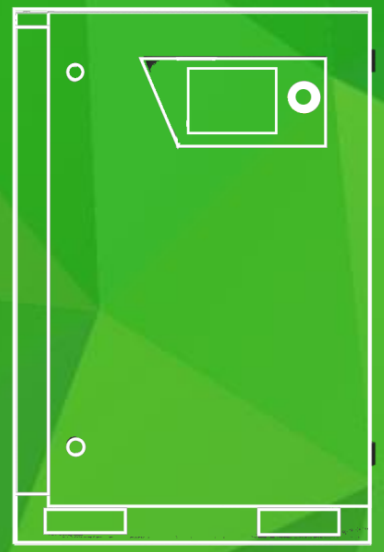
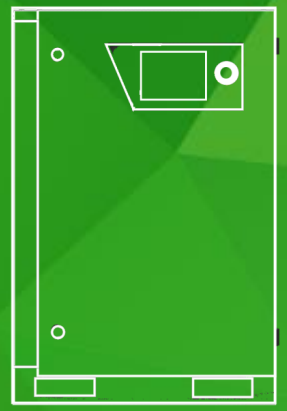


Frecon Plus (New) 5-37 Series

Single Stage PM Motor Screw Compressor• 04.2024

hertz KOMPRESSOREN



Content.

Frecon Plus 5-37 Series

PRODUCT PROPERTIES

Voltage & Frequency
400 V / 50 Hz
⧖230-460 V / 60 Hz

Operating Pressure
7.5 – 8.5 - 10 – 13Bar

Operating Temperature
Up to 45 °C Ambient Temperature
ΔT=10°C Pressured Air Outlet

Energy Effiency
IPM Motor

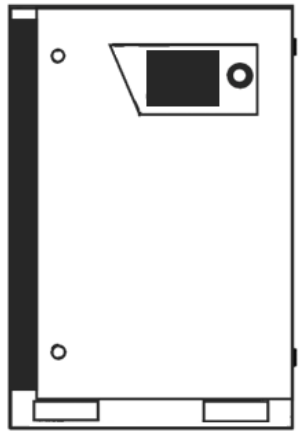
Performance
0.48 – 6,64 m³/min
Low Noise Level

Compact
Small Footprint
Integrated Dryer (30-37kW)

Power Range
5-37 kW

Controller
Smartronic Pro

PRODUCT RANGE



Frecon Plus

Power (kW)	Pressure (bar)			
5	7,5	A	HC[1]	ID[2]
7	8,5			
11	10			
15	13			
18				
22				
30				
37				

A: Air Cooled

HC: Heat Recovery

ID: Integrated Dryer

1 **Only** 18-22-30-37 kW

2 **Only** 30-37 kW

DESIGN 5-15 KW

Low Noise Level

Compact
Small Footprint

Axial Fan

Variable Speed Drive
VSD

IPM Motor
Oil Cooled

Intake Filter
Closed Type

Tank Mounted

DESIGN 18-22 KW

Low Noise Level

Compact
Small Footprint

Axial Fan
Variable Speed

Variable Speed Drive
VSD

Zero Loss
Drain

IPM Motor
Oil Cooled

Intake Filter
Closed Type

x2

Tank Mounted
Twin Tank

DESIGN 30-37 KW

Low Noise Level

Compact
Small Footprint

Axial Fan
Variable Speed

Variable Speed Drive
VSD

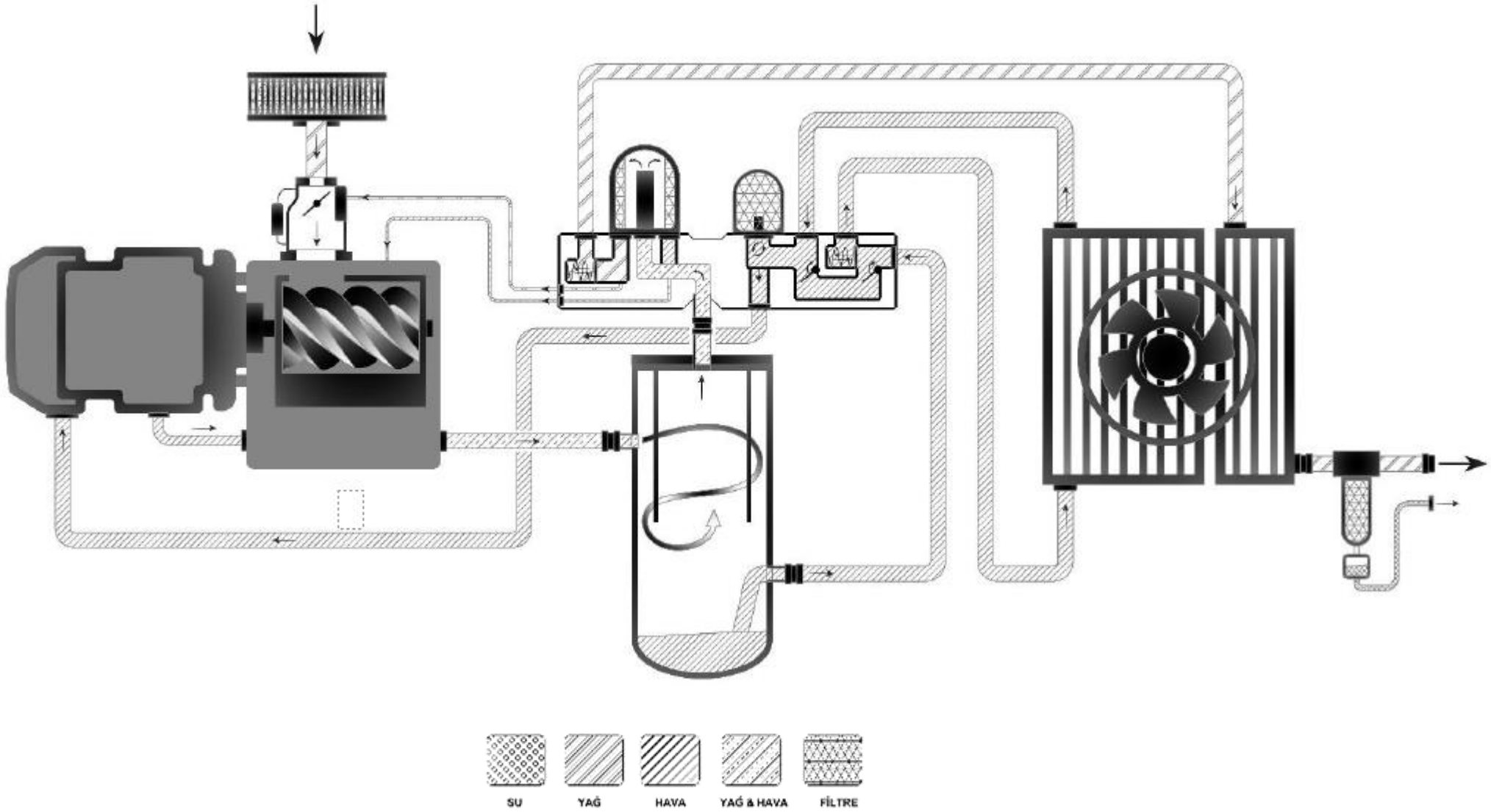
Zero Loss
Drain

IPM Motor
Oil Cooled

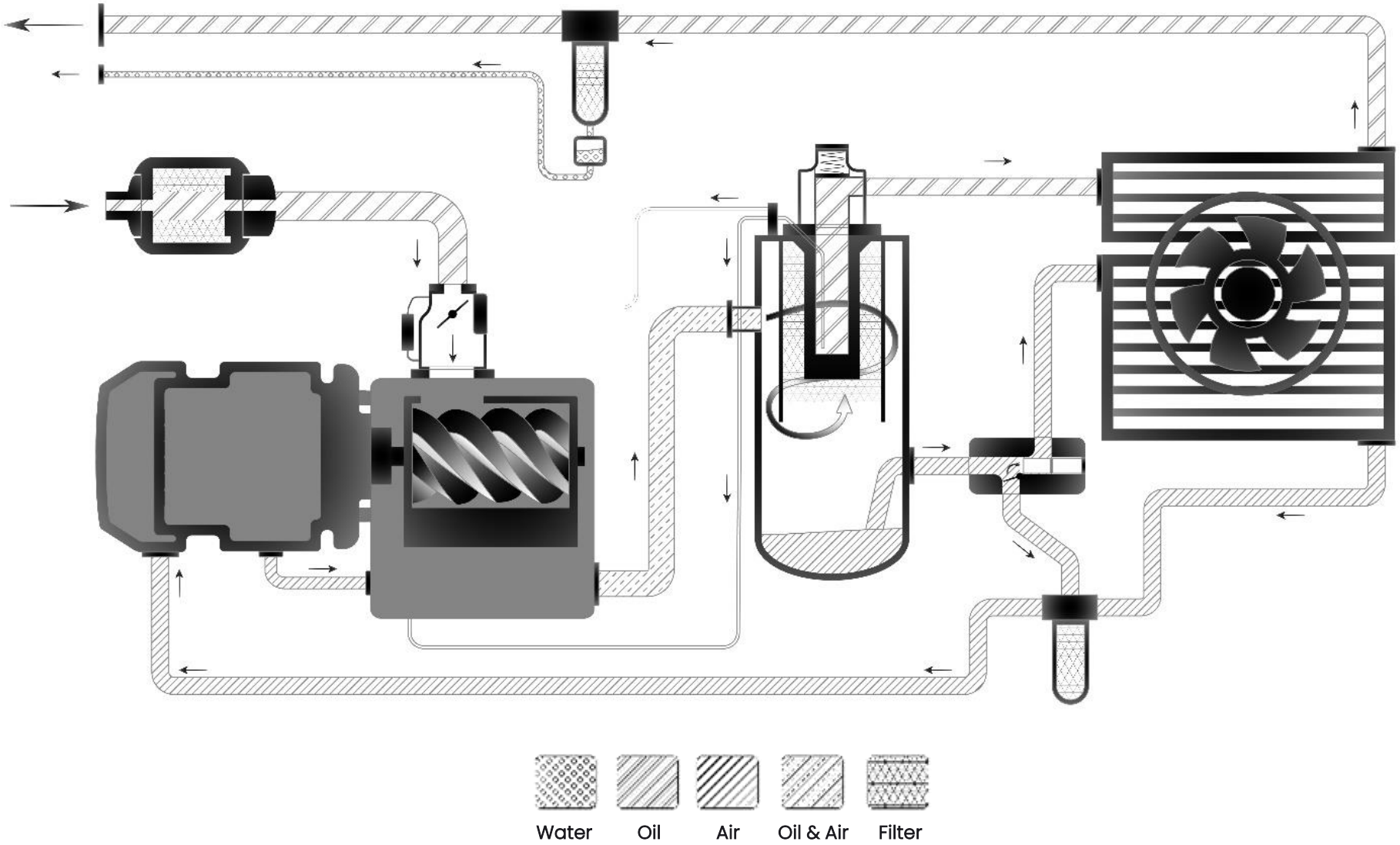
Intake Filter
Closed Type

Immersion Type
Separator

Flow Chart 5-22 KW



Flow Chart 30-37 KW



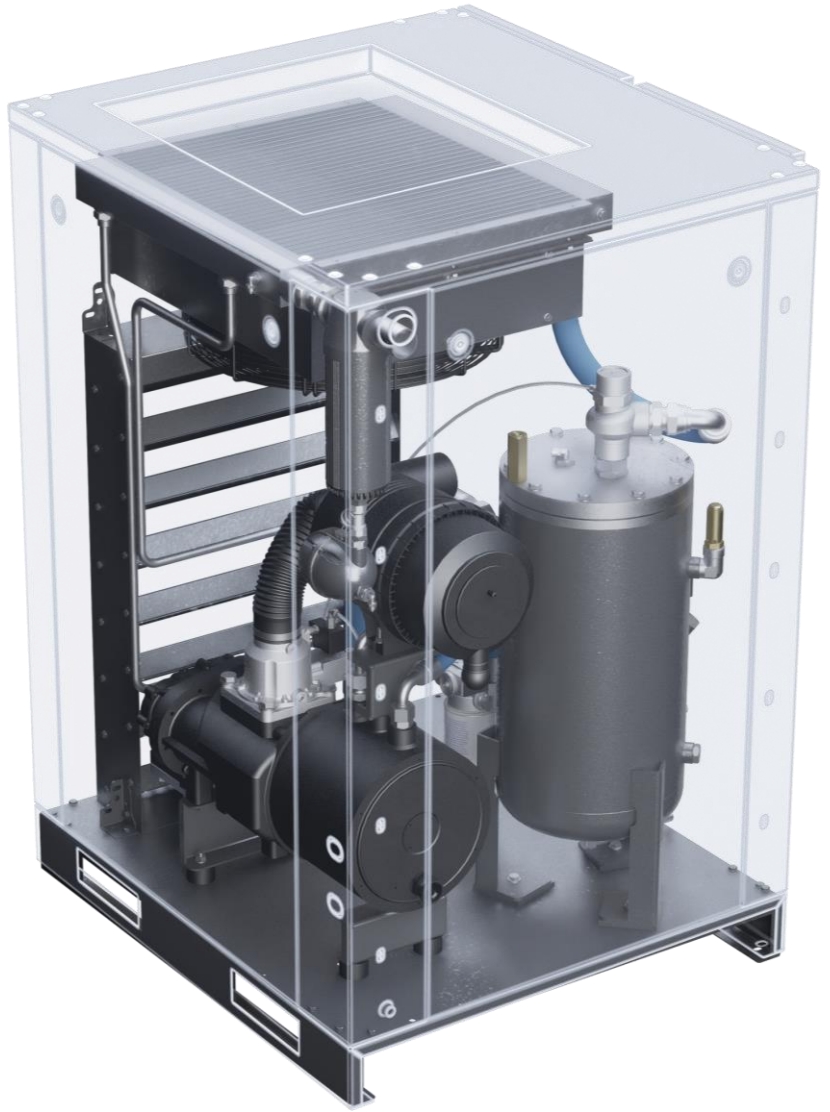
INTAKE SYSTEM 5-37 KW

Intake

• Air circulation inside the cabin with negative pressurized cabin and sealed cover structure.

• Fresh air intake thanks to evacuate hot air at a point away from the suction

• Low noise level thanks to intake blinds. (11-37kW)



Intake Filter

• Smartparts

• Compact design, easy to service

• Positioned on the intake regulator

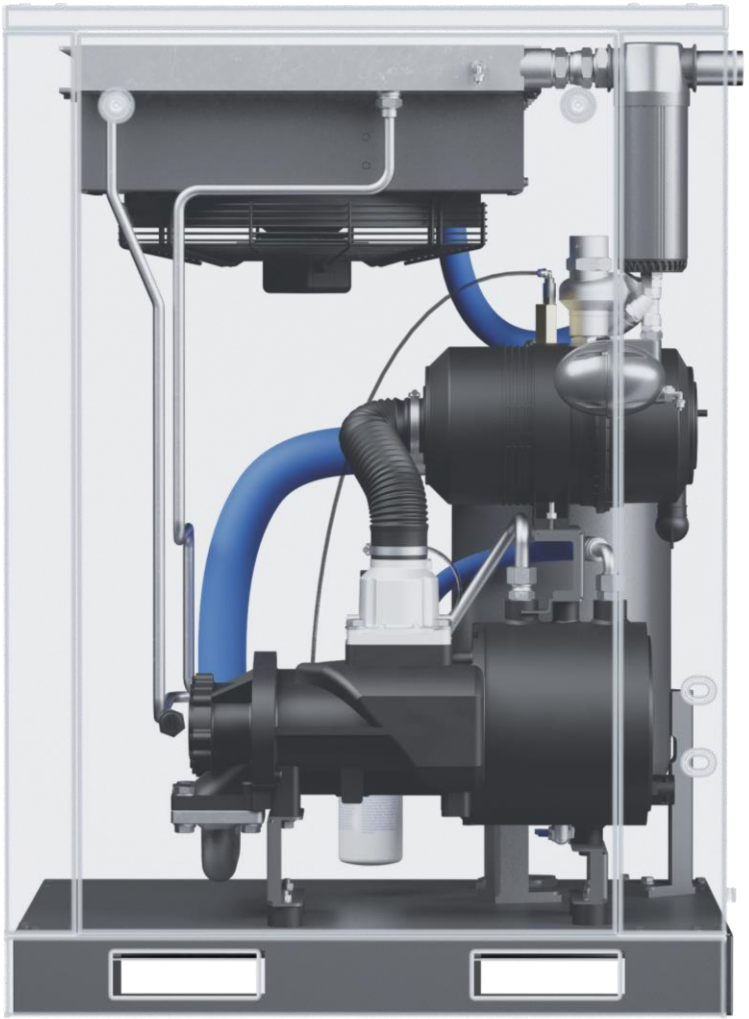
DRIVE SYSTEM 5-37 KW

Motor

- Internal permanent magnet (**IPM**) motor
- Ultra premium **IE5** energy class
- Compact
- **F** insulation class
- High efficiency by optimum oil cooling at all speeds
- Low noise level
- Compatible for continuous operation (**S1**)
- No need for gressing

Airend

- Smartrotor
- Compact design thanks to no additional transmission element
- Long product life by low rotor speeds



SEPARATION SYSTEM 5-37 KW

- **<3mg/m³** oil content
- **Valves**
  MPV, Thermostatic Valve, Intake Valve
- **Oil level indicator**
  Pneumatic type (5-22kW)
  Float type (30-37kw)
- Vertical centrifuge tank
- Ease of service
- **Spin-on Separator (5-22kW)**
  Immersion Type Separator (30-37kW)
  Smartparts

COOLING SYSTEM 5-37 KW

Effective Cooling by axial fans

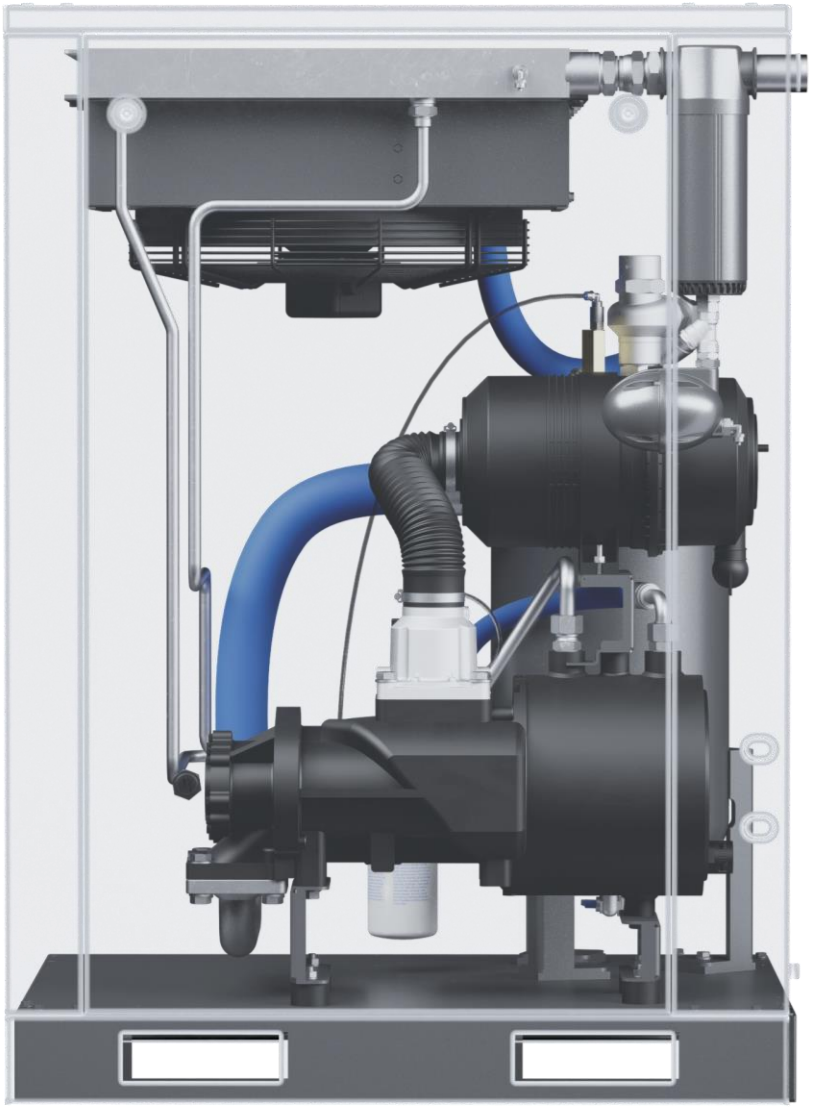
High cooling efficiency by compact heat exchangers

High cooling efficiency up to 45°C ambient temperature

Maximum energy saving by **inverter cooling fans (18-37kW)**

Ensure the attainment of optimal oil temperature with the assistance of a **thermostatic valve**

DRAIN SYSTEM 5-37 KW



- Compact, integrated and geniune design
- **>99% separation** performance even at high temperature and humid environment
- High energy efficiency by minimum pressure loss
- **Zero loss drain** (18-37kW)

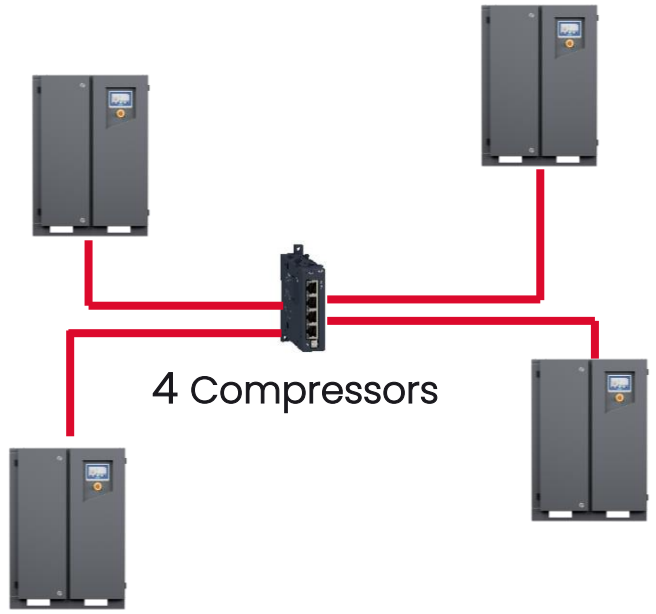
ELECTRONIC SYSTEM 5-37 KW

- Smartdrive Inverter; single inverter for motor and fan motor (18-37kW)
- Less component, user friendly and easy to use
- Inverter and embedded stable magnetic motor **IES2**(EN50598)
- Smartronic-Pro HMI; Wide, Touch control
- Compact design with small electric board

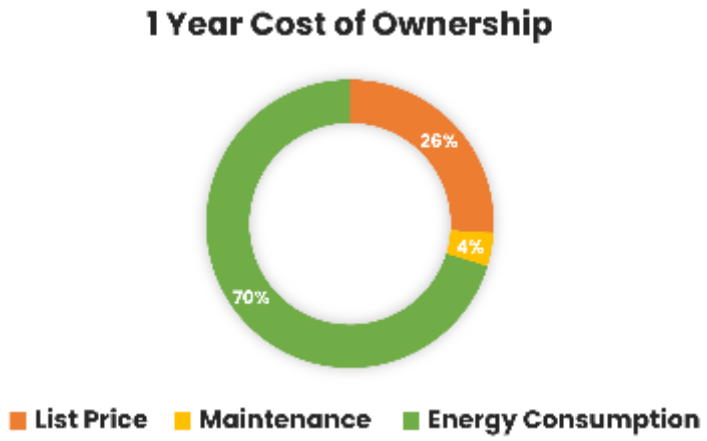
MODBUS TCP CONNECTION

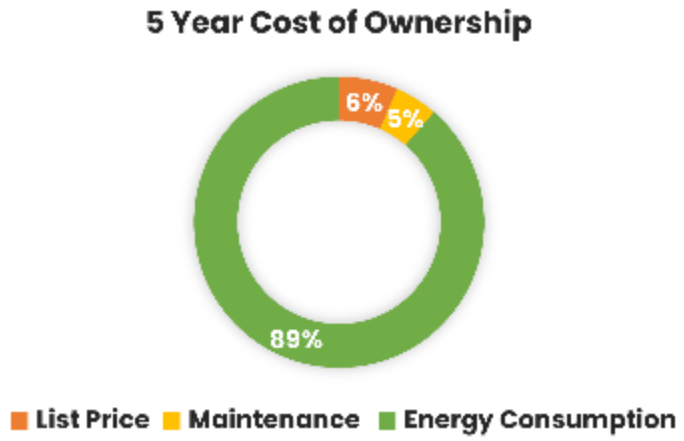
Group Control System General Features

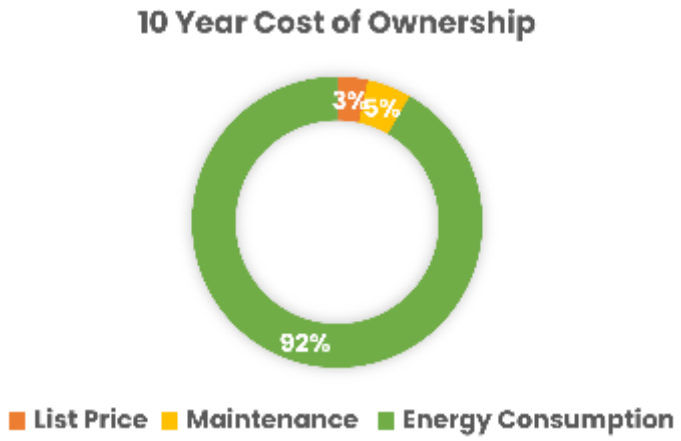
- Group control up to 4 compressor units
- Enable to select Master/Slave compressors by parameter setting
- Fast communication by ModbusTCP
- Ability to connect 2 compressors just by ethernet cable
- Determining the start-stop pressure of the system thru master compressor.
- Determining the equal aging times of compressors with parameter selection
- Able to set start time of second compressor when the pressure is needed initially.
- Connecting to customer DCS system via Modbus TCP
- Easy to use with user-friendly interface



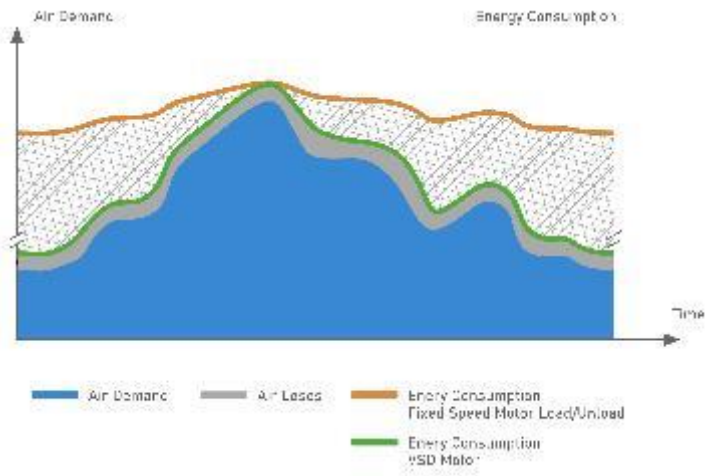
ENERGY EFFICIENCY

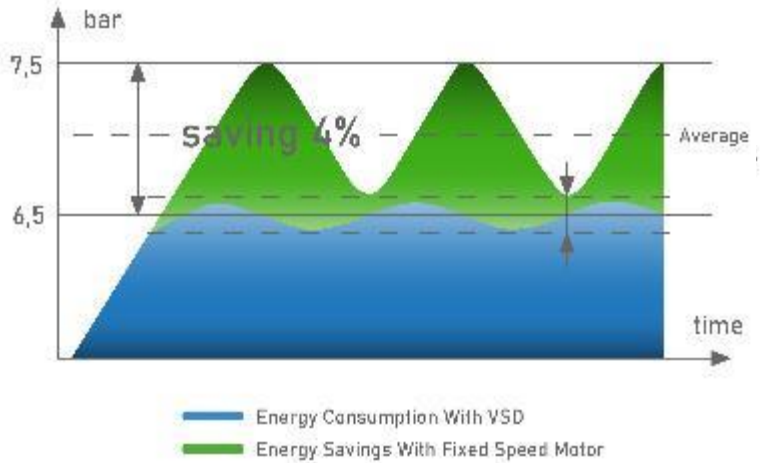






VSD ADVANTAGES



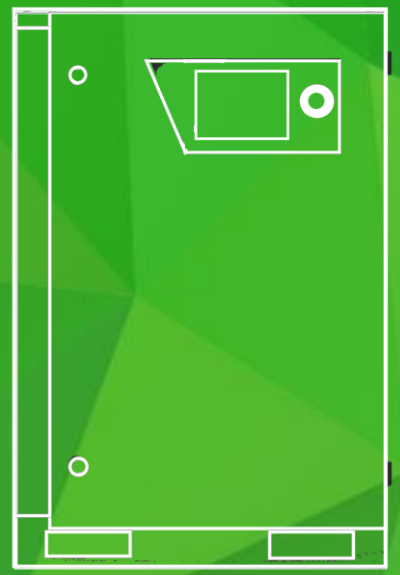


ENERGY SAVING

- ❑ Rather than fix speed compressor, VSD adjusts itself according to air demand.
- ❑ Decreased maximum load demand
- ❑ 55% energy saving compared to fix compressors.

DURABILITY

- ❑ Longer motor life with soft start
- ❑ Reduced mechanical wear



Thank you.

Frecon Plus • 06.2024