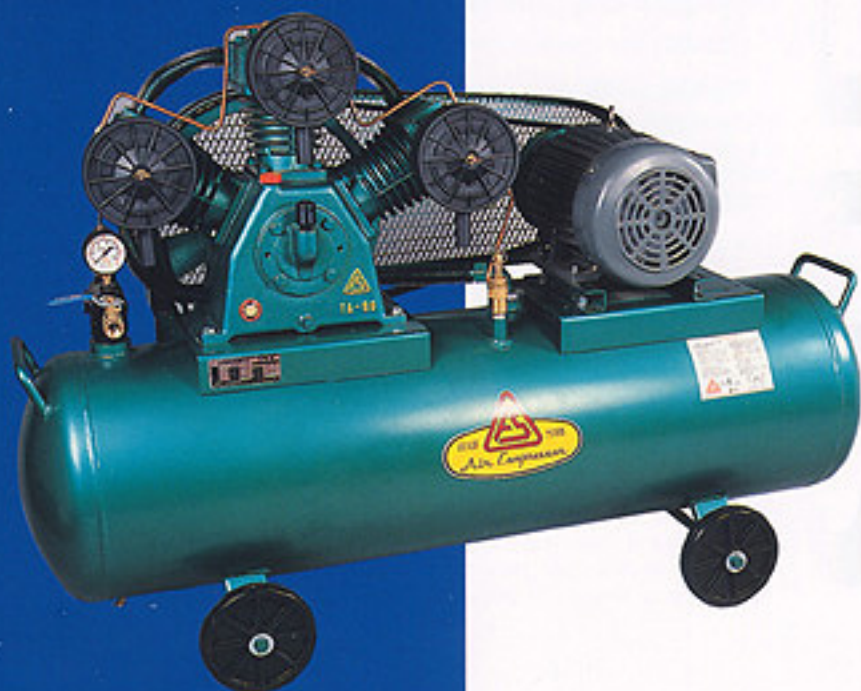




# A Series Air Compressor

0.25 up to 15 HP

ISO9001  
BCIQ



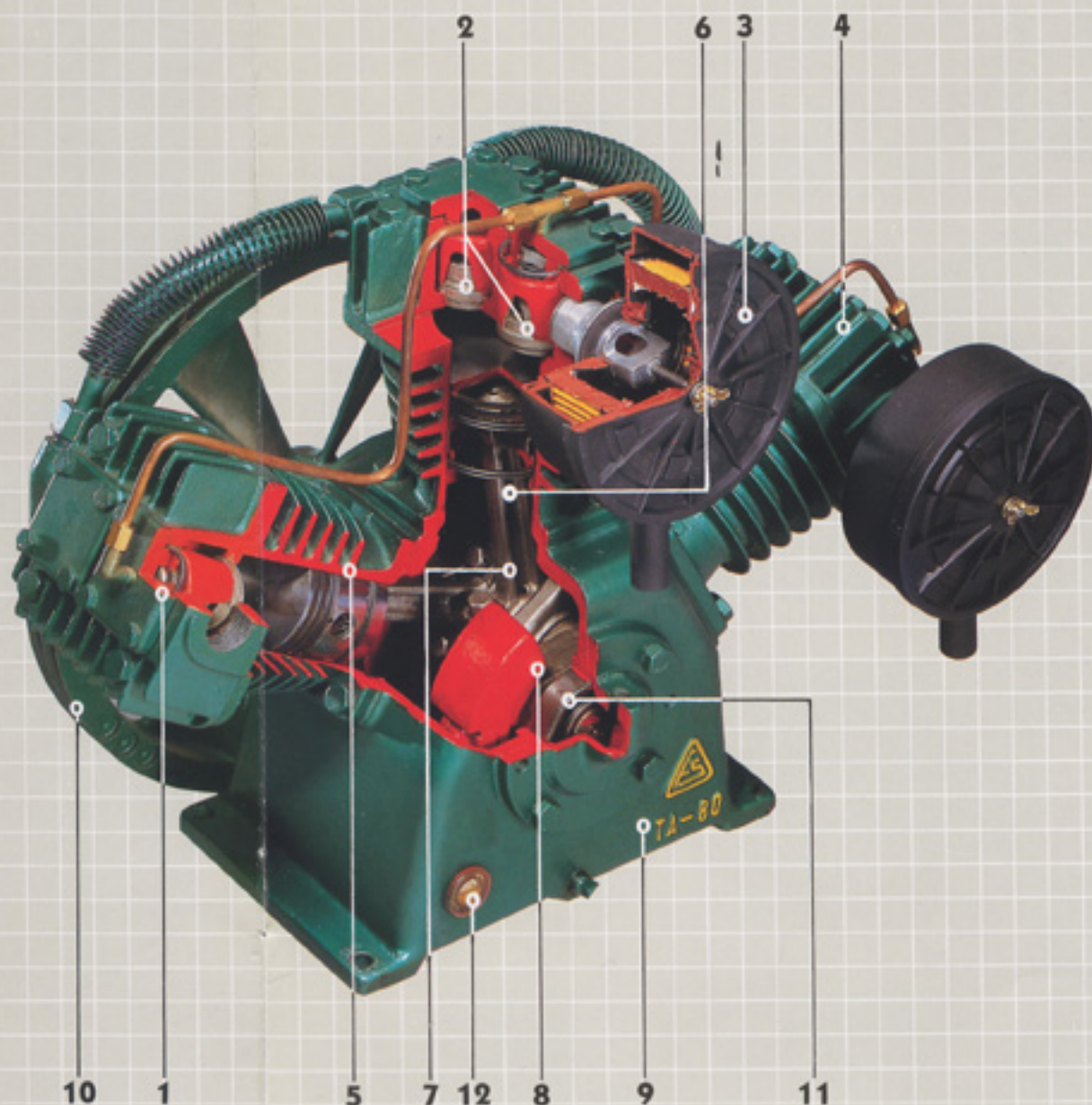
**FU SHENG INDUSTRIAL CO., LTD.**



## A BRIEF INTRODUCTION TO FU SHENG

Fu Sheng Industrial Co., Ltd. the largest integrated manufacturer of air compressors in Taiwan, has been producing a complete line of its own design of high quality, high performance and low cost air compressors since 1953.

With its progressive management, Fu Sheng provides its skilled personnel with high precision NC and CNC machining equipment and Flexible Manufacturing Systems (FMS) for the manufacture of reliable air cooled compressors ranging in size from 1/4 to 15HP, water cooled compressors in size up to 300HP, and oil-injection screw compressors up to 350HP. Fu Sheng products have been widely accepted in both domestic and export markets and are continually in great demand.



# THE HEART OF FU SHENG COMPRESSOR

## DESIGN CONCEPTS:

## HEAVY, RELIABLE, DURABLE

### 1. Continuous Running Unloader:

For continuous-running air compressors, unloader lets unit 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.)

### 2. Valve Assembly:

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

### 3. Suction Strainer:

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

### 4. 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.

### 5. 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.

### 6. Rings:

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

### 7. Connecting Rods:

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

### 8. Balanced Crankshafts:

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.

### 9. Crankcase:

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

### 10. Balanced Fan-Type Flywheel:

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

### 11. Main Bearings:

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

### 12. Easy Oil Check:

The oil level check is in a convenient location for "tell at a glance" reading of oil level in crankcase.



## SINGLE STAGE COMPRESSORS

A single stage compressor takes in air at atmospheric pressure ( $0 \text{ kg/cm}^2\text{G}$ ) and brings it up to  $7 \text{ kg/cm}^2\text{G}$  in one compression cycle. As single stage compressors comprise less variety of parts than two stage ones, they are more cost economical.



CA-51. 1/4 HP



CA-65. 1/2 HP



VA-80. 3 HP



TA-80. 5 HP

## TWO STAGE COMPRESSORS

Two stage compressor is designed for 7 to  $12 \text{ kg/cm}^2\text{G}$  working pressure applications. As compressed air after first stage compression is cooled in the finned tube before entering into the second stage compression, plus the compression ratio is relatively small in each stage, two stage compressor is more energy efficient than single stage type, which means less power consumption.



HVA-65. 1 HP



HTA-65. 2 HP



HTA-100H. 10 HP



HTA-120. 15 HP

# A PRODUCT LINE WITH COMPLETE HORSEPOWER RANGE FITS YOUR VARIOUS APPLICATIONS



VA-51. 1/2 HP



VA-65. 1 HP



TA-65. 2 HP



VA-100. 7 1/2 HP



TA-100. 10 HP



TA-120. 15 HP



HTA-65H. 3 HP



HTA-80. 5 HP



HTA-100. 7 1/2 HP



## SEMI-AUTOMATIC

Pilot valve control, load/unload modes.



## FULL-AUTOMATIC

Pressure switch control, start/stop modes.

# CA-51

① ② ③

## ① Cylinder No:

C: 1

V: 2

T: 3

## ② Cooling:

Air Cooled

## ③ Bore:

m/m.

## SPECIFICATIONS OF SINGLE STAGE COMPRESSORS

| Model  | Motor Req'd |      | Cylinder      |                 |     | Comp<br>R.P.M. | Piston Disp. |       | Actual Air Delivery At        |       |                                |       | Working<br>Pressure<br>(kg/cm <sup>2</sup> G) | Max.<br>Pressure<br>(kg/cm <sup>2</sup> G) |
|--------|-------------|------|---------------|-----------------|-----|----------------|--------------|-------|-------------------------------|-------|--------------------------------|-------|-----------------------------------------------|--------------------------------------------|
|        | HP          | KW   | Bore<br>(m/m) | Stroke<br>(m/m) | No. |                | Liter/Min    | CFM   | 5kg/cm <sup>2</sup> G(70PSIG) |       | 7kg/cm <sup>2</sup> G(100PSIG) |       |                                               |                                            |
|        |             |      |               |                 |     |                |              |       | Liter/Min                     | CFM   | Liter/Min                      | CFM   |                                               |                                            |
| CA-51  | ¼           | 0.2  | 51            | 42              | 1   | 640            | 55           | 1.94  | 34.7                          | 1.22  | 30.8                           | 1.08  | 7                                             | 10                                         |
| CA-65  | ½           | 0.4  | 65            | 44              | 1   | 700            | 102          | 3.6   | 64.2                          | 2.26  | 57.1                           | 2.01  | 7                                             | 10                                         |
| VA-51  | ½           | 0.4  | 51            | 42              | 2   | 620            | 106          | 3.74  | 66.8                          | 2.35  | 59.4                           | 2.09  | 7                                             | 10                                         |
| VA-65  | 1           | 0.75 | 65            | 44              | 2   | 635            | 185          | 6.54  | 125.8                         | 4.44  | 116.5                          | 4.12  | 7                                             | 10                                         |
| TA-65  | 2           | 1.5  | 65            | 48              | 3   | 635            | 303          | 10.7  | 206.0                         | 7.27  | 190.9                          | 6.74  | 7                                             | 10                                         |
| VA-80  | 3           | 2.2  | 80            | 60              | 2   | 770            | 462          | 16.32 | 340.0                         | 12.00 | 310.0                          | 10.95 | 7                                             | 10                                         |
| TA-80  | 5           | 3.7  | 80            | 60              | 3   | 850            | 767          | 27.10 | 540.0                         | 19.10 | 510.0                          | 18.00 | 7                                             | 10                                         |
| VA-100 | 7½          | 5.6  | 100           | 70              | 2   | 950            | 1045         | 36.93 | 710.6                         | 25.10 | 658.4                          | 23.30 | 7                                             | 10                                         |
| TA-100 | 10          | 7.5  | 100           | 70              | 3   | 900            | 1484         | 52.43 | 1009.0                        | 35.70 | 934.9                          | 33.00 | 7                                             | 10                                         |
| TA-120 | 15          | 11.0 | 120           | 80              | 3   | 860            | 2334         | 82.50 | 1591.0                        | 56.20 | 1474.0                         | 52.10 | 7                                             | 10                                         |

## DIMENSIONS & SHIPPING DATA OF COMPLETE COMPRESSORS

| Model  | Air Tank            |               | Clearance Dimen (m/m) |            |             | Mounting Dimensions (m/m) |                         |                     | Pipe<br>(inch)     | SHIPPING DATA         |                               |        |
|--------|---------------------|---------------|-----------------------|------------|-------------|---------------------------|-------------------------|---------------------|--------------------|-----------------------|-------------------------------|--------|
|        | Capacity<br>(Liter) | Size<br>(m/m) | A<br>Height           | B<br>Width | C<br>Length | D<br>Width<br>Bwn Feet    | E<br>Length<br>Bwn Feet | F<br>Tank<br>Height | G<br>Air<br>Outlet | Net<br>Weight<br>(kg) | Exp. Meas. (Ft <sup>3</sup> ) |        |
|        |                     |               |                       |            |             |                           |                         |                     |                    |                       | Wooden<br>Case                | Carton |
| CA-51  | 28                  | 244 φ × 650   | 605                   | 306        | 650         | 228                       | 360                     | 335                 | ¼"                 | 28                    | 7.4                           | 5.5    |
| CA-65  | 28                  | 244 φ × 650   | 666                   | 306        | 650         | 240                       | 380                     | 335                 | ¼"                 | 42                    | 9.0                           | 6.5    |
| VA-51  | 60                  | 300 φ × 910   | 685                   | 385        | 910         | 300                       | 510                     | 430                 | ¼"                 | 50                    | 13.0                          | 12.2   |
| VA-65  | 70                  | 300 φ × 1050  | 747                   | 385        | 1050        | 300                       | 630                     | 430                 | ¼"                 | 63                    | 18.0                          | 14.0   |
| TA-65  | 70                  | 300 φ × 1050  | 874                   | 460        | 1050        | 300                       | 630                     | 430                 | ½"                 | 70                    | 19.0                          | 16.0   |
| VA-80  | 105                 | 350 φ × 1160  | 1000                  | 480        | 1160        | 350                       | 700                     | 480                 | ½"                 | 116                   | 28.3                          | 22.0   |
| TA-80  | 155                 | 390 φ × 1410  | 1177                  | 588        | 1410        | 369                       | 800                     | 539                 | ½"                 | 160                   | 37.5                          | 33.0   |
| VA-100 | 245                 | 485 φ × 1440  | 1177                  | 588        | 1440        | 456                       | 800                     | 697                 | ¾"                 | 263                   | 54.2                          | 48.0   |
| TA-100 | 304                 | 485 φ × 1770  | 1227                  | 640        | 1770        | 456                       | 1000                    | 697                 | ¾"                 | 344                   | 67.0                          | 62.0   |
| TA-120 | 304                 | 485 φ × 1770  | 1345                  | 665        | 1770        | 456                       | 1000                    | 697                 | ¾"                 | 405                   | 91.0                          | 84.2   |

Note: 1. Three operation modes, i.e. manual, semi-automatic & full-automatic are supplied.

2. CA51 is only available with manual and full-automatic control.

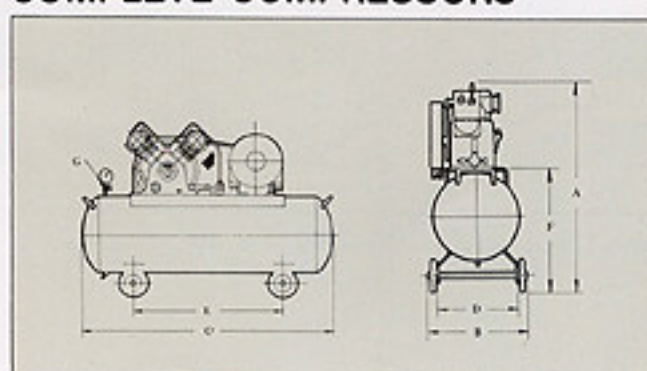
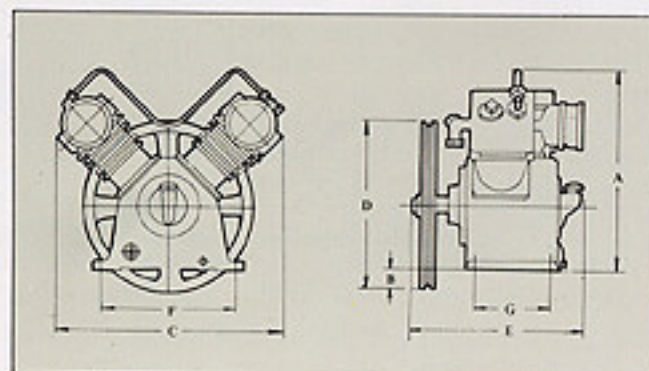
3. Net weight without motor



## DIMENSIONS & SHIPPING DATA (BASIC COMPRESSORS)

| Model  | Clearance Dimensions (m/m) |              |                      |                          |                            |                |               | Mounting Dimensions (m/m) |                     | Shipping Data   |                               |        |
|--------|----------------------------|--------------|----------------------|--------------------------|----------------------------|----------------|---------------|---------------------------|---------------------|-----------------|-------------------------------|--------|
|        | No. of Groove              | Type of Belt | A Height Base to Top | B Flywheel Below to Base | C Width O.A. Less Flywheel | D Flywheel Dia | E Length O.A. | F Width Hole Space        | G Length Hole Space | Net Weight (kg) | Exp. Meas. (Ft <sup>3</sup> ) |        |
|        |                            |              |                      |                          |                            |                |               |                           |                     |                 | Wooden Case                   | Carton |
| CA-51  | 1                          | A            | 273                  | 7                        | 173                        | 173 $\phi$     | 182           | 140                       | 72                  | 7.8             | 0.70                          | 0.45   |
| CA-65  | 1                          | A            | 331                  | 49                       | 270                        | 270 $\phi$     | 222           | 170                       | 96                  | 14.2            | 1.40                          | 0.90   |
| VA-51  | 1                          | A            | 257                  | 53                       | 310                        | 270 $\phi$     | 228           | 190                       | 93                  | 13.8            | 1.50                          | 1.00   |
| VA-65  | 1                          | A            | 317                  | 35                       | 370                        | 270 $\phi$     | 275           | 222                       | 120                 | 20.5            | 2.00                          | 1.30   |
| TA-65  | 2                          | A            | 357                  | 25                       | 466                        | 270 $\phi$     | 320           | 222                       | 150                 | 27.2            | 3.50                          | 2.30   |
| VA-80  | 2                          | A            | 404                  | 37                       | 530                        | 314 $\phi$     | 380           | 292                       | 125                 | 48.0            | 5.20                          | 4.00   |
| TA-80  | 2                          | A            | 470                  | 70                       | 592                        | 400 $\phi$     | 426           | 294                       | 160                 | 67.5            | 7.30                          | 5.50   |
| VA-100 | 2                          | B            | 490                  | 110                      | 586                        | 300 $\phi$     | 475           | 350                       | 150                 | 93.5            | 7.50                          | 7.30   |
| TA-100 | 3                          | B            | 550                  | 87                       | 660                        | 300 $\phi$     | 510           | 350                       | 170                 | 121.0           | 11.00                         | 9.00   |
| TA-120 | 4                          | B            | 660                  | 115                      | 810                        | 352 $\phi$     | 580           | 396                       | 228                 | 182.0           | 18.00                         | 11.00  |

## COMPLETE COMPRESSORS



## SPECIFICATION OF TWO STAGE COMPRESSORS

| Model    | HP | Bore<br>m/m | Stroke<br>m/m | No. of<br>Cyl. | R.P.M. | Displacement |      | Suction<br>Pipe<br>Dia.<br>(inch) | Discharge<br>Pipe<br>Dia.<br>(inch) | Actual Delivery<br>at 12kg/cm <sup>2</sup> G(170psiG) |      | Maximum<br>Pressure<br>(kg/cm <sup>2</sup> G) |
|----------|----|-------------|---------------|----------------|--------|--------------|------|-----------------------------------|-------------------------------------|-------------------------------------------------------|------|-----------------------------------------------|
|          |    |             |               |                |        | Liters/Min   | CFM  |                                   |                                     | liters/min                                            | CFM  |                                               |
|          |    |             |               |                |        | 60Hz         | 60Hz |                                   |                                     |                                                       |      |                                               |
| HVA-65   | 1  | L65 (H42)   | 44            | L1 (H1)        | 750    | 110          | 3.9  | PT½                               | PF½                                 | 84                                                    | 3.0  | 15                                            |
| HTA-65   | 2  | L65 (H51)   | 48            | L2 (H1)        | 800    | 255          | 9.0  | PT½                               | PF½                                 | 196                                                   | 6.9  | 15                                            |
| HTA-65H  | 3  | L65 (H51)   | 48            | L2 (H1)        | 950    | 303          | 10.7 | PT½                               | PF½                                 | 233                                                   | 8.2  | 15                                            |
| HTA-80   | 5  | L80 (H65)   | 60            | L2 (H1)        | 950    | 572          | 20.2 | PT1                               | PF¾                                 | 457                                                   | 16.1 | 15                                            |
| HTA-100  | 7½ | L100 (H80)  | 70            | L2 (H1)        | 750    | 825          | 29.2 | PT1                               | PF¾                                 | 668                                                   | 23.6 | 15                                            |
| HTA-100H | 10 | L100 (H80)  | 70            | L2 (H1)        | 990    | 1088         | 38.5 | PT1                               | PF¾                                 | 849                                                   | 30.0 | 15                                            |
| HTA-120  | 15 | L120 (H100) | 80            | L2 (H1)        | 860    | 1566         | 55.0 | PT1                               | PF¾ × 2                             | 1230                                                  | 43.5 | 15                                            |

## DIMENSIONS & SHIPPING DATA OF BASIC COMPRESSORS

| Model    | Air Tank             |               | Clearance Dimensions (m/m)    |                                   |                                |                      |             | Mounting Dimensions (m/m)   |                              | Shipping Data         |                                  |        |
|----------|----------------------|---------------|-------------------------------|-----------------------------------|--------------------------------|----------------------|-------------|-----------------------------|------------------------------|-----------------------|----------------------------------|--------|
|          |                      |               | A<br>Height<br>Base<br>to Top | B<br>Flywheel<br>Below<br>to Base | C<br>Width<br>Less<br>Flywheel | D<br>Flywheel<br>Dia | E<br>Length | F<br>Width<br>Hole<br>Space | G<br>Length<br>Hole<br>Space | Net<br>Weight<br>(kg) | Exp. Meas.<br>(Ft <sup>3</sup> ) |        |
|          | Capacity<br>(liters) | Size<br>(m/m) |                               |                                   |                                |                      |             |                             |                              |                       | Wooden<br>Case                   | Carton |
| HVA-65   | 70                   | 300 φ × 1050  | 317                           | 35                                | 356                            | 270 φ                | 270         | 222                         | 120                          | 21.5                  | 2.00                             | 1.30   |
| HTA-65   | 70                   | 300 φ × 1050  | 357                           | 25                                | 466                            | 270 φ                | 320         | 222                         | 150                          | 28.0                  | 3.50                             | 2.30   |
| HTA-65H  | 105                  | 350 φ × 1160  | 357                           | 25                                | 466                            | 270 φ                | 320         | 222                         | 150                          | 28.0                  | 3.50                             | 2.30   |
| HTA-80   | 155                  | 390 φ × 1410  | 460                           | 70                                | 572                            | 400 φ                | 426         | 294                         | 160                          | 67.5                  | 7.30                             | 5.50   |
| HTA-100  | 245                  | 485 φ × 1440  | 531                           | 84                                | 625                            | 300 φ                | 510         | 350                         | 170                          | 118.7                 | 11.00                            | 9.00   |
| HTA-100H | 304                  | 485 φ × 1770  | 531                           | 84                                | 625                            | 300 φ                | 510         | 350                         | 170                          | 118.7                 | 11.00                            | 9.00   |
| HTA-120  | 304                  | 485 φ × 1770  | 650                           | 115                               | 770                            | 352 φ                | 580         | 396                         | 228                          | 178.0                 | 18.00                            | 11.00  |

## DIMENSIONS & SHIPPING DATA OF COMPLETE COMPRESSORS

| Model    | Clearance Dimensions (m/m) |            |             | Mounting Dimensions (m/m)  |                             |                  |
|----------|----------------------------|------------|-------------|----------------------------|-----------------------------|------------------|
|          | A<br>Height                | B<br>Width | C<br>Length | D<br>Width<br>Between Feet | E<br>Length<br>Between Feet | F<br>Tank Height |
| HVA-65   | 747                        | 385        | 1050        | 300                        | 630                         | 430              |
| HTA-65   | 785                        | 385        | 1050        | 300                        | 630                         | 430              |
| HTA-65H  | 835                        | 460        | 1160        | 350                        | 700                         | 480              |
| HTA-80   | 1000                       | 480        | 1410        | 369                        | 800                         | 539              |
| HTA-100  | 1227                       | 600        | 1440        | 456                        | 800                         | 697              |
| HTA-100H | 1227                       | 640        | 1770        | 456                        | 1000                        | 697              |
| HTA-120  | 1345                       | 665        | 1770        | 456                        | 1000                        | 697              |

## DIMENSIONS & SHIPPING DATA OF COMPLETE COMPRESSORS

| Model    | Pipe (inch)             | Shipping Data         |                                     |        |
|----------|-------------------------|-----------------------|-------------------------------------|--------|
|          | G<br>Air<br>Outlet Size | Net<br>Weight<br>(kg) | Exp. Measurement (Ft <sup>3</sup> ) |        |
|          |                         |                       | Wooden Case                         | Carton |
| HVA-65   | 1/4                     | 85                    | 18.0                                | 14.0   |
| HTA-65   | 1/4                     | 91                    | 19.0                                | 16.0   |
| HTA-65H  | 1/2                     | 132                   | 19.0                                | 16.0   |
| HTA-80   | 1/2                     | 257                   | 37.5                                | 33.0   |
| HTA-100  | 3/4                     | 334                   | 58.0                                | 52.0   |
| HTA-100H | 3/4                     | 390                   | 67.0                                | 62.0   |
| HTA-120  | 3/4                     | 477                   | 91.0                                | 84.2   |

Note: 1. "L" is abbreviation for low pressure cylinder, "H" is abbreviation for high pressure cylinder.

2. Net weight without motor.

3. Refer to dimensional drawings on pages 6.

## FU SHENG'S OTHER EXPORTABLE PRODUCTS



### ■ B SERIES

Air cooled compressors

- Horsepower: 3~15 HP
- Pressure: 7~18kg/cm<sup>2</sup>G
- Delivery: 0.43~1.6 m<sup>3</sup>/min



### ■ D SERIES

Air cooled compressors

- Horsepower: 1/2~3 HP
- Pressure: 7kg/cm<sup>2</sup>G
- Delivery: 0.04~0.31m<sup>3</sup>/min



### ■ W SERIES

Water cooled compressors

- Horsepower: 15~150 HP
- Pressure: 7~20 kg/cm<sup>2</sup>G
- Delivery: 1.5~22.2 m<sup>3</sup>/min



### ■ OLD SERIES

Oil free compressors

- Horsepower: 10~150 HP
- Pressure: 7~10kg/cm<sup>2</sup>G
- Delivery: 0.84~16.5m<sup>3</sup>/min



### ■ SA SERIES

Screw compressors

- Horsepower: 10~350 HP
- Pressure: 4~12kg/cm<sup>2</sup>G
- Delivery: 1.1~36m<sup>3</sup>/min



### ■ DR SERIES

Dryers

- Air capacity: 5~150N m<sup>3</sup>/min
- Dew point: 2°C (7kg/cm<sup>2</sup>G)
- Inlet air press: 7~10kg/cm<sup>2</sup>G



SINCE 1953

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701D-0205-E1