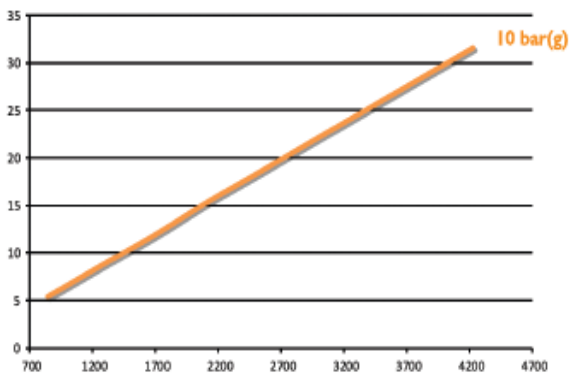
Drive: Male
 Lobe combination: 5/6
 Weight: 410 kg - 904 lbs



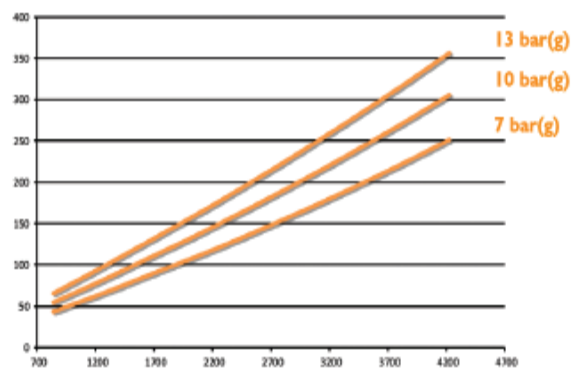
ITA23DR

Drive: Male
 Lobe combination: 5/6
 Weight: 490 kg - 1080 lbs

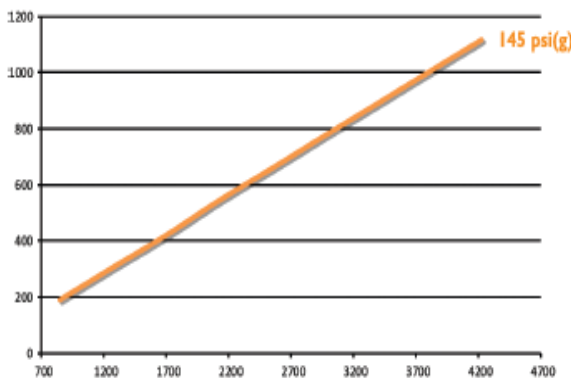
Air Capacity (m³/min)



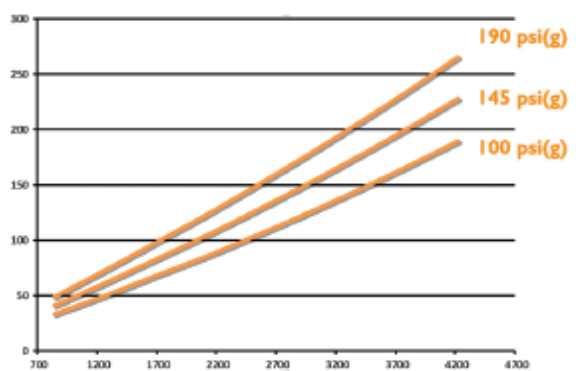
Power (KW)



Air Capacity (cfm)



Power (HP)



SCI SERIES

Integrated solution for your compact applications



SCI Screw Compressors Integrated

Standard Design

Shaft seal

A new configuration of the seal ring, including a two-lip seal, a dust lip in PTFE and a dust ring, assures great reliability, long life and resistance to impurities.

Painting

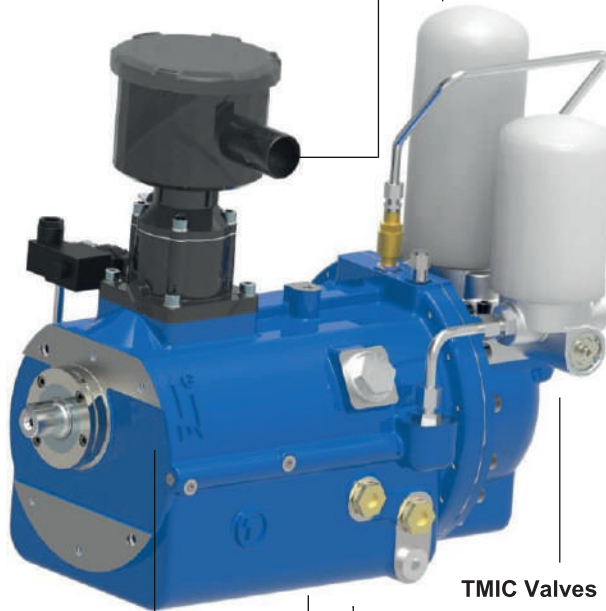
All TMIC screw compressors have a modern, environmentally friendly, protective paint. The surface finish protects the castings effectively against corrosion even after many years of operation.

Air filter

The quality of the filters used ensures an optimal performance and reliability of the integrated SCI series compressor units.

Oil Separator

In the SCI Series, the oil separation occurs in two stages: the first stage takes place inside the compressor (mechanical separation) while the second stage (finer separation) occurs through the coalescence of oil removing elements. During such stage, micro-fibres separate the oil drops from the compressed air. The separated oil, in large drops, is sent back to the compressor lubricating system.



Rotors

The heart of every screw compressor is its air end, this is why TMIC pays particular care to its manufacturing process. The company uses the latest-generation CNC machines and top-grade materials so as to guarantee the best tolerances and highest reliability. Special attention is also given to the final grinding process. A multistep computer-aided rotor control system also contributes to giving 100% accuracy to each TMIC rotor profile.

TMIC Valves

The performance of a compressor is influenced by the quality of its valves. All TMIC's SCI Series compressors are fitted with valves specifically designed to ensure high reliability and low-cost operation.

Bearings

Given the rotational speeds and bearing loads they work at, TMIC compressors are equipped with top quality bearings that ensure the high-capacity and long-life requested.

Casing

All casing machining work is performed with modern computer numerical control machines, which allow continuous control and testing, thus guaranteeing our casings quality.

SCI10 ALG

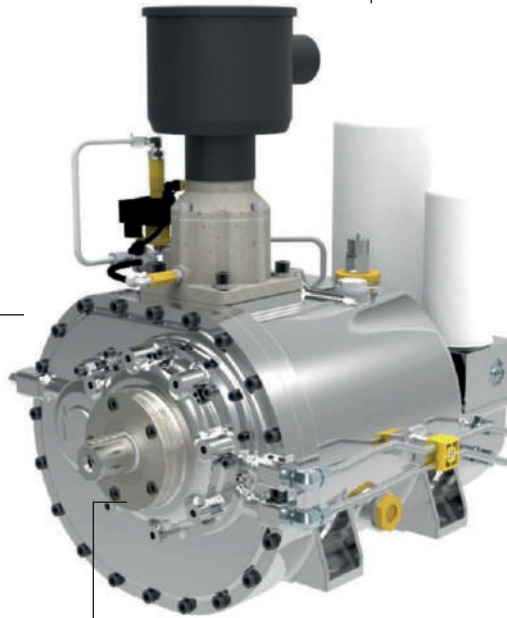
The first integrated oil injected screw compressor made of aluminium

Air filter

The quality of the filters used ensures an optimal performance and reliability of the integrated SCI series compressor units.

Oil Separator

In the SCI series, the oil separation occurs in two stages: the first stage takes place inside the compressor (mechanical separation) while the second stage (finer separation) occurs through the coalescence of oil removing elements. During such stage, micro-fibres separate the oil drops from the compressed air. The separated oil, in large drops, is sent back to the compressor lubricating system.



Integrated Gear-Box

The twelve-gear ratio available make the ALG series suitable for all engine speeds.

Casing

All casing machining work is performed with modern computer numerical control machines, which allow continuous control and testing, thus guaranteeing our casings quality.

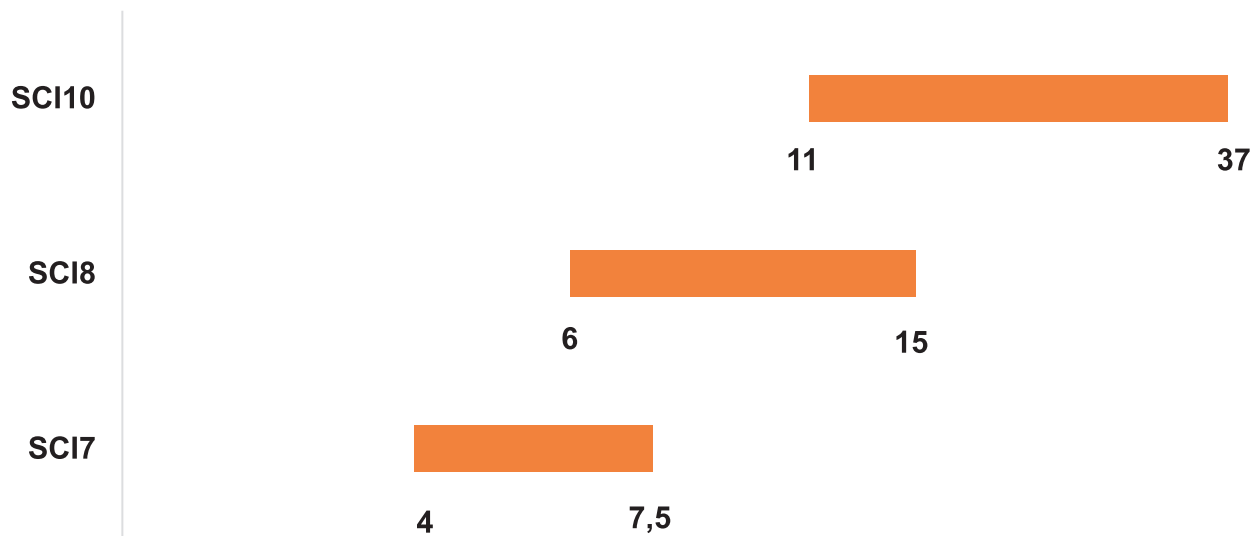
TMIC Valves

The performance of a compressor is influenced by the quality of its valves. All TMIC's SCI Series compressors are fitted with valves specifically designed to ensure high reliability and low-cost operation.

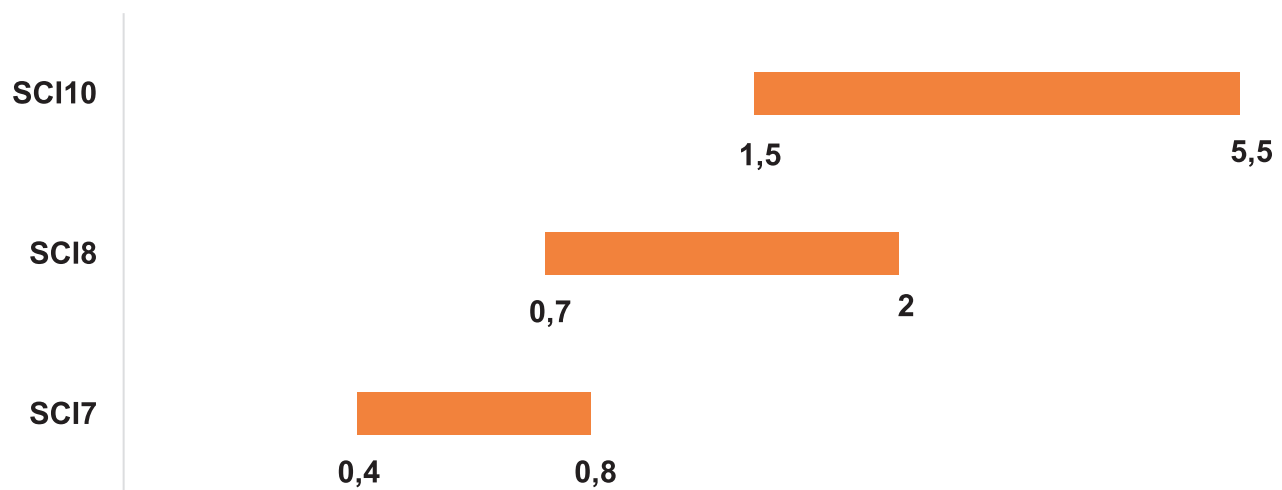
**SCI Series compactness + Aluminum lightness =
65kg (143 lbs) weight reduction**

PRODUCT RANGE

Power Range (kW)



Flow Range (m³/min)



Referred to 10 barg

SCI SERIES

Product features

Main Features

- New profile 5/6 lobe relation
- High volumetric efficiency
- Low running cost
- Low air discharge temperature
- Low noise level
- Standard discharge pressure range from 3 to 13 barg (43.5 to 190 psig)
- Higher pressure upon request
- PTFE double lip seal

Integration

- Thermostatic valve
- Minimum pressure
- Intake valve
- Oil filter
- Air filter
- Oil separator filter
- Oil recovery system

Sizes

SCI7 SCI7D

SCI8 SCI8DT – SCI8GT

SCI10 SCI10DT - SCI10GT – SCI10ALG

D Direct version
G Gearbox version

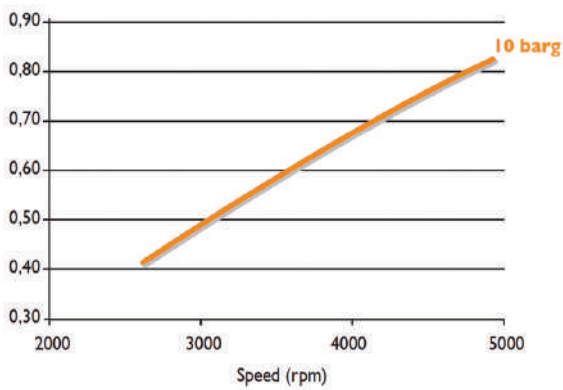
SCI7



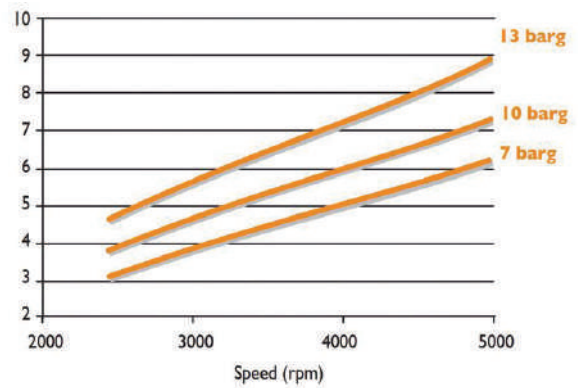
Features:

- Drive: Male
- Lobe combination: 5/6
- Weight: 56 kg - 123 lbs

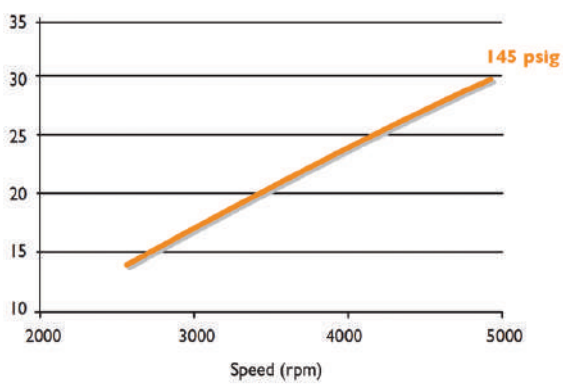
Air Capacity (m³/min)



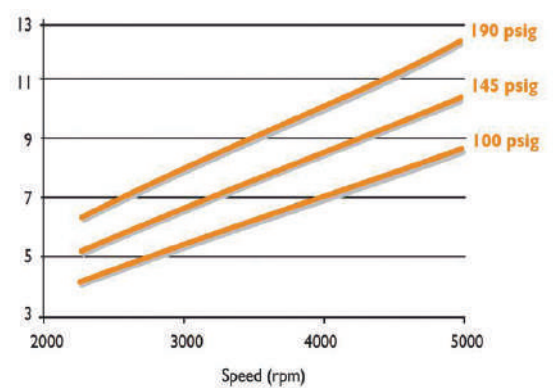
Power (KW)



Air Capacity (cfm)



Power (HP)



SCI8



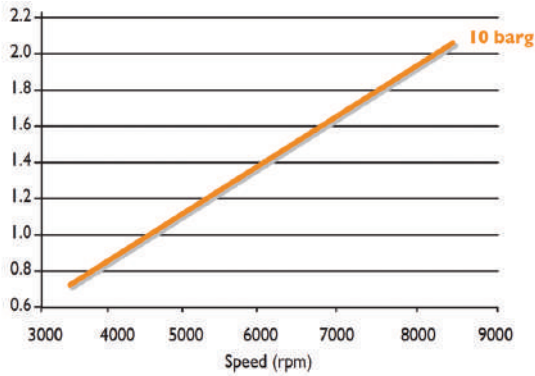
SCI8 DT

Drive: Male
 Lobe combination: 5/6
 Weight: 52 kg - 115 bs

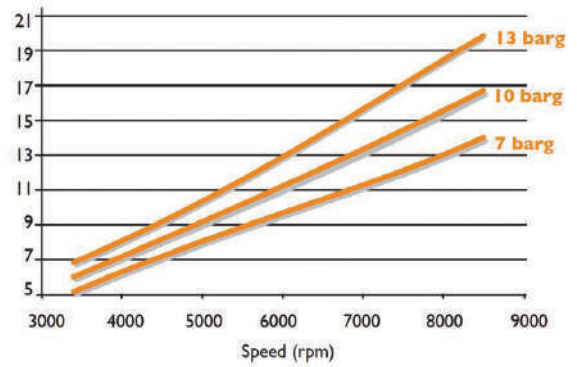
SCI8 GT

Drive: Male
 Lobe combination: 5/6
 Weight: 63 kg - 139 lbs

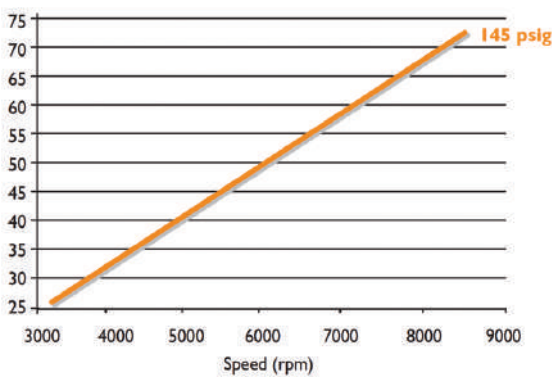
Air Capacity (m³/min)



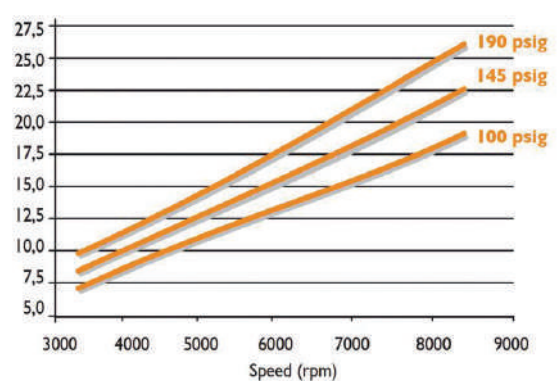
Power (KW)



Air Capacity (cfm)



Power (HP)



SCI10



SCI10 DT

Drive: Male
 Lobe combination: 5/6
 Weight: 139 Kg - 306 lbs

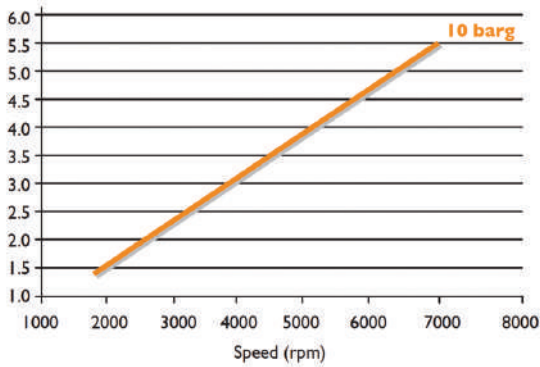
SCI10 GT

Drive: Male
 Lobe combination: 5/6
 Weight: 153 Kg - 337 lbs

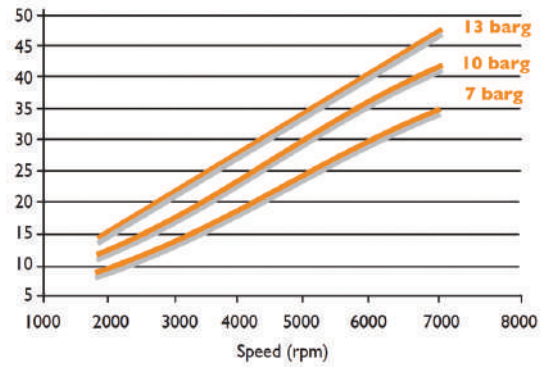
SCI10 ALG

Drive: Male
 Lobe combination: 5/6
 Weight: 90 kg – 198 bs

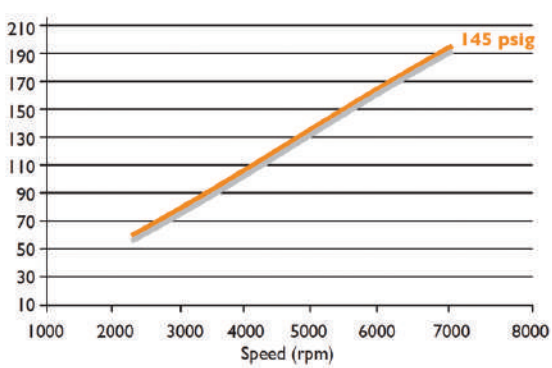
Air Capacity (m³/min)



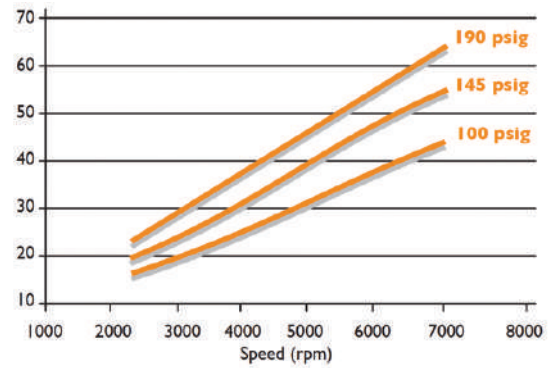
Power (KW)



Air Capacity (cfm)



Power (HP)



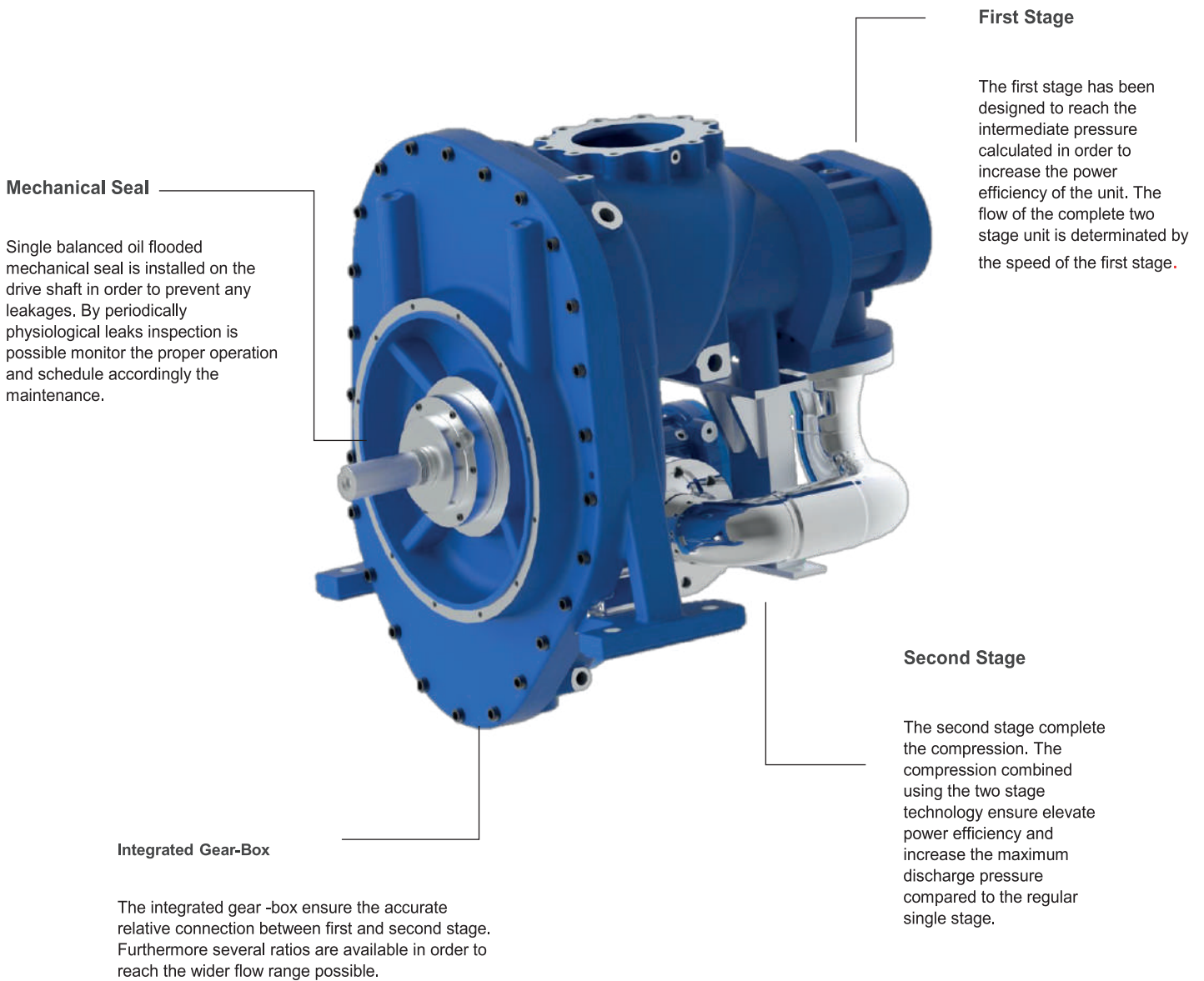
ITA-TS SERIES

High Performances for High Pressure Applications



ITA-TS SERIES

Design

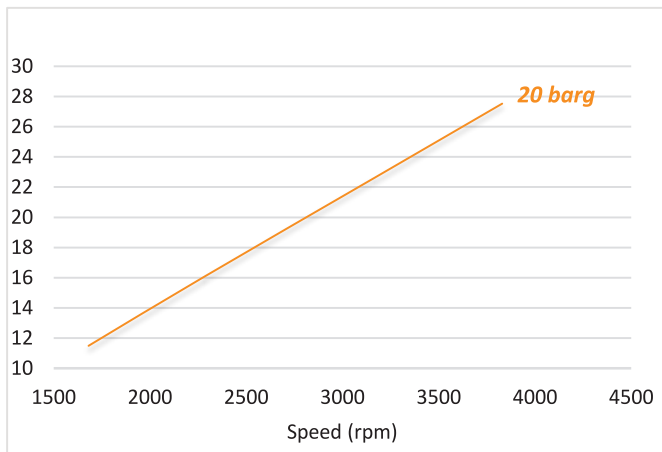


ITA-TS SERIES

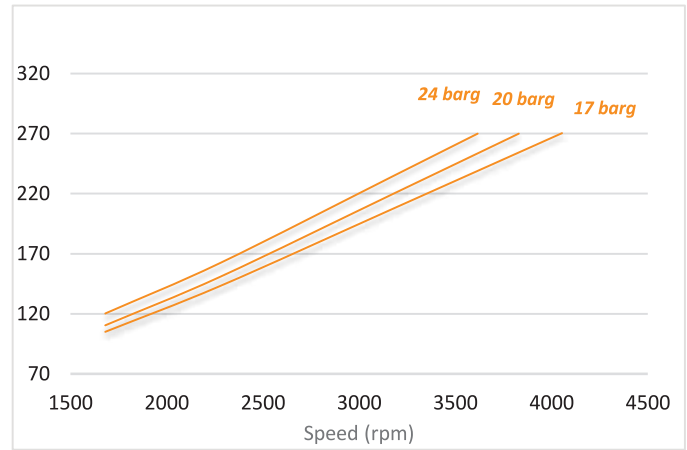
Product Features

- Two stage oil injected
- Rotor profile entirely designed by TMIC
- Integrated gear-box
- Mechanical seal
- High efficiency
- ITA-TS discharge pressure range – up to 25 barg (360 psig)

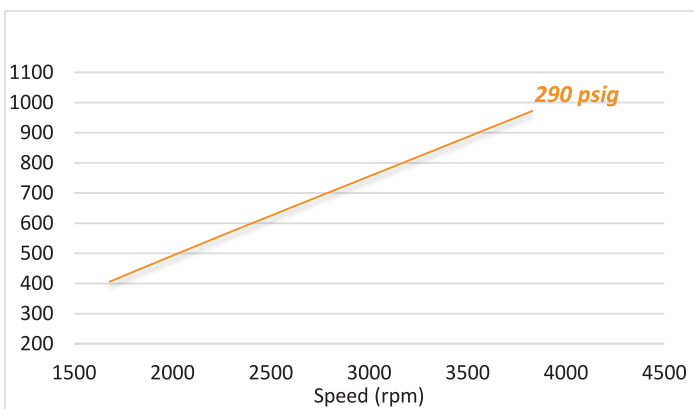
Air Capacity (m³/min)



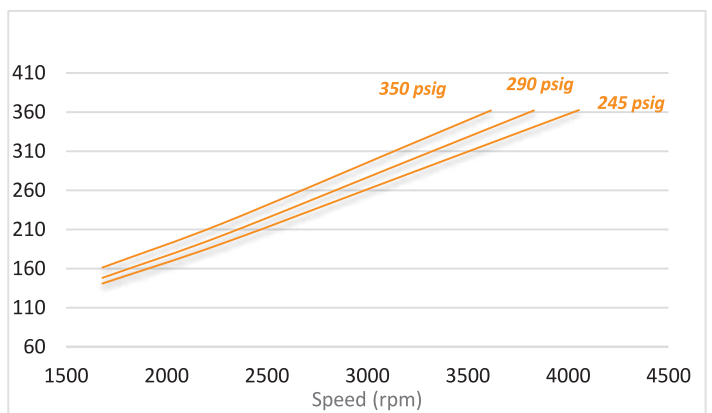
Power (KW)



Air Capacity (cfm)



Power (HP)



GAS ENDS SERIES

All Encompassing **Gas Ends Solutions**



GAS ENDS SERIES

Fields of application

Well head gas
Vapour recovery



Boil Off Gas
Ammonia Vapour System



Turbine & Gas boosting
Biogas upgrading



GAS ENDS SERIES

Compact Series

Capacity Range: 0.2 – 5.5 m³/min

Max Discharge Pressure: 15 bar

Semi-integrated

Suction Pressure: up to 2 bar

Max Power: 45 kW



NG Series

Capacity Range: 0.35 – 90 m³/min

Max Discharge Pressure: 20 bar

Fixed Vi

Suction Pressure: up to 2 bar

Max Power: 900 kW



SCG Series

Capacity Range: 1.2 – 13 m³/min

Max Discharge Pressure: 24 bar

Variable Vi System

Suction Pressure: up to 3.5 bar

Max Power: 110 kW



ITA-HP Series

Capacity Range: 1.2 – 36 m³/min

Max Discharge Pressure: 25 bar

3 Different Vi available

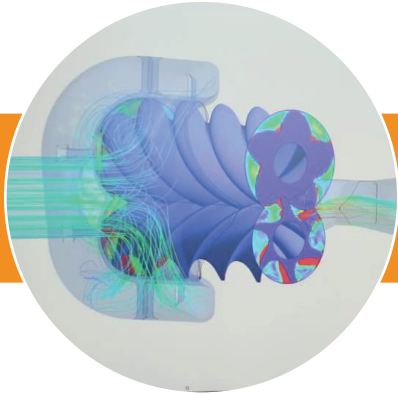
Suction Pressure: up to 8 bar

Max Power: 350 kW



TM.I.C. WORLD

We Step-up the Product & Development Process



1. State of the art Air-End design

TM.I.C products are designed by our experienced & skillful engineering team utilizing the ultimate up to date tools available. This includes: **CFD & FEA**

We have over 30 years of experience that ensures consistant quality, reliability, and outstanding performance.



2. Advanced milling

Rotors and casings are machined at our TMIC facility in La Spezia, Italy. Precision and Perfection are guaranteed by our up to date cutting machines.

The outstanding performance of our automated rotor cutting machines aid in reducing our production time and, at the same time, guarantee of extreme accuracy.



3. Careful measurements

Every single piece machined is measured before the assembly.

Several stations are installed in our workshops that guarantee quality and reliability of all TM.I.C. products.

4. Accurate assembly

Trained & experienced team members plus dedicated assembly lines secure excellence in all of our TM.I.C. products.

A side benefit of our high-technology assembly lines is added savings in our production cost resulting in a great value & competitive price for our customers.



5. Rigorous running test

TM.I.C. supports & assists its customers with customized solutions and after-sales support.

We can provide Running Test Reports, Hydro Tests, Off-Shore, On-Shore Certifications, & more, as these are examples of some our more popular services.

At TM.I.C we are always available and here to support you. We warehouse all our genuine oem spare parts and our special TM.I.C compressor lubricant that has been developed to enhance performance and extend component & overall compressor life.



6. Services & Support

100% of every Air-end, we manufacture, are tested in our TM.I.C. work-shop after assembly. This insures a quality trouble-free installation.

Further, our test bench is capable in monitoring and collecting all the parameters that characterize performance and reliability in each unit.





We make your compression easier

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La Spezia- Italia
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