

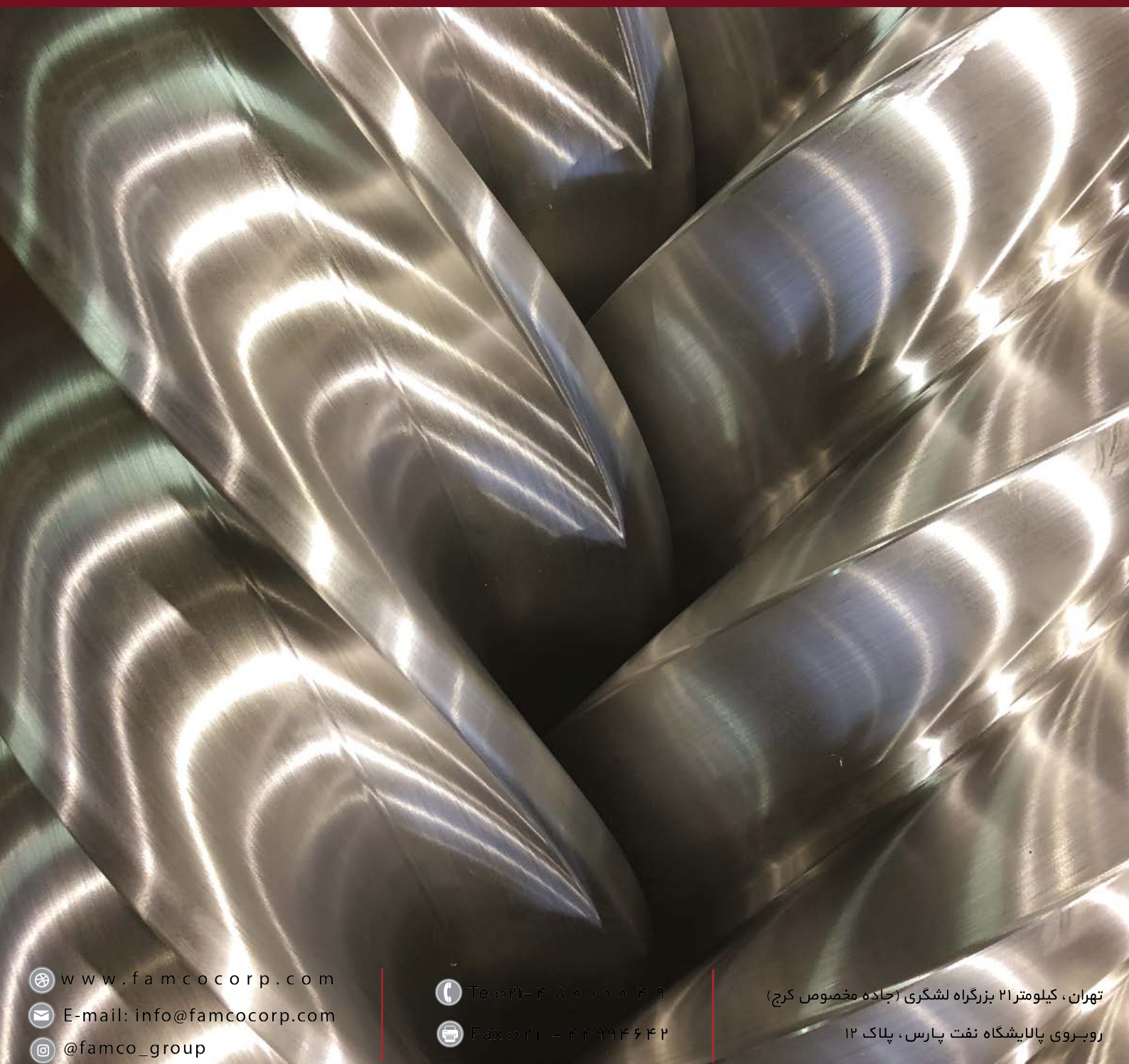



Termomeccanica Industrial Compressors

Termomeccanica Group


# SCREW COMPRESSORS

for air applications




 [www.famcocorp.com](http://www.famcocorp.com)

 E-mail: [info@famcocorp.com](mailto:info@famcocorp.com)

 @famco\_group

 Tel: +۹۸ ۲۱ ۴۴۹۹۴۶۴۲

 Fax: +۹۸ ۲۱ ۴۴۹۹۴۶۴۲

تهران، کیلومتر ۲۱ بزرگراه لشگری (جاده مخصوص کرج)

روبروی پالایشگاه نفت پارس، پلاک ۱۲



## Il gruppo Termomeccanica Tradizione, tecnologia e innovazione

Termomeccanica fu fondata in La Spezia nel 1912 come "Società Cerpelli & C", divenendo successivamente negli anni 30 "Termomeccanica Italiana S.p.A." Nel gennaio 1995, le attività della società Termomeccanica Italiana S.p.A., appartenente al Gruppo di Stato EFIM in liquidazione, sono state cedute a Termomeccanica S.p.A. affinché, con management privato, fossero perseguite le storiche tradizioni della società nei campi manifatturiero e impiantistico.

Termomeccanica è oggi un gruppo industriale italiano tra i principali operatori nei settori dell'Ecologia e della Meccanica. Leader nazionale nella produzione di grandi pompe industriali e nell'impiantistica ecologica, il gruppo progetta, realizza e gestisce soluzioni tecnologiche d'avanguardia.

Termomeccanica svolge le sue attività in Italia ed all'estero attraverso le seguenti società operative, specializzate nei rispettivi mercati di riferimento:

**TM.E. SpA Termomeccanica Ecologia** si occupa della progettazione e costruzione di opere di ingegneria ambientale ed industriale per la Produzione di Energia (da rifiuti solidi urbani e da Fonti Rinnovabili quali biomasse, biogas, eolico e solare) e per il trattamento tecnologico delle acque ad uso civile ed industriale (potabilizzazione, dissalazione e depurazione).

**TM.P. SpA Termomeccanica Pompe** sviluppa, costruisce e commercializza pompe centrifughe ingegnerizzate per applicazioni nei settori della Produzione di Energia, Dissalazione, Movimentazione delle Acque, dell'Oil & Gas ed Industria.

**TM.I.C. Srl Termomeccanica Industrial Compressors** è leader italiano nella progettazione, costruzione e commercializzazione di compressori rotativi lubrificati ad olio per applicazioni aria e gas.

## Termomeccanica Group Tradition, technology & innovation

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. The group, national leader in the manufacturing of large industrial pumps and in environmental turn-key plant projects, designs, develops and manages cutting edge technological solutions.

Termomeccanica carries out its various business activities in Italy and abroad through its operational companies, each specialized in one of the group's key market:

**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.P. SpA Termomeccanica Pompe** designs, manufactures and commercializes engineered centrifugal pumps for the fields of Power Generation, Desalination, Water Transmission, Oil & Gas and Heavy Industry.

**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.

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Oil injected screw compressors  
for air applications - sizes 2.2 to 450 kW

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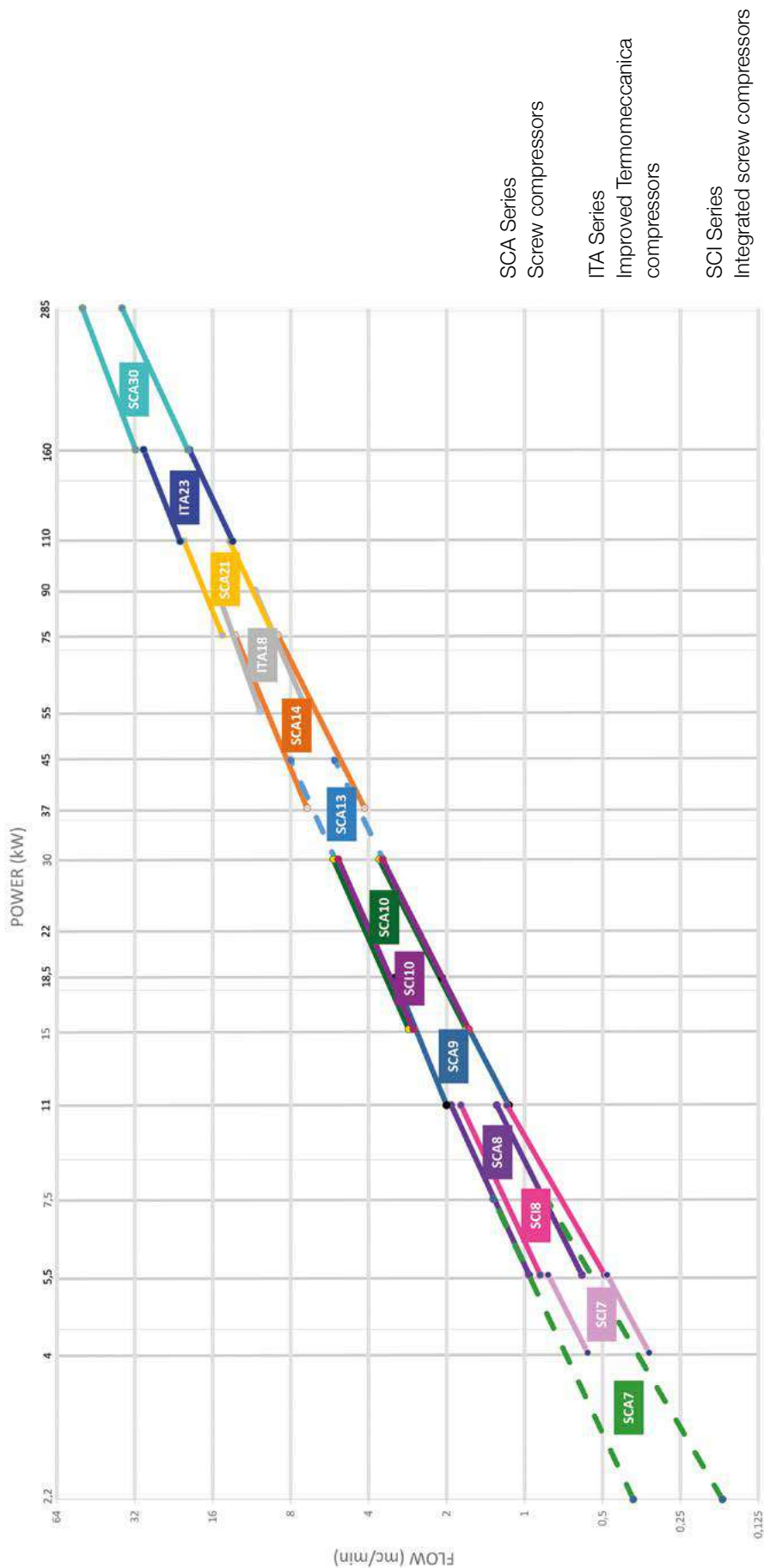
Oil Injected screw compressors  
for gas applications

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**TMIC**  
The Italian leader production of screw  
compressors for air, gas and special applications



SCA Series  
Screw compressors

ITA Series  
Improved Termomeccanica  
compressors

SCI Series  
Integrated screw compressors

## SCA-ITA Series

SCA Oil injected screw compressor

ITA Improved Termomeccanica compressor

### 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 requested.

## Product features

### Main features

High volumetric efficiency

Low running cost

Low air discharge temperature

Low noise level

PTFE double lip seal

SCA standard discharge pressure range – from 3 to 15 barg (43.5 to 220 psig); higher pressure upon request  
ITA discharge pressure range – from 3 to 15 barg (43.5 to 220 psig)

### Assembly system

The assembly systems for the SCA series are:

- base plate mounted
- flange mounted

## Sizes

### SCA7

SCA7L

### SCA8

SCA8DA - SCA8DR - SCA8GA - SCA8GR

### SCA9

SCA9DR - SCA9GR

### SCA10

SCA10DR - SCA10GR

### SCA13

SCA13DR - SCA13GR

### SCA14

SCA14DR - SCA14GR

### SCA21

SCA21DR - SCA21GR

### SCA30

SCA30DR - SCA30GR

### ITA18

ITA18DR - ITA18GR

### ITA23

ITA23DR - ITA23GR

**A** axial outlet

**R** radial outlet

**D** direct or belt driven coupling

**G** gear box

## SCA7

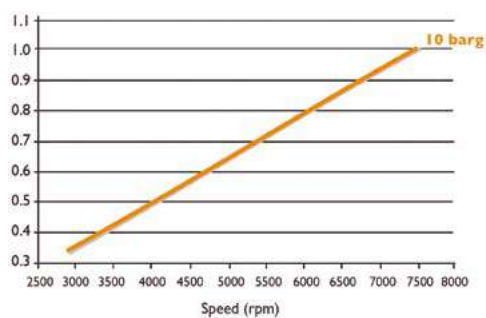


### SCA7L

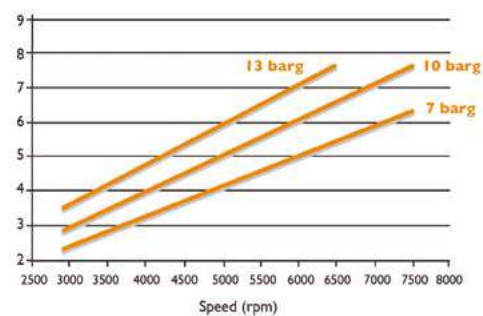
Drive: Male  
Lobe combination: 5/6  
Shaft end size: 19 mm  
Weight: 10 kg - 22 lbs

#### Data Tables

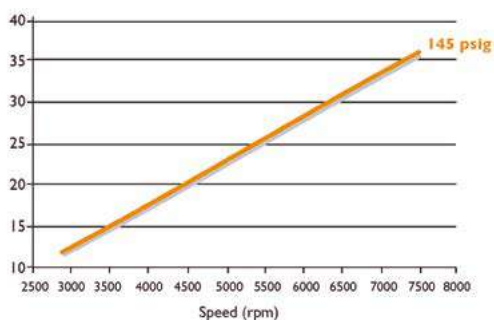
##### Air Capacity (m<sup>3</sup>/min)



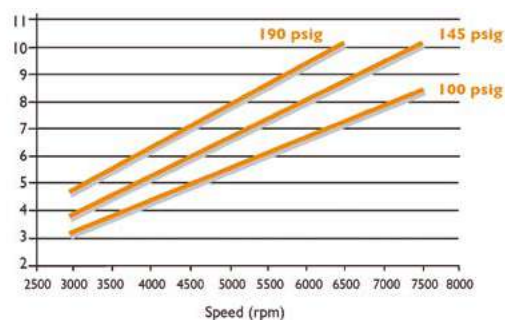
##### Power (kW)



##### Air Capacity (cfm)



##### Power (HP)



## SCA8



### SCA8DA

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 25 mm  
Weight: 18 kg - 40 lbs



### SCA8GA

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 25 mm  
Weight: 30 kg - 66 lbs



### SCA8DR

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 25 mm  
Weight: 18 kg - 40 lbs

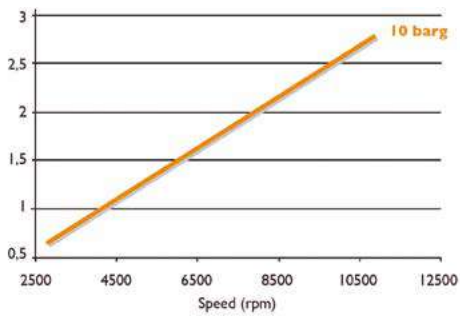


### SCA8GR

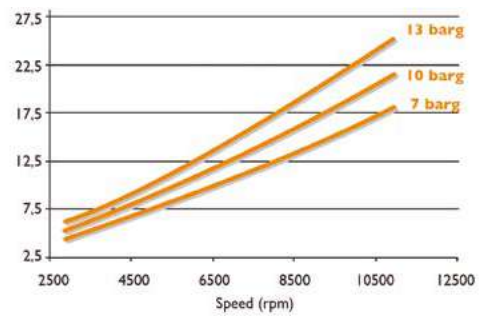
Drive: Male  
Lobe combination: 5/6  
Shaft end size: 25 mm  
Weight: 30 kg - 66 lbs

#### Data Tables

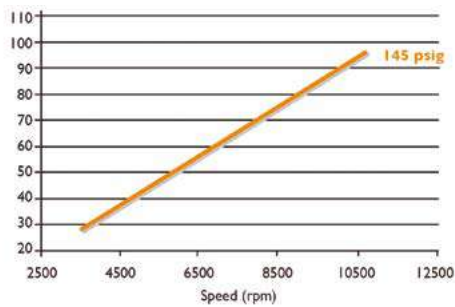
#### Air Capacity (m<sup>3</sup>/min)



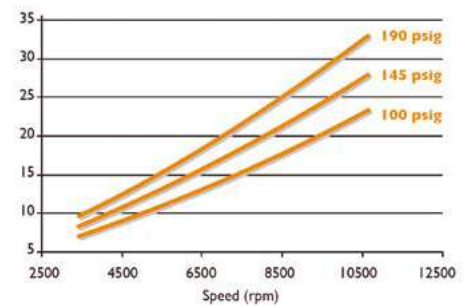
#### Power (kW)



#### Air Capacity (cfm)



#### Power (HP)





## SCA9



### SCA9DR

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 40 mm  
Weight: 39 kg - 86 lbs

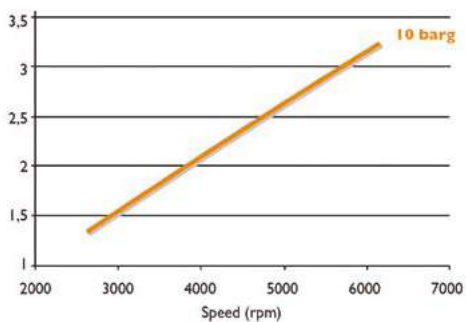


### SCA9GR

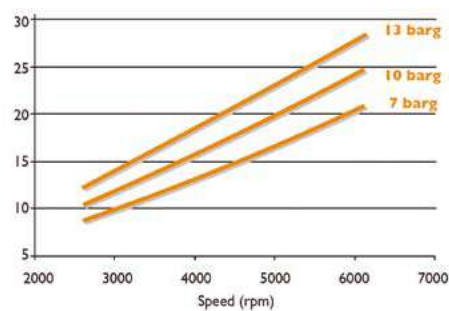
Drive: Male  
Lobe combination: 5/6  
Shaft end size: 40 mm  
Weight: 61 kg - 134 lbs

#### Data Tables

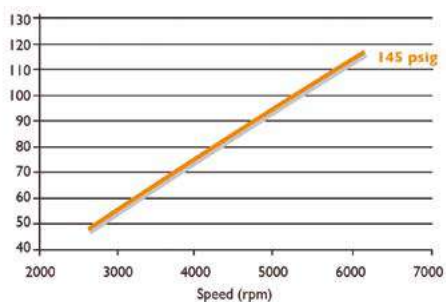
#### Air Capacity (m<sup>3</sup>/min)



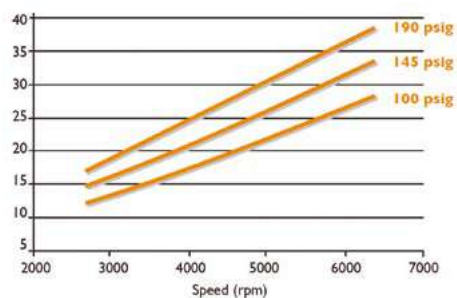
#### Power (kW)



#### Air Capacity (cfm)



#### Power (HP)



## SCA10



### SCA10DR

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 40 mm  
Weight: 45 kg - 90 lbs

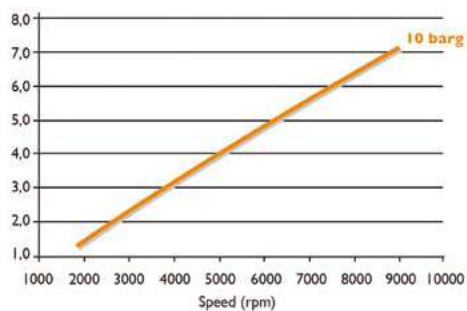


### SCA10GR

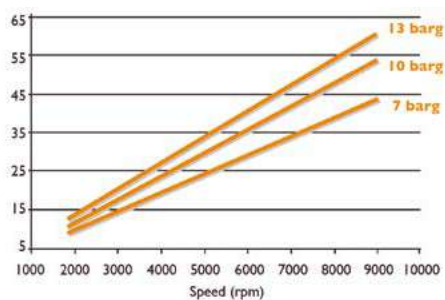
Drive: Male  
Lobe combination: 5/6  
Shaft end size: 40 mm  
Weight: 67 kg - 144 lbs

#### Data Tables

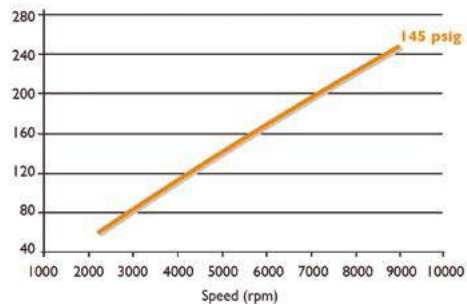
#### Air Capacity (m<sup>3</sup>/min)



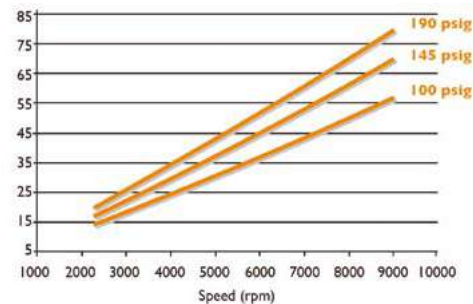
#### Power (kW)



#### Air Capacity (cfm)



#### Power (HP)



## SCA13



### SCA13DR

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 42 mm  
Weight: 74 kg - 163 lbs

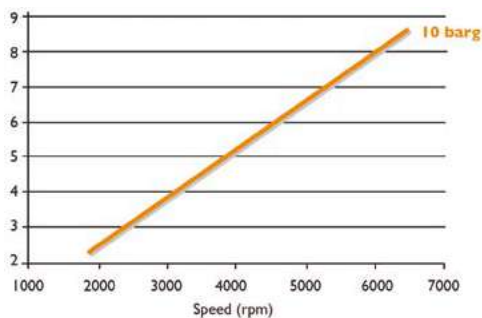


### SCA13GR

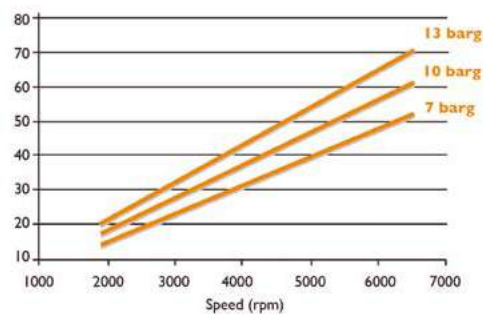
Drive: Male  
Lobe combination: 5/6  
Shaft end size: 42 mm  
Weight: 99kg - 218 lbs

#### Data Tables

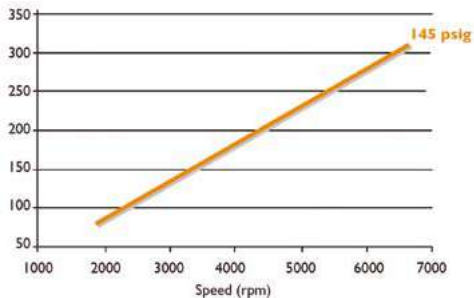
#### Air Capacity (m<sup>3</sup>/min)



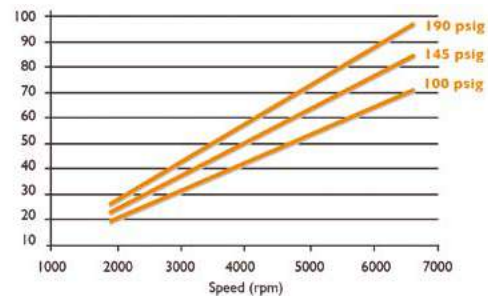
#### Power (kW)



#### Air Capacity (cfm)



#### Power (HP)



## SCA14



### SCA14DR

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 45 mm  
Weight: 108 kg - 238 lbs

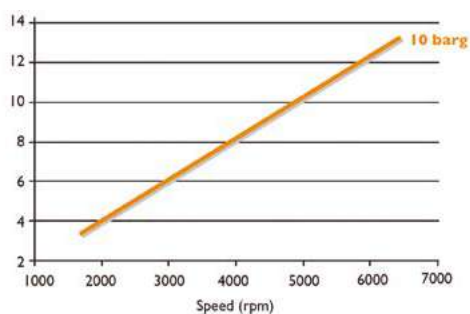


### SCA14GR

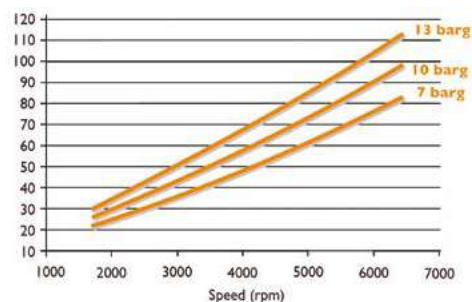
Drive: Male  
Lobe combination: 5/6  
Shaft end size: 45 mm  
Weight: 140 kg - 309 lbs

#### Data Tables

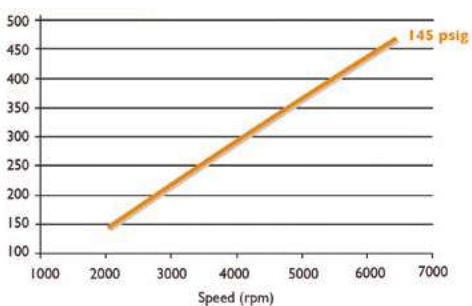
#### Air Capacity (m<sup>3</sup>/min)



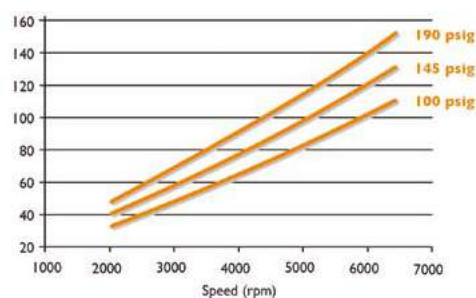
#### Power (kW)



#### Air Capacity (cfm)



#### Power (HP)



## SCA21



### SCA21DR

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 65 mm  
Weight: 263 kg - 580 lbs

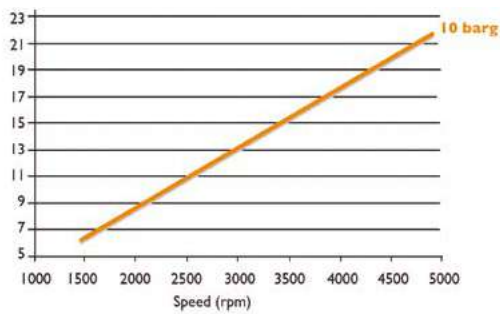


### SCA21GR

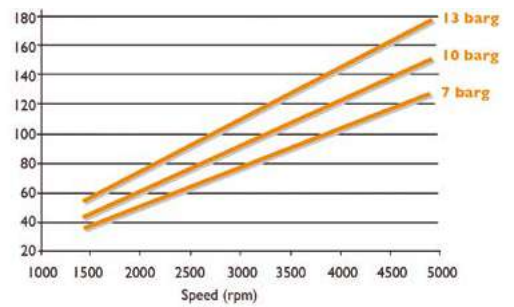
Drive: Male  
Lobe combination: 5/6  
Shaft end size: 55 mm  
Weight: 309 kg - 631 lbs

#### Data Tables

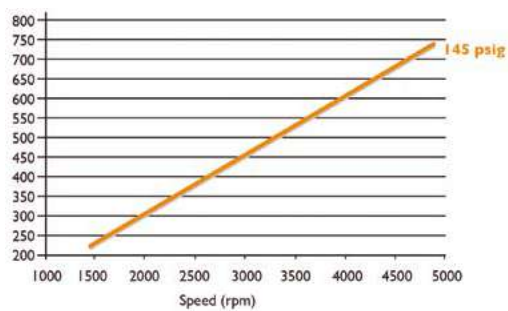
#### Air Capacity (m<sup>3</sup>/min)



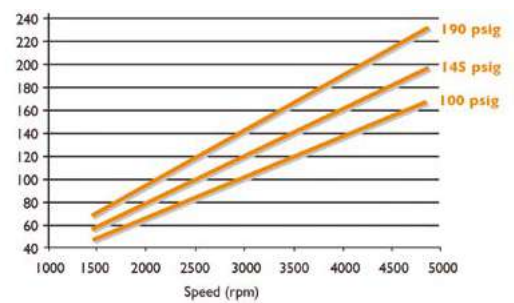
#### Power (kW)



#### Air Capacity (cfm)



#### Power (HP)



## SCA30



### SCA30DR

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 95 mm  
Weight: 900 kg - 1984 lbs

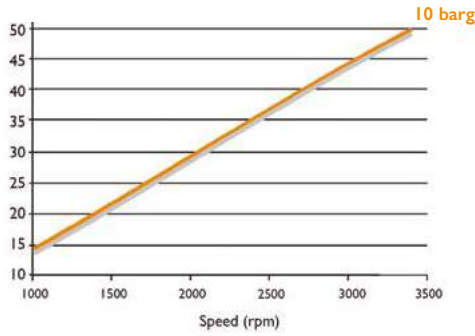


### SCA30GR

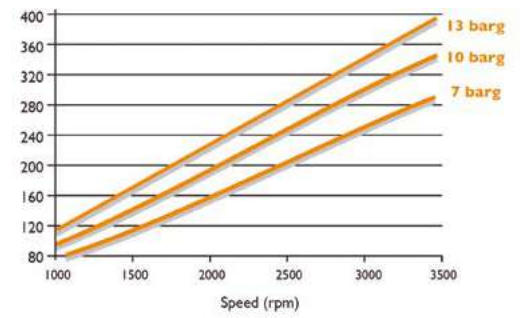
Drive: Male  
Lobe combination: 5/6  
Shaft end size: 90 mm  
Weight: 1040 kg - 2293 lbs

#### Data Tables

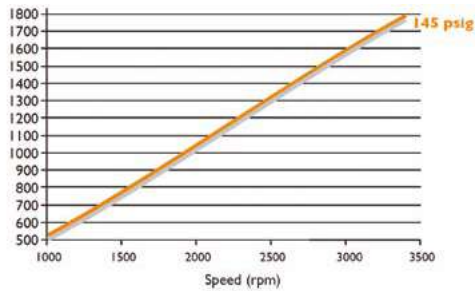
#### Air Capacity (m<sup>3</sup>/min)



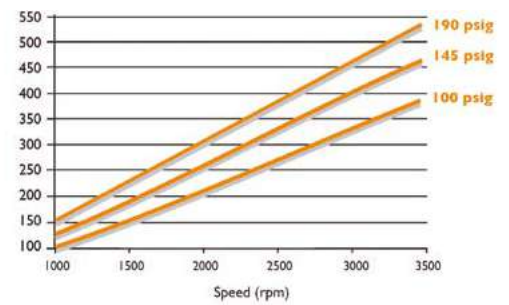
#### Power (kW)



#### Air Capacity (cfm)



#### Power (HP)



## TMIC

The Italian specialist in designing & manufacturing  
bare-shaft screw compressors **for air applications**



Focus on ITA Series

## ITA Series

Improved Termomeccanica Compressors



A machine fully dedicated to AIR applications

- Rotor profile entirely designed by TMIC
- Optimized compact design
- Reduced speed operation
- High efficiency
- Low noise



## ITA18



### ITA18DR

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 50 mm  
Weight: 130 kg - 287 lbs

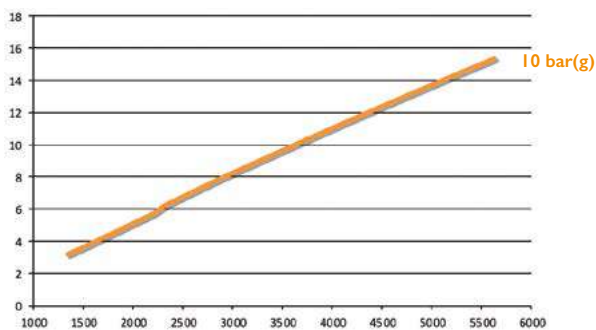


### ITA18GR

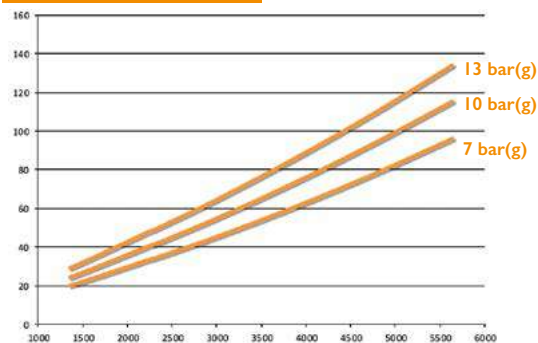
Drive: Male  
Lobe combination: 5/6  
Shaft end size: 45 mm  
Weight: 167 kg - 368 lbs

#### Data Tables

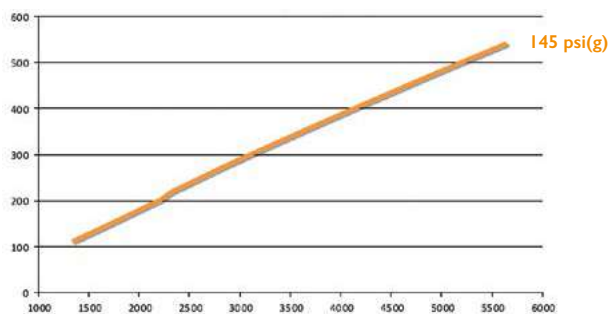
#### Air Capacity (m<sup>3</sup>/min)



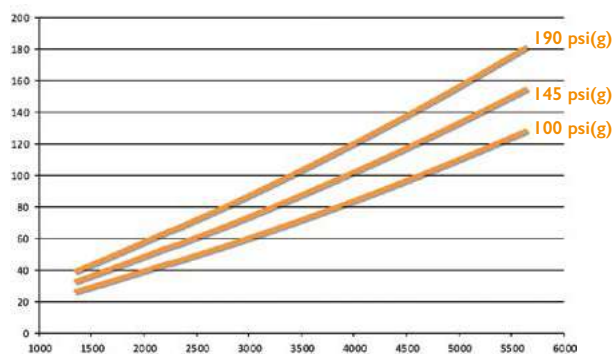
#### Power (kW)



#### Air Capacity (cfm)



#### Power (HP)



## ITA23



### ITA23DR

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 75 mm  
Weight: 410 kg - 904 lbs

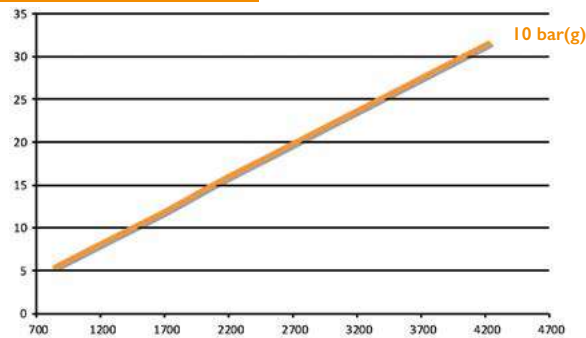


### ITA23GR

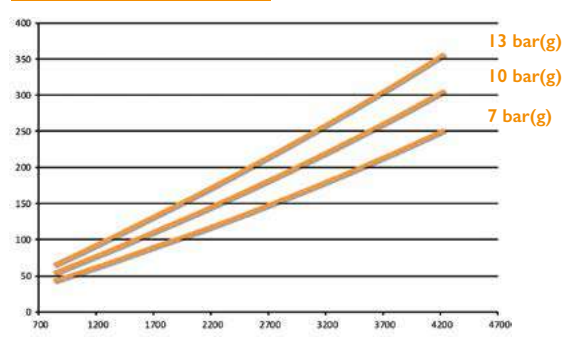
Drive: Male  
Lobe combination: 5/6  
Shaft end size: 60 mm  
Weight: 490 kg - 1080 lbs

#### Data Tables

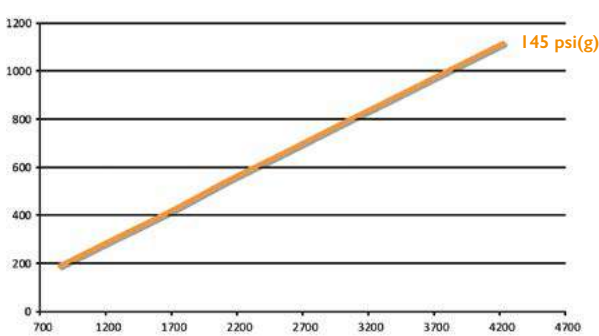
#### Air Capacity (m<sup>3</sup>/min)



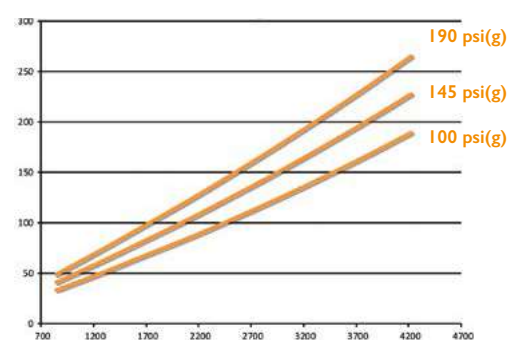
#### Power (kW)



#### Air Capacity (cfm)



#### Power (HP)



## TMIC

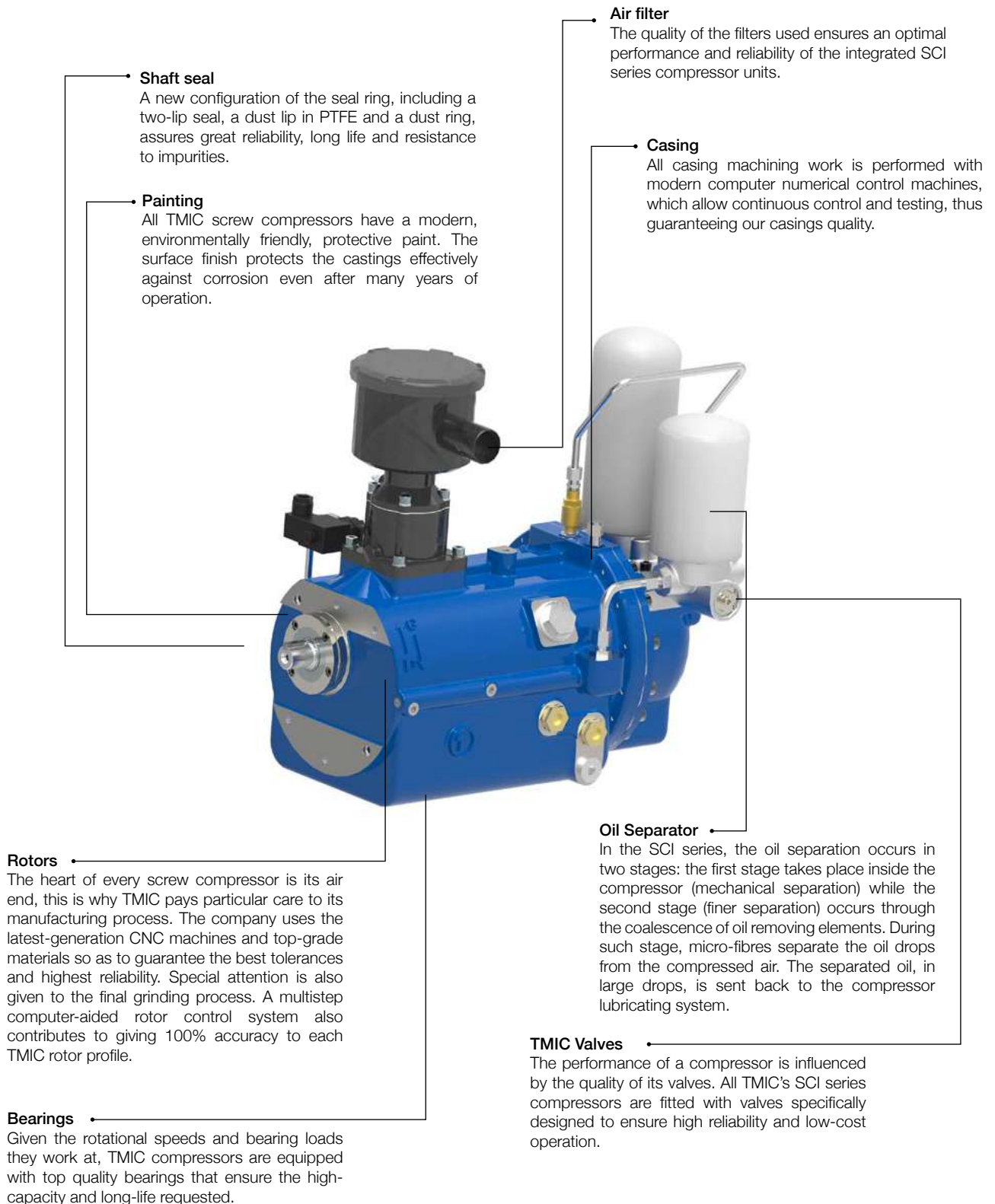
A unique partner for your  
special air applications



Focus on SCI Series

## SCI Screw Compressors Integrated

### SCI 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.

**Casing**

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

**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.

**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.

**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.

**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 ALG

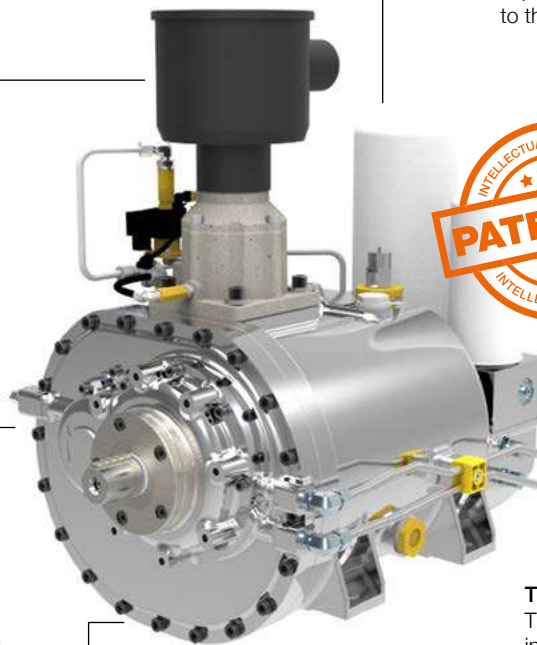
The first integrated oil injected screw compressor made of aluminium

### 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.

### 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.

### Casing

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

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

## 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

SCI standard discharge pressure range – from 3 to 15 barg (43.5 to 220 psig); higher pressure upon request

PTFE double lip seal

#### Integration

Thermostatic valve

Minimum pressure valve

Intake regulator

Oil filter

Air filter

Oil separator filter

Solenoid filter

Oil recovery system

### Sizes

#### SCI7

SCI7D

#### SCI8

SCI8DT - SCI8GT

#### SCI10

SCI10DT - SCI10GT - SCI10ALG

**D** direct version

**G** gearbox version

## SCI7

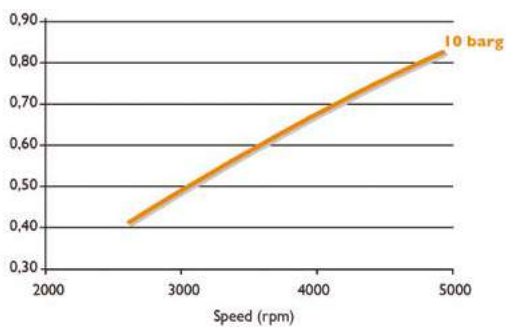


### SCI7

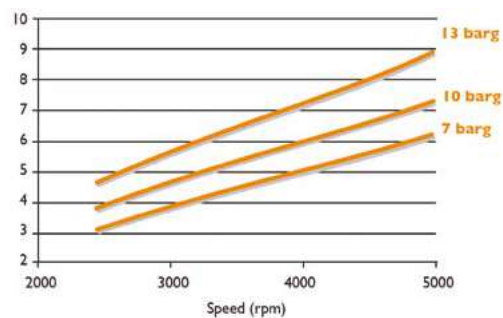
Drive: Male  
Lobe combination: 5/6  
Shaft end size: 25 mm  
Weight: 56 kg - 123 lbs

#### Data Tables

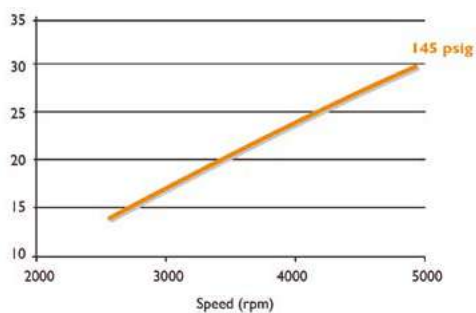
##### Air Capacity (m<sup>3</sup>/min)



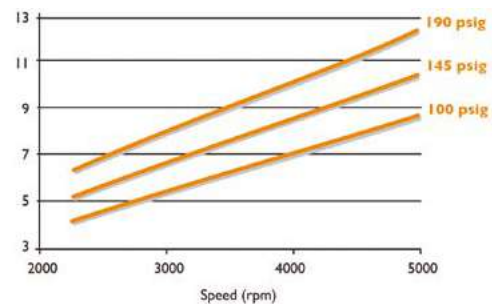
##### Power (kW)



##### Air Capacity (cfm)



##### Power (HP)



## SCI8



### SCI8DT

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 25 mm  
Weight: 52 kg - 115 lbs

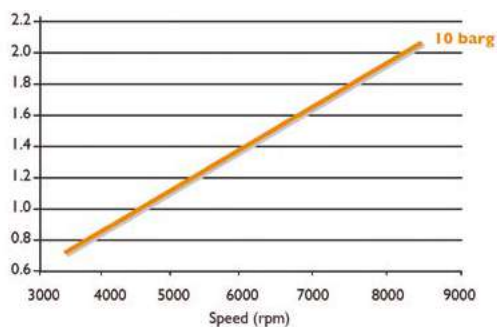


### SCI8GT

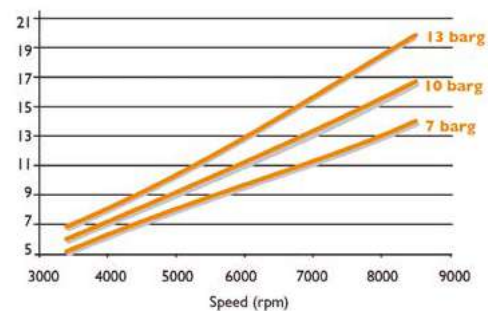
Drive: Male  
Lobe combination: 5/6  
Shaft end size: 25 mm  
Weight: 63 kg - 139 lbs

#### Data Tables

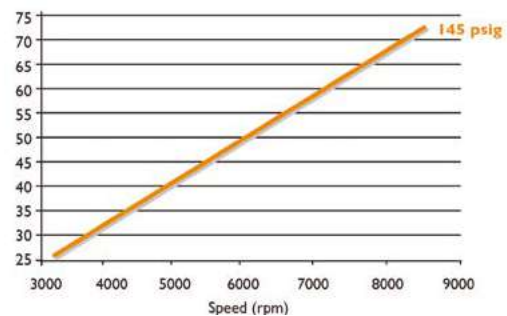
#### Air Capacity (m<sup>3</sup>/min)



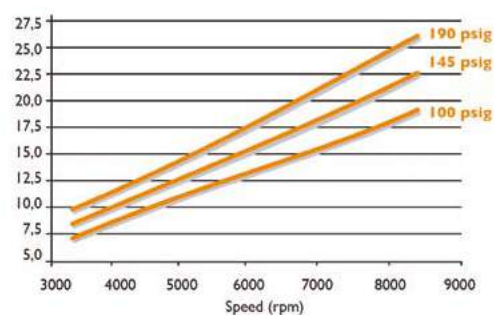
#### Power (kW)



#### Air Capacity (cfm)



#### Power (HP)





## SCI10



### SCI10DT

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 40 mm  
Weight: 139 Kg - 306 lbs



### SCI10GT

Drive: Male  
Lobe combination: 5/6  
Shaft end size: 40 mm  
Weight: 153 Kg - 337 lbs

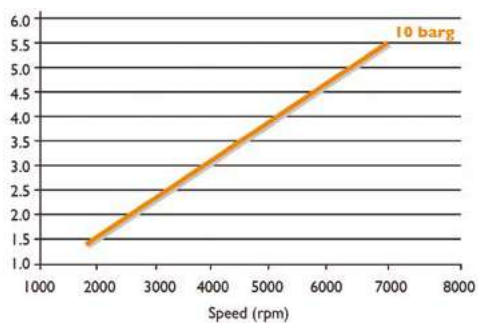


### SCI10ALG

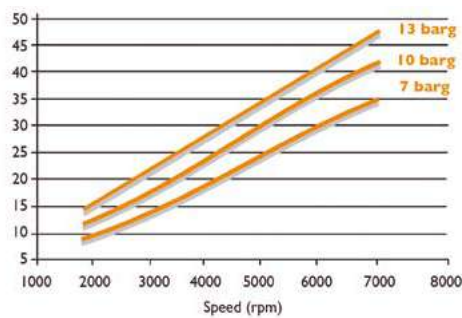
Drive: Male  
Lobe combination: 5/6  
Shaft end size: 40 mm  
Weight: 90 Kg - 198 lbs

#### Data Tables

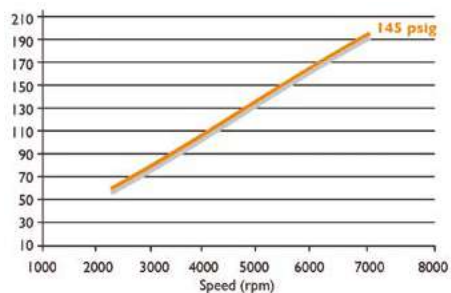
#### Air Capacity (m<sup>3</sup>/min)



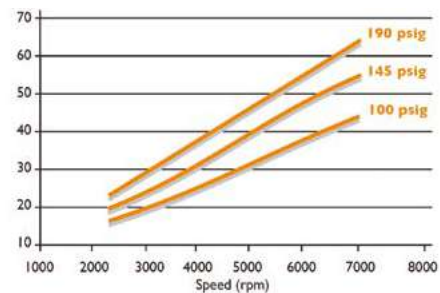
#### Power (kW)



#### Air Capacity (cfm)



#### Power (HP)



## TMIC

More than a century of experience in  
providing air compression solutions



Focus on SLC Series

## SLC Series

### Product features

Main product features  
Optimised rotor profile 3/5 lobe relation  
Discharge pressure up to 2.5 barg  
PTFE double lips seal  
Low running cost  
High volumetric efficiency  
Integrated oil pump for oil lubrication

### Sizes

**SLC**

SLC1 - SLC2

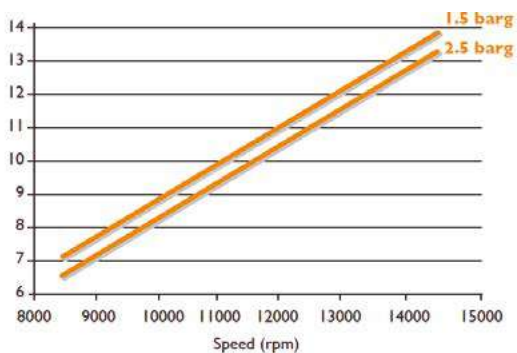
## SLC1



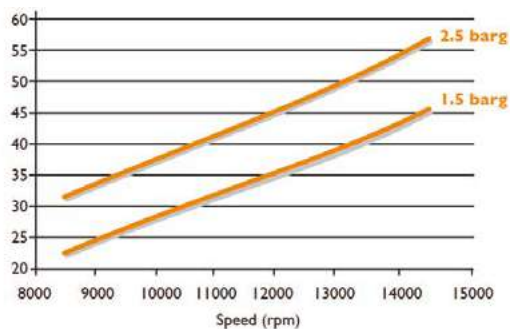
Drive: Female  
Lobe combination: 3/5  
Working pressure: max 2,5 barg  
Weight: 140 Kg - 308 lbs  
Shaft end size: 45 mm

### Data Tables

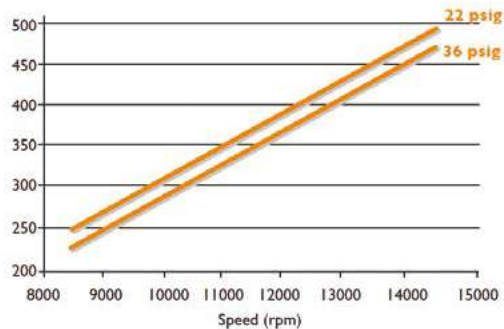
**Air Capacity** (m<sup>3</sup>/min)



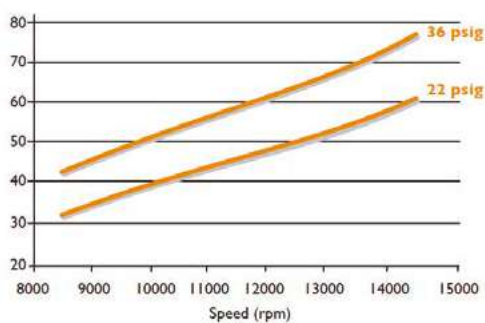
**Power** (kW)



**Air Capacity** (cfm)



**Power** (HP)



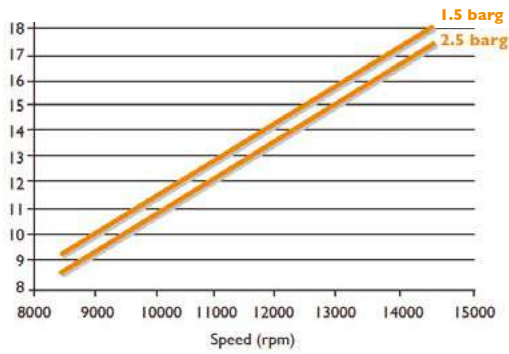
## SCL2



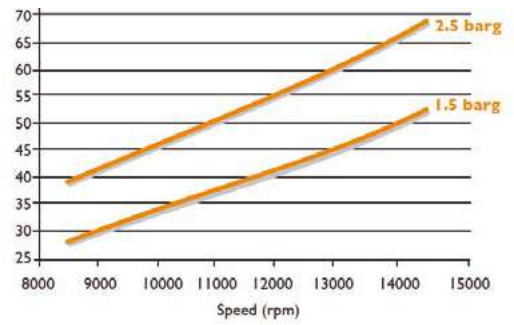
Drive: Female  
Lobe combination: 3/5  
Working pressure: max 2,5 barg  
Weight: 150 Kg - 330 lbs  
Shaft end size: 45 mm

### Data Tables

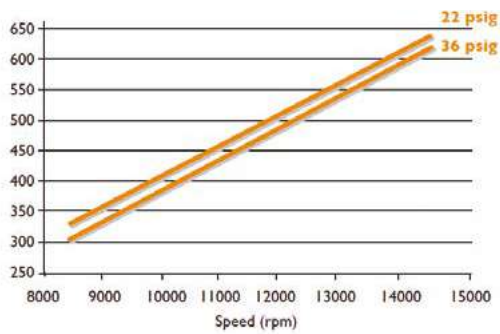
#### Air Capacity (m<sup>3</sup>/min)



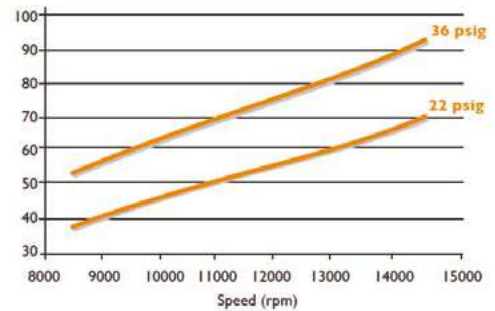
#### Power (kW)



#### Air Capacity (cfm)



#### Power (HP)




# TMIC

Your best choice also  
for special gas applications





Focus on Gas Ends Series

 [www.famcocorp.com](http://www.famcocorp.com)

 E-mail: [info@famcocorp.com](mailto:info@famcocorp.com)

 @famco\_group

 Tel: ۰۲۱-۴۸۰۰۰۰۴۹

 Fax: ۰۲۱ - ۴۴۹۹۴۶۴۲

تهران، کیلومتر ۲۱ بزرگراه لشگری (جاده مخصوص کرج)

رویروی پالایشگاه نفت پارس، پلاک ۱۲

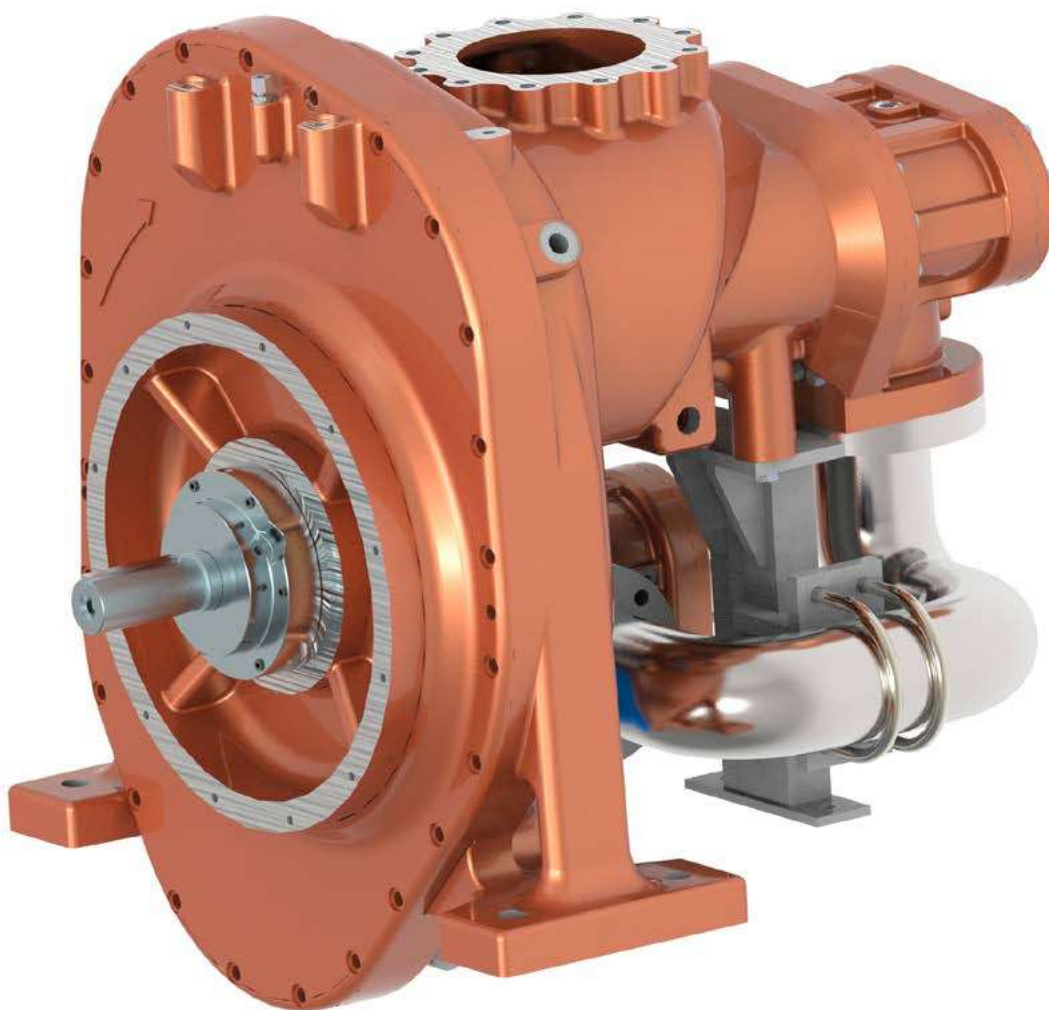
## ITA-TS Series

For high pressure applications

### Product features

Flow Range: 14-27 m<sup>3</sup>/min  
Discharge Pressure: 25 bar(g)  
Power Range: 110-260 kW

Suitable for air and gas applications  
High efficiency  
Equipped with mechanical seal



## Other Gas Ends solutions

### Compact Series

Capacity range: 0.2 - 5.5 m<sup>3</sup>/min  
Suction pressure: up to 2 bar  
Max discharge pressure: 15 bar

Max power: 45 kW  
Semi-Integrated



### NG Series

Capacity range: 0.35 - 45 m<sup>3</sup>/min  
Suction pressure: up to 2 bar  
Max discharge pressure: 20 bar

Fixed Vi  
Max power: 450 kW



### ITA-HP Series

Capacity range: 1.2 - 9.5 m<sup>3</sup>/min  
Suction pressure: up to 8 bar  
Max discharge pressure: 25 bar

3 Different Vi available  
Max power: 110 kW



### SCG Series

Capacity range: 1.2 - 13 m<sup>3</sup>/min  
Suction pressure: up to 3.5 bar  
Max discharge pressure: 24 bar

Variable Vi System  
Max power: 110 kW





## TMIC

All encompassing solutions  
making your air compression easier



Focus on Special Products and Services

## Special products & services

### TMIC LUBRICANTS

Oxidative stability  
Low volatility  
Corrosion protection

Long system life  
Reduced maintenance and top-offs  
Enhanced system reliability



### TMIC INLET VALVES



### TMIC SERVICES

Hydrostatic testing  
Material certification  
ATEX certification  
Vibration analysis

Mechanical running test (MRT)  
Declaration of conformity  
Marine equipment & special applications certification



TM.I.C. S.r.l Termomeccanica Industrial Compressors  
Via del Molo 3 • 19126 La Spezia • Italia  
Tel. +39 0187 552 1 • Fax. +39 0187 552 464  
E-mail: industrialcompressors@termomeccanica.com  
www.tmic.termomeccanica.com



www.famcocorp.com



E-mail: info@famcocorp.com



@famco\_group



Tel: +۹۰۲۱-۴۸۰۰۰۰۴۹



Fax: +۹۰۲۱-۴۴۹۹۴۶۴۲

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روبروی پالایشگاه نفت پارس، پلاک ۱۲