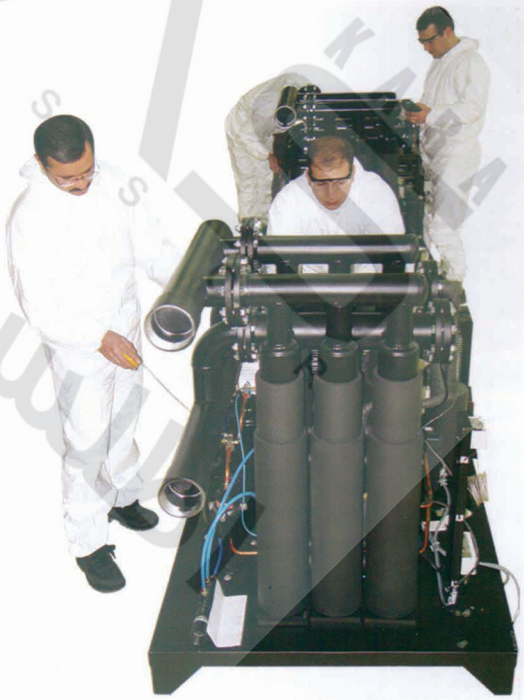
# High Pressure Series

Mikropor has manufactured unique and patented Refrigerated Air Dryers since 2001. Durable, compact and efficient Mikropor dryers are quickly becoming the global standard for performance.
Heat Exchanger design is unique and patented.
The Mono-Block Heat Exchanges are constructed with thick, steel tubes specially treated to resist corrosion.

**HIGH PRESSURE 40 Bar**



## VT33HP-VT2923HP
### HIGH PRESSURE SERIES



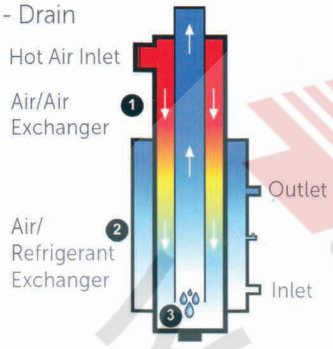
The heavy-duty steel construction makes it the most reliable, long lasting heat exchanger available. Specially designed louvered copper pleats are welded to the steel tubes with a proprietary technology. This design achieves a hyper-efficient 100% contact between the air and refrigerant circuits delivering state-of-art performance and great cooling efficiency.

The state-of-art Mono-Block design features very low differential pressure delivering significant energy savings.
The Mono-Block Heat-Exchanger is compact and allows the dryer to be smaller and reduces the space required for the dryer.

Mikropor offers a variety of Mono-Block dryers equipped with the Mono-Block Heat-Exchanger to meet a full range of capacity and power requirements.

## Standard
## 3 IN 1 Mono block
## Steel Heat Exchanger

- Compressed Air
- Refrigerant
- Drain




## Fin Exchanger

- High surface of exchange from 10 to 20 times larger than the competition
- Direct transfer of the cold from the refrigerant to the compressed air
- No exterior connection between economizer and separator
- Strong and robust built heat exchanger
- Special anti-corrosion treatment
- Perfect thermal insulation
- Small volume of refrigerant

## The Separator Efficiency

- Double centrifugation due to the bottom fin
- Reserved direction for the compressed air
- Gravity effect to the condensed water
- Special anti-return system
- Separator integrated to the system

**5 Year**
**Heat Exchanger**
**Guarantee**

## PISTON COMPRESSOR

## Frigorific Circuit

- Two valve regulation system (thermal and by-pass), allowing to fill properly the exchanger and giving then a max. temperature to the exchanger
- High quality security test of potential leakage
- Use of Tecumseh hermetic compressor as standard
- High quality, long lasting components
- Quick start and reaction time

## SCROLL COMPRESSOR

- Better coefficient of power
- Less energy consumption
- Higher resistance to liquid shocks

## Digital controllers

# High Pressure Series

| Model | Capacity (m³/h) | Capacity (scfm) | Condenser Air Flow (m³/h) | Fittings (BSP) | Voltage | Power (kw) | Pressure Drop (Bar) | Dimensions (mm) Width | Length | Height |
|---|---|---|---|---|---|---|---|---|---|---|
| VT 33HP | 33 | 19 | 100 | 3/8" | 230/1/50 | 0.25 | 0.01 | 570 | 440 | 490 |
| VT 38HP | 38 | 22 | 370 | 3/8" | 230/1/50 | 0.25 | 0.02 | 570 | 440 | 490 |
| VT 54HP | 54 | 32 | 340 | 3/8" | 230/1/50 | 0.25 | 0.03 | 570 | 440 | 490 |
| VT 87HP | 87 | 51 | 370 | 3/4" | 230/1/50 | 0.28 | 0.02 | 760 | 490 | 530 |
| VT 135HP | 135 | 79 | 340 | 3/4" | 230/1/50 | 0.35 | 0.05 | 760 | 490 | 530 |
| VT 190HP | 190 | 112 | 410 | 3/4" | 230/1/50 | 0.58 | 0.06 | 760 | 490 | 530 |
| VT 218HP | 218 | 128 | 800 | 3/4" | 230/1/50 | 0.66 | 0.08 | 760 | 490 | 530 |
| VT 256HP | 256 | 151 | 980 | 1" | 230/1/50 | 0.8 | 0.13 | 780 | 575 | 730 |
| VT 355HP | 355 | 209 | 980 | 1" | 230/1/50 | 1.1 | 0.16 | 780 | 575 | 730 |
| VT 412HP | 412 | 242 | 980 | 1" | 230/1/50 | 1.3 | 0.22 | 780 | 575 | 730 |

NOTE: 115V/1/60 Hz. is Optional

| Model | Capacity (m³/h) | Capacity (scfm) | Condenser Air Flow (m³/h) | Fittings (BSP) | Voltage | Power (kw) | Dimensions (mm) Width | Length | Height |
|---|---|---|---|---|---|---|---|---|---|
| VT 461HP | 461 | 271 | 980 | 1 1/2" | 230/1/50 | 1.3 | 620 | 730 | 1040 |
| VT 577HP | 577 | 339 | 980 | 1 1/2" | 230/1/50 | 1.3 | 810 | 760 | 1300 |
| VT 705HP | 705 | 415 | 980 | 1 1/2" | 230/1/50 | 1.4 | 810 | 760 | 1300 |
| VT 904HP | 904 | 532 | 2250 | 1 1/2" | 230/1/50 | 1.9 | 810 | 760 | 1300 |

NOTE: 115V/1/60 Hz. or 400-440V/3/50 - 60 Hz. is Optional

| Model | Capacity (m³/h) | Capacity (scfm) | Condenser Air Flow (m³/h) | Fittings (BSP) | Voltage | Power (kw) | Dimensions (mm) Width | Length | Height |
|---|---|---|---|---|---|---|---|---|---|
| VT 1149HP | 1149 | 676 | 2250 | 2 1/2" | 400-440/3/50-60 | 2.4 | 870 | 770 | 1500 |
| VT 1305HP | 1305 | 768 | 2250 | 2 1/2" | 400-440/3/50-60 | 2.6 | 870 | 770 | 1500 |
| VT 1648HP | 1648 | 969 | 2250 | 2 1/2" | 400-440/3/50-60 | 2.6 | 870 | 770 | 1500 |
| VT 1873HP | 1873 | 1102 | 5000 | 2 1/2" | 400-440/3/50-60 | 3 | 1180 | 1070 | 1600 |
| VT 2309HP | 2309 | 1358 | 4800 | 2 1/2" | 400-440/3/50-60 | 4.3 | 1180 | 1070 | 1600 |
| VT 2444HP | 2444 | 1438 | 7000 | 2 1/2" | 400-440/3/50-60 | 5 | 1180 | 1070 | 1600 |
| VT 2932HP | 2932 | 1725 | 7000 | DN60 | 400-440/3/50-60 | 5.6 | 1180 | 1070 | 1600 |

REFRIGERANT: R134a Flow given at atmospheric pressure at 20°C ( ISO 1217 ) in accordance with normes ISO 7183 - 8573-1 and Pneurop 6611 - Class 4-7 bar -35°C IN -25°C ambient

## Correction Factor

| (Bar) | 20 | 25 | 30 | 35 | 40 | 45 | 50 | - | - | - | - |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Factor Pressure F1 | 1.19 | 1.10 | 1.07 | 1.04 | 1.02 | 1 | 0.98 | - | - | - | - |
| Ambient Temp. (°C) | - | - | - | - | 20 | 25 | 30 | 35 | 40 | 42 | - |
| Factor R134a F2 | - | - | - | - | 0.93 | 1 | 1.07 | 1.15 | 1.22 | 1.27 | - |
| Inlet Temp. (°C) | - | - | - | - | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| Factor Inlet F3 | - | - | - | - | 0.83 | 1 | 1.18 | 1.38 | 1.59 | 1.83 | 2.04 |

Maximum Pressure (50 Bar)
Nominal Working Pressure (40 Bar)

Automatic Drain
Pneumatic operated membrane valve

| | |
|---|---|
| CD | : Condansate drain |
| SI | : Ambient temperature until -20°C |
| HDD | : Ambient temperature until +60°C |
| REP | : Alarm report |
| E | : Water condenser |
| DC | : Digital controller |
| MCP | : Micro processor |
| MDTOT | : Zero loss drain |

OPTIONS: Just put following suffix requested after the reference number of the dryer.
Example: VT1648HP**DC**