

**HVU** SERIES

# COMPRESSOR UNIT

HASEGAWA'S refrigeration compressors have achieved world wide recognition for its Quality, Reliability and Efficiency.



HVU-VKM16BFM

- ◆ High Quality
- ◆ High Efficiency
- ◆ High Reliability
- ◆ High Durability



HVU-VZM28AVL

All HASEGAWA compressors are available for R717 (Ammonia) and R404A.  
HASEGAWA is a worldwide leader in the industrial refrigeration.

# HASEGAWA

## HIGHLY EFFICIENT DESIGN

BEST BALANCE OF BORE x STROKE



### REFRIGERANT AVAILABILITY:

HIGHEST PERFORMANCE WITH  
AMMONIA(R717) and R404A

### ENERGY SAVING:

HIGH SPEED, HIGH EFFICIENCY  
HIGH PERFORMANCE FROM  
SIMPLE, BUT WELL THOUGH DESIGN

### EASY MAINTENANCE:

SIMPLE DESIGN, DURABLE SPARE PARTS  
REDUCING TIME & COST OF MAINTENANCE

# SPECIFICATION: VZM/VZL Model



## ● Flanged Motor Type

| Unit Name |            | Single-Stage |              |              | Two -Stage   |              |              |
|-----------|------------|--------------|--------------|--------------|--------------|--------------|--------------|
|           | R717       | HVU-VZM16AFL | HVU-VZM18AFL | HVU-VZL18AFL | HVU-VZM26AFL | HVU-VZM28AFL | HVU-VZL28AFL |
|           | R404A(HFC) | HVU-VZM16BFL | HVU-VZM18BFL | HVU-VZL18BFL | HVU-VZM26BFL | HVU-VZM28BFL | HVU-VZL28BFL |

## ● Direct Coupling Type

| Unit Name |            | Single-Stage |              |              | Two -Stage   |              |              |
|-----------|------------|--------------|--------------|--------------|--------------|--------------|--------------|
|           | R717       | HVU-VZM16ADL | HVU-VZM18ADL | HVU-VZL18ADL | HVU-VZM26ADL | HVU-VZM28ADL | HVU-VZL28ADL |
|           | R404A(HFC) | HVU-VZM16BDL | HVU-VZM18BDL | HVU-VZL18BDL | HVU-VZM26BDL | HVU-VZM28BDL | HVU-VZL28BDL |

## ● V-Belt type

| Unit Name |            | Single-Stage |              |              | Two -Stage   |              |              |
|-----------|------------|--------------|--------------|--------------|--------------|--------------|--------------|
|           | R717       | HVU-VZM16AVL | HVU-VZM18AVL | HVU-VZL18AVL | HVU-VZM26AVL | HVU-VZM28AVL | HVU-VZL28AVL |
|           | R404A(HFC) | HVU-VZM16BVL | HVU-VZM18BVL | HVU-VZL18BVL | HVU-VZM26BVL | HVU-VZM28BVL | HVU-VZL28BVL |

| Compressor Model                                         |                                   | VZM16         | VZM18         | VZL18          | VZM26                                       | VZM28                     | VZL28                     |
|----------------------------------------------------------|-----------------------------------|---------------|---------------|----------------|---------------------------------------------|---------------------------|---------------------------|
| No. of Cylinder                                          |                                   | 6             | 8             | 8              | 4+2                                         | 6+2                       | 6+2                       |
| Capacity Step Control (cylinders)<br>[Low pressure side] |                                   | 6-4-2         | 8-6-4         | 8-6-4          | 4-2<br>(Low Stage Side)                     | 6-4-2<br>(Low Stage Side) | 6-4-2<br>(Low Stage Side) |
| Cylinder bore                                            | (mm)                              | 132           | 132           | 132            | 132                                         | 132                       | 132                       |
| Piston stroke                                            | (mm)                              | 106           | 106           | 132            | 106                                         | 106                       | 132                       |
| Speed                                                    | (rpm)<br>[Motor: 50Hz・6P/60Hz・6P] | 980/1170      | 980/1170      | 980/1170       | 980/1170                                    | 980/1170                  | 980/1170                  |
| Swept Volume                                             | (m3/hr.)                          | 511.51/610.68 | 682.01/814.24 | 849.30/1013.95 | 197.78/236.13                               | 211.42/252.41             | 263.28/314.33             |
|                                                          |                                   |               |               |                | Formula : Volume(High) + 0.08 x Volume(Low) |                           |                           |
| Cooling capacity*                                        | R717                              | 217.6/259.8   | 290.2/346.4   | 361.3/431.4    | 83.5/99.6                                   | 116.3/138.8               | 144.8/172.9               |
|                                                          | R404A                             | 147.9/176.5   | 197.2/235.4   | 245.5/293.1    | 75.3/89.9                                   | 99.2/118.5                | 123.6/147.5               |
| Connections                                              | Suction                           | 100A(114.3mm) | 100A(114.3mm) | 100A(114.3mm)  | 80A(89.1mm)                                 | 100A(114.3mm)             | 100A(114.3mm)             |
|                                                          | Middle                            | ---           | ---           | ---            | 50A(60.5mm)                                 | 65A(76.3mm)               | 65A(76.3mm)               |
|                                                          | Discharge                         | 65A(76.3mm)   | 80A(89.1mm)   | 80A(89.1mm)    | 40A(48.6mm)                                 | 50A(60.5mm)               | 50A(60.5mm)               |
| Initial charge of oil (lit.)                             |                                   | 30            | 32            | 32             | 30                                          | 32                        | 32                        |

\*Cooling capacity based on the condition below

【R717 single-stage】CT+40 deg. C/ ET-15 deg. C, Subcooling= 5 deg. C, Subheating=0 deg. C

【R717 two stage】CT+40 deg. C/ET-35 deg. C, Subcooling=5 deg. C, Subheating=0 deg. C, Liquid Temp. before expansion valve=saturation temp.(equivalent to intermediate pressure) + 5deg. C

【R404A single stage】CT+40 deg. C/ ET-20 deg. C, Subcooling= 5 deg. C, Subheating=0 deg. C

【R404A two stage】CT+40 deg. C/ET-40 deg.C, Subcooling=5 deg. C, Subheating=0 deg. C, Liquid Temp. before expansion valve=saturation temp.(equivalent to intermediate pressure) + 5deg. C

# SPECIFICATION: VKM Model

| Unit Name                                                |            | Single-Stage  |               |               | Two-Stage                                   |                         |                           |
|----------------------------------------------------------|------------|---------------|---------------|---------------|---------------------------------------------|-------------------------|---------------------------|
|                                                          | R717       | HVU-VKM14AFL  | HVU-VKM16AFL  | HVU-VKM18AFL  | HVU-VKM24AFL                                | HVU-VKM26AFL            | HVU-VKM28AFL              |
|                                                          | R404A(HFC) | HVU-VKM14BFL  | HVU-VKM16BFL  | HVU-VKM18BFL  | HVU-VKM24BFL                                | HVU-VKM26BFL            | HVU-VKM28BFL              |
| Compressor Model Name                                    |            | VKM14         | VKM16         | VKM18         | VKM24                                       | VKM26                   | VKM28                     |
| Number of Cylinder                                       |            | 4             | 6             | 8             | 3+1                                         | 4+2                     | 6+2                       |
| Capacity Step Control (cylinders)<br>[Low pressure side] |            | 4-2           | 6-4-2         | 8-6-4         | 3-1<br>(Low Stage Side)                     | 4-2<br>(Low Stage Side) | 6-4-2<br>(Low Stage Side) |
| Cylinder bore (mm)                                       |            | 85            | 85            | 85            | 85                                          | 85                      | 85                        |
| Piston stroke (mm)                                       |            | 70            | 70            | 70            | 70                                          | 70                      | 70                        |
| Speed (rpm)<br>[Motor: 50Hz•4P/60Hz•4P]*                 |            | 1450/1750     | 1450/1750     | 1450/1750     | 1450/1750                                   | 1450/1750               | 1450/1750                 |
| Swept Volume (m3/hr.)                                    |            | 138.16/166.75 | 207.24/250.12 | 276.32/333.49 | 42.83/51.69                                 | 80.13/96.71             | 85.66/103.38              |
|                                                          |            |               |               |               | Formula : Volume(High) + 0.08 x Volume(Low) |                         |                           |
| Cooling capacity** (kW)                                  | R717       | 56.2/67.8     | 84.2/101.7    | 112.3/135.6   | 22.8/27.5                                   | 32.7/39.5               | 45.6/55.0                 |
|                                                          | R404A      | 33.2/40.1     | 49.8/60.1     | 66.4/80.1     | 19.5/23.5                                   | 29.6/35.7               | 39.0/47.1                 |
| Connections                                              | Suction    | 65A(76.3mm)   | 65A(76.3mm)   | 80A(89.1mm)   | 65A(76.3mm)                                 | 65A(76.3mm)             | 80A(89.1mm)               |
|                                                          | Middle     | -             | -             | -             | 32A(42.7mm)                                 | 32A(42.7mm)             | 40A(48.6mm)               |
|                                                          | Discharge  | 40A(48.6mm)   | 40A(48.6mm)   | 50A(60.5mm)   | 25A(34.0mm)                                 | 25A(34.0mm)             | 32A(42.7mm)               |
| Initial charge of oil (lit.)                             |            | 9.5           | 9.5           | 10            | 9.5                                         | 9.5                     | 10                        |

\*6P motor is also available for VKM model

\*\*Cooling capacity based on the condition below

【R717 single-stage】CT+40 deg. C/ ET-15 deg. C, Subcooling= 5 deg. C, Subheating=0 deg. C

【R717 two stage】CT+40 deg. C/ET-35 deg. C, Subcooling=5 deg. C, Subheating=0 deg. C, Liquid Temp. before expansion valve=saturation temp.(equivalent to intermediate pressure) + 5deg. C

【R404A single stage】CT+40 deg. C/ ET-20 deg. C, Subcooling= 5 deg. C, Subheating=0 deg. C

【R404A two stage】CT+40 deg. C/ET-40 deg. C, Subcooling=5 deg. C, Subheating=0 deg. C, Liquid Temp. before expansion valve=saturation temp.(equivalent to intermediate pressure) + 5deg. C

# SPECIFICATION: VKL Model

| Unit Name                                               |            | Single-Stage                  |                                |                                |                                | Two -Stage                                  |                                |                                |
|---------------------------------------------------------|------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------------------|--------------------------------|--------------------------------|
|                                                         | R717       | HVU-VKL12AFL                  | HVU-VKL14AFL                   | HVU-VKL16AFL                   | HVU-VKL18AFL                   | HVU-VKL24AFL                                | HVU-VKL26AFL                   | HVU-VKL28AFL                   |
|                                                         | R404A(HFC) | HVU-VKL12BFL                  | HVU-VKL14BFL                   | HVU-VKL16BFL                   | HVU-VKL18BFL                   | HVU-VKL24BFL                                | HVU-VKL26BFL                   | HVU-VKL28BFL                   |
| Compressor Model Name                                   |            | VKL12                         | VKL14                          | VKL16                          | VKL18                          | VKL24                                       | VKL26                          | VKL28                          |
| Number of Cylinder                                      |            | 2                             | 4                              | 6                              | 8                              | 3+1                                         | 4+2                            | 6+2                            |
| Capacity Step Control(cylinders)<br>[Low pressure side] |            | -                             | 4-2                            | 6-4-2                          | 8-6-4                          | 3-1<br>(Low Stage Side)                     | 4-2<br>(Low Stage Side)        | 6-4-2<br>(Low Stage Side)      |
| Cylinder bore (mm)                                      |            | 85                            | 85                             | 85                             | 85                             | 85                                          | 85                             | 85                             |
| Piston stroke (mm)                                      |            | 85                            | 85                             | 85                             | 85                             | 85                                          | 85                             | 85                             |
| Speed (rpm)<br>[Motor Condition]                        |            | 980/1170<br>[50Hz・6P/60Hz・6P] | 1450/1750<br>[50Hz・4P/60Hz・4P] | 1450/1750<br>[50Hz・4P/60Hz・4P] | 1450/1750<br>[50Hz・4P/60Hz・4P] | 1450/1750<br>[50Hz・4P/60Hz・4P]              | 1450/1750<br>[50Hz・4P/60Hz・4P] | 1450/1750<br>[50Hz・4P/60Hz・4P] |
| Swept Volume (m3/hr.)                                   |            | 56.69/67.69                   | 167.77/202.48                  | 251.65/303.72                  | 335.53/404.95                  | 52.01/62.77                                 | 97.30/117.44                   | 104.02/125.54                  |
|                                                         |            |                               |                                |                                |                                | Formula : Volume(High) + 0.08 x Volume(Low) |                                |                                |
| Cooling capacity* (kW)                                  | R717       | 23.0/27.5                     | 68.2/82.3                      | 102.3/123.5                    | 136.4/164.6                    | 27.7/33.4                                   | 39.7/47.9                      | 55.3/66.8                      |
|                                                         | R404A      | 13.6/16.3                     | 40.3/48.6                      | 60.5/73.0                      | 80.6/97.3                      | 23.7/28.6                                   | 35.9/43.4                      | 47.4/57.2                      |
| Connections                                             | Suction    | 32A(42.7mm)                   | 65A(76.3mm)                    | 65A(76.3mm)                    | 80A(89.1mm)                    | 65A(76.3mm)                                 | 65A(76.3mm)                    | 80A(89.1mm)                    |
|                                                         | Middle     | -                             | -                              | -                              | -                              | 32A(42.7mm)                                 | 32A(42.7mm)                    | 40A(48.6mm)                    |
|                                                         | Discharge  | 25A(34mm)                     | 40A(48.6mm)                    | 40A(48.6mm)                    | 50A(60.5mm)                    | 25A(34.0mm)                                 | 25A(34.0mm)                    | 32A(42.7mm)                    |
| Initial charge of oil ( lit. )                          |            | 6.5                           | 9.5                            | 9.5                            | 10                             | 9.5                                         | 9.5                            | 10                             |

\* 6P motor is also available for VKL model(4-8cylinders). 4P motor is NOT available for VKL12.

\*\*Cooling capacity based on the condition below

【R717 single-stage】CT+40 deg. C/ ET-15 deg. C, Subcooling= 5 deg. C, Subheating=0 deg. C

【R717 two stage】CT+40 deg. C/ET-35 deg. C, Subcooling=5 deg. C, Subheating=0 deg. C, Liquid Temp. before expansion valve=saturation temp.(equivalent to intermediate pressure) + 5deg. C

【R404A single stage】CT+40 deg. C/ ET-20 deg. C, Subcooling= 5 deg. C, Subheating=0 deg. C

【R404A two stage】CT+40 deg. C/ET-40 deg.C, Subcooling=5 deg. C, Subheating=0 deg. C, Liquid Temp. before expansion valve=saturation temp.(equivalent to intermediate pressure) + 5deg. C

# SPECIFICATION: VKS Model



| Unit Name                        |            | Single-Stage |
|----------------------------------|------------|--------------|
|                                  | R717       | HVU-VKS12AFL |
|                                  | R404A(HFC) | HVU-VKS12BFL |
| Compressor Model Name            |            | VKS12        |
| Number of Cylinder               |            | 2            |
| Capacity Step Control(cylinders) |            | -            |
| Cylinder bore                    | (mm)       | 85           |
| Piston stroke                    | (mm)       | 55           |
| Speed                            | (rpm)      | 980/1170     |
| [Motor:50Hz•6P/60Hz•6P]*         |            |              |
| Swept Volume                     | (m3/hr.)   | 36.68/43.80  |
| Cooling capacity**               | R717       | 14.9/17.8    |
|                                  | R404A      | 8.8/10.5     |
| Connections                      | Suction    | 32A(42.7mm)  |
|                                  | Middle     | -            |
|                                  | Discharge  | 25A(34.0mm)  |
| Initial charge of oil            |            | (lit.) 6.5   |

\*4P motor is NOT available for VKS12.

\*\*Cooling capacity based on the condition below

【R717 single-stage】CT+40 deg. C/ ET-15 deg. C, Subcooling= 5 deg. C, Subheating=0 deg. C

【R404A single stage】CT+40 deg. C/ ET-20 deg. C, Subcooling= 5 deg. C, Subheating=0 deg. C

# SPECIFICATION: VEM Model



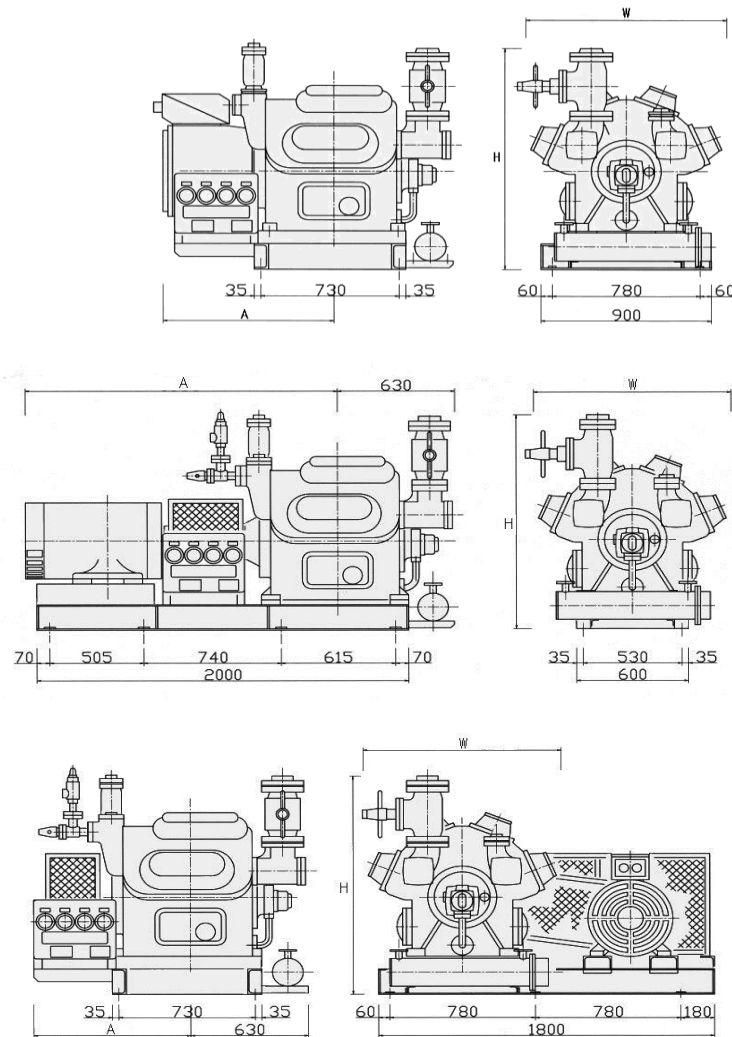
| Unit Name                                               |           | Single-Stage  | Two -Stage                                  |
|---------------------------------------------------------|-----------|---------------|---------------------------------------------|
|                                                         | R717      | HVU-VEM18AFL  | HVU-VEM28AFL                                |
| Compressor Model Name                                   |           | VEM18         | VEM28A                                      |
| Number of Cylinder                                      |           | 8             | 6+2                                         |
| Capacity Step Control(cylinders)<br>[Low pressure side] |           | 8-6-4         | 6-4-2                                       |
| Cylinder bore (mm)                                      |           | 115           | 115                                         |
| Piston stroke (mm)                                      |           | 90            | 90                                          |
| Speed (rpm)<br>[Motor:50Hz・6P/60Hz・6P]                  |           | 980/1170      | 980/1180                                    |
| Swept Volume (m3/hr.)                                   |           | 439.52/524.73 | 136.25/164.06                               |
|                                                         |           |               | Formula : Volume(High) + 0.08 x Volume(Low) |
| Cooling capacity* (kW)                                  | R717      | 191.5/228.6   | 70.7/85.1                                   |
| Connections                                             | Suction   | 100A(114.3mm) | 80A(89.1mm)                                 |
|                                                         | Middle    | ---           | 50A(60.5mm)                                 |
|                                                         | Discharge | 65A(76.3mm)   | 40A(48.6mm)                                 |
| Initial charge of oil (lit. )                           |           | 29            | 29                                          |

\*Cooling capacity based on the condition below

【R717 single-stage】CT+40 deg. C/ ET-15 deg. C, Subcooling= 5 deg. C, Subheating=0 deg. C

【R717 two stage】CT+40 deg. C/ET-35 deg. C, Subcooling=5 deg. C, Subheating=0 deg. C, Liquid Temp. before expansion valve=saturation temp.(equivalent to intermediate pressure) + 5deg. C

# SIZE-VZM/VZL Series (Land Use)



## • Flange Motor Type (mm)

|       | A    | W    | H    |
|-------|------|------|------|
| VZM16 | 1000 | 1020 | 1600 |
| VZM18 | 1020 | 1060 | 1700 |
| VZL18 | 1020 | 1060 | 1700 |
| VZM26 | 1000 | 1020 | 1450 |
| VZM28 | 1000 | 1060 | 1500 |
| VZL28 | 1020 | 1060 | 1500 |

## • Direct Coupling Type (mm)

|       | A    | W    | H    |
|-------|------|------|------|
| VZM16 | 1655 | 1020 | 1550 |
| VZM18 | 1655 | 1060 | 1650 |
| VZL18 | 1655 | 1060 | 1650 |
| VZM26 | 1655 | 1020 | 1400 |
| VZM28 | 1655 | 1060 | 1450 |
| VZL28 | 1655 | 1060 | 1450 |

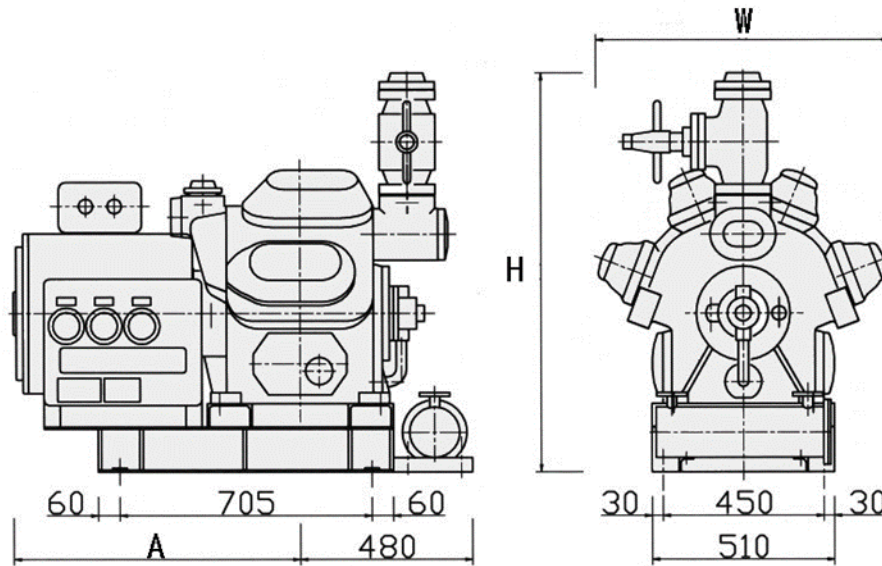
## • V-Belt Type (mm)

|       | A   | W    | H    |
|-------|-----|------|------|
| VZM16 | 840 | 1020 | 1600 |
| VZM18 | 840 | 1060 | 1700 |
| VZL18 | 840 | 1060 | 1700 |
| VZM26 | 840 | 1020 | 1450 |
| VZM28 | 840 | 1060 | 1500 |
| VZL28 | 840 | 1060 | 1500 |

(Size A differs depending on the capacity of motors)



# SIZE-VKM, VKL(4-8cylinders) Flange Motor Type (Land Use)

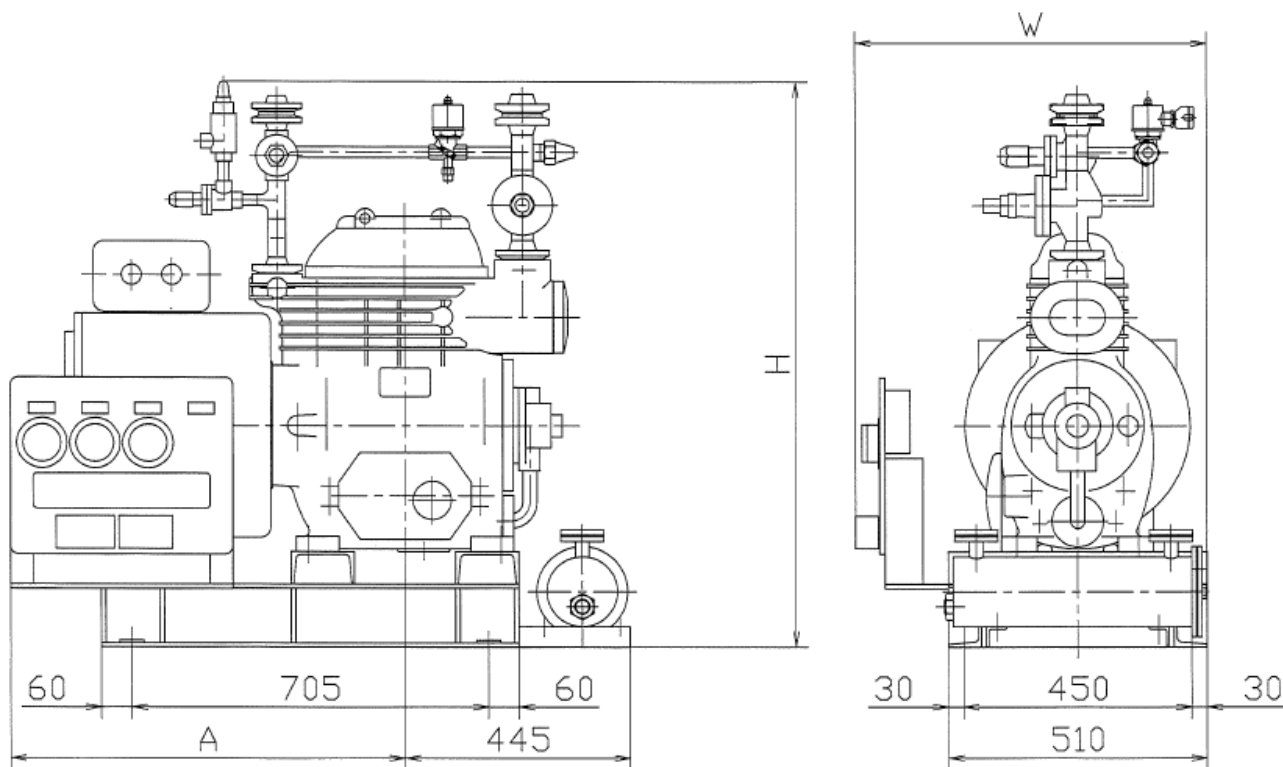


(mm)

|   | HVU-VKM14AFL | HVU-VKM16AFL | HVU-VKM18AFL | HVU-VKM24AFL | HVU-VKM26AFL | HVU-VKM28AFL |
|---|--------------|--------------|--------------|--------------|--------------|--------------|
|   | HVU-VKM14BFL | HVU-VKM16BFL | HVU-VKM18BFL | HVU-VKM24BFL | HVU-VKM26BFL | HVU-VKM28BFL |
|   | HVU-VKL14AFL | HVU-VKL16AFL | HVU-VKL18AFL | HVU-VKL24AFL | HVU-VKL26AFL | HVU-VKL28AFL |
|   | HVU-VKL14BFL | HVU-VKL16BFL | HVU-VKL18BFL | HVU-VKL24BFL | HVU-VKL26BFL | HVU-VKL28BFL |
| A | 750          | 800          | 850          | 750          | 800          | 850          |
| W | 825          | 825          | 850          | 825          | 825          | 850          |
| H | 1170         | 1170         | 1260         | 1170         | 1170         | 1260         |

(Size A differs depending on the capacity of motors)

# SIZE-VKS, VKL(2cylinders) Flange Motor Type (Land Use)

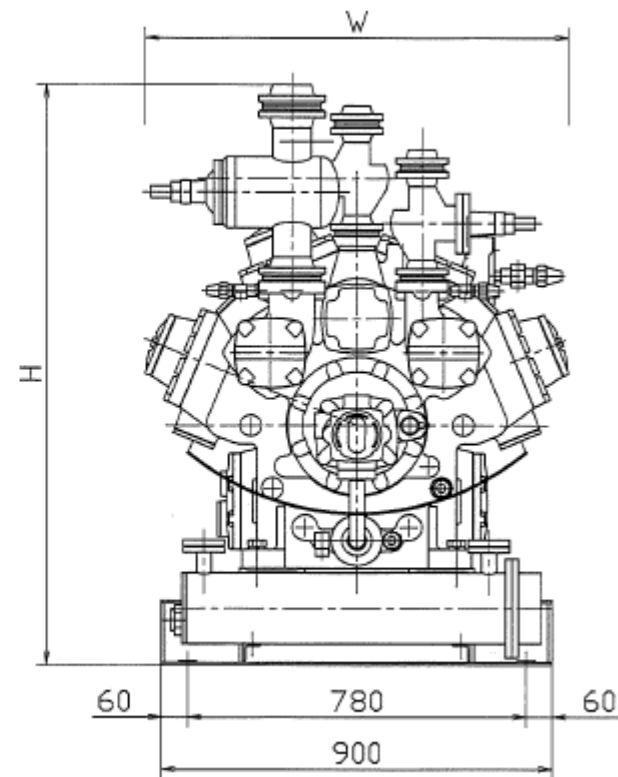
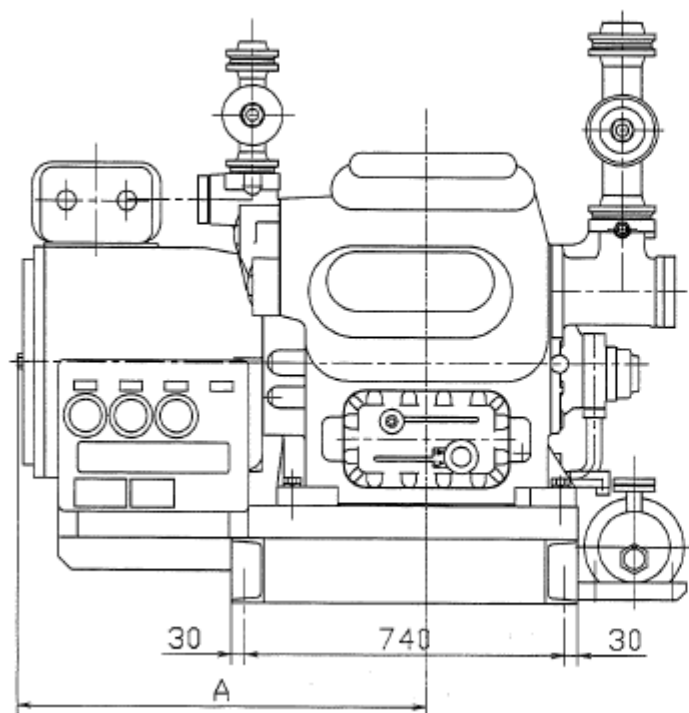


(mm)

|   | HVU-VKS12AFL | HVU-VKL12AFL |
|---|--------------|--------------|
|   | HVU-VKS12BFL | HVU-VKL12BFL |
| A | 780          | 780          |
| W | 700          | 700          |
| H | 1130         | 1130         |

(Size A differs depending on the capacity of motors)

# SIZE-VEM Flange Motor Type (Land Use)



(mm)

|   | HVU-VEM18AF | HVU-VEM28AF |
|---|-------------|-------------|
| A | 950         | 950         |
| W | 980         | 980         |
| H | 1470        | 1350        |

(Size A differs depending on the capacity of motors)

## ■ MODEL NUMBER SYSTEM:

[ FOR EXAMPLE ] **HVU-VZM28AFL**

| <u>HVU-</u> | <u>VZM</u> | <u>28</u>                                                                | <u>A</u>          | <u>F</u>                                        | <u>L</u>           |
|-------------|------------|--------------------------------------------------------------------------|-------------------|-------------------------------------------------|--------------------|
| ↑           | ↑          | ↑                                                                        | ↑                 | ↑                                               | ↑                  |
| Series      | Model      | Top Digit.: No. of Stage(1or2)<br>2 <sup>nd</sup> Digit: No. of Cylinder | Refrigerant       | Drive                                           | Usage              |
| HVU-        | VZM        | 16,26,18,28                                                              | A=R717<br>B=R404A | F=Flange Motor<br>D=Direct Coupling<br>V=V-Belt | L=Land<br>M=Marine |
|             | VZL        | 18,28                                                                    |                   |                                                 |                    |

[ FOR EXAMPLE ] **HVU-VKM28AFL**

| <u>HVU-</u> | <u>VKM</u> | <u>28</u>                                                                | <u>A</u>          | <u>F</u>                                        | <u>L</u>           |
|-------------|------------|--------------------------------------------------------------------------|-------------------|-------------------------------------------------|--------------------|
| ↑           | ↑          | ↑                                                                        | ↑                 | ↑                                               | ↑                  |
| Series      | Model      | Top Digit.: No. of Stage(1or2)<br>2 <sup>nd</sup> Digit: No. of Cylinder | Refrigerant       | Drive                                           | Usage              |
| HVU-        | VKS        | 12                                                                       | A=R717<br>B=R404A | F=Flange Motor<br>D=Direct Coupling<br>V=V-Belt | L=Land<br>M=Marine |
|             | VKM        | 14,16,18<br>24,26,28                                                     |                   |                                                 |                    |
|             | VKL        | 12,14,16,18<br>24,26,28                                                  |                   |                                                 |                    |

[ FOR EXAMPLE ] **HVU-DEM28AFL**

| <u>HVU-</u> | <u>DEM</u> | <u>28</u>                                                                | <u>A</u>    | <u>F</u>                                        | <u>L</u>           |
|-------------|------------|--------------------------------------------------------------------------|-------------|-------------------------------------------------|--------------------|
| ↑           | ↑          | ↑                                                                        | ↑           | ↑                                               | ↑                  |
| Series      | Model      | Top Digit.: No. of Stage(1or2)<br>2 <sup>nd</sup> Digit: No. of Cylinder | Refrigerant | Drive                                           | Usage              |
| HVU-        | DEM        | 18<br>28                                                                 | A=R717      | F=Flange Motor<br>D=Direct Coupling<br>V=V-Belt | L=Land<br>M=Marine |

## ■ **STANDARD ACCESSORIES for Land Use Compressor:**

Oil Cooler, Gauge Board, Solenoid Valve for Starting Up, Crankcase Heater (R404A),  
Thermometers, Pressure Gauges, Pressure Protection Switch, Oil Filter (VZ/VE)  
Safety Relief Valve, Base Frame, and Standard Tools.

## ■ **OPTION:**

Vibration Proof Device (Pads & Flexible Tubes), Refrigerant, Lubrication Oil, Spare Parts  
Oil By-Pass Filter

## ■ **SPECIAL SPECIFICATION:**

Special specification is negotiable.

## Other Units-VZ Series



Condensing Unit



Receiver Unit

## Other Units-VK Series



Condensing Unit



Receiver Unit



Brain Cooling Unit



Cascade Cooling Unit