

WE ARE ALWAYS HERE READY TO SERVE YOU



**FUSHENG**  
**AIR COMPRESSOR**



### FUSHENG AIR RECEIVERS

- Receiver volume is manufactured by customer's demand.
- Type: Horizontal, Vertical
- Working with high pressure. 100% pressure test.
- To manufacture according to the standard of: ASME, TCVN, CNS

### SPECIFICATION OF AIR RECEIVERS

| Parameter        | Volume             | Volume              |                    |                   |                 |                 |                 |                 |                 |                  |  |
|------------------|--------------------|---------------------|--------------------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|--|
|                  |                    | 0.304m <sup>3</sup> | 0.60m <sup>3</sup> | 1.3m <sup>3</sup> | 2m <sup>3</sup> | 3m <sup>3</sup> | 5m <sup>3</sup> | 6m <sup>3</sup> | 8m <sup>3</sup> | 10m <sup>3</sup> |  |
| Diameter         | mm                 | Ø486/Ø490           | Ø 790              | Ø 975             | Ø 1160          | Ø 1160          | Ø 1456          | Ø1600           | Ø 1600          | Ø 1600           |  |
| Height           | mm                 | 1770                | 1560               | 1878              | 2160            | 3160            | 3340            | 3345            | 4370            | 3850             |  |
| Max pressure     | kg/cm <sup>2</sup> | 10 13.5             | 10 16              | 10 14             | 10 10           | 10 10           | 10 10           | 10 10           | 10 10           | 10 10            |  |
| Working pressure | kg/cm <sup>2</sup> | 7 12                | 7 12               | 7 12              | 7 7             | 7 7             | 7 7             | 7 7             | 7 7             | 7 7              |  |
| Max temperature  | °C                 | 100                 | 100                | 100               | 100             | 100             | 100             | 100             | 100             | 100              |  |
| Outlet dimension | inch               | 2"                  | 2"                 | 2"                | 3"              | 3"              | 4"              | 4"              | 4"              | 4"               |  |
| Inlet dimension  | inch               | 2"                  | 2"                 | 2"                | 3"              | 3"              | 4"              | 4"              | 4"              | 4"               |  |
| Weight           | kg                 | 120 112             | 270 337            | 450 550           | 740             | 970             | 2126            | 2235            | 2750            | 3823             |  |

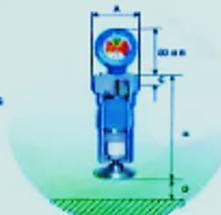
### FILTER TECHNICAL INFORMATION

| Filter Grade | Particle removal Down To | Oil Removal Down To (%) | Nominal Initial Pressure Drop |
|--------------|--------------------------|-------------------------|-------------------------------|
| P            | 3 μ                      | ---                     | 0.03 bar g                    |
| U            | 1 μ                      | 0.5 mg/m <sup>3</sup>   | 0.05 bar g                    |
| H            | 0.01 μ                   | 0.01 mg/m <sup>3</sup>  | 0.03 bar g                    |
| C            | ---                      | 0.003 mg/m <sup>3</sup> | 0.10 bar g                    |

### GENERAL INFORMATION

Maximum recommended operating temperature of 60 degrees Celsius  
 Maximum recommended operating temperature 1 degrees Celsius  
 Maximum recommended operating pressure of 10 bar  
 Maximum recommended pressure differential for element change is 0.6 bar (except Grade C)

Material for G-Type filter is aluminum  
 Filters come complete with autodrain. Gauges are optional



| Filter Model | Pipe Conn. | Capacity AT (kg / cm <sup>2</sup> ) Gauge Pressure |                       |      | Max Oper Pressure (kg / cm <sup>2</sup> ) | Approx. Weight (kg) | Dimensions (mm) |      |    |     | Replacement Element Model |
|--------------|------------|--|-----------------------|------|---|---------------------|-----------------|------|----|-----|---------------------------|
|              |            | (1/s)  | (m <sup>3</sup> /min) | bars |   |                     | A               | B    | C  | D   |                           |
| T6           | G1/2       | 10   | 0.60                  | 21   | 16  | 1.3                 | 87              | 175  | 21 | 60  | AET5                      |
| T10          | G1/2       | 20   | 1.20                  | 42   | 16  | 1.4                 | 87              | 209  | 21 | 90  | AET10                     |
| T15          | G3/4       | 28   | 1.70                  | 60   | 16  | 1.7                 | 87              | 279  | 21 | 90  | AET15                     |
| T20          | G1         | 47   | 2.80                  | 99   | 16  | 4.2                 | 130             | 315  | 43 | 135 | AET20                     |
| T40          | G1 1/2     | 90   | 5.40                  | 191  | 16  | 4.8                 | 130             | 415  | 43 | 235 | AET40                     |
| T60          | G1 1/2     | 133  | 8.00                  | 283  | 16  | 5.6                 | 130             | 515  | 43 | 335 | AET30                     |
| T75          | G1 1/2     | 200  | 12.00                 | 424  | 16  | 8.4                 | 130             | 715  | 43 | 525 | AET35                     |
| T125         | G2         | 283  | 17.00                 | 600  | 16  | 11.4                | 184             | 823  | 48 | 520 | AET40                     |
| T175         | G2 1/2     | 433  | 26.00                 | 918  | 16  | 13.0                | 184             | 1073 | 48 | 770 | AET45                     |
| T250         | G3         | 600  | 36.00                 | 1272 | 16  | 20.0                | 250             | 1052 | 74 | 610 | AET50                     |
| T300         | G3         | 767  | 46.00                 | 1625 | 16  | 27.5                | 250             | 1202 | 74 | 760 | AET55                     |

### AIR-END ROTOR PROFILE PATENT

USA No.4 890.922

UK No.2.230.563

JAPAN No.2.008216



CNC machining center ( Japan )



Five axis machining center ( Japan )



Japanese housing CNC machining center



German KAPP rotor grinding machine

### SERVICE SYSTEM



The contingents of technicians are always available to satisfy the customers' requirement.



Products are always sufficient and available to supply to customers



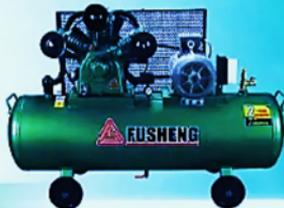
Available spare parts



Good after-sales service

**2-YEAR WARRANTY**  
NEWLY  
**A-SERIES**

Two-Year Warranty for  
VA-80, TA-80, VA-100, TA-100, TA-120



## A-SERIES AIR COMPRESSORS

| Model   | Motor |      | Cylinder  |     | Piston Disp. |              | Actual Air Delivery At |       | Air Receiver |                 |                  | Net Weight (kg) |                                     |    |     |
|---------|-------|------|-----------|-----|--------------|--------------|------------------------|-------|--------------|-----------------|------------------|-----------------|-------------------------------------|----|-----|
|         | Hp    | Kw   | Bore (mm) | No. | Stroke (mm)  | Comp. R.P.M. | L/min                  | CFM   | Liters       | Dimensions (mm) | Capacity (Liter) |                 | Max. Pressure (kg/cm <sup>2</sup> ) |    |     |
| CA-65   | 0.5   | 0.37 | 65        | 1   | 44           | 573          | 93                     | 2.93  | 47           | 1.60            | 7                | Ø 244x670       | 28                                  | 10 | 45  |
| VA-51   | 0.5   | 0.37 | 51        | 2   | 42           | 498          | 95                     | 3.30  | 47.5         | 1.68            | 7                | Ø 300x910       | 60                                  | 10 | 60  |
| VA-65   | 1     | 0.75 | 65        | 2   | 44           | 477          | 129                    | 4.91  | 68           | 3.13            | 7                | Ø 300x1050      | 70                                  | 10 | 85  |
| TA-80   | 2     | 1.5  | 80        | 3   | 48           | 633          | 362                    | 10.67 | 170          | 6.03            | 7                | Ø 300x1050      | 70                                  | 10 | 95  |
| VA-80   | 3     | 2.2  | 80        | 2   | 60           | 798          | 476                    | 16.77 | 360          | 12.71           | 7                | Ø 350x1160      | 105                                 | 10 | 145 |
| TA-80   | 5     | 3.7  | 80        | 3   | 60           | 875          | 791                    | 27.93 | 530          | 18.71           | 7                | Ø 390x1410      | 155                                 | 10 | 180 |
| VA-100  | 7.5   | 5.5  | 100       | 2   | 70           | 950          | 1045                   | 36.91 | 670          | 23.66           | 7                | Ø 485x1440      | 245                                 | 10 | 205 |
| TA-100  | 10    | 7.5  | 100       | 3   | 70           | 888          | 1464                   | 51.70 | 1000         | 35.32           | 7                | Ø 485x1770      | 304                                 | 10 | 350 |
| TA-120  | 15    | 11   | 120       | 3   | 80           | 805          | 2183                   | 77.10 | 1500         | 52.96           | 7                | Ø 485x1770      | 304                                 | 10 | 420 |
| VA-150L | 20    | 15   | 150       | 2   | 90           | 733          | 2457                   | 87.04 | 1855         | 65.87           | 7                | Ø 940x1750      | 500                                 | 10 | 720 |

The interior construction diagram of air-cooled reciprocated air compressor.



### L.Air Cooler

The copper tube is fitted with high-efficiency cooling fins that effectively reduce gas working temperature and increase air compression efficiency.

### 2.Valve Assembly

All units use large disc-type valves made from Swedish steel for high efficiency and long wear.

### 3.Cool Cylinder Heads

Deep directional fins provide quick cooling; compact streamlined air passages in the cylinder head permit fast, efficient flow of cooler intake air and rapid removal of discharge air.

### 4.Long Life Cylinders

Precision-machined cylinder walls are honed glass-smooth to reduce friction and wear to a minimum. Extra-deep fins provide increased cooling and greater strength.

### 5.Balanced Crankshaft

Made from a high-tensile forged alloy steel and precisely ground and dynamically balanced to insure long life and smooth operation. Journals are ground precisely to extend bearing life.

### 6.Ring

Long life industrial design compression and oil control rings are used to assure maximum performance.

### 7.Connecting Rods

All units contain precision brood, industrial quality designed connecting rods... a splash lubrication is used.

### 8.Main Bearings

To insure long life and easy maintenance, high quality ball bearings or tapered roller bearings are used in the FUSHENG compressors.

### 9.Suction Strainer

Permanent type strainer effectively filters air and muffles noise of air intake. Easily removed for periodic cleaning.

### 10.Continuous Running Unloader

For continuous-running air compressors, unloader lets us idle load-free until air supply drops to cut-in pressure; automatically lets unit idle again after high pressure limit is reached. (Tubing and fittings not included on bare pumps)

### 11.Balanced Fan-Type Flywheel

Airfoil type spokes provide a continuous powerful blast of cooling air for all portions of the compressor; balancing assures smooth vibrationless operation.

### 12.Crankcase

The extra large crankcase with big oil reservoir assures cooler running and better lubrication.

## HIGH PRECISION MACHINING EQUIPMENTS

Highly specialized, most advanced machining and control equipments enable rotor machining/grinding accuracy to 0.005mm, with roughness allowance (Ra) of 0.1-0.2 μm.

## OUTSTANDING DESIGN

Large in size, with low running rpm, FUSHENG screw air-ends are more efficient and deliver more compressed air for the same driving power. Bearing design life can be assured by minimum vibrations and bending stress of the air-end.

## OUTSTANDING SERVICE

FUSHENG will be responsible for warranty and all genuine spare parts of FUSHENG supplied. Customers' pleasure and the constantly increasing reliability of products are the motto of FUSHENG. The more important thing is that we have always improved and been perfecting the production system to increase the value of products in the market. FUSHENG air compressors strives for your absolute confidence.



## WATER COOLED SCREW AIR COMPRESSOR SPECIFICATIONS

| Model                      |                     | SA 37W | SA 55W | SA 75W | SA 90W | SA 110W             | SA 132W | SA 150W | SA 185W | SA 220W |    |                    |    |        |    |        |    |        |  |
|----------------------------|---------------------|--------|--------|--------|--------|---------------------|---------|---------|---------|---------|----|--------------------|----|--------|----|--------|----|--------|--|
| Compressor stage           | Working pressure    |        |        |        |        | 7                   |         |         |         |         |    |                    |    |        |    |        |    |        |  |
|                            | Delivery            |        |        |        |        | m <sup>3</sup> /min |         |         |         |         |    |                    |    |        |    |        |    |        |  |
|                            | Discharge Air Temp. | 6.5    |        |        |        | 10.5                |         |         |         | 14.0    |    |                    |    |        |    |        |    |        |  |
|                            | Lubricant           | 26     |        |        |        | 70                  |         |         |         | 100     |    |                    |    |        |    |        |    |        |  |
|                            | Safety valve        |        |        |        |        | 8                   |         |         |         | 110     |    |                    |    |        |    |        |    |        |  |
| Main driver                | Power               | 50 HP  |        | 75 HP  |        | 100 HP              |         | 125 HP  |         | 110 HP  |    | 132 KW             |    | 150 KW |    | 185 KW |    | 220 KW |  |
|                            | Ventilation         |        |        |        |        |                     |         |         |         |         |    | Forced ventilation |    |        |    |        |    |        |  |
|                            | Starting method     |        |        |        |        |                     |         |         |         |         |    | Y-Δ Starter        |    |        |    |        |    |        |  |
|                            | Frequency           |        |        |        |        |                     |         |         |         |         |    | 380                |    |        |    |        |    |        |  |
| Dimension                  | Length              | 1003   |        | 2200   |        | 3000                |         | 2916    |         | 2008    |    | 2106               |    | 2106   |    | 2106   |    | 5000   |  |
|                            | Width               | 1410   |        | 1233   |        | 1640                |         | 1700    |         | 4500    |    | 4500               |    | 4500   |    | 4500   |    | 5000   |  |
|                            | Height              | 1513   |        | 1688   |        | 1800                |         | 1700    |         | 1700    |    | 1700               |    | 1700   |    | 1700   |    | 1700   |  |
|                            | Net Weight          | 1020   |        | 1880   |        | 2020                |         | 2180    |         | 3500    |    | 4500               |    | 4500   |    | 4500   |    | 5000   |  |
| Air outlet pipe diameter   | 1 1/2"              |        | 2"     |        | 2"     |                     | 2"      |         | 4"      |         | 4" |                    | 4" |        | 4" |        | 4" |        |  |
| Water outlet pipe diameter | 1"                  |        | 1 1/2" |        | 1 1/2" |                     | 1 1/2"  |         | 2"      |         | 2" |                    | 2" |        | 2" |        | 2" |        |  |



#### AIR COOLED SCREW AIR COMPRESSOR SPECIFICATIONS

| Specification                  | Model  | SA 15A                     | SA 22A         | SA 37A         | SA 55A   | SA 75A           | SA 93A           | SA119A           |
|--------------------------------|--|----------------------------|----------------|----------------|--|------------------|------------------|------------------|
| Air Deliver / Working Pressure | (m <sup>3</sup> /min)<br>(kg/cm <sup>2</sup> ) | 2.5/7<br>2.3/8             | 3.7/7<br>3.5/8 | 5.7/7<br>5.2/8 | 14.5/7<br>14.2/8   | 14.0/7<br>12.9/8 | 16.5/7<br>15.9/8 | 21.0/7<br>20.7/8 |
| Discharge Air Temp.            | °C   | Ambient temperature + 15°C |                |                | ≤ 40°C (Water Cooler)<br>≤ Ambient temperature + 10°C (Air Cooler) |                  |                  |                  |
| Lubricant                      | L  | 22                         | 26             | 70             | 70   | 110              |                  |                  |
| Power motor                    | KW   | 15                         | 22             | 37             | 55   | 75               | 90               | 110              |
| Speed motor                    | rpm  | 1465                       | 1470           | 1475           | 1480   |                  |                  |                  |
| Starting Method                |  | Start Y - Δ                |                |                |  |                  |                  |                  |
| Voltage                        | Volt   | 380                        |                |                |  |                  |                  |                  |
| Frequency                      | Hz   | 50                         |                |                |  |                  |                  |                  |
| Length                         | mm   | 650                        | 1010           | 2200           | 3000   |                  |                  |                  |
| Width                          | mm   | 1220                       | 1410           | 1210           | 1640   |                  |                  |                  |
| Height                         | mm   | 1300                       | 1510           | 1668           | 1930   |                  |                  |                  |
| Weight                         | kg   | 660                        | 820            | 1500           | 1980   | 2020             | 2190             | 4300             |

#### TWO-STAGE AIR-COOLED AIR COMPRESSORS

| Model    | Motor |      | Cylinder  |     |             | Piston Disp. |       | Actual Air Delivery At |                        | Working Pressure       |                 | Air Receiver     |                                     | Net Weight (kg) |     |
|----------|-------|------|-----------|-----|-------------|--------------|-------|------------------------|------------------------|------------------------|-----------------|------------------|-------------------------------------|-----------------|-----|
|          | HP    | KW   | Bore (mm) | No. | Stroke (mm) | Comp R/P/M   | L/min | CFM                    | 12kg/cm <sup>2</sup> G | 12kg/cm <sup>2</sup> G | Dimensions (mm) | Capacity (Liter) | Max. Pressure (kg/cm <sup>2</sup> ) |                 |     |
| HVA-55   | 1     | 0.75 | 65        | 2   | 44          | 742          | 108   | 3.61                   | 79.9                   | 2.82                   | 12              | ∅ 300x100        | 70                                  | 13.6            | 110 |
| HTA-66   | 2     | 1.5  | 42        | 1   | 48          | 742          | 236   | 8.33                   | 180                    | 6.36                   | 12              | ∅ 300x100        | 70                                  | 13.6            | 110 |
| HTA-66H  | 3     | 2.2  | 65        | 1   | 48          | 916          | 292   | 10.31                  | 220                    | 7.77                   | 12              | ∅ 350x100        | 105                                 | 13.5            | 135 |
| HTA-80   | 5     | 3.7  | 65        | 2   | 60          | 964          | 575   | 20.3                   | 450                    | 15.89                  | 12              | ∅ 380x140        | 155                                 | 13.5            | 200 |
| HTA-100  | 7.5   | 5.5  | 100       | 2   | 70          | 730          | 812   | 28.68                  | 600                    | 21.19                  | 12              | ∅ 490x140        | 245                                 | 13.5            | 330 |
| HTA-100H | 10    | 7.5  | 100       | 2   | 70          | 888          | 976   | 34.47                  | 800                    | 28.25                  | 12              | ∅ 490x170        | 304                                 | 13.5            | 360 |
| HTA120   | 15    | 11   | 100       | 2   | 80          | 805          | 1455  | 51.59                  | 1220                   | 43.00                  | 12              | ∅ 490x170        | 304                                 | 13.5            | 450 |



#### ■ Semi-automatic type:

This type uses a pilot valve to control the no-load or loaded operation status of compressor. When the system pressure reaches the high-limit set point (7.0 kg/cm<sup>2</sup>, for example), pilot valve will open to actuable suction unloader to allow compressor re-load running. When system pressure drops down to the low-limit set point (5.0 kg/cm<sup>2</sup>, for example), pilot valve will close and compressor returns to loaded run status. The semi-automatic operating method is suitable for frequent-run use of compressed air.

#### ■ Full-automatic type:

This type uses a pressure switch to control when the compressor runs and stops. When the system pressure reaches the upper-limit set point (7.0 kg/cm<sup>2</sup>, for example), pressure switch activates to cut off motor power and ceases compressor operation. When system pressure drops down to the pressure low-limit set point (5.0 kg/cm<sup>2</sup>, for example), pressure switch re-connects motor power to re-start compressor operation. The automatic operating method is suitable for intermittent run duty. And in order to protect motor and EMR switch, the restart frequency should not exceed six times per hour.

#### TWO-STAGE AIR-COOLED AIR COMPRESSORS WITH VERTICAL TANK

| Model       | Motor |     | Cylinder  |     |             | Piston Disp. |       | Actual Air Delivery At |                        | Working Pressure       |                 | Air Receiver     |                                     | Net Weight (kg) |     |
|-------------|-------|-----|-----------|-----|-------------|--------------|-------|------------------------|------------------------|------------------------|-----------------|------------------|-------------------------------------|-----------------|-----|
|             | HP    | KW  | Bore (mm) | No. | Stroke (mm) | Comp R/P/M   | L/min | CFM                    | 12kg/cm <sup>2</sup> G | 12kg/cm <sup>2</sup> G | Dimensions (mm) | Capacity (Liter) | Max. Pressure (kg/cm <sup>2</sup> ) |                 |     |
| HTA-65H-VT  | 3     | 2.2 | 45        | 2   | 48          | 916          | 292   | 10.31                  | 220                    | 7.77                   | 12              | ∅ 566x180        | 245                                 | 13.5            | 235 |
| HTA-80-VT   | 5     | 3.7 | 65        | 2   | 60          | 964          | 575   | 20.3                   | 450                    | 15.89                  | 12              | ∅ 566x180        | 245                                 | 13.5            | 300 |
| HTA-100-VT  | 7.5   | 5.5 | 60        | 1   | 70          | 730          | 812   | 28.68                  | 600                    | 21.19                  | 12              | ∅ 643x910        | 245                                 | 13.5            | 390 |
| HTA-100H-VT | 10    | 7.5 | 100       | 2   | 70          | 888          | 976   | 34.47                  | 800                    | 28.25                  | 12              | ∅ 643x910        | 245                                 | 13.5            | 400 |

## FUSHENG GROUP FACTORIES WORLDWIDE



Founded in 1953, FUSHENG always strives to maintain a consistent managerial philosophy of pursuing excellence and enriching life. FUSHENG has made every effort to ensure that customers of the highest quality. After years hard work, FUSHENG has been providing compressors in more than sixty countries all over the world.

Keeping growth is the basic condition of survival in the competitive market. For years, FUSHENG has been keeping on improving manufacturing facility and technology. A plant automation project was initiated in 1978, which incorporated Managerial Information Systems (MIS), Engineering Information Systems (EIS) and Flexible Manufacturing Systems (FMS). With this integrated system, the management level is able to access the valuable information which benefits to the improvement of product design.

All of the parts and coatings of the compressor are precisely milled under humidity and temperature control room and then a sophisticated coordinate measuring machine is used to inspect the dimension of finished parts. Compressor rotors dynamically balanced before assembly. Under FUSHENG quality control system, every screw compressor shall be tested before shipment.

## MANUFACTURING PROCESS



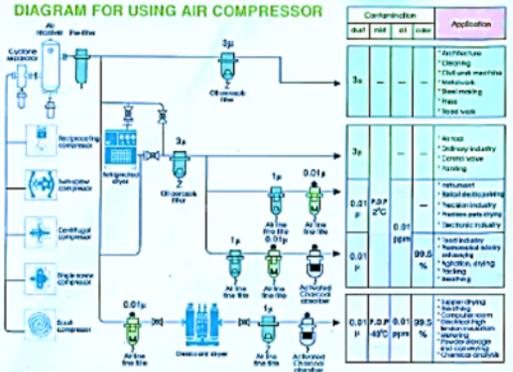
## HIGH-TEMPERATURE SERIES AIR COOLING DRYER SPECIFICATION

| Type                                     | FR  | FR   | FR      | FR      | FR      | FR   | FR   | FR   | FR    | FR    | FR    | FR    | FR    | FR    | FR    | FR     | FR     |
|--|---|------|---------|---------|---------|------|------|------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
|  | 05AP  | 10AP | 15AP    | 20AP    | 30AP    | 45AP | 60AP | 80AP | 100AP | 150AP | 200AP | 300AP | 450AP | 600AP | 900AP | 1350AP | 2025AP |
| Stky mpa. capacity (m <sup>3</sup> /min) | 0.20  | 1.4  | 1.7     | 2.7     | 3.7     | 5.4  | 7.2  | 8.5  | 11.1  | 15    | 19.6  | 23.5  | 28    | 29.7  | 39.6  | 44.4   |        |
| Air inlet temp.                          | 32°C (Max. 38°C) (Capacity varies with different temperature)   |      |         |         |         |      |      |      |       |       |       |       |       |       |       |        |        |
| Environment temp.                        | 32°C (Max. 40°C) (Capacity varies with different temperature)   |      |         |         |         |      |      |      |       |       |       |       |       |       |       |        |        |
| Dew point                                | Dew point 2 ~ 19°C of 7g/10Vg   |      |         |         |         |      |      |      |       |       |       |       |       |       |       |        |        |
| Operating pressure                       | 1kg/cm <sup>2</sup> (Capacity varies with different pressure). Max Pressure: 1kg/cm <sup>2</sup> (Higher pressure available upon request) |      |         |         |         |      |      |      |       |       |       |       |       |       |       |        |        |
| Refrigerant                              | R-134a  |      |         |         |         |      |      |      |       |       |       |       |       |       |       |        |        |
| Power consumption (KW/3ph)               | 0.5   | 0.55 | 0.7     | 0.8     | 1.1     | 1.3  | 1.5  | 2    | 2.1   | 2.7   | 3.5   | 4.5   | 5.4   | 6     | 7.2   | 8.3    |        |
| Power supply                             | Single phase 220V ~ 230V 50Hz   |      |         |         |         |      |      |      |       |       |       |       |       |       |       |        |        |
| Air piping size                          | G1/2"   | G1"  | G1 1/4" | G1 1/2" | G1 1/2" | G2"  | G2"  | DN80 | DN80  | DN80  | DN80  | DN80  | DN80  | DN100 | DN100 | DN125  | DN125  |
| Dimension (mm)                           | H   | 450  | 720     | 720     | 750     | 900  | 900  | 900  | 900   | 1130  | 1130  | 1130  | 1290  | 1290  | 1290  | 1290   | 1830   |
|  | W   | 390  | 400     | 490     | 490     | 490  | 610  | 610  | 600   | 600   | 643   | 649   | 646   | 1070  | 1070  | 1070   | 1310   |
|  | D   | 300  | 370     | 730     | 820     | 1070 | 1070 | 1070 | 1220  | 1500  | 1700  | 1700  | 1900  | 1900  | 2200  | 2200   | 2200   |
| Net weight (kg)                          | 55  | 98   | 75      | 90      | 140     | 140  | 103  | 190  | 210   | 263   | 300   | 300   | 460   | 480   | 500   | 600    | 900    |

\* G" indicates thread size in Imperial unit. DN indicates for flange size in metric unit

\* The exterior dimension do not include the size of inlet/outlet and drain valve

## DIAGRAM FOR USING AIR COMPRESSOR





#### AIR COOLED SCREW AIR COMPRESSOR SPECIFICATIONS

| Specification                  | Model   | SA 15A                     | SA 22A                   | SA 37A                   | SA 55A   | SA 75A                      | SA 90A                      | SA113A                      |
|--------------------------------|---|----------------------------|--------------------------|--------------------------|--|-----------------------------|-----------------------------|-----------------------------|
| Air Deliver / Working Pressure | (m <sup>3</sup> /min)<br>(kg/cm <sup>2</sup> G) | 1.5/7<br>2.0/10<br>1.7/12  | 3.7/7<br>3.5/8<br>2.7/12 | 6.5/7<br>6.2/8<br>4.9/12 | 16.5/7<br>12.9/8<br>7.3/12   | 14.0/7<br>12.9/8<br>10.1/12 | 16.5/7<br>15.5/8<br>12.7/12 | 21.0/7<br>20.7/8<br>15.9/12 |
| Discharge Air Temp.            | °C  | Ambient temperature + 15°C |                          |                          | ≤ 40°C (Water Cooler)<br>≤ Ambient temperature + 13°C (Air Cooler) |                             |                             |                             |
| Lubricant                      | L   | 22                         | 26                       | 70                       | 70   | 190                         |                             |                             |
| Power motor                    | KW  | 15                         | 22                       | 37                       | 55   | 75                          | 90                          | 190                         |
| Speed motor                    | rpm   | 1400                       | 1470                     | 1475                     | 1480   |                             |                             |                             |
| Starting Method                |   | Start Y - Δ                |                          |                          |  |                             |                             |                             |
| Voltage                        | V/φ   | 380                        |                          |                          |  |                             |                             |                             |
| Frequency                      | Hz  | 50                         |                          |                          |  |                             |                             |                             |
| Length                         | mm  | 850                        | 1080                     | 2260                     |  | 3000                        |                             |                             |
| Width                          | mm  | 1220                       | 1410                     | 1230                     |  | 1640                        |                             |                             |
| Height                         | mm  | 1300                       | 1510                     | 1603                     |  | 1900                        |                             |                             |
| Weight                         | kg  | 509                        | 620                      | 1023                     | 1180   | 2020                        | 2180                        | 4390                        |

#### TWO-STAGE AIR-COOLED AIR COMPRESSORS

| Model    | Motor |      | Cylinder  |     |             | Comp R.P.M | Piston Dip. |       | Actual Air Delivery At 12kg/cm <sup>2</sup> G |       | Working Pressure (kg/cm <sup>2</sup> G) | Air Receiver    |                |                                 |                 |
|----------|-------|------|-----------|-----|-------------|------------|-------------|-------|---|-------|---|-----------------|----------------|---------------------------------|-----------------|
|          | HP    | KW   | Bore (mm) | No. | Stroke (mm) |            | L/inch      | CFM   | L/inch  | CFM   |   | Dimensions (mm) | Capacity Liter | Max Pressure Kg/cm <sup>2</sup> | Net Weight (kg) |
| HVA-6E   | 1     | 0.75 | 55        | 1   | 44          | 742        | 106         | 3.61  | 79.9  | 2.62  | 12                                      | ∅ 300x1760      | 70             | 13.5                            | 100             |
| HTA-6E   | 2     | 1.5  | 62        | 2   | 48          | 742        | 236         | 8.33  | 180   | 6.36  | 12                                      | ∅ 300x1760      | 70             | 13.5                            | 110             |
| HTA-6EH  | 3     | 2.2  | 65        | 2   | 48          | 916        | 262         | 10.31 | 220   | 7.77  | 12                                      | ∅ 300x1760      | 106            | 13.5                            | 135             |
| HTA-80   | 3     | 3.7  | 81        | 2   | 60          | 904        | 376         | 20.3  | 450   | 15.89 | 12                                      | ∅ 300x1410      | 156            | 13.5                            | 220             |
| HTA-100  | 7.5   | 5.5  | 100       | 2   | 70          | 739        | 512         | 28.68 | 600   | 21.19 | 12                                      | ∅ 400x1440      | 245            | 13.5                            | 330             |
| HTA-100H | 10    | 7.5  | 100       | 2   | 70          | 888        | 976         | 34.47 | 800   | 28.25 | 12                                      | ∅ 400x1770      | 304            | 13.5                            | 360             |
| HTA123   | 15    | 11   | 120       | 2   | 80          | 805        | 1655        | 61.39 | 1220  | 43.30 | 12                                      | ∅ 400x1770      | 304            | 13.5                            | 450             |



#### ■ Semi-automatic type:

This type uses a pilot valve to control the no load or loaded operation status of compressor. When the system pressure reaches the high-limit set point (7.0 kg/cm<sup>2</sup>, for example), pilot valve will open to actual suction unloader to allow compressor no-load running. When system pressure drops down to the low-limit set point (5.0 kg/cm<sup>2</sup>, for example), pilot valve will close and compressor returns to loaded run status. The semi-automatic operating method is suitable for frequent-run use of compressed air.



#### ■ Full-automatic type:

This type uses a pressure switch to control when the compressor runs and stops. When the system pressure reaches the upper-limit set point (7.0 kg/cm<sup>2</sup>, for example), pressure switch activates to cut off motor power and ceases compressor operation. When system pressure drops down to the pressure low-limit set point (5.0 kg/cm<sup>2</sup>, for example), pressure switch re-energizes motor power to re-start compressor operation. The automatic operating method is suitable for intermittent run duty. And in order to protect motor and EM switch, the restart frequency should not exceed six times per hour.



#### TWO-STAGE AIR-COOLED AIR COMPRESSORS WITH VERTICAL TANK

| Model       | Motor |     | Cylinder  |     |             | Comp R.P.M | Piston Dip. |       | Actual Air Delivery At 12kg/cm <sup>2</sup> G |       | Working Pressure (kg/cm <sup>2</sup> G) | Air Receiver    |                |                                 |                 |
|-------------|-------|-----|-----------|-----|-------------|------------|-------------|-------|---|-------|---|-----------------|----------------|---------------------------------|-----------------|
|             | HP    | KW  | Bore (mm) | No. | Stroke (mm) |            | L/inch      | CFM   | L/inch  | CFM   |   | Dimensions (mm) | Capacity Liter | Max Pressure Kg/cm <sup>2</sup> | Net Weight (kg) |
| HTA-6EH-VT  | 3     | 2.2 | 61        | 2   | 48          | 916        | 202         | 10.31 | 220   | 7.77  | 12                                      | ∅ 566x1130      | 245            | 13.5                            | 235             |
| HTA-80-VT   | 5     | 3.7 | 80        | 2   | 60          | 954        | 575         | 20.3  | 450   | 15.89 | 12                                      | ∅ 566x1130      | 245            | 13.5                            | 360             |
| HTA-100-VT  | 7.5   | 5.5 | 100       | 2   | 70          | 739        | 512         | 28.68 | 600   | 21.19 | 12                                      | ∅ 646x919       | 245            | 13.5                            | 360             |
| HTA-100H-VT | 10    | 7.5 | 100       | 2   | 70          | 888        | 976         | 34.47 | 800   | 28.25 | 12                                      | ∅ 646x919       | 245            | 13.5                            | 400             |



Oil-lubricated crankcase



Oil-free crankcase

### Oil-free air compressor applications in industry

A 100% oil-free air compressor you required, it's not only oil-free compression chamber. With the inner design of oil-free crankcase, it can prevent the oil that rises from the crankshaft and flows freely up into the compression chamber. We believe that you will be satisfied with this efficient function. On the other hand, you can be proud of using air from the oil-free air compressor, it is really oil-free air.



### OIL-FREE AIR COMPRESSORS

| Model      | Motor |     | Cylinder  |     | Piston Disp. |              |      | Actual Air Delivery At |      | Working Pressure (kg/cm <sup>2</sup> ) | Air Receiver          |                   |                                    |                    |     |
|------------|-------|-----|-----------|-----|--------------|--------------|------|------------------------|------|--|-----------------------|-------------------|------------------------------------|--------------------|-----|
|            | Hp    | Kw  | Bore (mm) | No. | Stroke (mm)  | Comp. R.P.M. |      | 7Kg/cm <sup>2</sup> G  |      |  | Dimensions<br>Ø mm/mm | Capacity<br>Liter | Max Pressure<br>Kg/cm <sup>2</sup> | Net Weight<br>(kg) |     |
|            |       |     |           |     |              | L/min        | CFM  | L/min                  | CFM  |  |                       |                   |                                    |                    |     |
| FVA-30(0)  | 3     | 2.2 | 100       | 2   | 70           | 487          | 513  | 18.11                  | 230  | 8.12                                   | 7                     | Ø 485x1440        | 245                                | 10                 | 110 |
| FVA-50(0)  | 5     | 3.7 | 100       | 2   | 70           | 700          | 770  | 27.19                  | 440  | 15.54                                  | 7                     | Ø 485x1440        | 245                                | 10                 | 145 |
| FVA-75(0)  | 7.5   | 5.5 | 100       | 2   | 75           | 734          | 864  | 30.52                  | 650  | 22.09                                  | 7                     | Ø 485x1440        | 245                                | 10                 | 275 |
| FVA-100(0) | 10    | 7.5 | 116       | 2   | 80           | 855          | 1055 | 37.26                  | 800  | 30.02                                  | 7                     | Ø 485x1770        | 304                                | 10                 | 325 |
| FTA-150(0) | 15    | 11  | 116       | 2   | 90           | 834          | 1513 | 53.44                  | 1250 | 44.15                                  | 7                     | Ø 485x1770        | 304                                | 10                 | 435 |



#### FISTON



#### CONNECTING RODS



#### BEARING



#### RING

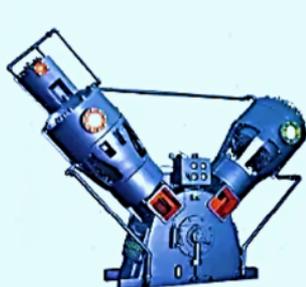


### D-SERIES AIR COMPRESSORS

| Model | Motor |      | Cylinder  |     | Piston Disp. |              |      | Actual Air Delivery At |      | Working Pressure (kg/cm <sup>2</sup> ) | Air Receiver          |                   |                                    |                    |     |
|-------|-------|------|-----------|-----|--------------|--------------|------|------------------------|------|--|-----------------------|-------------------|------------------------------------|--------------------|-----|
|       | HP    | KW   | Bore (mm) | No. | Stroke (mm)  | Comp. R.P.M. |      | 7Kg/cm <sup>2</sup> G  |      |  | Dimensions<br>Ø mm/mm | Capacity<br>Liter | Max Pressure<br>Kg/cm <sup>2</sup> | Net Weight<br>(kg) |     |
|       |       |      |           |     |              | L/min        | CFM  | L/min                  | CFM  |  |                       |                   |                                    |                    |     |
| D-1   | 0.5   | 0.37 | 51        | 1   | 42           | 807          | 89   | 2.43                   | 60   | 2.12                                   | 7                     | Ø 244x720         | 33                                 | 10                 | 45  |
| D-2   | 1     | 0.75 | 51        | 2   | 42           | 879          | 150  | 5.29                   | 100  | 3.53                                   | 7                     | Ø 300x910         | 60                                 | 10                 | 60  |
| D-3   | 2     | 1.65 | 65        | 2   | 44           | 1000         | 204  | 10.30                  | 209  | 7.06                                   | 7                     | Ø 300x1050        | 70                                 | 10                 | 80  |
| D-3E  | 2.2   | 1.65 | 65        | 2   | 48           | 819          | 261  | 9.21                   | 195  | 6.80                                   | 7                     | Ø 300x1050        | 70                                 | 10                 | 80  |
| D-4   | 3     | 2.2  | 65        | 3   | 48           | 963          | 412  | 14.55                  | 309  | 10.59                                  | 7                     | Ø 300x1180        | 105                                | 10                 | 120 |
| D-6   | 6     | 3.7  | 80        | 2   | 80           | 1066         | 643  | 22.7                   | 480  | 18.95                                  | 7                     | Ø 380x1430        | 155                                | 10                 | 185 |
| D-6   | 7.5   | 5.5  | 90        | 2   | 85           | 1065         | 840  | 31.08                  | 670  | 23.64                                  | 7                     | Ø 485x1440        | 245                                | 10                 | 295 |
| D-7   | 10    | 7.5  | 90        | 3   | 85           | 1065         | 1320 | 46.62                  | 900  | 31.78                                  | 7                     | Ø 485x1770        | 304                                | 10                 | 350 |
| D-8   | 15    | 11   | 100       | 3   | 70           | 1070         | 1705 | 62.34                  | 1400 | 49.44                                  | 7                     | Ø 485x1770        | 304                                | 10                 | 420 |

### SPECIFICATIONS & SHIPPING DATA-W SERIES

| Specs.                                       | Model         | Unit                 | HW-165       | HW-165  | HW-165  |
|--|---------------|----------------------|--------------|---------|---------|
| Cylinder Bore x                              | Low Pressure  | mm                   | 132 x 2      | 152 x 2 | 152 x 3 |
| Number of Cylinder                           | High Pressure | mm                   | 51 x 2       | 65 x 2  | 65 x 3  |
| Piston Stroke                                |               | mm                   |              | 114     |         |
| Compressor Revolution                        |               | rpm                  | 450          | 670     | 840     |
| Piston Displacement                          |               | L/min                | 1424         | 2187    | 3060    |
|  |               | CFM                  | 50.2         | 63.2    | 140     |
| Working Pressure                             |               | kg/cm <sup>2</sup> G |              | 35      |         |
| Actual Air Delivery at 7kg/cm <sup>2</sup> G |               | L/min                | 911          | 1437    | 2421    |
|  |               | CFM                  | 32.1         | 60.7    | 85.5    |
| Motor Recommended                            |               | Hp                   | 20           | 30      | 50      |
| Cool Water Required                          |               | L/min                | 54           | 64      | 60      |
| Lube Oil Needed                              |               | liter                |              | 14      | 16      |
| Air Tank                                     | Dimensions    | mm                   | Ø 485 x 1770 |         |         |
|  | Capacity      | liter                | 300          |         |         |
| Complete Set Dimension                       | Length        | mm                   | 3170         |         |         |
|  | Width         | mm                   | 1700         |         |         |
|  | Height        | mm                   | 2200         |         |         |
| Net Weight                                   |               | kg                   | 1100         | 1230    | 1710    |



### HOLD TYPE - SPECIFICATIONS OF OIL FREE HIGH PRESSURE WATER COOLED COMPRESSOR

| Model     | Cylinder (Boremm x number of cylinder) min x max |         |         | Stroke (mm) | Revolutions rpm | Piston Discharge    |     | Working Pressure (kg/cm <sup>2</sup> ) | Actual Air Delivery |       | Motor HP | Cooling water L/min | Lubricant @ Liter | Air Tank        |                  | Net Weight (kg) |
|-----------|--|---------|---------|-------------|-----------------|---------------------|-----|--|---------------------|-------|----------|---------------------|-------------------|-----------------|------------------|-----------------|
|           | 1"   | 2"      | 3"      |             |                 | m <sup>3</sup> /min | CFM |  | m <sup>3</sup> /min | CFM   |          |                     |                   | Dimensions (mm) | Capacity (Liter) |                 |
|           |  |         |         |             |                 |                     |     |  |                     |       |          |                     |                   |                 |                  |                 |
| HOLD-300S | 300 x 1  | 210 x 1 | 120 x 1 | 200         | 360             | 8.6                 | 304 | 35                                     | 6.27                | 221.5 | 190      | 260                 | 18                | 485 x 1770      | 304              | 0000            |
| HOLD-317G | 370 x 1  | 270 x 1 | 135 x 1 | 200         | 338             | 14.25               | 503 |  | 10.97               | 387.5 | 175      | 260                 | 25                | 1770            |                  | 8100            |