



Termomeccanica Industrial Compressors

Termomeccanica Group

SCREW COMPRESSORS for air applications





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.*

Index

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

SCA-ITA Series

■ Product range	pag. 3
■ Product features	pag. 4
■ SCA7 Tech data	pag. 6
■ SCA8 Tech data	pag. 7
■ SCA9 Tech data	pag. 8
■ SCA10 Tech data	pag. 9
■ SCA13 Tech data	pag. 10
■ SCA14 Tech data	pag. 11
■ SCA21 Tech data	pag. 12
■ SCA30 Tech data	pag. 13
■ ITA18 Tech data	pag. 16
■ ITA23 Tech data	pag. 17

SCI Series

■ Product features	pag. 19
■ SCI7 Tech data	pag. 22
■ SCI8 Tech data	pag. 23
■ SCI10 Tech data	pag. 24

SLC Series

■ Product features	pag. 26
■ SLC1 Tech data	pag. 27
■ SLC2 Tech data	pag. 28

Oil Injected screw compressors
for gas applications

ITA-TS Series

pag. 30

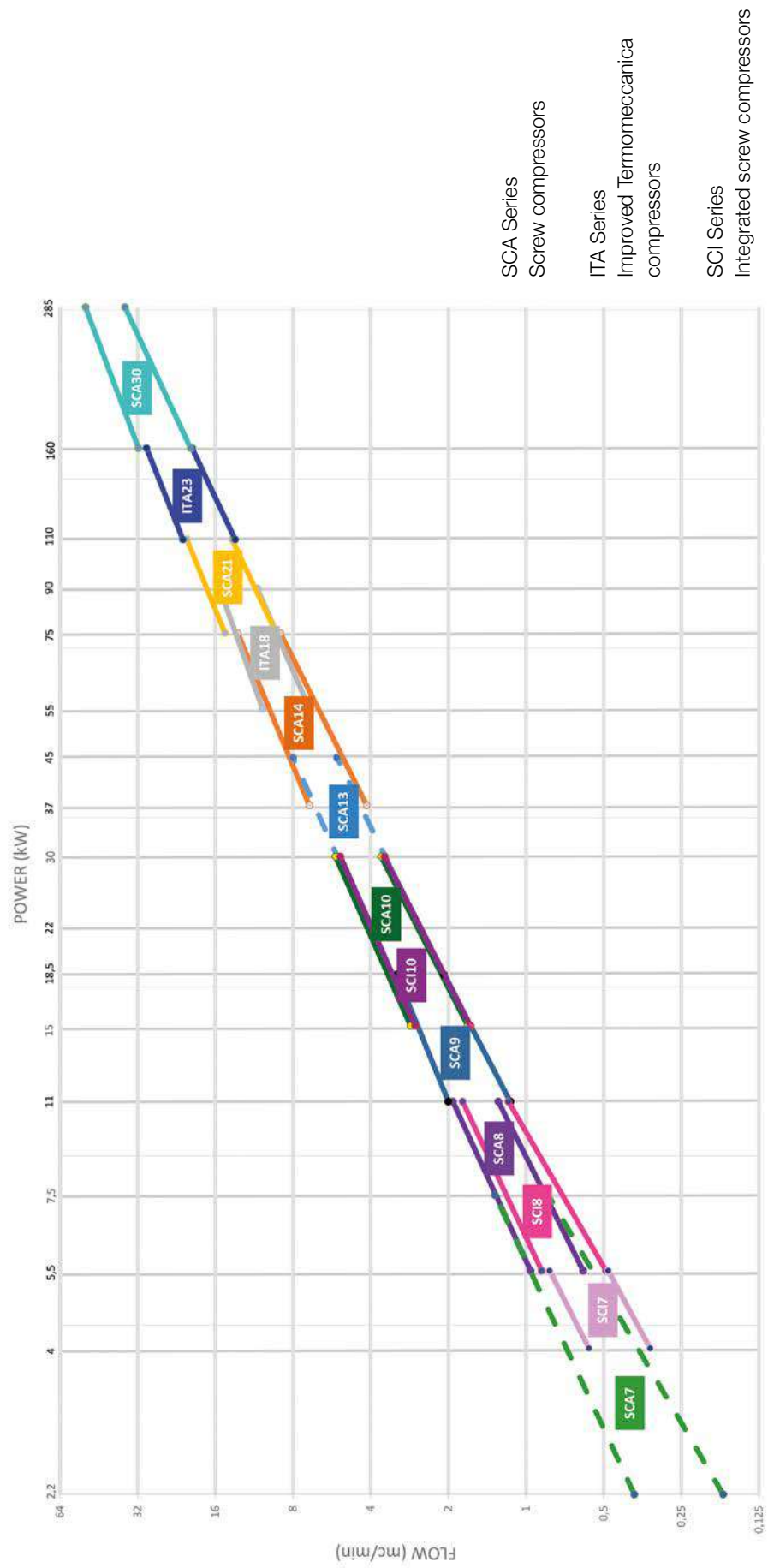
Other Gas Ends Solutions

pag. 31

Special Products & Services

pag. 33

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



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

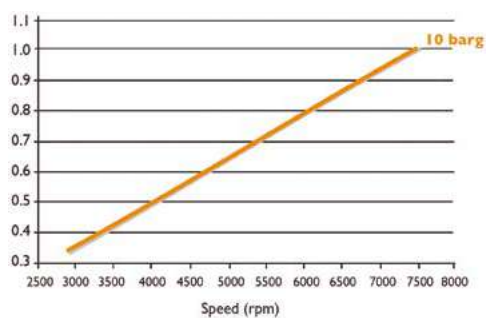


SCA7L

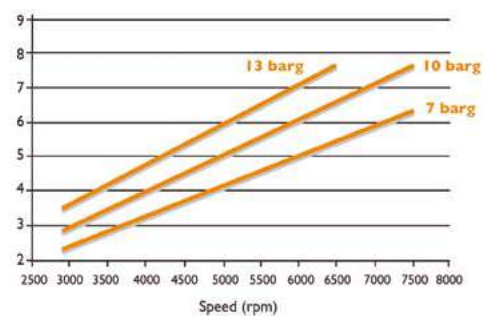
Drive: Male
Lobe combination: 5/6
Shaft end size: 19 mm
Weight: 10 kg - 22 lbs

Data Tables

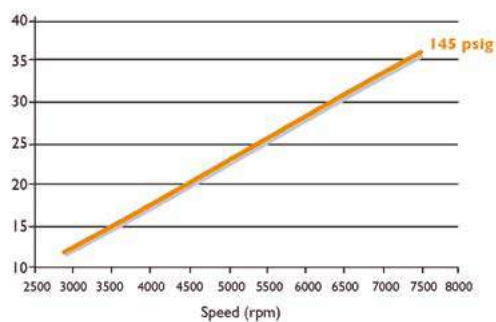
Air Capacity (m³/min)



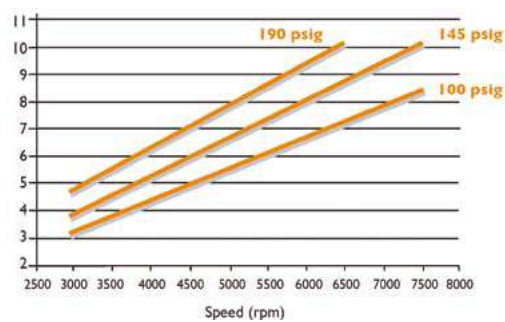
Power (kW)



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

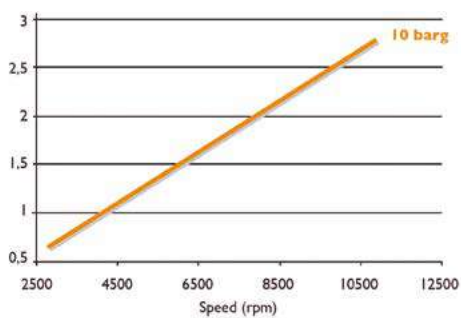


SCA8GR

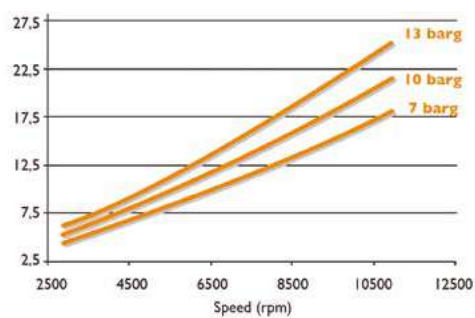
Drive: Male
Lobe combination: 5/6
Shaft end size: 25 mm
Weight: 30 kg - 66 lbs

Data Tables

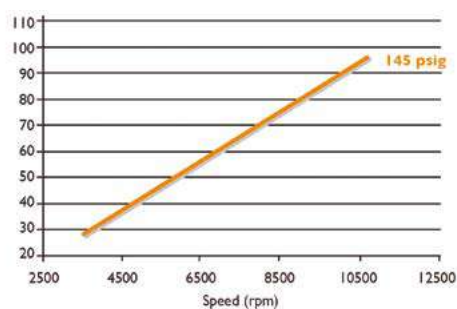
Air Capacity (m³/min)



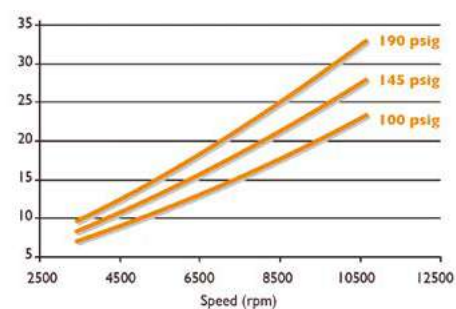
Power (kW)



Air Capacity (cfm)



Power (HP)



SCA9



SCA9DR

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

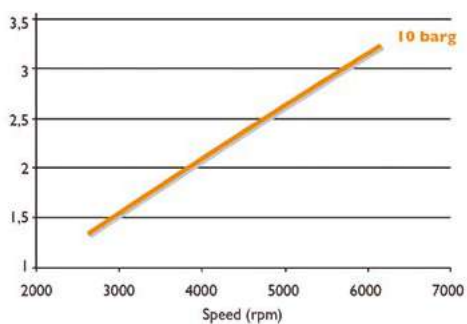


SCA9GR

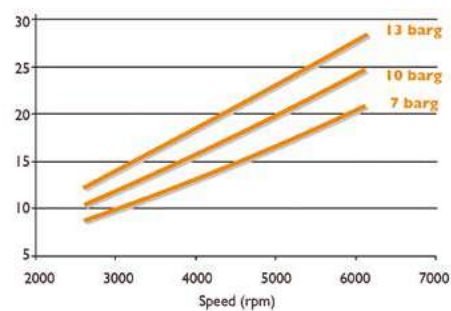
Drive: Male
 Lobe combination: 5/6
 Shaft end size: 40 mm
 Weight: 61 kg - 134 lbs

Data Tables

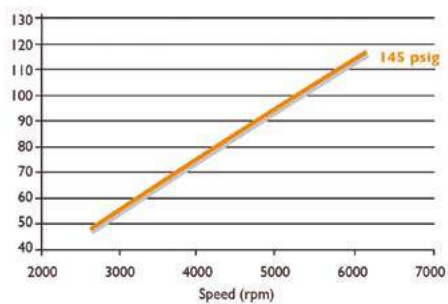
Air Capacity (m³/min)



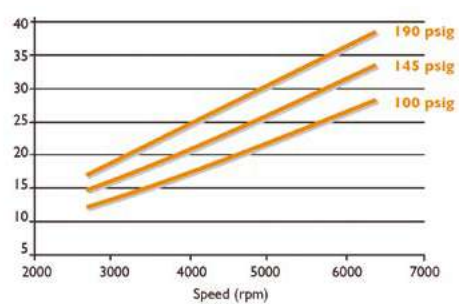
Power (kW)



Air Capacity (cfm)



Power (HP)



SCA10



SCA10DR

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

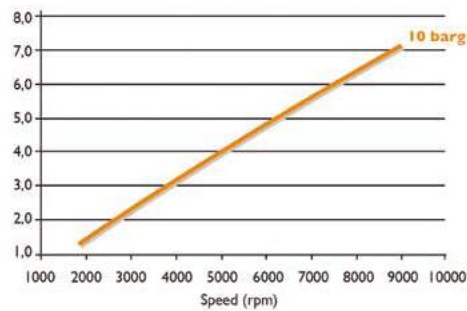


SCA10GR

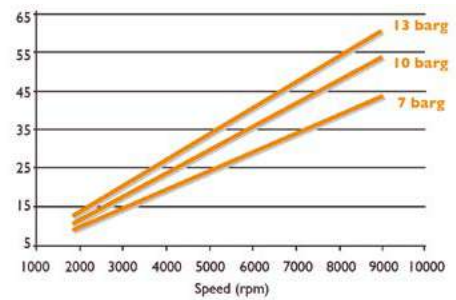
Drive: Male
Lobe combination: 5/6
Shaft end size: 40 mm
Weight: 67 kg - 144 lbs

Data Tables

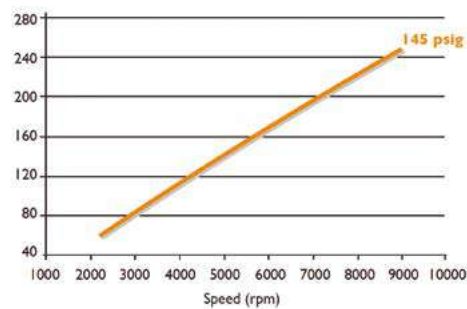
Air Capacity (m³/min)



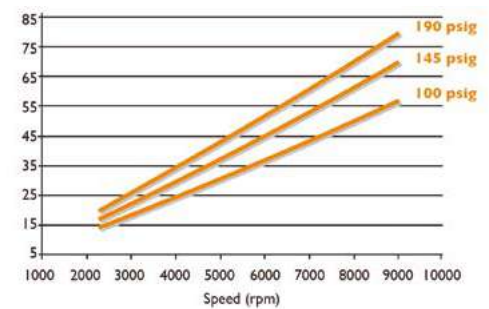
Power (kW)



Air Capacity (cfm)



Power (HP)



SCA13



SCA13DR

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

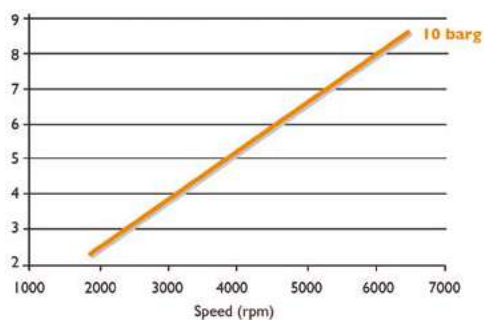


SCA13GR

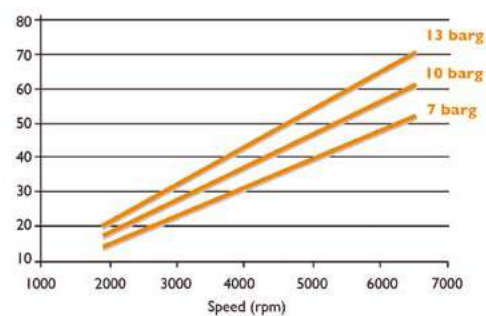
Drive: Male
Lobe combination: 5/6
Shaft end size: 42 mm
Weight: 99kg - 218 lbs

Data Tables

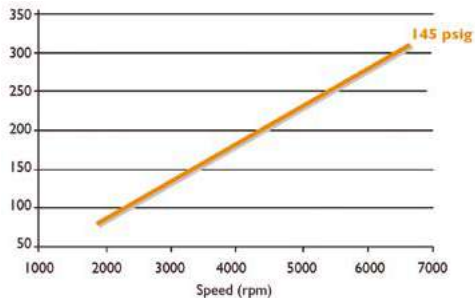
Air Capacity (m³/min)



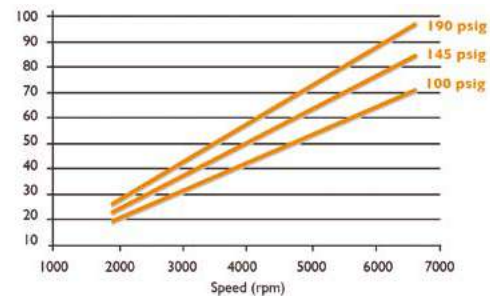
Power (kW)



Air Capacity (cfm)



Power (HP)



SCA14



SCA14DR

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

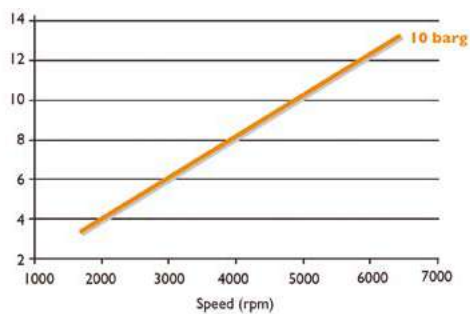


SCA14GR

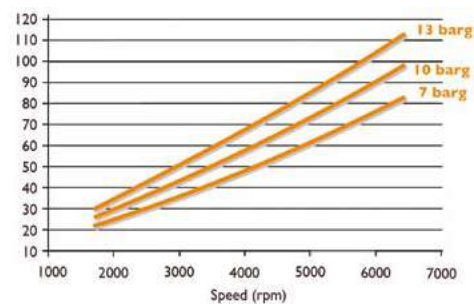
Drive: Male
 Lobe combination: 5/6
 Shaft end size: 45 mm
 Weight: 140 kg - 309 lbs

Data Tables

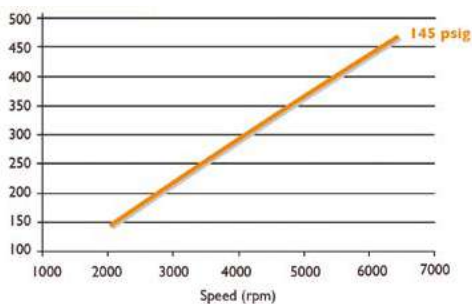
Air Capacity (m³/min)



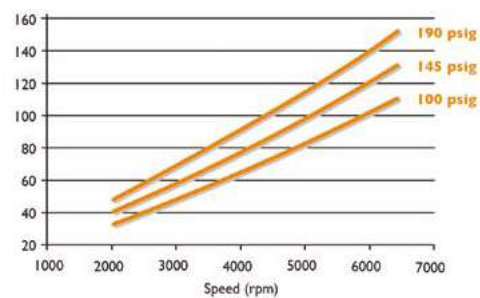
Power (kW)



Air Capacity (cfm)



Power (HP)



SCA21



SCA21DR

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

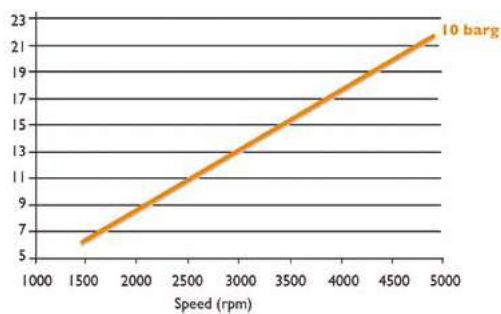


SCA21GR

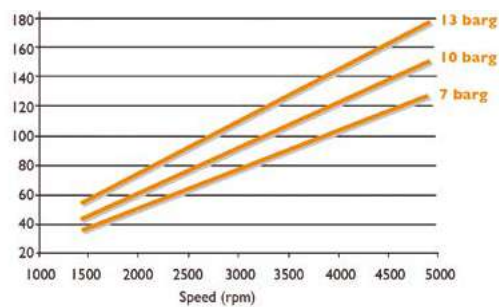
Drive: Male
Lobe combination: 5/6
Shaft end size: 55 mm
Weight: 309 kg - 631 lbs

Data Tables

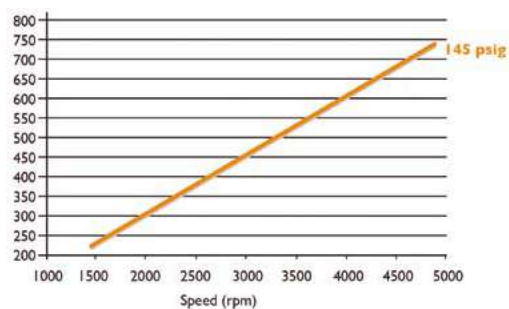
Air Capacity (m³/min)



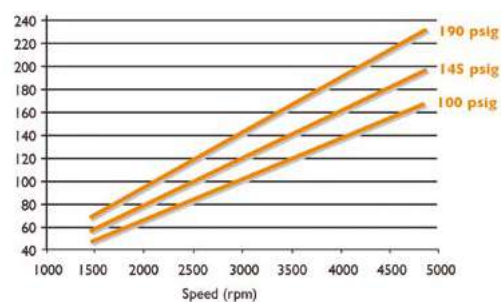
Power (kW)



Air Capacity (cfm)



Power (HP)



SCA30



SCA30DR

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

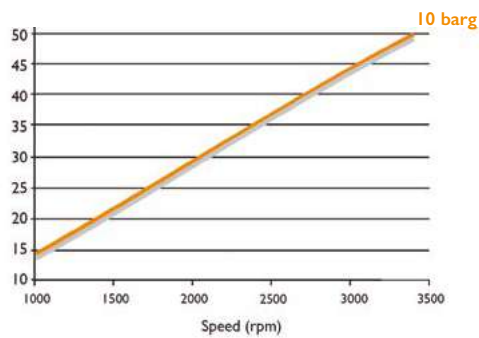


SCA30GR

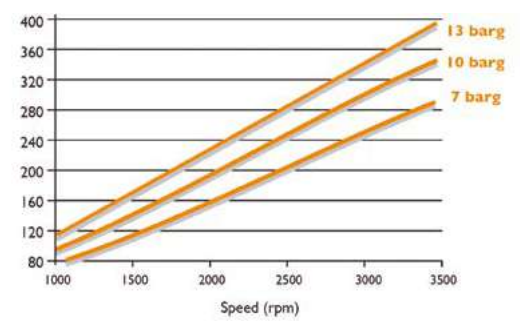
Drive: Male
 Lobe combination: 5/6
 Shaft end size: 90 mm
 Weight: 1040 kg - 2293 lbs

Data Tables

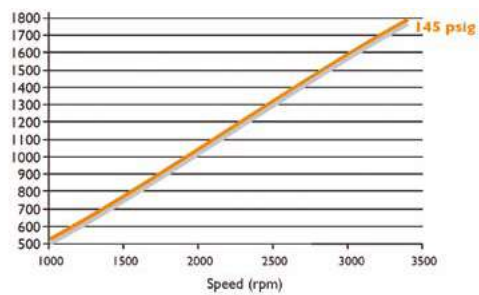
Air Capacity (m³/min)



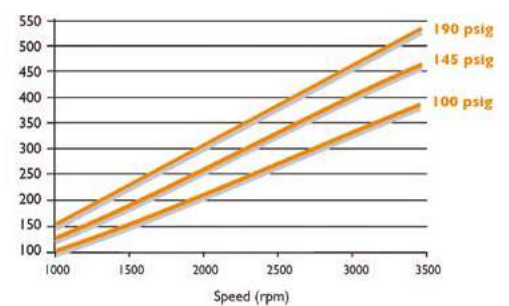
Power (kW)



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

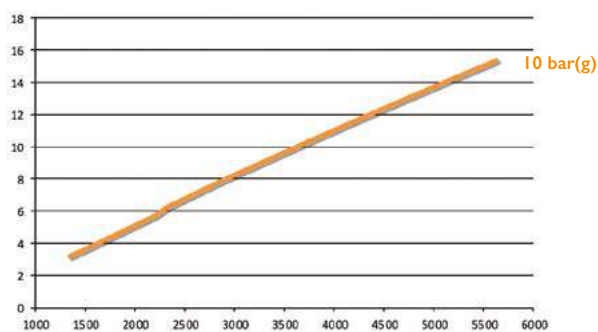


ITA18GR

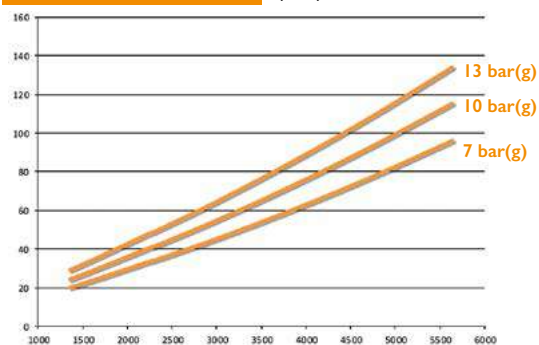
Drive: Male
Lobe combination: 5/6
Shaft end size: 45 mm
Weight: 167 kg - 368 lbs

Data Tables

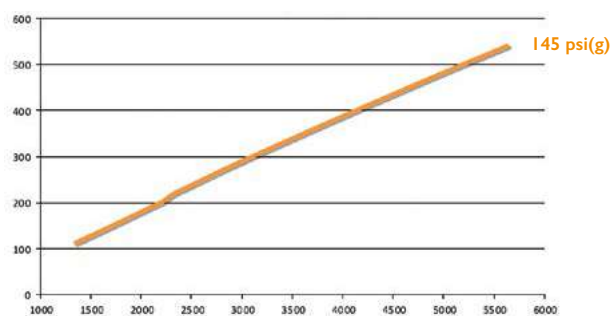
Air Capacity (m³/min)



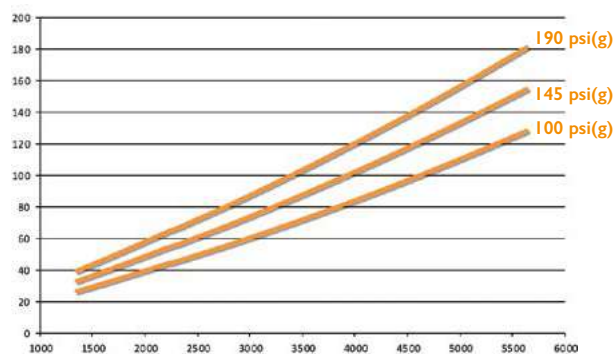
Power (kW)



Air Capacity (cfm)



Power (HP)



ITA23



ITA23DR

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

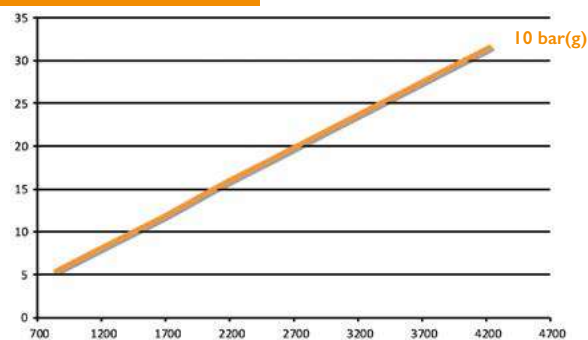


ITA23GR

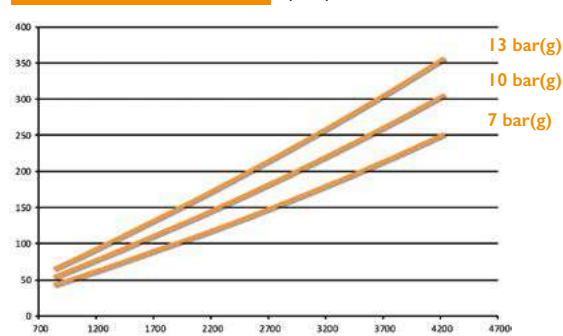
Drive: Male
Lobe combination: 5/6
Shaft end size: 60 mm
Weight: 490 kg - 1080 lbs

Data Tables

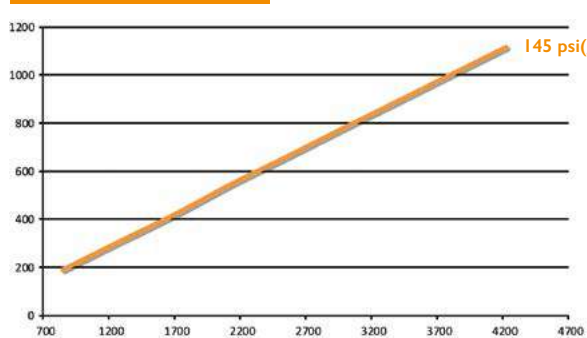
Air Capacity (m³/min)



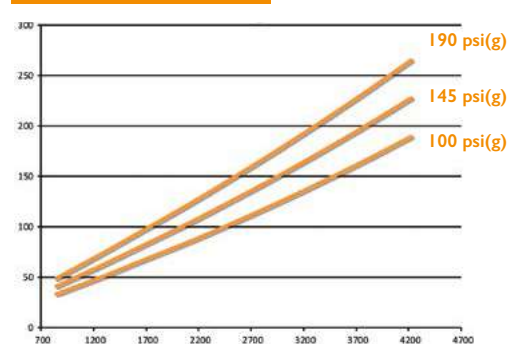
Power (kW)



Air Capacity (cfm)



Power (HP)



TMIC

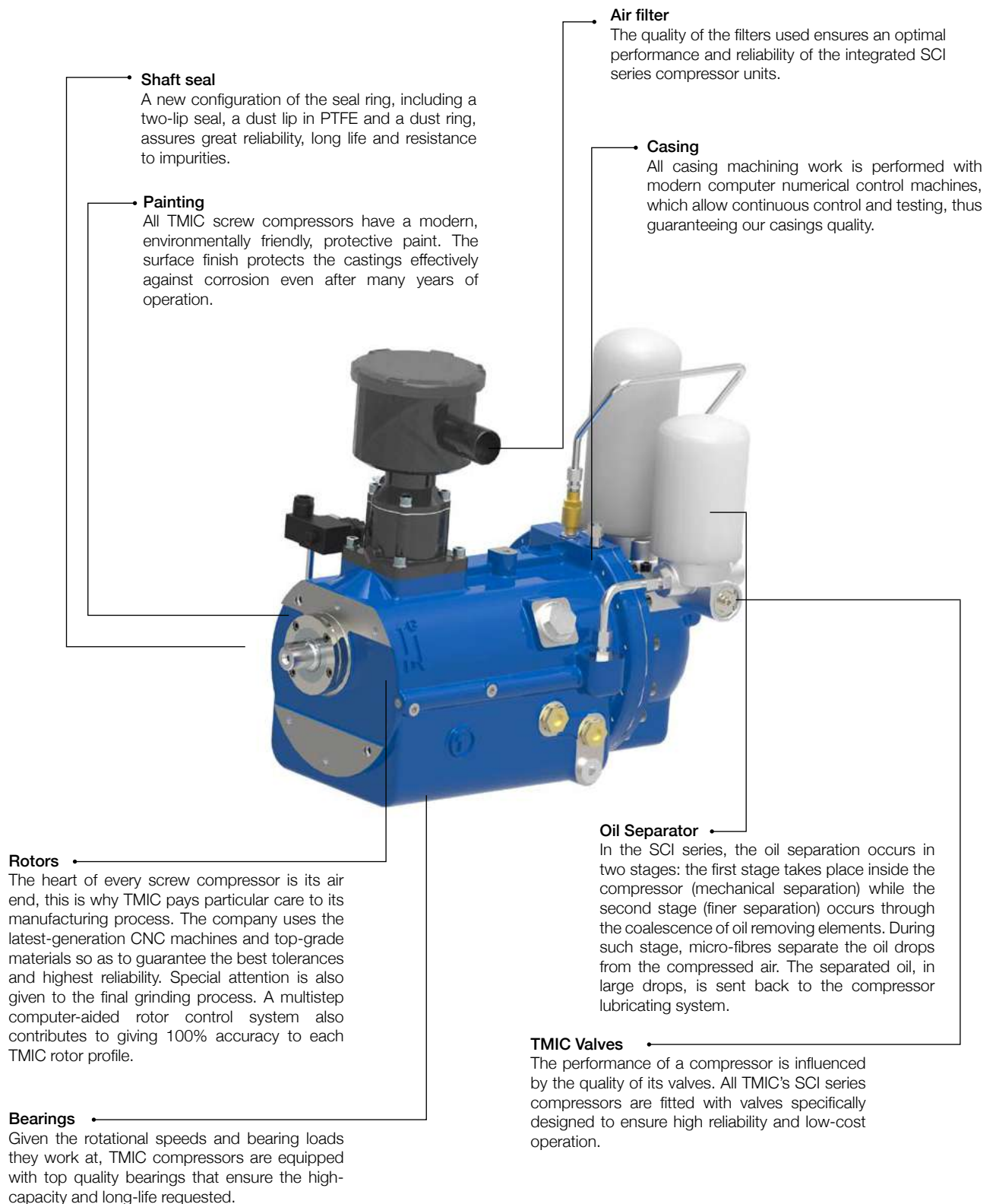
A unique partner for your
special air applications



Focus on SCI Series

SCI Screw Compressors Integrated

SCI Standard Design



SCI ALG

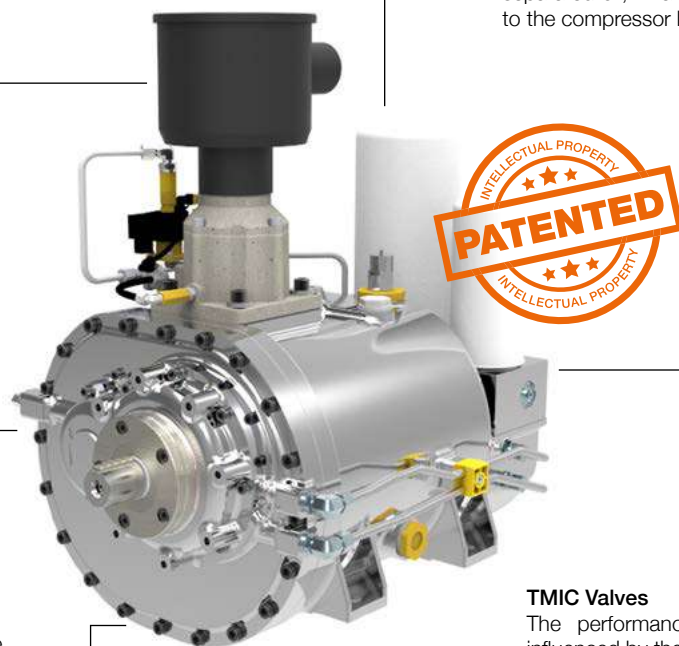
The first integrated oil injected screw compressor made of aluminium

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

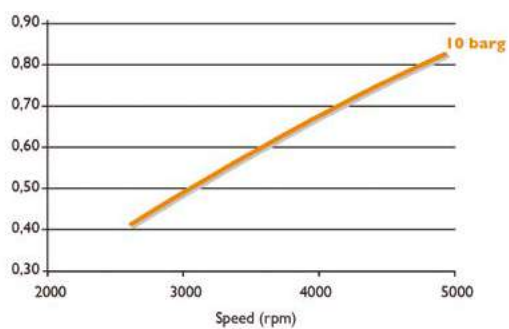


SCI7

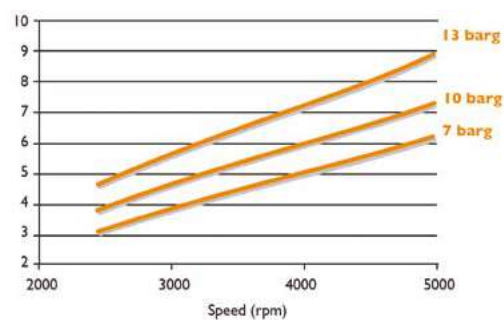
Drive: Male
Lobe combination: 5/6
Shaft end size: 25 mm
Weight: 56 kg - 123 lbs

Data Tables

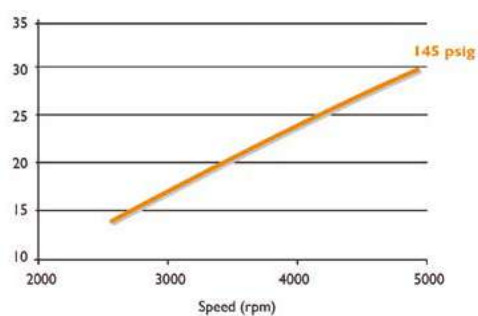
Air Capacity (m³/min)



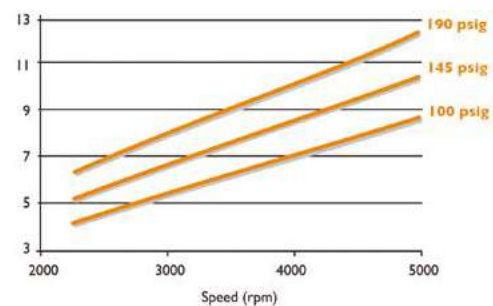
Power (kW)



Air Capacity (cfm)



Power (HP)



SCI8



SCI8DT

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

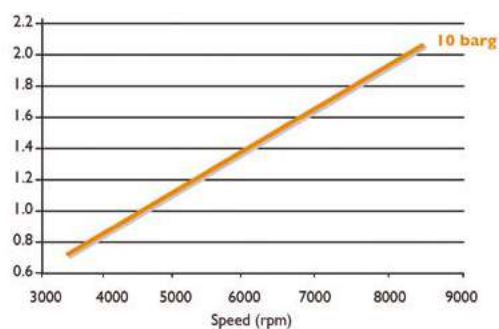


SCI8GT

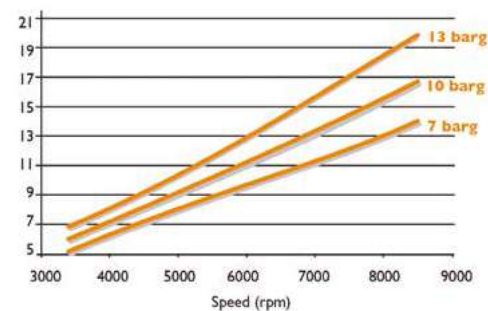
Drive: Male
Lobe combination: 5/6
Shaft end size: 25 mm
Weight: 63 kg - 139 bs

Data Tables

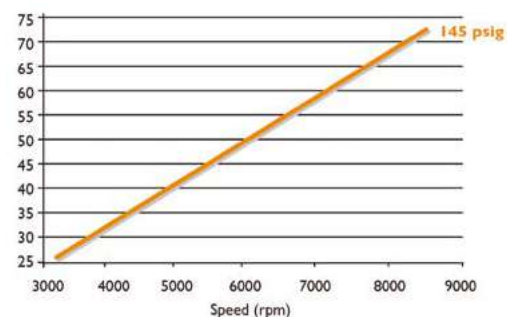
Air Capacity (m³/min)



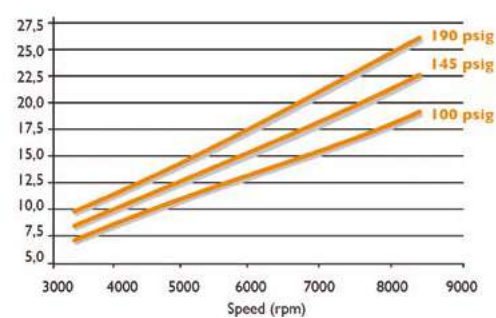
Power (kW)



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

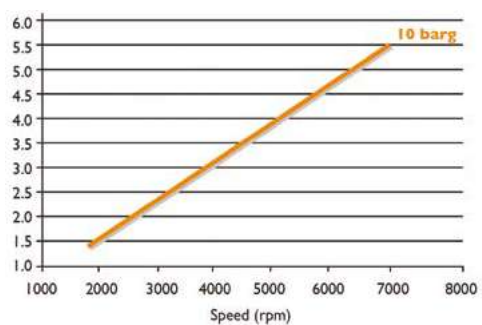


SCI10ALG

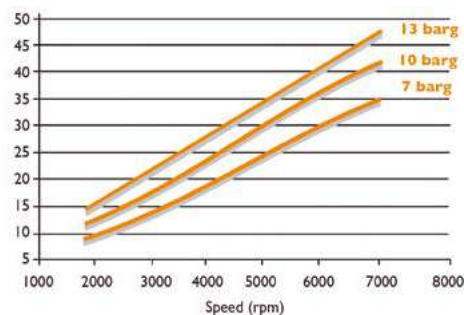
Drive: Male
Lobe combination: 5/6
Shaft end size: 40 mm
Weight: 90 Kg - 198 lbs

Data Tables

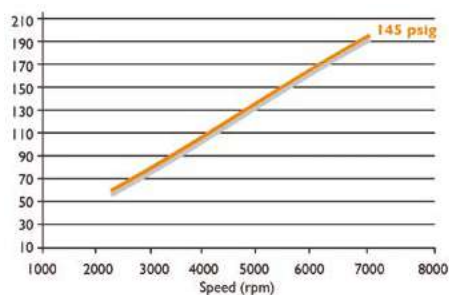
Air Capacity (m³/min)



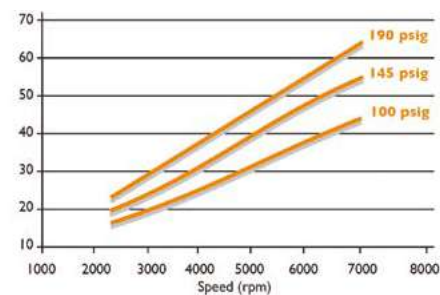
Power (kW)



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

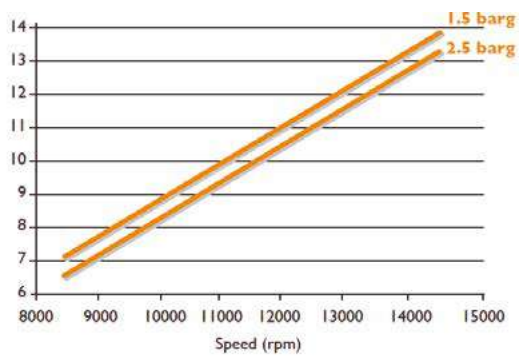
SLC1



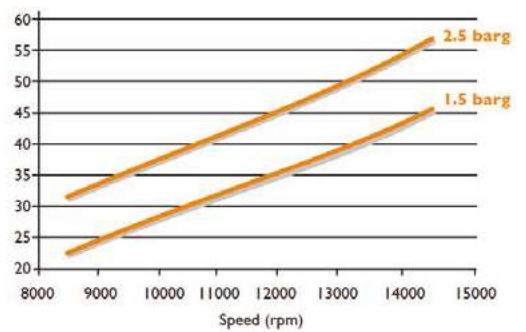
Drive: Female
 Lobe combination: 3/5
 Working pressure: max 2,5 barg
 Weight: 140 Kg - 308 lbs
 Shaft end size: 45 mm

Data Tables

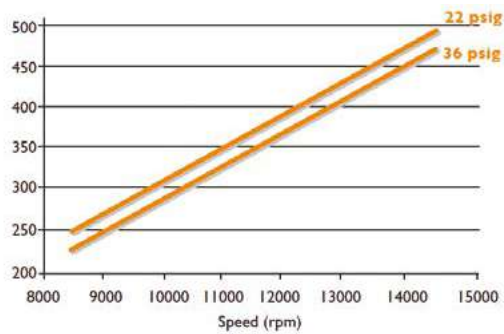
Air Capacity (m³/min)



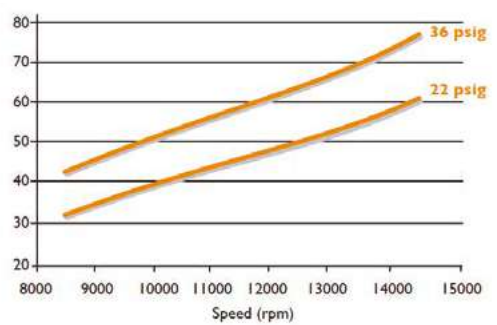
Power (kW)



Air Capacity (cfm)



Power (HP)



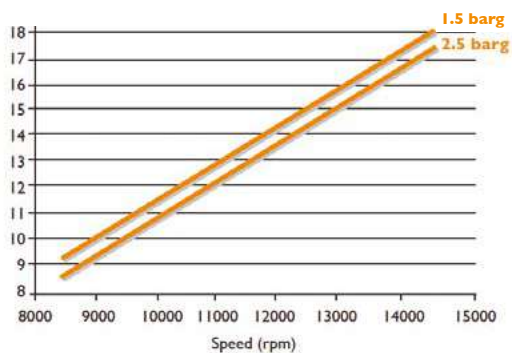
SCL2



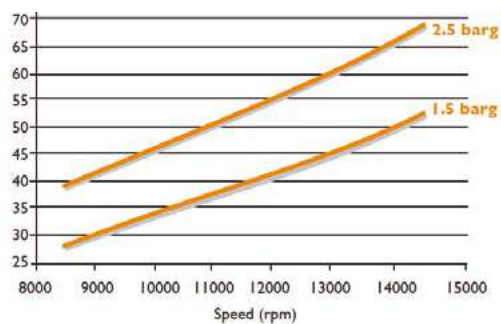
Drive: Female
 Lobe combination: 3/5
 Working pressure: max 2,5 barg
 Weight: 150 Kg - 330 lbs
 Shaft end size: 45 mm

Data Tables

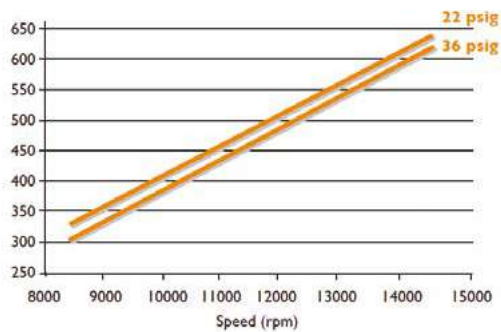
Air Capacity (m³/min)



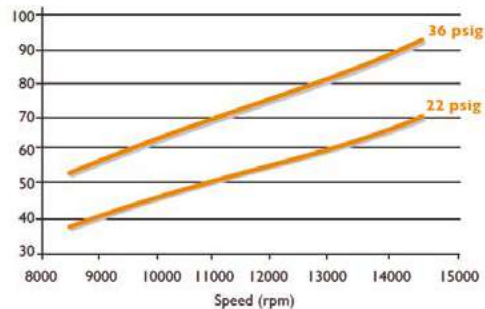
Power (kW)



Air Capacity (cfm)



Power (HP)



TMIC

Your best choice also
for special gas applications



Focus on Gas Ends Series

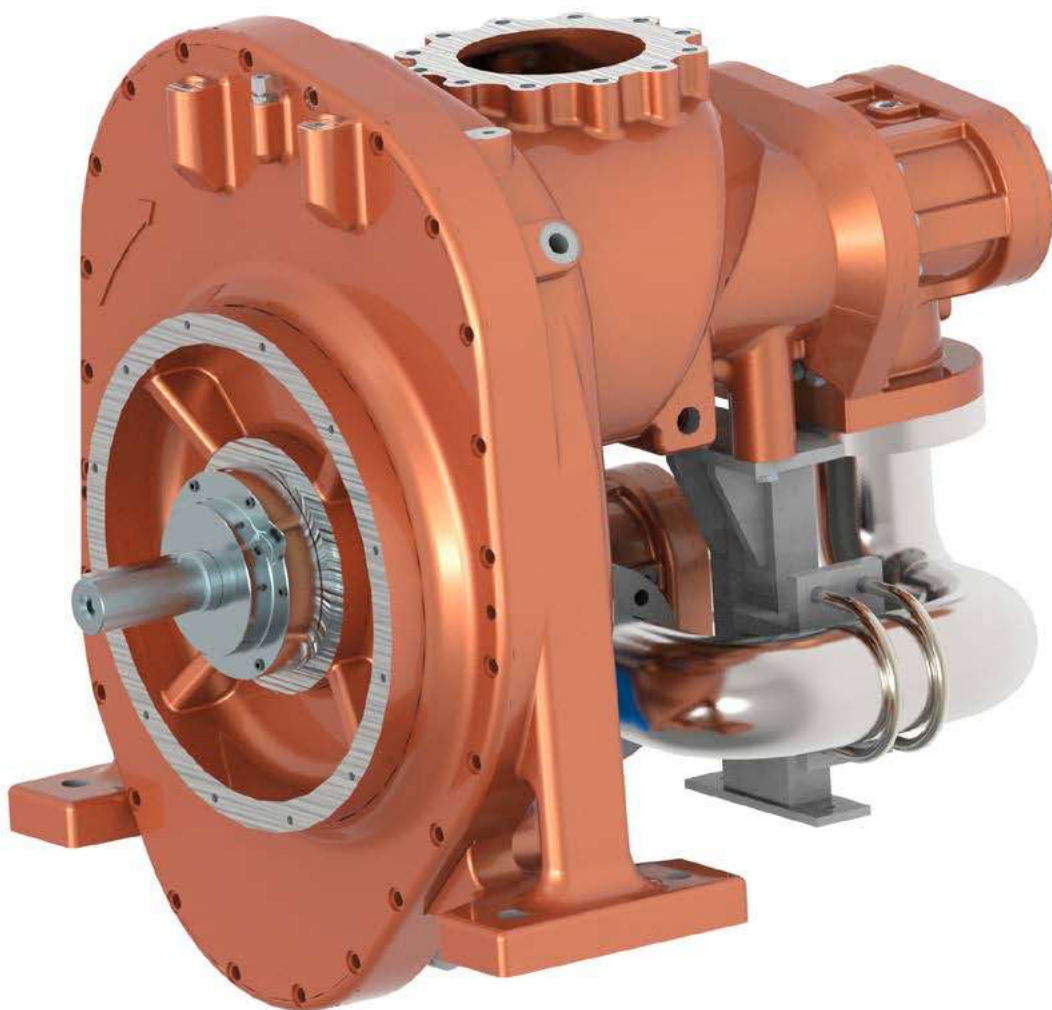
ITA-TS Series

For high pressure applications

Product features

Flow Range: 14-27 m³/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 m³/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 m³/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 m³/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 m³/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



