







Energy Efficient Screw Air Compressor

- Advanced screw airend
- Intelligent microprocessor based electronic controller
- Three stage air oil separator

Mute

- Low specific power consumption
- Less noise level and ease of maintenance
- Very Compact

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Mute & Jumbo Series

Compressed air is a type of clean and environmental friendly energy. Frank's goal is to make use of this energy easier by proposing solution and systems that are the result of a careful analysis of the needs of all potential users, distributors and their satisfaction.



Micro Computer Control System

Intelligent micro computer control system. The LCD can show present temperature, working pressure, accumulative working time, malfunction, etc. Maintenance schedule through ON Line.



Advanced Screw Airend

Advanced rotary screw technology, equipped with high efficiency rotary screw airend powered by efficient electric motor.



Loading Head

This newly designed and improved intake controll system ensures economic control and protection of the screw. The control system has been redesigned to be simpler and more reliable. The air intake filter eliminates dust and other harmful particles that may cause premature wearing of the machine. Upon start-up of the machine, the control system will close the intake valve reducing start-up load. Shut down procedure will release pressure from the oil reservoir and prevent lubricant leakage. The new design has resulted in reduced air intake noise.





Spin on Three Stage Separator Air/Oil

Service & maintenance are made extremely simple through spin on three stage separator (upto 20 HP) and convenient location of oil receiver, oil filters and air oil separator - user friendly from servicing point of view. The separator will remove oil particles from the air down to a ratio of 1-2 parts per million. Efficient separation means post-treatment of all will be economical. Cleaner air means low maintenance costs on pneumatic equipment.

Magnetic Motor



By using permanent magnet synchronizing motor the energy saving on the VSD can be increased by 15 to 20%. Permanent magnetic motor and compressors are designed with the one shaft and by 100% transmission efficiency. Compared to normal motor the permanent magnet synchronizing motor performs with the excellent energy efficiency.



Oil Filter

The screw spin on oil filter makes servicing convenient. The filter eliminates oil impurities and other particles produced by wear and tear. High quality oil filtration extends the service life of rotors, bearings and other moving parts.



Quite Operation High efficiency cooling fan provides sound level low.

Energy Efficient Combination Cooler

Utilising production methods and design the cooling system was designed to provide sustainable and efficient operation in high temperature high humidity environments. The new cross-exchange cooler not only increases exchange capacity by 10% but also is designed to resist chemical damage.





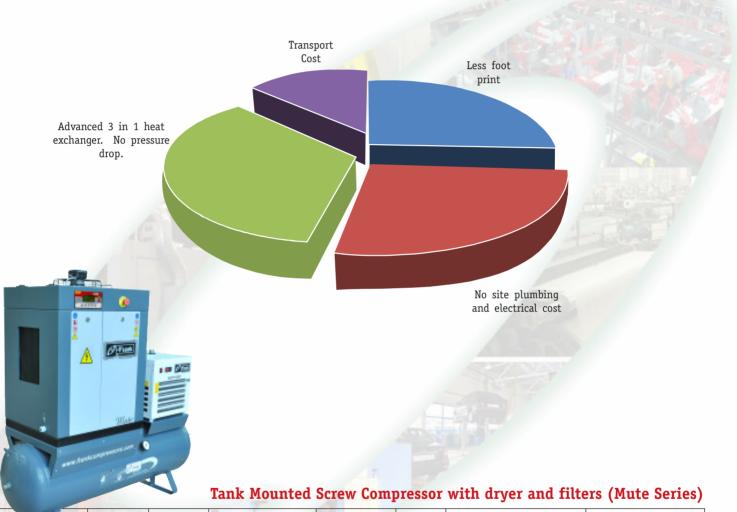
Motor

World-class IE2 electric motor features Grade F insulation and IP54 protection. Bearings are SKF.

Excellence in Integrated air dryer

- Foot print required is less as compressor and dryer mounted on the air tank.
- Huge money and time saved by avoiding site plumbing and electrical.
- Compressor and dryer are independent hence dryer maintenance is possible without stopping the compressor. Therefore no production losses.
- Single transport cost.
- Plug and use on arrival of the compressor.

Cost saving contributors



| | Max Working | Tank Motor Flow Nois | | Noise | | | | |
|--------------------|-----------------------------------|----------------------|----------|----------|----------------------|----------|--|--|
| Model | Pressure in kg/cm ² | Capacity | HP | Kw | cfm | dB (A) | Weight (kgs) | LWH(mm) |
| Mute-3 | 10 | 220 | 3 | 2 | 9.5 | 61 | BM:110 TM:170 CDF:210 | |
| Mute-5 | 8-10 | 220 | 5 | 3.7 | 21-18 | 61 | BM:115 TM:175 CDF:215 | BM:0675x0550x0815 TM:1750x0550x1430 |
| Mute-7.5 | 8-10 | 220 | 7.5 | 5.5 | 25-22 | 64 | BM:130 TM:190 CDF:230 | CDF:1750x0550x1430 |
| Mute-10 | 8-10-13 | 270 | 10 | 7.5 | 44-35-28 | 64 | BM:160 TM:250 CDF:300 | BM:0825x0550x0740 TM:1900x0550x1470 CDF:1900x0550x1470 |
| Mute-15 Mute-20 | 8-10-13 8-10-13 | 500 500 | 15 20 | 11 15 | 63-55-45 83-74-64 | 65 72 | BM:310 TM:470 CDF:520 BM:330 TM:490 CDF:540 | BM:0950x0770x1120 TM:2100x0770x1760 CDF:2100x0770x1760 |
| | 0 10 15 | 500 | 20 | 15 | | , , , | | GD1.2100x0770x1700 |

BM - Base Mounted; TM - Tank Mounted; CDF - Tank Mounted with Dryer & Filters



Base Mounted Screw Compressor (Mute HD Series)

| | Max Working Pressure in kg/cm² | Мо | tor | Flow | Noise | 1.51 | | |
|-------------|---|-----|------|-------------|--------|--------------|----------------|--|
| Model | | HP | Kw | cfm | dB (A) | Weight (kgs) | LWH (mm) | |
| Mute HD-15 | 7-10-13 | 15 | 11 | 71-60-48 | 72 | 410 | 950x770x1120 | |
| Mute HD-20 | 7-10-13 | 20 | 15 | 96-89-78 | 72 | 410 | | |
| Mute HD-25 | 7-10-13 | 25 | 18.5 | 120-105-85 | 72 | 480 | 1000x850x1240 | |
| Mute HD-30 | 7-10-13 | 30 | 22 | 138-116-94 | 72 | 530 | | |
| Mute HD-40 | 7-10-13 | 40 | 30 | 205-173-140 | 72 | 780 | | |
| Mute HD-50 | 7-10-13 | 50 | 37.5 | 255-209-180 | 72 | 790 | 1270x1070x1500 | |
| Mute HD-60 | 7-10-13 | 60 | 45 | 305-255-210 | 73 | 950 | | |
| Mute HD-75 | 7-10-13 | 75 | 55 | 368-303-271 | 73 | 1540 | 1700+1/00+1650 | |
| Mute HD-100 | 7-10-13 | 100 | 75 | 464-390-350 | 73 | 1540 | 1700x1400x1650 | |
| Mute HD-125 | 7-10-13 | 125 | 90 | 572-486-440 | 74 | 2480 | 2100x1600x2000 | |



VSD Screw Air Compressor

The FRANK (Variable frequency) Variable Speed Drive VSD Series is designed as a total concept, rather than by adding a frequency converter to an existing machine, it is tightly integrated and mechanically tested and has low vibration at high performance.

Main benefits are a highly stable air net pressure, low starting currents, a total absence of peaks and a high power factor.

By varying the speed of the drive motor, the FRANK (variable frequency) Variable Speed Drive VSD Series compressor output closely follows the air demand by covering a wide range, without load-unload switching. The result is a constant pressure, without fluctuations, which greatly benefits to your overall process stability.

Furthermore, a great energy saving between 20% and 35% is achieved during partial load. The reduction in energy cost over a typical life cycle might even surpass the initial investment cost of the screw air compressor. In other words, the savings realized by VSD can pay for the entire machine.

Energy Saving 1:1 Direct Drive transmission - Jumbo Series

Jumbo & Jumbo HD series are built for continuous duty in very hard conditions of use. The design of the machine have been focused not only on power consumption, but also on maintenance and operational costs and installation ease.

The drive between the airend and electric motor is carried out by means of gearless direct coupling connection. One to one direct drive by maintenance free coupling reduces number of components needed in gear drive, increasing reliability and service life through elimination of wear & transmission loses. Low speed 2950 RPM larger airends are more efficient than high speed airends. A dedicated airend for any machine at any pressure in order to grant maximum performance in the complete range.



Jumbo HD 50 - 125

Jumbo 15 to HD 40

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Base Mounted Screw Compressor (Jumbo Series)

| | Max Working - | Мо | otor | Flow | Noise | | | |
|---------------|-----------------------------------|-----|------|------|--------|--------------|----------------|--|
| Model | Pressure in kg/cm ² | HP | | | dB (A) | Weight (kgs) | L W H (mm) | |
| Jumbo Series | | - | F | 4 | | | | |
| Jumbo-15 | 8 | 15 | 11 | 63 | 72 | 410 | 1250x700x1120 | |
| Jumbo-30 | 8 | 30 | 22 | 134 | 72 | 530 | 1350x800x1350 | |
| Jumbo HD Seri | Jumbo HD Series | | | | | | | |
| Jumbo HD-25 | 8 | 25 | 18.5 | 130 | 72 | 480 | 1350x800x1350 | |
| Jumbo HD-40 | 8 | 40 | 30 | 205 | 72 | 830 | 1270x1070x1500 | |
| Jumbo HD-50 | 8 | 50 | 37 | 225 | 72 | 830 | 1270x1070x1500 | |
| Jumbo HD-60 | 8 | 60 | 45 | 268 | 72 | 1450 | 1900x1200x1500 | |
| Jumbo HD-75 | 8 | 75 | 55 | 339 | 73 | 1540 | 1900x1200x1500 | |
| Jumbo HD-100 | 8 | 100 | 75 | 450 | 73 | 1640 | 1700x1400x1650 | |
| Jumbo HD-125 | 8 | 125 | 90 | 565 | 74 | 2580 | 2100x1600x2000 | |

Principle of Operation - Nippydry

Warm compressed air enters the Air / Air Heat Exchanger where it is precooled by outgoing cold dry air. The precooled air enters the Air to Freon Heat Exchanger where it is cooled down to $+3^{\circ}$ C. At this temperature, water condenses into liquid droplets, which are removed from the air stream by a very efficient Demister and automatically discharged by a Automatic Drain Valve. The Cold dry compressed air passes back through the secondary side of the Air to Air Heat Exchanger where it is reheated by the incoming warm air.



Designed for high ambient temperatures
 Time delay for compressor safety

Specification of Dryer

| | Flow in | Power Consumption in KW | | End | Dimensions in mm | | | Weight | Max. Working |
|--------------|---------|-------------------------|--------|------------|------------------|------|------|--------|--------------------|
| Model | scfm | R 134a | R 407c | Connection | Н | W | D | in Kg | Pressure Kg/cm² |
| Nippydry 20 | 20 | 0.32 | _ | 1″ BSP | 420 | 400 | 430 | 38 | 16 |
| Nippydry 35 | 35 | 0.32 | _ | 1″ BSP | 420 | 400 | 430 | 38 | 16 |
| Nippydry 45 | 45 | 0.34 | _ | 1″ BSP | 420 | 400 | 430 | 38 | 16 |
| Nippydry 50 | 50 | 0.36 | _ | 1″ BSP | 525 | 450 | 475 | 48 | 16 |
| Nippydry 60 | 60 | 0.36 | _ | 1″ BSP | 525 | 450 | 475 | 48 | 16 |
| Nippydry 75 | 75 | 0.36 | _ | 1″ BSP | 525 | 450 | 475 | 48 | 16 |
| Nippydry 80 | 80 | 0.85 | _ | 1″ BSP | 675 | 485 | 525 | 65 | 16 |
| Nippydry 100 | 100 | 0.85 | _ | 1″ BSP | 675 | 485 | 525 | 65 | 16 |
| Nippydry 130 | 130 | 0.85 | _ | 1″ BSP | 675 | 485 | 525 | 65 | 16 |
| Nippydry 150 | 150 | 1.02 | _ | 11⁄2″ BSP | 860 | 670 | 700 | 123 | 16 |
| Nippydry 200 | 200 | 2.08 | 2.34 | 11⁄2″ BSP | 860 | 670 | 700 | 129 | 16 |
| Nippydry 250 | 250 | 2.08 | 2.34 | 11⁄2″ BSP | 860 | 670 | 700 | 129 | 16 |
| Nippydry 300 | 300 | 2.40 | 2.40 | 2″ NB | 1275 | 850 | 800 | 240 | 14 |
| Nippydry 400 | 400 | 2.50 | 2.30 | 2″ NB | 1275 | 850 | 800 | 260 | 14 |
| Nippydry 500 | 500 | 2.50 | 2.30 | 2″ NB | 1275 | 850 | 800 | 290 | 14 |
| Nippydry 650 | 650 | 3.12 | 3.32 | 2″ NB | 1700 | 1100 | 1425 | 350 | 14 |

For any other capacity contact factory. Specifications are subject to change without notification.



Compressed Air Filters

| Model | Element Grade | Flow cfm | Pressure Kg/cm ² | Pipe Size BSP | Height (mm) | Width (mm) |
|---------|------------------|-------------|--------------------------------|------------------|----------------|---------------|
| F_F65 | P/0/M | 65 | 13 | 3/4 " | 260 | 100 |
| F_F150 | P/0/M | 150 | 13 | 1" | 350 | 150 |
| F_F250 | P/0/M | 250 | 13 | 11/2" | 750 | 220 |
| T 600_ | P / X / Y | 350 | 16 | 11/2″ | 474 | 114 |
| T 851_ | P / X / Y | 500 | 16 | 2″ | 666 | 148 |
| T 1210_ | P / X / Y | 710 | 16 | 2″ | 736 | 148 |

| Specification | | Element Grade | |
|--------------------|--------------|---------------|---------------|
| Description | Р | 0/X | M/Y |
| Filter Element | Borosilicate | Borosilicate | Borosilicate |
| Particle Removal | 5 (Micron) | 1 (Micron) | 0.01 (Micron) |
| Max. Oil carryover | 5 (mg/m³) | 0.5 (mg/m³) | 0.01 (mg/m³) |
| Max. Working Temp. | 80°C | 80°C | 80°C |

Ordering Code : Example : Model FPF 65 Element Grade - P; T600Y Element Grade - Y





Auto drain valve

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