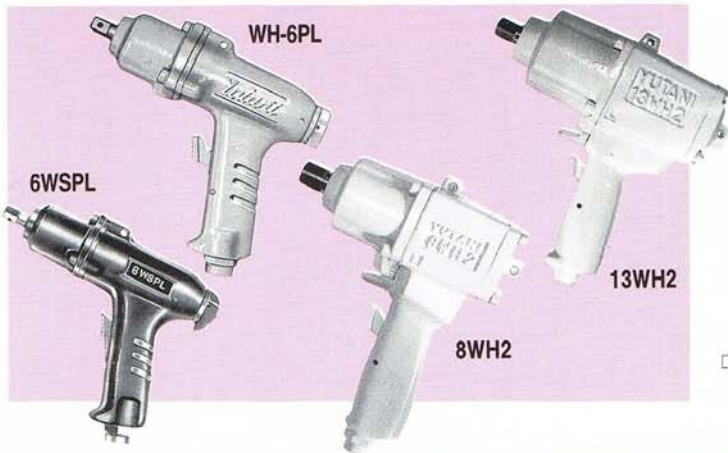


# IMPACT WRENCHES

Yutani's impact wrenches are air tools ideally suited for tightening and loosening nuts and bolts, and are highly rated in a wide range of industries. Please make your selection based on each tool's particular application.

## Pistol-grip standard models



These compact lightweight models are best sellers and have been well-received in many industries, particularly on automobile production lines.

- Option: A two-step rotation type (6 mm type) with low speed and high speed is available.

Air pressure 0.49MPa

| Model  | Capacity | Free speed | Weight | Overall length | Square drive size | Air inlet |
|--------|----------|------------|--------|----------------|-------------------|-----------|
|        | mm       | rpm        | kg     | mm             | mm                | P.T       |
| 6WSPL  | 6        | 8,500      | 0.85   | 172            | 9.5               | 1/4       |
| WH-6PL | 6        | 8,500      | 0.9    | 170            | 9.5               | 1/4       |
| 6WSHPL | 6~8      | 8,000      | 0.95   | 165            | 9.5               | 1/4       |
| 8WH2   | 8~10     | 6,400      | 1.4    | 160            | 9.5*, 12.7        | 1/4       |
| 10WH2  | 10       | 6,300      | 1.7    | 164            | 12.7              | 1/4       |
| 13WK   | 14       | 5,000      | 3.6    | 208            | 12.7              | 1/4       |
| 13WH2  | 14       | 4,800      | 2.7    | 202            | 12.7              | 1/4       |

\* Option

- Please inquire as to the date of delivery, since this varies depending on production schedules.

## Pistol-grip rear-exhaust models (low-noise and low-vibration types)



The grips of these compact lightweight models comfortably fit the hand for easy operation. Exhaust noise is reduced by about 10 phons and the direction of exhaust is variable over 360 degrees. The low-vibration type conforms to environmental hygiene regulations and has been specially developed by Yutani.

Air pressure 0.49MPa

| Model   | Capacity | Free speed | Weight | Overall length | Square drive size | Air inlet |
|---------|----------|------------|--------|----------------|-------------------|-----------|
|         | mm       | rpm        | kg     | mm             | mm                | P.T       |
| 5WPE    | 5~6      | 9,000      | 0.85   | 142            | 9.5               | 1/4       |
| 6WSPE   | 6        | 8,500      | 0.85   | 172            | 9.5               | 1/4       |
| WH-6PLE | 6        | 8,500      | 0.9    | 170            | 9.5               | 1/4       |
| 6WSHPE  | 6~8      | 8,000      | 0.95   | 165            | 9.5               | 1/4       |
| 600SHE  | 6~8      | 8,000      | 1.1    | 170            | 9.5               | 1/4       |
| 8WPE    | 8        | 7,500      | 1.4    | 160            | 9.5               | 1/4       |
| 10WHE   | 10       | 6,000      | 1.7    | 164            | 12.7              | 1/4       |
| 13WHE   | 14       | 4,800      | 2.7    | 202            | 12.7              | 1/4       |
| L-13WPA | 14       | 4,800      | 3.3    | 202            | 12.7              | 1/4       |

■ Two-step rotation type (standard)

- Low-vibration type (incorporating Yutani's exclusive vibration-isolation mechanism that conforms to Japan's environmental hygiene regulations.)

## Pistol-grip heavy-duty models

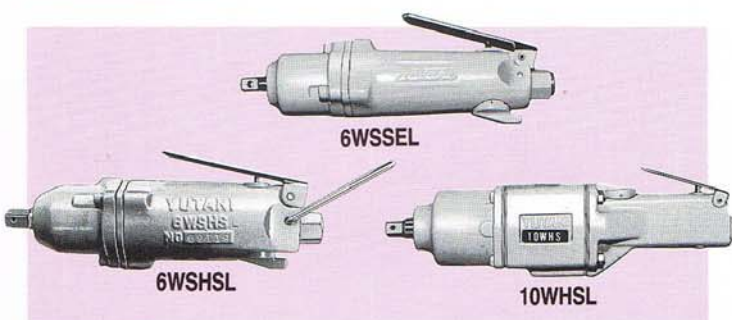


These are the most powerful of the pistol-grip models. They are used in the shipbuilding, bridge-building, construction and civil engineering industries. A built-in adjustment valve makes capacity adjustments easy.

Air pressure 0.49MPa

| Model | Capacity | Free speed | Weight | Overall length | Square drive size | Air inlet |
|-------|----------|------------|--------|----------------|-------------------|-----------|
|       | mm       | rpm        | kg     | mm             | mm                | P.T       |
| 16WPA | 16       | 5,000      | 4.3    | 222            | 15.9              | 3/8       |
| 16WPB | 16       | 5,000      | 4.3    | 230            | 19.0              | 3/8       |
| 19WP  | 19~22    | 4,200      | 6.5    | 240            | 19.0              | 3/8       |
| 32WP  | 33       | 3,200      | 11.5   | 310            | 25.4              | 1/2       |

## Straight-type standard models



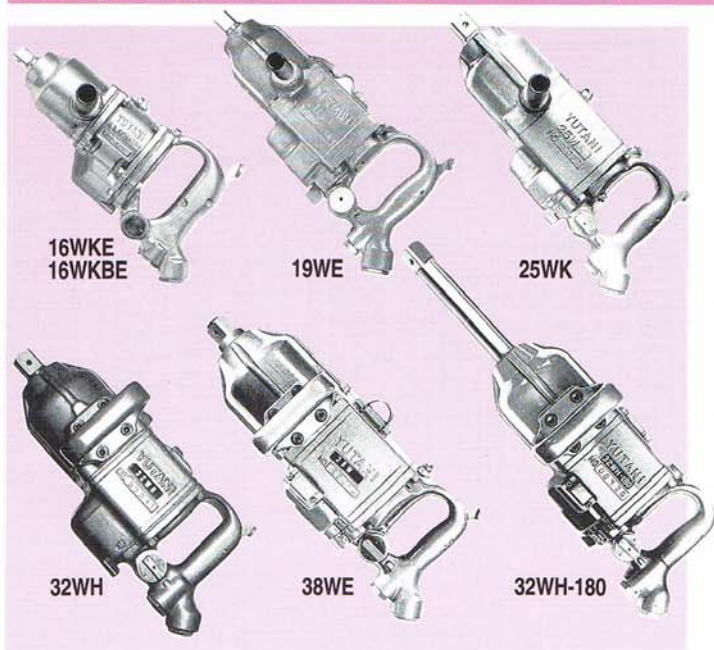
These straight-type models are effective for tightening and loosening nuts and bolts where it is difficult to use conventional pistol-grip models because of the working method or the location. They are lightweight and easy to operate.

Air pressure 0.49MPa

| Model   | Capacity | Free speed | Weight | Overall length | Square drive size | Air inlet |
|---------|----------|------------|--------|----------------|-------------------|-----------|
|         | mm       | rpm        | kg     | mm             | mm                | P.T       |
| 6WSSEL  | 6        | 8,500      | 0.8    | 198            | 9.5               | 1/4       |
| WH-6SEL | 6        | 8,500      | 0.8    | 198            | 9.5               | 1/4       |
| 6WSHSL  | 6~8      | 8,000      | 0.9    | 190            | 9.5               | 1/4       |
| 8WSAL   | 8        | 5,800      | 1.3    | 202            | 9.5, 12.7*        | 1/4       |
| 10WHSL  | 10       | 6,300      | 2.1    | 262            | 12.7              | 1/4       |
| 13WHSL  | 14       | 4,800      | 2.9    | 315            | 12.7              | 1/4       |

\* Option

## Grip-type standard models and long-chuck driver models



These are medium-sized impact wrenches indispensable to heavy-duty applications in the automobile, construction machinery and shipbuilding industries. A built-in adjustment valve makes capacity adjustments easy. The long-chuck drivers are suited for installing and removing tires on large vehicles, and tightening and loosening nuts and bolts in isolated areas.

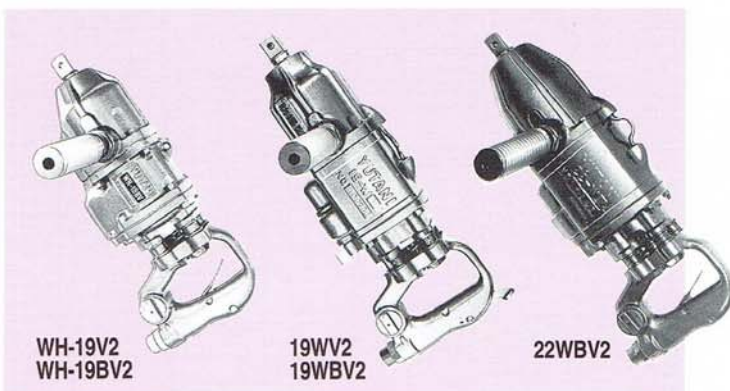
Air pressure 0.49MPa

| Model                          | Capacity | Free speed | Weight | Overall length | Square drive size | Air inlet |
|--------------------------------|----------|------------|--------|----------------|-------------------|-----------|
|                                | mm       | rpm        | kg     | mm             | mm                | P.T       |
| <input type="checkbox"/> 16WK  | 19       | 5,500      | 4.7    | 288            | 15.9              | 3/8       |
| <input type="checkbox"/> 16WKB | 19       | 5,500      | 4.7    | 292            | 19.0              | 3/8       |
| 16WKE                          | 19       | 5,500      | 4.7    | 284            | 15.9              | 3/8       |
| 16WKBE                         | 19       | 5,500      | 4.7    | 288            | 19.0              | 3/8       |
| 19WE                           | 20       | 4,400      | 6.0    | 345            | 15.9              | 3/8       |
| WH-19                          | 20       | 4,200      | 5.4    | 300            | 15.9              | 3/8       |
| WH-19B                         | 20       | 4,200      | 5.4    | 300            | 19.0              | 3/8       |
| 22WB                           | 24       | 3,800      | 7.6    | 360            | 19.0              | 3/8       |
| 25WK                           | 27       | 3,400      | 10.0   | 370            | 25.4              | 3/8       |
| 32WH                           | 33       | 3,600      | 11.3   | 378            | 25.4              | 1/2       |
| 38WE                           | 39       | 2,900      | 15.0   | 440            | 25.4              | 1/2       |
| 42W                            | 42       | 3,200      | 14.7   | 403            | 25.4              | 1/2       |
| 32WH-180                       | 33       | 3,600      | 12.8   | 577            | 25.4              | 1/2       |
| 38WE-180                       | 39       | 2,900      | 16.5   | 630            | 25.4              | 1/2       |
| 42W-180                        | 42       | 3,200      | 16.2   | 608            | 25.4              | 1/2       |

Standard: Outside lever type    Option: Inside lever type

Only the outside lever type

## Grip-type vibration-proof models



These models offer superior vibration isolation and conform to environmental hygiene regulations. They are particularly useful for pole and pile works. Vibrations have been reduced by about 20% to minimize worker fatigue.

Air pressure 0.49MPa

| Model    | Capacity | Free speed | Weight | Overall length | Square drive size | Air inlet |
|----------|----------|------------|--------|----------------|-------------------|-----------|
|          | mm       | rpm        | kg     | mm             | mm                | P.T       |
| 16WKV2   | 16 ~ 19  | 5,500      | 5.2    | 339            | 15.9              | 3/8       |
| 16WKBV2  | 16 ~ 19  | 5,500      | 5.2    | 343            | 19.0              | 3/8       |
| WH-19V2  | 19       | 4,200      | 5.8    | 358            | 15.9              | 3/8       |
| WH-19BV2 | 19       | 4,200      | 5.8    | 358            | 19.0              | 3/8       |
| 19WV2    | 19 ~ 22  | 4,400      | 7.2    | 390            | 15.9              | 3/8       |
| 19WBV2   | 19 ~ 22  | 4,400      | 7.2    | 396            | 19.0              | 3/8       |
| 22WBV2   | 22       | 3,800      | 7.4    | 405            | 19.0              | 3/8       |
| 22WKV2   | 19 ~ 25  | 3,400      | 9.8    | 421            | 25.4              | 3/8       |

Standard: Inside lever type    Option: Outside lever type

## Corner-type models and corner-type heavy-duty models



These models are ideally suited for tightening and loosening nuts and bolts in narrow and recessed areas. They have been well received by the automobile and general industries. The corner-type heavy-duty models are powerful and practical for the shipbuilding, construction machinery and large plant construction industries. A built-in adjustment valve makes capacity adjustments easy.

Air pressure 0.49MPa

| Model                            | Capacity | Free speed | Weight | Overall length | Height of corner section | Square drive size | Air inlet |
|----------------------------------|----------|------------|--------|----------------|--------------------------|-------------------|-----------|
|                                  | mm       | rpm        | kg     | mm             | mm                       | mm                | P.T       |
| 6WHCL                            | 6        | 8,000      | 1.3    | 229            | 58                       | 9.5               | 1/4       |
| 6CWHL                            | 6 ~ 8    | 7,500      | 1.4    | 216            | 57                       | 9.5               | 1/4       |
| 8WHCL                            | 8 ~ 10   | 5,800      | 2.0    | 279            | 69                       | 9.5               | 1/4       |
| 10WHCL                           | 10       | 6,000      | 3.0    | 304            | 86.5                     | 12.7              | 1/4       |
| 13WHCL                           | 14       | 4,600      | 4.5    | 359            | 86.5                     | 12.7              | 3/8       |
| 16WKC                            | 16       | 5,200      | 7.0    | 351            | 107                      | 15.9              | 3/8       |
| <input type="checkbox"/> WH-19C  | 20       | 4,000      | 9.0    | 358            | 113                      | 15.9              | 3/8       |
| <input type="checkbox"/> WH-19BC | 20       | 4,000      | 9.0    | 358            | 118                      | 19.0              | 3/8       |
| <input type="checkbox"/> 22CWB   | 24       | 3,200      | 9.8    | 398            | 127                      | 19.0              | 3/8       |
| <input type="checkbox"/> 25CWK   | 27       | 3,000      | 13.0   | 425            | 145                      | 25.4              | 3/8       |
| <input type="checkbox"/> 32CWB   | 33       | 2,800      | 17.0   | 481            | 144                      | 25.4              | 1/2       |
| <input type="checkbox"/> 38CWB   | 39       | 2,500      | 20.3   | 517            | 155                      | 25.4              | 1/2       |

Please inquire as to the date of delivery, since this varies depending on production schedules.

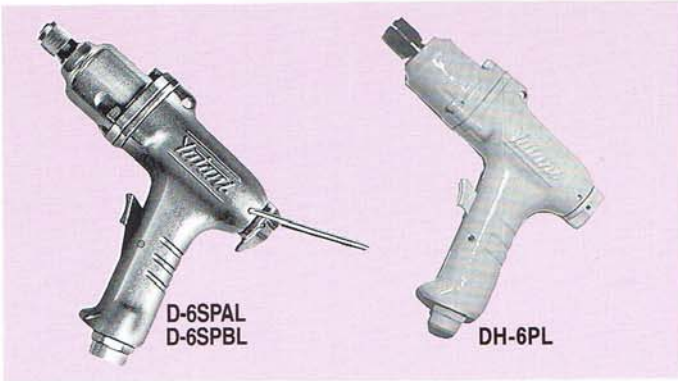
Standard: Inside lever type    Option: Outside lever type

# IMPACT SCREWDRIVERS

Yutani's impact screwdrivers are air tools which have been well-received and are widely used for fastening screws and tapping screws on automobile production lines and in many other industries. Please make your selection on the application.



## Pistol-grip standard models



These compact, lightweight models are best sellers and have been well-received in industries which require efficient screw tightening and loosening.

- Option: A two-step rotation type (6 mm type) with low speed and high speed is available.
- Letters A and B in the model number represent the type of bit.  
A: Applicable to single-end bits  
B or no indication: Applicable to double-end and single-end bits

Air pressure 0.49MPa

| Model   | Capacity | Free speed | Weight | Overall length | Square drive size | Air inlet |
|---------|----------|------------|--------|----------------|-------------------|-----------|
|         | mm       | rpm        |        |                |                   |           |
| D-6SPAL | 6        | 8,500      | 0.85   | 177            | 6.35              | 1/4       |
| D-6SPBL | 6        | 8,500      | 0.85   | 177            | 6.35              | 1/4       |
| DH-6PL  | 6        | 8,500      | 0.9    | 177            | 6.35              | 1/4       |

## Pistol-grip rear-exhaust models



The rear exhaust direction is variable over 360 degrees, offering reduced noise and a cleaner working environment regardless of the direction of operation.

- Letters A and B in the model number represent the type of bit.  
A: Applicable to single-end bits  
B or no indication: Applicable to double-end and single-end bits

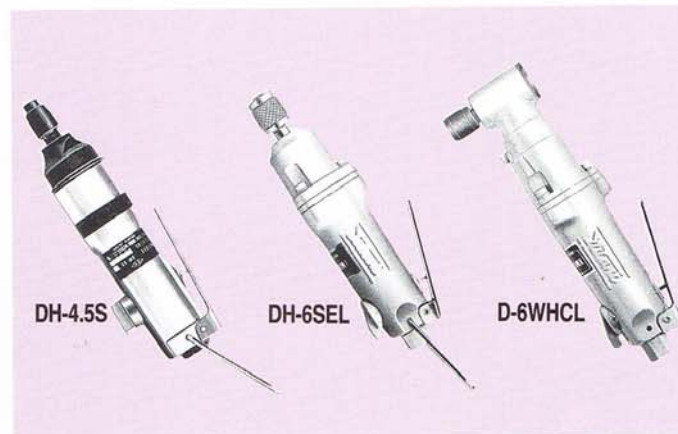
Models DH-4.5PE, D-5WPE, and D-600SHE feature a new screw-on case to prevent the workpiece from damage.

Air pressure 0.49MPa

| Model       | Capacity | Free speed | Weight | Overall length | Square drive size | Air inlet |
|-------------|----------|------------|--------|----------------|-------------------|-----------|
|             | mm       | rpm        |        |                |                   |           |
| ■ DH-4.5PEA | 3.5 ~ 5  | 11,000     | 0.8    | 160            | 6.35              | 1/4       |
| ■ DH-4.5PEB | 3.5 ~ 5  | 11,000     | 0.8    | 160            | 6.35              | 1/4       |
| ■ D-5WPEA   | 5 ~ 6    | 9,000      | 0.85   | 145            | 6.35              | 1/4       |
| ■ D-5WPEB   | 5 ~ 6    | 9,000      | 0.85   | 145            | 6.35              | 1/4       |
| □ D-6SPALE  | 6        | 8,000      | 0.8    | 177            | 6.35              | 1/4       |
| □ D-6SPBLE  | 6        | 8,000      | 0.8    | 177            | 6.35              | 1/4       |
| □ DH-6PLE   | 6        | 8,000      | 0.8    | 177            | 6.35              | 1/4       |
| □ D-6WSHPE  | 6 ~ 8    | 8,000      | 0.9    | 172            | 6.35              | 1/4       |
| ■ D-600SHEA | 6 ~ 8    | 8,000      | 1.0    | 177            | 6.35              | 1/4       |
| ■ D-600SHEB | 6 ~ 8    | 8,000      | 1.0    | 177            | 6.35              | 1/4       |
| ■ D-8WPE    | 6        | 7,500      | 1.4    | 160            | 6.35              | 1/4       |

- Two-step rotation type (standard)
- Two-step rotation type (option)

## Straight-type standard models and corner-type models



These compact, lightweight straight-type models are very easy to use in any working posture. The corner-type models are suited for jobs in narrow and confined areas where it is difficult to use the pistol-grip models and straight-type models.

Air pressure 0.49MPa

| Model     | Capacity | Free speed | Weight | Overall length | Square drive size | Air inlet |
|-----------|----------|------------|--------|----------------|-------------------|-----------|
|           | mm       | rpm        |        |                |                   |           |
| DH-4.5S   | 3.5 ~ 5  | 11,000     | 0.6    | 190            | 6.35              | 1/8       |
| D-6SSAEL  | 6        | 8,500      | 0.8    | 204            | 6.35              | 1/4       |
| D-6SSBEL  | 6        | 8,500      | 0.8    | 204            | 6.35              | 1/4       |
| DH-6SEL   | 6        | 8,500      | 0.8    | 205            | 6.35              | 1/4       |
| D-6SHSL   | 6 ~ 8    | 8,000      | 0.9    | 200            | 6.35              | 1/4       |
| □ D-6WHCL | 6        | 7,500      | 1.4    | 229            | 6.35              | 1/4       |

- Please inquire as to the date of delivery, since this varies depending on production schedules.

# エアグラインダ/エアサンダ

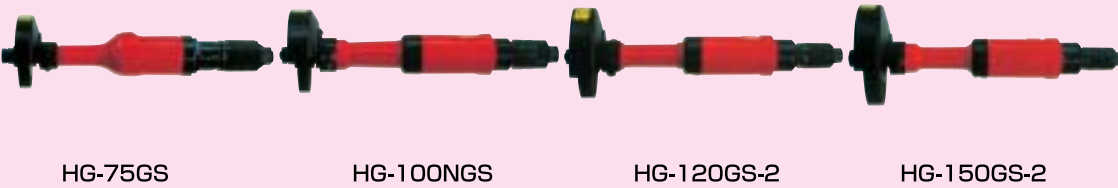
## Air Grinders/Air Sanders

安全設計で高能力、高速研削、長寿命を達成!  
High Power, Fast Grinding and Long Life with Safety Design!

**ペンシルグラインダ** 小型軽量で金型の仕上、バリ取り、面取り等の作業に威力を発揮します。  
**Pencil Grinders** These compact lightweight models are ideal for finishing, deburring and filleting metal molds.



**ストレートグラインダ**  
**Straight Grinders**  
バリ取り、錆落とし、溶接仕上の軽作業から重作業、研削に好評です。  
High-speed rotation ensures more efficient continuous operation when removing burrs and rust and when finishing welded products.



**スロットル機構**  
Throttle Type

- 標準グリップハンドル  
Standard Grip Handle
- 安全グリップハンドル  
Safety Grip Handle
- 標準レバー  
Standard Lever
- 安全レバー(オプション)  
Safety Lever(option)
- デッドハンドル  
Dead handle Type
- 標準型  
Standard
- 防振型(オプション)  
Low Vibration(option)

**アングルグラインダ** 錆落とし、溶接仕上、バリ取りなどの研削に好評です。  
**Angle Grinders** These compact lightweight models ensure safe and efficient grinding operations.



**アングルサンダ** ディスクペーパー・ワイヤブラシによる錆落とし、塗料落とし、溶接仕上などの研磨作業に最適です。  
**Angle Sanders** These compact lightweight models are ideal for safe and efficient sanding and polishing.



# AG エアグラインダ/エアサンダ Air Grinders/Air Sanders

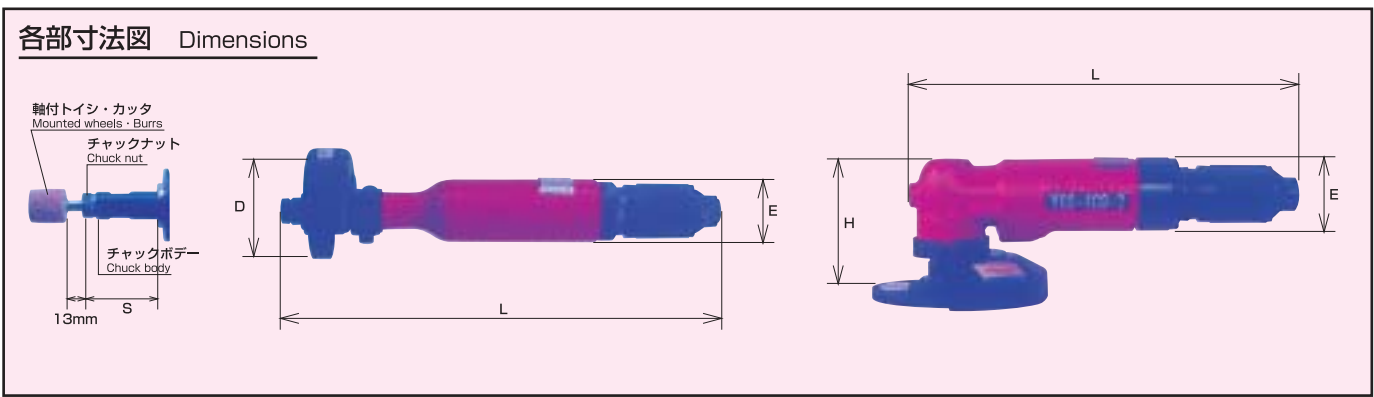
## 仕様 Specifications

空気圧力 Air pressure 0.59MPa

| 種別<br>Class | 形状<br>Shape       | 型式<br>Model |  | チャックナット寸法      | 無負荷回転数<br>(最高)<br>Free speed<br>(maximum) | 質量<br>Mass | 全長<br>Overall length |    | 外径<br>Outer diameter | 空気消費量<br>Air consumption | ホース口金<br>取付ねじ<br>Air inlet | ホース内径<br>Hose diameter |
|-------------|-------------------|-------------|--|----------------|---|------------|----------------------|----|----------------------|--------------------------|----------------------------|------------------------|
|             |                   |             |  | Chuck nut size |   |            | L                    | S  |                      |                          |                            |                        |
| Grinders    | ペンシル<br>Pencil    | HG-13NB     | グリップハンドル式<br>Grip handle type                          | 3,             | 30,000                                    | 0.44       | 150                  | 26 | 33.5                 | 0.3                      | 1/4                        | 6.3                    |
|             |                   | HG-20NB     | グリップハンドル式<br>Grip handle type                          | 6,             | 21,000                                    | 0.48       | 165                  | 44 | 36                   | 0.4                      | 1/4                        | 6.3                    |
|             |                   | HG-38NK     | レバー式<br>Lever type                                     | 3,6,6.35       | 22,000                                    | 0.47       | 159                  | 40 | 35                   | 0.45                     | 1/4                        | 9.5                    |
|             |                   | HG-38NB-2   | グリップハンドル式<br>Grip handle type                          | 3,6,6.35       | 22,000                                    | 0.60       | 150                  | 35 | 35                   | 0.45                     | 1/4                        | 9.5                    |
|             |                   | HG-38NB-21  | グリップハンドル式<br>前方排気<br>Grip handle type<br>Front exhaust | 3,6,6.35       | 22,000                                    | 0.60       | 150                  | 35 | 35                   | 0.45                     | 1/4                        | 9.5                    |
|             | ストレート<br>Straight | HG-65NY     | レバー式<br>Lever type                                     | 3,6,6.35       | 18,000                                    | 0.68       | 171                  | 41 | 41                   | 0.5                      | 1/4                        | 9.5                    |
|             |                   | HG-65NC     | グリップハンドル式<br>Grip handle type                          | 3,6,6.35       | 18,000                                    | 0.83       | 174                  | 41 | 44                   | 0.5                      | 1/4                        | 9.5                    |
|             |                   | HG-65GSC    | コレット式<br>Collet type                                   | 3,6,6.35       | 14,600                                    | 1.20       | 330                  | 66 | 42                   | 0.5                      | 1/4                        | 9.5                    |
|             |                   | HG-65GLBSC  | コレット式<br>Collet type                                   | 3,6,6.35       | 14,600                                    | 1.84       | 501                  | 66 | 42                   | 0.5                      | 1/4                        | 9.5                    |
|             |                   | HG-75GSC    | コレット式<br>Collet type                                   | 3,6,6.35       | 12,000                                    | 1.37       | 354                  | 66 | 52                   | 0.5                      | 1/4                        | 9.5                    |

| 種別<br>Class | 形状<br>Shape       | 型式<br>Model | ホイール/ペーパー寸法<br>(外径×厚さ×穴径)<br>Wheel/Paper size(O.d.×<br>thickness×hole dia.) | ホイール軸ネジ寸法<br>Wheel spindle<br>screw size | ヘッド角度<br>Head angle | 無負荷回転数<br>(最高)<br>Free speed<br>(maximum) | 質量<br>(ホイールなし)<br>Mass<br>(without wheel) | 全長<br>Overall length |     | 外径<br>Outer diameter |    |   | 空気消費量<br>Air consumption | ホース口金<br>取付ねじ<br>Air inlet | ホース内径<br>Hose diameter |
|-------------|-------------------|-------------|---|--|---------------------|---|---|----------------------|-----|----------------------|----|---|--------------------------|----------------------------|------------------------|
|             |                   |             | mm  | mm                                       | Degree              | min <sup>-1</sup> (rpm)                   | kg  | L                    | D   | E                    | H  |   |                          |                            |                        |
| Grinders    | ストレート<br>Straight | HG-65GS     | 65×13×9.5   | W3/8-16                                  | —                   | 14,600                                    | 1.3                                       | 292                  | 65  | 42                   | —  | — | 0.45                     | 1/4                        | 9.5                    |
|             |                   | HG-65GLBS   | 65×13×9.5   | W3/8-16                                  | —                   | 14,600                                    | 1.95                                      | 462                  | 65  | 42                   | —  | — | 0.45                     | 1/4                        | 9.5                    |
|             |                   | HG-75GS     | 75×13×9.5   | W3/8-16                                  | —                   | 12,000                                    | 1.49                                      | 312                  | 75  | 52                   | —  | — | 0.50                     | 1/4                        | 9.5                    |
|             |                   | HG-100NGS   | 100×16×12.7   | W1/2-12                                  | —                   | 9,500                                     | 2.27                                      | 367                  | 100 | 55                   | —  | — | 0.55                     | 3/8                        | 12.7                   |
|             |                   | HG-120GS-2  | 125×19×12.7   | W1/2-12                                  | —                   | 7,600                                     | 3.06                                      | 418                  | 125 | 62                   | —  | — | 0.60                     | 3/8                        | 12.7                   |
|             | アングル<br>Angle     | HG-150GS-2  | 150×25×15.9   | W5/8-11                                  | —                   | 6,300                                     | 4.05                                      | 448                  | 150 | 68                   | —  | — | 0.65                     | 3/8                        | 12.7                   |
|             |                   | YGS-2G      | 50×4×9.5  | —  | 90                  | 14,000                                    | 0.66                                      | 158                  | —   | 35                   | 48 | — | 0.40                     | 1/4                        | 9.5                    |
|             |                   | YGS-3GS-1   | 75×4×15   | —  | 90                  | 13,500                                    | 1.05                                      | 187                  | —   | 37                   | 67 | — | 0.45                     | 1/4                        | 9.5                    |
|             |                   | YGS-3GS-2   | 100×6×15  | —  | 90                  | 13,500                                    | 1.08                                      | 187                  | —   | 37                   | 67 | — | 0.45                     | 1/4                        | 9.5                    |
|             |                   | YGS-4GS-2   | 100×6×15  | —  | 90                  | 13,600                                    | 1.69                                      | 242                  | —   | 47                   | 74 | — | 0.70                     | 1/4                        | 9.5                    |
| Sanders     | アングル<br>Angle     | YGS-4GBS-2  | 100×6×15  | —  | 90                  | 13,600                                    | 1.89                                      | 242                  | —   | 47                   | 74 | — | 0.70                     | 1/4                        | 9.5                    |
|             |                   | YGS-4GBSE-2 | 100×6×15  | —  | 90                  | 13,600                                    | 1.92                                      | 242                  | —   | 47                   | 74 | — | 0.70                     | 1/4                        | 9.5                    |
|             |                   | YGS-4GBCS   | 100×6×15  | —  | 105                 | 13,600                                    | 1.95                                      | 235                  | —   | 47                   | 82 | — | 0.70                     | 1/4                        | 9.5                    |
|             |                   | YGS-5GCS    | 125×6×22  | —  | 105                 | 10,900                                    | 2.26                                      | 244                  | —   | 48                   | 86 | — | 0.75                     | 1/4                        | 9.5                    |
|             |                   | YGS-6GS     | 180×6×22  | —  | 90                  | 7,600                                     | 2.30                                      | 286.5                | —   | 50                   | 82 | — | 1.20                     | 3/8                        | 12.7                   |
|             |                   | YGS-7GS-3   | 180×6×22  | —  | 90                  | 7,600                                     | 3.53                                      | 286                  | —   | 63                   | 94 | — | 1.20                     | 3/8                        | 12.7                   |
|             |                   | YGS-7ES     | 180×6×22  | —  | 90                  | 7,600                                     | 3.52                                      | 287                  | —   | 71                   | 89 | — | 1.20                     | 3/8                        | 12.7                   |
|             |                   | YGS-2GP     | 50× <sub>×</sub> 10   | —  | 90                  | 14,600                                    | 0.62                                      | 159                  | —   | 35                   | 48 | — | 0.40                     | 1/4                        | 9.5                    |
|             |                   | SS-100S     | 100× <sub>×</sub> 16  | —  | 90                  | 12,500                                    | 0.93                                      | 187                  | —   | 37                   | 67 | — | 0.45                     | 1/4                        | 9.5                    |
|             |                   | YGS-4PS-2   | 125× <sub>×</sub> 16  | —  | 90                  | 10,000                                    | 1.58                                      | 233                  | —   | 47                   | 74 | — | 0.70                     | 1/4                        | 9.5                    |
| Sanders     | アングル<br>Angle     | YGS-4PCS    | 125× <sub>×</sub> 16  | —  | 105                 | 10,000                                    | 1.84                                      | 235                  | —   | 47                   | 82 | — | 0.70                     | 1/4                        | 9.5                    |
|             |                   | YGS-5GPS    | 150× <sub>×</sub> 22  | —  | 105                 | 8,000                                     | 1.99                                      | 244                  | —   | 48                   | 86 | — | 0.75                     | 1/4                        | 9.5                    |
|             |                   | YGS-6P      | 126× <sub>×</sub> 22  | —  | 120                 | 7,000                                     | 1.80                                      | 224                  | —   | 35                   | 84 | — | 0.75                     | 1/4                        | 9.5                    |

標準グリップハンドル Standard Grip Handle



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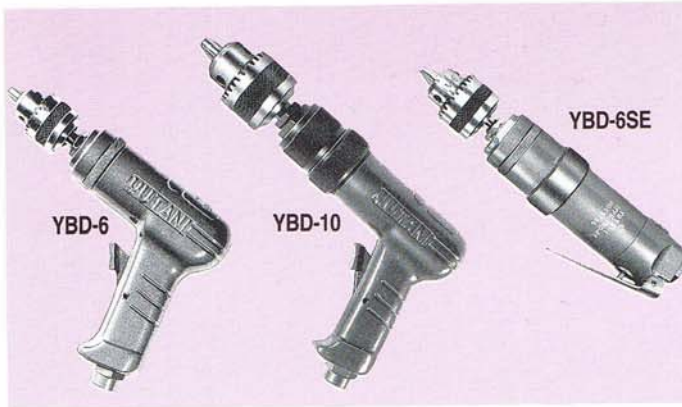
仕様および設計は変更することがありますので予め御諒承願います。  
Specifications and designs in this catalogue may be subject to change.

# AIR DRILLS

Yutani's rotary air drills are compact, lightweight and perform well even when overloaded. They are suited for a wide range of drilling jobs.



## Small pistol-grip models and small straight-type models



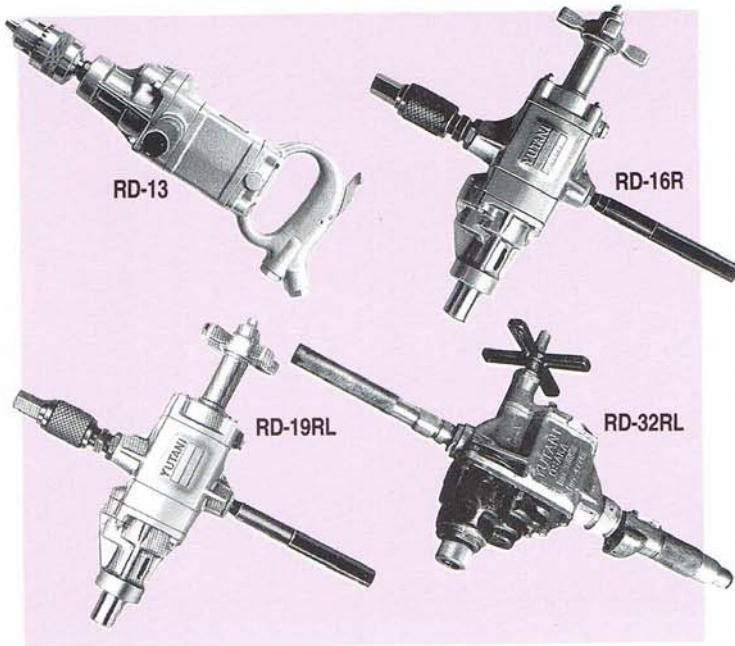
These models are compact, powerful and variable in speed. They are suitable for drilling and spot-facing and enjoy a good reputation in many fields, particularly in the automobile industry.

Air pressure 0.59MPa

| Model   | Drill capacity | Free speed | Weight | Overall length | Air inlet |
|---------|----------------|------------|--------|----------------|-----------|
|         | mm             | rpm        |        |                |           |
| YBD-6   | 6.3            | 3,600      | 1.1    | 167            | 1/4       |
| YBD-8B  | 8              | 1,500      | 1.4    | 202            | 1/4       |
| YBD-10  | 10             | 1,000      | 1.6    | 217            | 1/4       |
| YBD-6SE | 6.3            | 3,600      | 1.2    | 204            | 1/4       |
| YBD-8SE | 8              | 1,500      | 1.6    | 241            | 1/4       |

Please inquire as to the date of delivery, since this varies depending on production schedules.

## Rotary straight-type models



These powerful drills ensure highly efficient drilling, reaming and tapping for various heavy-duty applications. They can also be used as air motors and have been well-received by the shipbuilding and steel industries.

All models except for the RD-13 are of the reversible type.

Air pressure 0.59MPa

| Model   | Drill capacity | Free speed | Weight | Overall length | Chuck type   | Air inlet |
|---------|----------------|------------|--------|----------------|--------------|-----------|
|         | mm             | rpm        |        |                |              | P.T       |
| RD-13   | 13             | 1,200      | 3.4    | 350            | J.T No.2 1/2 | 1/4       |
| RD-14R  | 14             | 1,000      | 5.5    | 368            | MT No.1      | 3/8       |
| RD-16R  | 16             | 900        | 5.5    | 378            | MT No.2      | 3/8       |
| RD-19RL | 19             | 700        | 5.5    | 378            | MT No.2      | 3/8       |
| RD-23RL | 23             | 570        | 5.5    | 378            | MT No.2      | 3/8       |
| RD-28R  | 28             | 500        | 13     | 366            | MT No.3      | 1/2       |
| RD-32RL | 32             | 450        | 13     | 366            | MT No.3      | 1/2       |

Please inquire as to the date of delivery, since this varies depending on production schedules.

## Rotary corner-type models



These models are suited for drilling, reaming and tapping in narrow and confined areas.

All models are of the reversible type.

Air pressure 0.59MPa

| Model  | Drill capacity | Free speed | Weight | Overall length | Head size | Air inlet |
|--------|----------------|------------|--------|----------------|-----------|-----------|
|        | mm             | rpm        |        |                |           | P.T       |
| 14RCR  | 14             | 800        | 6.5    | 435            | 157       | 3/8       |
| 22RCRB | 22             | 650        | 11.8   | 507            | 200       | 1/2       |
| 32RCRB | 32             | 400        | 13     | 529            | 205       | 1/2       |

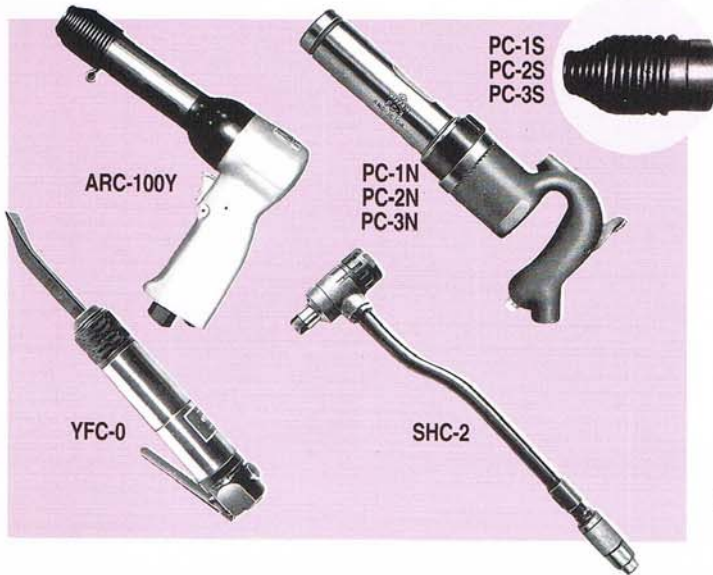
Please inquire as to the date of delivery, since this varies depending on production schedules.

# AIR HAMMERS

Yutani's hammers are compact and simple. Due to the use of a high-speed hammering mechanism, they feature reduced recoil. They are highly durable and efficient chipping is guaranteed.



## Small chipping hammers, chipping hammers, flux chippers and scaling hammers



These hammers are useful for a wide variety of jobs, such as pressure fitting, small rivet crimping, rust removal and chipping. They are available in a range of models.

Air pressure 0.59MPa

| Model    | Capacity                                       |       | Blowing speed<br>bpm | Piston diameter<br>× Stroke<br>mm | Chisel bushing shape<br>(needle diameter × q'ty) | Weight<br>kg | Overall length<br>mm | Air inlet<br>P.T |
|----------|--|-------|----------------------|-----------------------------------|--|--------------|----------------------|------------------|
|          | Duralumin                                      | Steel |                      |                                   |  |              |                      |                  |
| ARC-75N  | Slag removal                                   |       | 3,100                | φ20 × 75                          | φ3 × 16  | 2.1          | 378                  | 1/4              |
| ARC-100Y | 6.4  | 4.8   | 2,300                | φ12.7 × 100                       | φ10.1  | 1.5          | 218                  | 1/4              |
| PC-1N    | Very slight chipping<br>Thin-sheet gap filling |       | 3,000                | φ28.5 × 25                        | Round,<br>hexagonal                              | 5.0          | 300                  | 1/4              |
| PC-1S    | Very slight chipping<br>Thin-sheet gap filling |       | 3,000                | φ28.5 × 25                        | Round,<br>hexagonal                              | 5.0          | 309                  | 1/4              |
| PC-2N    | Slight chipping<br>Thin-sheet gap filling      |       | 3,000                | φ28.5 × 51                        | Round,<br>hexagonal                              | 5.5          | 349                  | 1/4              |
| PC-2S    | Slight chipping<br>Thin-sheet gap filling      |       | 2,600                | φ28.5 × 51                        | Round,<br>hexagonal                              | 5.5          | 349                  | 1/4              |
| PC-3N    | General chipping<br>Thin-sheet gap filling     |       | 2,300                | φ28.5 × 76                        | Round,<br>hexagonal                              | 6.3          | 394                  | 1/4              |
| PC-3S    | General chipping<br>Thin-sheet gap filling     |       | 2,300                | φ28.5 × 76                        | Round,<br>hexagonal                              | 6.3          | 394                  | 1/4              |
| YFC-O    | Steel-sheet rivet<br>cutting and chipping      |       | 2,300                | φ25 × 22                          | □12.7  | 1.7          | 212                  | 1/4              |
| YFC-ON   | Rust removal                                   |       | 4,000                | φ25 × 22                          | φ3 × 19  | 2.7          | 416                  | 1/4              |
| SCH-2    | Rust removal                                   |       | 4,000                | φ30 × 30                          | —  | 2.5          | 540                  | 3/8              |

□ Needle type

\* The PS-1S, PS-2S, and PS-3S come with a retainer spring. When ordering chipping hammers, please specify the chisel bushing shape (round or hexagonal).



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**YUTANI AIR MOTOR**  
**AIR WINCH**

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**YUTANI CORPORATION**

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|--------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|--------|----|
| YM 型<br>Type | ベース式<br>Base Type        | キー式<br>Key Type                | 手元操作式<br>Manual Operation Type | YM                             | 5      |    |
|              |                          |                                | 遠隔操作式<br>Remote Operation Type | YM-R                           | 5      |    |
|              |                          | ソケット式<br>Socket Type           | 手元操作式<br>Manual Operation Type | YM-S                           | 7      |    |
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|              |                          | 遠隔操作式<br>Remote Operation Type | YM-FS-R                        | 8                              |        |    |
|              | バタフライ式<br>Butterfly Type | ソケット式<br>Socket Type           | 手元操作式<br>Manual Operation Type | YM-BS                          | 9      |    |
|              |                          |                                | 遠隔操作式<br>Remote Operation Type | YM-BS-R                        | 9      |    |
|              | NRM 型<br>Type            | フランジ式<br>Flange Type           | キー式<br>Key Type                | 遠隔操作式<br>Remote Operation Type | NRM    | 10 |
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## 油谷エアーモーターの特徴

- **苛酷な作業条件下でもOK!**  
高温多湿でも安心。過負荷で使用しても故障がありません。
- **防爆機構で安全作業!**  
スパークが飛ばない防爆機構で安心して作業ができます。
- **耐久性抜群! メンテナンスフリー!**  
長年の技術と考え抜かれた設計に裏付けされた抜群の耐久性。プロの期待に応えます。
- **やさしい操作!**  
起動、停止は敏速。回転数を自由にコントロールできます。
- **強いパワー! しかも軽量、コンパクト!**  
多翼式ロータリエンジン採用で高能率化。斬新な減速機構で軽量コンパクト化。

## FEATURES OF YUTANI AIR MOTORS

- **Excellent Performance under Severe Working Conditions!**  
You can expect splendid performance even under heavy working conditions such as high temperature, high humidity, and overload.
- **Safety with Explosion-Proof Mechanism!**  
Yutani Air Motors are free from explosion with nonspark mechanism.
- **Long Life! Maintenance Free!**  
Yutani's long experience and advanced know-how assure you of excellent durability. You can rely on Yutani Air Motors.
- **Easy Operation!**  
Quick to start or stop. Easy to control the rotation speed.
- **Powerful! Light and Compact!**  
High efficiency with multi-vane rotary engine. Light weight and compact in size with unique reduction gear system.

## 油谷エアーモーターの用途

- **造船業**  
ハッチカバーの開閉  
舷艇の上げ下し  
ラダーの上げ下し  
バルブの開閉
- **自動車工業**  
エンジンのならし運転 (セルモーターの代用)  
作業台車の駆動  
ベルトコンベヤ駆動
- **一般産業**  
ベルトコンベヤ駆動  
ターンテーブル駆動  
炉の扉の開閉  
塗料・インク等のかくはん  
工作機械の電動モーターの代用

その他、高温多湿、過負荷、スパークなどの問題で電動モーターが御使用になれない場合、ユタニのエアーモーターが威力を発揮します。

## APPLICATIONS OF YUTANI AIR MOTORS

- **Ship-Building Industry**  
To open and to close hatches.  
To lift and to lower life boats.  
To lift and to lower ladders.  
To open and to close valves.
- **Automobile Industry**  
To make test run of engines (to substitute for starting motors).  
To drive truck (worktable car).  
To drive conveyors.
- **General Industry**  
To drive conveyors.  
To drive turntables.  
To open and to close doors of furnace.  
To mix paints, ink, etc.  
To substitute for electric motors of machine tools.

Yutani Air Motors have a wide range of applications and give you perfect satisfaction especially when electric motors can not be used because of severe working conditions (high temperature, high humidity, and overload), spark problem, maintenance, operation, size, etc.

記事 Note

新旧キー一覧表  
New & Old Key List

| 旧規格<br>Old Type | 新JIS規格 New JIS Type |              |
|-----------------|---------------------|--------------|
|                 | キー寸法 Key Type       | 軸径 Shaft Dia |
| 5×5             | 5×5                 | 12~17        |
|                 | 6×6                 | 17~22        |
| 7×7             | 8×7                 | 22~30        |
| 10×8            | 10×8                | 30~38        |

- 御注文時、キータイプ御指示下さい。  
Please, instruct shape of drive shaft, Key type or regular.

## エアモータの特性(図1参照)

- 出力<トルク・回転数>は給気圧力および給気容量により変化します。
- 通常、トルクと回転数は最大馬力時の点、即ち無負荷回転数の約 $\frac{1}{2}$ の位置で示されています。したがってエアモータはトルクと回転数の実用範囲が広がっています。
- 始動トルクは、失速トルクの約70~80%です。

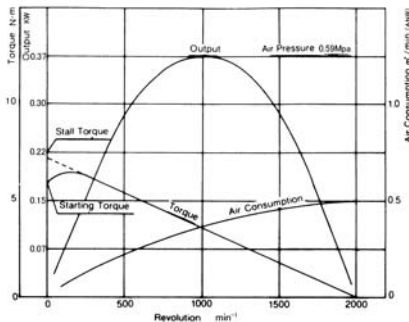


図1 <Fig.1> Efficiency Curve of Air Motor YM05-2000

## 最適なエアモータを選ぶには(表1参照)

<例> 定格回転数1,000 $\text{min}^{-1}$ で負荷トルク3.5 $\text{N}\cdot\text{m}$ の場合、表1より定格回転数1,000 $\text{min}^{-1}$ と負荷トルク3.5 $\text{N}\cdot\text{m}$ の交点を読み、所要出力0.36Kwが得られます。カタログの規格表により所要出力0.36Kwより大きくて最も近い出力0.37Kwで無負荷回転数2,000 $\text{min}^{-1}$ (定格回転数 $\times 2$ )のエアモーターYM05-2000が最適なエアモーターとして得られます。

負荷トルクが25 $\text{N}\cdot\text{m}$ より大きい場合、表1で1/10の負荷トルクを用い、得られた出力を10倍したものが所要出力となります。

## CHARACTERISTICS OF AIR MOTORS(See Fig.1)

- Output<torque/revolution> varies both with supply air pressure and with air volume.
- Figures of torque and revolution are based on the maximum power, i.e., approximately 1/2 of no load operation. Therefore, an air motor has a wider usable range of torque and revolution.
- Starting torque is approximately 70~80% of stall torque.

## HOW TO SELECT AN ADEQUATE AIR MOTOR(See Table1)

<Example> In case that a rated revolution is 1,000  $\text{min}^{-1}$  and a load is 3.5 $\text{N}\cdot\text{m}$ , read the intersection of the rated revolution 1,000  $\text{min}^{-1}$  and the load 3.5 $\text{N}\cdot\text{m}$  and know a required power 0.36Kw. From the specifications of this catalogue, select YM05-2000 with 0.37 Kw and 2,000  $\text{min}^{-1}$  of free speed (rated revolution  $\times 2$ ) as an adequate air motor.

In case that a load is larger than 25 $\text{N}\cdot\text{m}$ , use one-tenth of the real load in Table 1 and multiply a figure of intersection by 10 to find a real required power.

|       |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| 10000 | 0.26 | 0.51 | 0.77 | 1.03 | 1.54 | 2.06 | 2.57 | 3.09 | 3.60 | 4.12 | 4.63 | 5.15 | 6.18 | 7.72 | 10.30 | 12.87 | 15.45 | 20.59 | 25.74 |
| 7500  | .19  | .39  | .58  | .77  | 1.16 | 1.54 | 1.93 | 2.32 | 2.71 | 3.09 | 3.48 | 3.86 | 4.63 | 5.80 | 7.72  | 9.66  | 11.58 | 15.45 | 19.31 |
| 6000  | .15  | .31  | .46  | .62  | .93  | 1.24 | 1.54 | 1.85 | 2.16 | 2.47 | 2.78 | 3.09 | 3.71 | 4.63 | 6.18  | 7.72  | 9.27  | 12.36 | 15.45 |
| 5000  | .13  | .26  | .39  | .51  | .77  | .76  | 1.29 | 1.54 | 1.80 | 2.06 | 2.32 | 2.57 | 3.09 | 3.86 | 5.15  | 6.44  | 7.72  | 10.30 | 12.87 |
| 4500  | .12  | .24  | .35  | .46  | .70  | .93  | 1.16 | 1.39 | 1.63 | 1.85 | 2.09 | 2.32 | 2.78 | 3.48 | 4.63  | 5.80  | 6.95  | 9.27  | 11.58 |
| 4000  | .10  | .21  | .31  | .41  | .62  | .82  | 1.03 | 1.24 | 1.44 | 1.65 | 1.85 | 2.06 | 2.47 | 3.09 | 4.12  | 5.15  | 6.18  | 8.24  | 10.30 |
| 3500  | .09  | .18  | .27  | .36  | .54  | .72  | .90  | 1.08 | 1.27 | 1.44 | 1.63 | 1.80 | 2.16 | 2.71 | 3.60  | 4.51  | 5.41  | 7.21  | 9.01  |
| 3000  | .08  | .15  | .24  | .31  | .46  | .62  | .77  | .93  | 1.08 | 1.24 | 1.39 | 1.54 | 1.85 | 2.32 | 3.09  | 3.86  | 4.63  | 6.18  | 7.72  |
| 2500  | .07  | .13  | .19  | .26  | .39  | .51  | .65  | .77  | .90  | 1.03 | 1.16 | 1.29 | 1.54 | 1.93 | 2.57  | 3.22  | 3.86  | 5.15  | 6.44  |
| 2000  | .05  | .10  | .15  | .21  | .31  | .41  | .51  | .62  | .72  | .82  | .93  | 1.03 | 1.24 | 1.54 | 2.06  | 2.57  | 3.09  | 4.12  | 5.15  |
| 1750  | .04  | .09  | .13  | .18  | .27  | .36  | .45  | .54  | .63  | .72  | .81  | .90  | 1.08 | 1.35 | 1.80  | 2.25  | 2.71  | 3.60  | 4.51  |
| 1500  | .04  | .08  | .12  | .15  | .24  | .31  | .39  | .46  | .54  | .62  | .70  | .77  | .93  | 1.16 | 1.54  | 1.93  | 2.32  | 3.09  | 3.86  |
| 1250  | .03  | .07  | .10  | .13  | .19  | .26  | .32  | .39  | .45  | .51  | .58  | .65  | .77  | .96  | 1.29  | 1.61  | 1.93  | 2.57  | 3.22  |
| 1000  | .03  | .05  | .08  | .10  | .15  | .21  | .26  | .31  | .36  | .41  | .46  | .51  | .62  | .77  | 1.03  | 1.29  | 1.54  | 2.06  | 2.57  |
| 750   | .02  | .04  | .06  | .08  | .12  | .15  | .19  | .24  | .27  | .31  | .35  | .39  | .46  | .58  | .77   | .96   | 1.16  | 1.54  | 1.93  |
| 600   | .01  | .03  | .04  | .06  | .10  | .13  | .15  | .18  | .21  | .25  | .28  | .31  | .37  | .46  | .62   | .77   | .93   | 1.24  | 1.54  |
| 500   | .01  | .03  | .04  | .05  | .08  | .10  | .13  | .15  | .18  | .21  | .24  | .26  | .31  | .39  | .51   | .65   | .77   | 1.03  | 1.29  |
| 450   | .01  | .02  | .04  | .04  | .07  | .10  | .12  | .14  | .16  | .18  | .21  | .24  | .28  | .35  | .46   | .58   | .70   | .93   | 1.16  |
| 400   | .01  | .02  | .03  | .04  | .06  | .08  | .10  | .13  | .15  | .16  | .18  | .21  | .25  | .31  | .41   | .51   | .62   | .82   | 1.03  |
| 350   | .01  | .01  | .03  | .04  | .05  | .07  | .09  | .11  | .13  | .15  | .16  | .18  | .21  | .27  | .36   | .45   | .54   | .72   | .90   |
| 300   | .01  | .01  | .02  | .03  | .04  | .06  | .08  | .10  | .11  | .13  | .14  | .15  | .18  | .24  | .31   | .39   | .46   | .62   | .77   |
| 250   | .01  | .01  | .02  | .03  | .04  | .05  | .07  | .08  | .09  | .10  | .12  | .13  | .15  | .19  | .26   | .32   | .39   | .51   | .65   |
| 200   | .01  | .01  | .01  | .02  | .03  | .04  | .05  | .06  | .07  | .08  | .10  | .10  | .13  | .15  | .21   | .26   | .31   | .41   | .51   |
| 150   | .01  | .01  | .01  | .01  | .02  | .03  | .04  | .04  | .05  | .06  | .07  | .08  | .10  | .12  | .15   | .19   | .24   | .31   | .39   |
| 100   |      |      |      | .01  | .01  | .02  | .03  | .03  | .04  | .04  | .04  | .05  | .06  | .08  | .10   | .13   | .15   | .21   | .26   |

表1 <Table 1> Selection Table for Air Motors(Kw)

## エアモータYM型

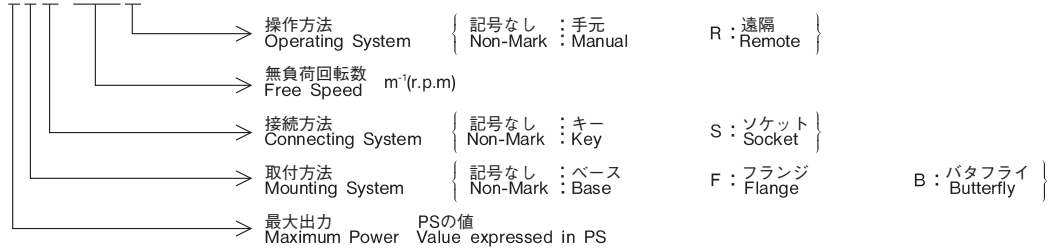
## AIR MOTORS YM TYPE

### ■特徴

- 可逆式（オプション：右回転式 又 左回転式）
- 多翼式ロータリエンジン
- 接続：キーまたはソケット
- 取付：ベース、フランジまたはバタフライ
- 操作：手元または遠隔
- オプション：ブレーキ付

### ■型式名の説明

YM1FS-500R



### ■FEATURES

- Reversible (option : Forward or Unforward)
- Multi-Vane Rotary Engine
- Connection : Key or Socket
- Mounting : Base, Flange or Butterfly
- Operation : Manual or Remote
- Option : Brake

### ■DESCRIPTION OF TYPE

### ■仕様〈SPECIFICATIONS〉

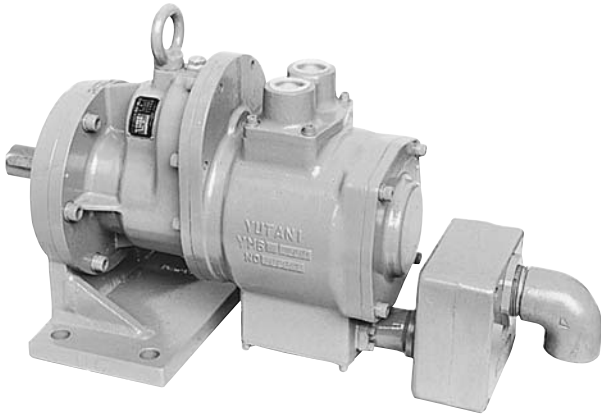
| Model   | Air Pressure MPa | Free Speed min <sup>3</sup> (r.p.m) | Speed at Max.Power min <sup>3</sup> (r.p.m) | Torque at Max.Power N·m | Maximum Power Kw | Air Consumption ml/min (ANR) | ※ Mass kg |      |      | Hose Dia. mm |
|---------|------------------|-------------------------------------|---|-------------------------|------------------|------------------------------|-----------|------|------|--------------|
|         |                  |                                     |   |                         |                  |                              | A         | B    | C    |              |
| YM 05   | 0.59             | 800                                 | 400   | 8.7                     | 0.37             | 0.5                          | 6         | 4.5  | 9.5  |              |
| YM 05F  |                  | 1,000                               | 500   | 7                       |                  |                              |           |      |      |              |
|         |                  | 2,000                               | 1,000                                       | 3.5                     |                  |                              |           |      |      |              |
| YM 1    | 0.59             | 500                                 | 250   | 28                      | 0.74             | 1.0                          | 8         | 5.5  | 12.7 |              |
| YM 1F   |                  | 800                                 | 400   | 18                      |                  |                              |           |      |      |              |
| YM 1S   |                  | 1,000                               | 500   | 14                      |                  |                              |           |      |      |              |
| YM 1FS  |                  | 2,000                               | 1,000                                       | 7                       |                  |                              |           |      |      |              |
| YM 1BS  |                  |                                     |   |                         |                  |                              |           |      |      |              |
| YM 15   | 0.59             | 300                                 | 150   | 70                      | 1.1              | 1.5                          | 10        | 7    | 12.7 |              |
| YM 15F  |                  | 600                                 | 300   | 35                      |                  |                              |           |      |      |              |
| YM 15S  |                  | 900                                 | 450   | 23                      |                  |                              |           |      |      |              |
| YM 15FS |                  | 1200                                | 600   | 18                      |                  |                              |           |      |      |              |
| YM 15BS |                  |                                     |   |                         |                  |                              |           |      |      |              |
| YM 2    | 0.59             | 300                                 | 150   | 93                      | 1.5              | 2.0                          | 12        | 9    | 19.0 |              |
| YM 2F   |                  | 600                                 | 300   | 47                      |                  |                              |           |      |      |              |
| YM 2S   |                  | 900                                 | 450   | 31                      |                  |                              |           |      |      |              |
| YM 2FS  |                  | 1,200                               | 600   | 23                      |                  |                              |           |      |      |              |
| YM 2BS  |                  |                                     |   |                         |                  |                              |           |      |      |              |
| YM 3    | 0.59             | 300                                 | 150   | 140                     | 2.2              | 3.0                          | 20        | 16   | 25.4 |              |
| YM 3F   |                  | 600                                 | 300   | 70                      |                  |                              |           |      |      |              |
| YM 3S   |                  | 900                                 | 450   | 47                      |                  |                              |           |      |      |              |
| YM 3FS  |                  | 1,200                               | 600   | 35                      |                  |                              |           |      |      |              |
| YM 3BS  |                  |                                     |   |                         |                  |                              |           |      |      |              |
| YM 4    | 0.59             | 400                                 | 200   | 140                     | 2.9              | 3.9                          | 36.5      | 27   | 25.4 |              |
| YM 4F   |                  | 800                                 | 400   | 70                      |                  |                              |           |      |      |              |
| YM 4S   |                  | 1,200                               | 600   | 47                      |                  |                              |           |      |      |              |
| YM 4FS  |                  | 1,600                               | 800   | 35                      |                  |                              |           |      |      |              |
| YM 4BS  |                  |                                     |   |                         |                  |                              |           |      |      |              |
| YM 5    | 0.59             | 400                                 | 200   | 175                     | 3.7              | 5.0                          | 38        | 28.5 | 25.4 |              |
| YM 5F   |                  | 800                                 | 400   | 88                      |                  |                              |           |      |      |              |
| YM 5S   |                  | 1,200                               | 600   | 58                      |                  |                              |           |      |      |              |
| YM 5FS  |                  | 1,600                               | 800   | 44                      |                  |                              |           |      |      |              |
| YM 5BS  |                  |                                     |   |                         |                  |                              |           |      |      |              |
| YM 6    | 0.59             | 400                                 | 200   | 210                     | 4.4              | 6.0                          | 40        | 30.5 | 25.4 |              |
| YM 6F   |                  | 800                                 | 400   | 105                     |                  |                              |           |      |      |              |
| YM 6S   |                  | 1,200                               | 600   | 70                      |                  |                              |           |      |      |              |
| YM 6FS  |                  | 1,600                               | 800   | 53                      |                  |                              |           |      |      |              |
| YM 6BS  |                  |                                     |   |                         |                  |                              |           |      |      |              |
| YM 7    | 0.59             | 400                                 | 200   | 245                     | 5.2              | 7.1                          | 45        | 35.5 | 32.0 |              |
| YM 7F   |                  | 800                                 | 400   | 123                     |                  |                              |           |      |      |              |
| YM 7S   |                  | 1,200                               | 600   | 81                      |                  |                              |           |      |      |              |
| YM 7FS  |                  | 1,600                               | 800   | 61                      |                  |                              |           |      |      |              |
| YM 7BS  |                  |                                     |   |                         |                  |                              |           |      |      |              |

※A: Base Type B: Flange Type C: Butterfly Type ※Weight : Upper Figures for Manual Operation Type Lower Figures for Remote Operation Type

## YM・YM-R型

### ■特徴

- 接続：キー
- 取付：ベース
- 操作：手元または遠隔

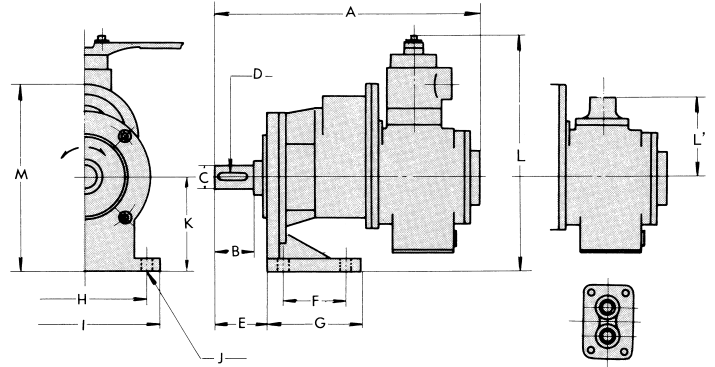


**YM6-400R**  
遠隔操作式  
Remote Operation Type

## YM・YM-R TYPE

### ■FEATURES

- Connection : Key
- Mounting : Base
- Operation : Manual or Remote



手元操作式  
Manual Operation Type

遠隔操作式  
Remote Operation Type

### ■主要寸法 <DIMENSIONS>

<mm>

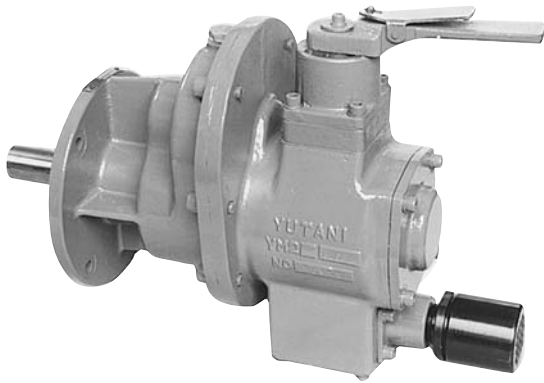
| Model※  | Dwg.No. | A   | B  | φ C | D <sub>Key</sub> | E  | F   | G   | H   | I   | J     | K   | L   | L'  | M   |
|---|---------|-----|----|-----|------------------|----|-----|-----|-----|-----|-------|-----|-----|-----|-----|
| <b>YM05-800 (R)</b><br>1000 (R)<br>2000 (R)           | 682×※※  | 210 | 30 | 15  | 5×5×22           | 35 | 50  | 90  | 120 | 145 | 4~φ11 | 70  | 180 | 60  | 140 |
| <b>YM1-500 (R)</b><br>800 (R)<br>1000 (R)<br>2000 (R) | 684×※※  | 250 | 40 | 20  | 6×6×28           | 55 | 60  | 100 | 130 | 160 | 4~φ11 | 90  | 215 | 66  | 185 |
| <b>YM15-300 (R)</b><br>600 (R)<br>900 (R)<br>1200 (R) | 685×※※  | 295 | 52 | 25  | 8×7×40           | 65 | 80  | 120 | 150 | 180 | 4~φ11 | 105 | 245 | 90  | 230 |
| <b>YM2-300 (R)</b><br>600 (R)<br>900 (R)<br>1200 (R)  | 686×※※  | 315 | 50 | 25  | 8×7×40           | 65 | 80  | 120 | 150 | 180 | 4~φ11 | 105 | 250 | 90  | 230 |
| <b>YM3-300 (R)</b><br>600 (R)<br>900 (R)<br>1200 (R)  | 687×※※  | 380 | 50 | 30  | 8×7×40           | 65 | 90  | 140 | 160 | 190 | 4~φ13 | 130 | 300 | 110 | 300 |
| <b>YM4-400 (R)</b><br>800 (R)<br>1200 (R)<br>1600 (R) | 688×※※  | 415 | 60 | 35  | 10×8×50          | 85 | 100 | 150 | 200 | 240 | 4~φ19 | 150 | 375 | 126 | 340 |
| <b>YM5-400 (R)</b><br>800 (R)<br>1200 (R)<br>1600 (R) | 689×※※  | 445 | 60 | 35  | 10×8×50          | 85 | 100 | 150 | 200 | 240 | 4~φ19 | 150 | 375 | 126 | 340 |
| <b>YM6-400 (R)</b><br>800 (R)<br>1200 (R)<br>1600 (R) | 690×※※  | 440 | 60 | 35  | 10×8×50          | 85 | 100 | 150 | 200 | 240 | 4~φ19 | 150 | 380 | 135 | 340 |
| <b>YM7-400 (R)</b><br>800 (R)<br>1200 (R)<br>1600 (R) | 691×※※  | 460 | 60 | 35  | 10×8×50          | 85 | 100 | 150 | 200 | 240 | 4~φ19 | 150 | 385 | 135 | 340 |

※Non-Mark.....Manual Operation Type R.....Remote Operation Type

## YM-F・YM-F-R型

### ■特徴

- 接続：キー
- 取付：フランジ
- 操作：手元または遠隔

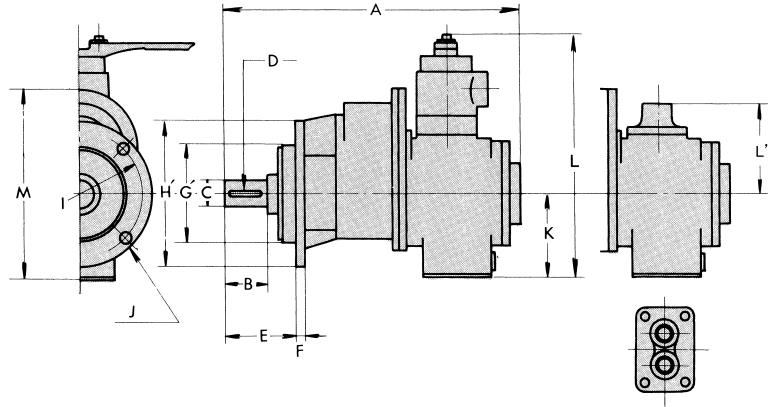


**YM2F-300**  
手元操作式  
Manual Operation Type

## YM-F・YM-F-R TYPE

### ■FEATURES

- Connection : Key
- Mounting : Flange
- Operation : Manual or Remote



手元操作式  
Manual Operation Type

遠隔操作式  
Remote Operation Type

### ■主要寸法 <DIMENSIONS>

<mm>

| Model※   | Dwg.No. | A   | B  | φC | D <sub>Key</sub> | E   | F  | G   | H   | I   | J     | K   | L   | L'  | M   |
|--|---------|-----|----|----|------------------|-----|----|-----|-----|-----|-------|-----|-----|-----|-----|
| <b>YM05F-800 (R)</b><br>1000 (R)<br>2000 (R)           | 682×※※  | 200 | 30 | 15 | 5×5×22           | 45  | 10 | 70  | 100 | 85  | 4~φ9  | 68  | 178 | 60  | 138 |
| <b>YM1F-500 (R)</b><br>800 (R)<br>1000 (R)<br>2000 (R) | 684×※※  | 250 | 40 | 20 | 6×6×28           | 65  | 10 | 72  | 135 | 110 | 4~φ9  | 80  | 205 | 66  | 175 |
| <b>YM15F-300 (R)</b><br>600 (R)<br>900 (R)<br>1200 (R) | 685×※※  | 295 | 52 | 25 | 8×7×40           | 75  | 10 | 90  | 150 | 130 | 4~φ9  | 90  | 230 | 90  | 215 |
| <b>YM2F-300 (R)</b><br>600 (R)<br>900 (R)<br>1200 (R)  | 686×※※  | 315 | 50 | 25 | 8×7×40           | 75  | 10 | 90  | 150 | 130 | 4~φ9  | 95  | 240 | 90  | 220 |
| <b>YM3F-300 (R)</b><br>600 (R)<br>900 (R)<br>1200 (R)  | 687×※※  | 380 | 50 | 30 | 8×7×40           | 77  | 12 | 100 | 155 | 130 | 4~φ11 | 100 | 270 | 110 | 270 |
| <b>YM4F-400 (R)</b><br>800 (R)<br>1200 (R)<br>1600 (R) | 688×※※  | 415 | 60 | 35 | 10×8×50          | 105 | 14 | 130 | 200 | 175 | 6~φ11 | 120 | 345 | 126 | 310 |
| <b>YM5F-400 (R)</b><br>800 (R)<br>1200 (R)<br>1600 (R) | 689×※※  | 445 | 60 | 35 | 10×8×50          | 105 | 14 | 130 | 200 | 175 | 6~φ11 | 120 | 345 | 126 | 310 |
| <b>YM6F-400 (R)</b><br>800 (R)<br>1200 (R)<br>1600 (R) | 690×※※  | 440 | 60 | 35 | 10×8×50          | 105 | 14 | 130 | 200 | 175 | 6~φ11 | 128 | 358 | 135 | 318 |
| <b>YM7F-400 (R)</b><br>800 (R)<br>1200 (R)<br>1600 (R) | 691×※※  | 460 | 60 | 35 | 10×8×50          | 105 | 14 | 130 | 200 | 175 | 6~φ11 | 130 | 365 | 135 | 320 |

※Non-Mark.....Manual Operation Type R.....Remote Operation Type

## YM-S・YM-S-R型

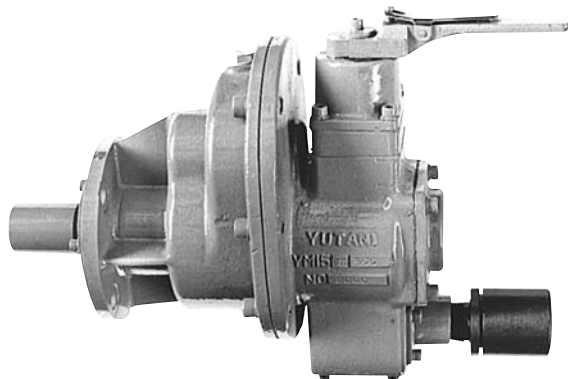
## YM-S・YM-S-R TYPE

### ■特徴

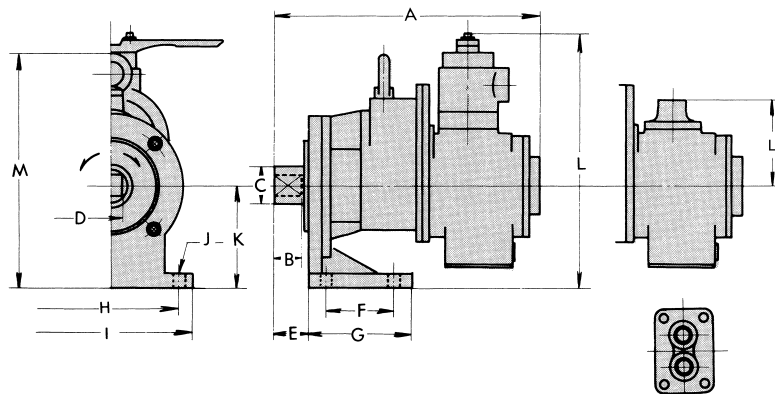
- 接続：ソケット
- 取付：ベース
- 操作：手元または遠隔

### ■FEATURES

- Connection : Socket
- Mounting : Base
- Operation : Manual or Remote



**YM15S-600**  
手元操作式  
Manual Operation Type



手元操作式  
Manual Operation Type

遠隔操作式  
Remote Operation Type

### ■主要寸法 <DIMENSIONS>

<mm>

| Model※  | Dwg.No. | A   | B  | φ C | SqD  | E  | F   | G   | H   | I   | J     | K   | L   | L'  | M   |
|---|---------|-----|----|-----|------|----|-----|-----|-----|-----|-------|-----|-----|-----|-----|
| YM1S-500 (R)<br>800 (R)<br>1000 (R)<br>2000 (R) | 684×※※  | 220 | 24 | 30  | 15   | 25 | 60  | 100 | 130 | 160 | 4~φ11 | 90  | 215 | 66  | 185 |
| YM15S-300 (R)<br>600 (R)<br>900 (R)<br>1200 (R) | 685×※※  | 265 | 40 | 40  | 19.5 | 34 | 80  | 120 | 150 | 180 | 4~φ11 | 105 | 245 | 90  | 230 |
| YM2S-300 (R)<br>600 (R)<br>900 (R)<br>1200 (R)  | 686×※※  | 285 | 40 | 40  | 19.5 | 34 | 80  | 120 | 150 | 180 | 4~φ11 | 105 | 250 | 90  | 230 |
| YM3S-300 (R)<br>600 (R)<br>900 (R)<br>1200 (R)  | 687×※※  | 350 | 45 | 50  | 26.5 | 36 | 90  | 140 | 160 | 190 | 4~φ13 | 130 | 300 | 110 | 300 |
| YM4S-400 (R)<br>800 (R)<br>1200 (R)<br>1600 (R) | 688×※※  | 380 | 48 | 55  | 28   | 50 | 100 | 150 | 200 | 240 | 4~φ19 | 150 | 375 | 126 | 340 |
| YM5S-400 (R)<br>800 (R)<br>1200 (R)<br>1600 (R) | 689×※※  | 410 | 48 | 55  | 28   | 50 | 100 | 150 | 200 | 240 | 4~φ19 | 150 | 375 | 126 | 340 |
| YM6S-400 (R)<br>800 (R)<br>1200 (R)<br>1600 (R) | 690×※※  | 405 | 48 | 55  | 28   | 50 | 100 | 150 | 200 | 240 | 4~φ19 | 150 | 380 | 135 | 340 |
| YM7S-400 (R)<br>800 (R)<br>1200 (R)<br>1600 (R) | 691×※※  | 425 | 48 | 62  | 34   | 50 | 100 | 150 | 200 | 240 | 4~φ19 | 150 | 385 | 135 | 340 |

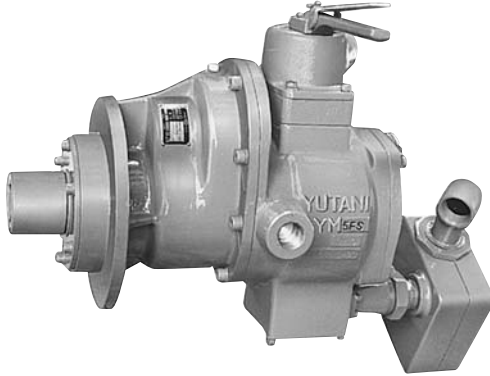
※Non-Mark.....Manual Operation Type R.....Remote Operation Type

## YM-FS・YM-FS-R型

## YM-FS・YM-FS-R TYPE

### ■特徴

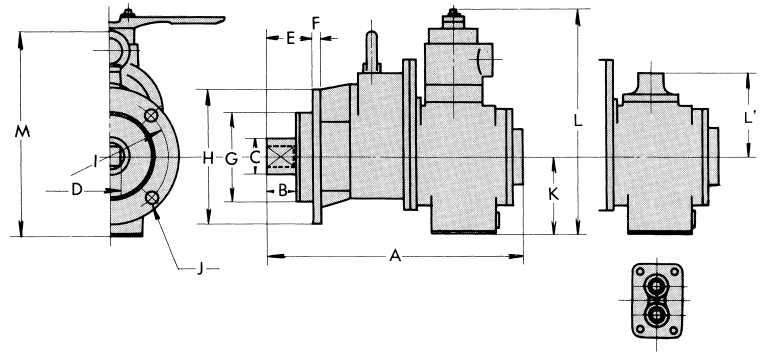
- 接続：ソケット
- 取付：フランジ
- 操作：手元または遠隔



**YM5FS-1200**  
手元操作式  
Manual Operation Type

### ■FEATURES

- Connection : Socket
- Mounting : Flange
- Operation : Manual or Remote



手元操作式  
Manual Operation Type

遠隔操作式  
Remote Operation Type

### ■主要寸法 <DIMENSIONS>

<mm>

| Model※         | Dwg.No. | A   | B  | φ C | SqD  | E  | F  | φ G | φ H | I   | J     | K   | L   | L'  | M   |
|----------------|---------|-----|----|-----|------|----|----|-----|-----|-----|-------|-----|-----|-----|-----|
| YM1FS-500 (R)  | 684×※※  | 220 | 24 | 30  | 15   | 35 | 10 | 72  | 135 | 110 | 4~φ9  | 80  | 205 | 66  | 175 |
| 800 (R)        |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 1000 (R)       |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 2000 (R)       |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| YM15FS-300 (R) | 685×※※  | 265 | 40 | 40  | 19.5 | 44 | 10 | 90  | 150 | 130 | 4~φ9  | 90  | 230 | 90  | 215 |
| 600 (R)        |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 900 (R)        |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| YM2FS-300 (R)  | 686×※※  | 285 | 40 | 40  | 19.5 | 44 | 10 | 90  | 150 | 130 | 4~φ9  | 95  | 240 | 90  | 220 |
| 600 (R)        |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 900 (R)        |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| YM3FS-300 (R)  | 687×※※  | 350 | 45 | 50  | 26.5 | 48 | 12 | 100 | 155 | 130 | 4~φ11 | 100 | 270 | 110 | 270 |
| 600 (R)        |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 900 (R)        |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| YM4FS-400 (R)  | 688×※※  | 380 | 48 | 55  | 28   | 70 | 14 | 130 | 200 | 175 | 6~φ11 | 120 | 345 | 126 | 310 |
| 800 (R)        |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 1600 (R)       |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| YM5FS-400 (R)  | 689×※※  | 410 | 48 | 55  | 28   | 70 | 14 | 130 | 200 | 175 | 6~φ11 | 120 | 345 | 126 | 310 |
| 800 (R)        |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 1600 (R)       |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| YM6FS-400 (R)  | 690×※※  | 405 | 48 | 55  | 28   | 70 | 14 | 130 | 200 | 175 | 6~φ11 | 128 | 358 | 135 | 318 |
| 800 (R)        |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 1600 (R)       |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| YM7FS-400 (R)  | 691×※※  | 425 | 48 | 62  | 34   | 70 | 14 | 130 | 200 | 175 | 6~φ11 | 130 | 365 | 135 | 320 |
| 800 (R)        |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |
| 1600 (R)       |         |     |    |     |      |    |    |     |     |     |       |     |     |     |     |

※Non-Mark.....Manual Operation Type R.....Remote Operation Type

## YM-BS・YM-BS-R型

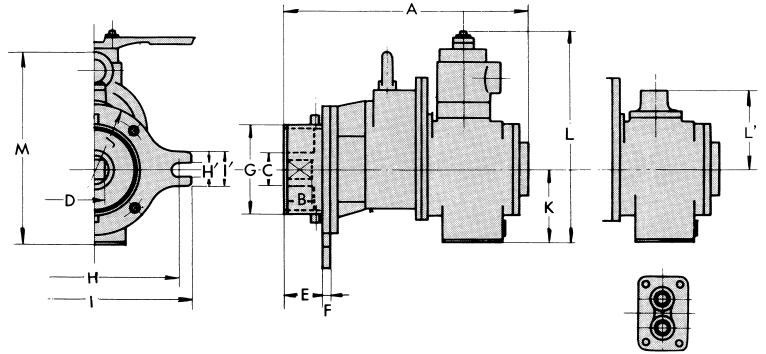
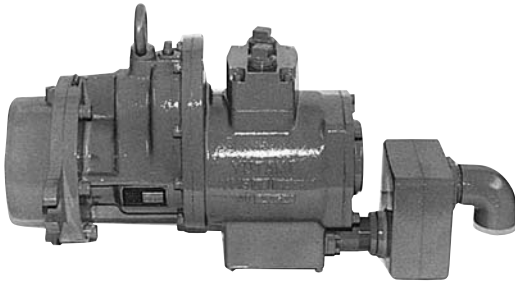
## YM-BS・YM-BS-R TYPE

### ■特徴

- 接続：ソケット
- 取付：バタフライ
- 操作：手元または遠隔

### ■FEATURES

- Connection : Socket
- Mounting : Butterfly
- Operation : Manual or Remote



**YM5BS-800R**  
遠隔操作式  
Remote Operation Type

手元操作式  
Manual Operation Type

遠隔操作式  
Remote Operation Type

### ■主要寸法 <DIMENSIONS>

<mm>

| Model※         | Dwg.No. | A   | B  | φ C | sqD  | E  | F  | φ G | H   | H' | I   | I' | J   | K   | L   | L'  | M   |
|----------------|---------|-----|----|-----|------|----|----|-----|-----|----|-----|----|-----|-----|-----|-----|-----|
| YM1BS-500 (R)  | 684×※※  | 222 | 24 | 30  | 15   | 24 | 13 | 100 | 220 | 18 | 256 | 40 | 135 | 80  | 205 | 66  | 175 |
| 800 (R)        |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 1000 (R)       |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 2000 (R)       |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| YM15BS-300 (R) | 685×※※  | 267 | 40 | 40  | 19.5 | 32 | 14 | 130 | 220 | 18 | 256 | 40 | 150 | 90  | 230 | 90  | 215 |
| 600 (R)        |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 900 (R)        |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| YM2BS-300 (R)  | 686×※※  | 287 | 40 | 40  | 19.5 | 32 | 14 | 130 | 220 | 18 | 256 | 40 | 150 | 95  | 240 | 90  | 220 |
| 600 (R)        |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 900 (R)        |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| YM3BS-300 (R)  | 687×※※  | 352 | 45 | 50  | 26.5 | 37 | 15 | 130 | 220 | 18 | 256 | 40 | 155 | 100 | 270 | 110 | 270 |
| 600 (R)        |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 900 (R)        |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| YM4BS-400 (R)  | 688×※※  | 382 | 48 | 55  | 28   | 57 | 15 | 150 | 270 | 20 | 316 | 56 | 200 | 120 | 345 | 126 | 310 |
| 800 (R)        |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 1600 (R)       |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| YM5BS-400 (R)  | 689×※※  | 412 | 48 | 55  | 28   | 57 | 15 | 150 | 270 | 20 | 316 | 56 | 200 | 120 | 345 | 126 | 310 |
| 800 (R)        |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 1600 (R)       |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| YM6BS-400 (R)  | 690×※※  | 407 | 48 | 55  | 28   | 57 | 15 | 150 | 270 | 20 | 316 | 56 | 200 | 128 | 358 | 135 | 318 |
| 800 (R)        |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 1600 (R)       |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| YM7BS-400 (R)  | 691×※※  | 427 | 48 | 62  | 34   | 57 | 15 | 150 | 270 | 24 | 316 | 60 | 200 | 130 | 365 | 135 | 320 |
| 800 (R)        |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 1200 (R)       |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |
| 1600 (R)       |         |     |    |     |      |    |    |     |     |    |     |    |     |     |     |     |     |

※Non-Mark.....Manual Operation Type R.....Remote Operation Type

## エアモータNRM型

## AIR MOTORS NRM TYPE

### 特徴

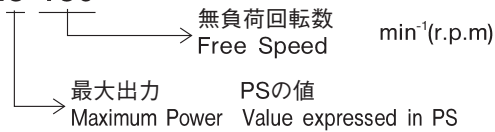
- 可逆式
- 多翼式ロータリエンジン
- 遊星歯車減速機構
- 接続：キー
- 取付：フランジ
- 操作：遠隔

### FEATURES

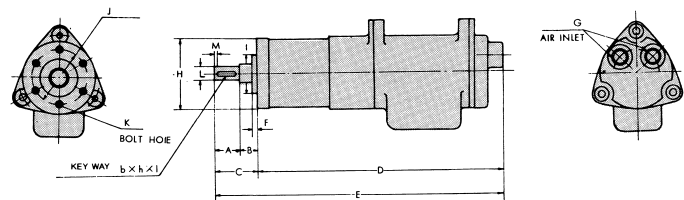
- Reversible
- Multi-Vane Rotary Engine
- Planetary Gear Mechanism
- Connection : Key
- Mounting : Flange
- Operation : Remote

### 型式名の説明<DESCRIPTION OF TYPE>

**NRM3-180**



**NRM3-180**



### 仕様 <SPECIFICATIONS>

| Model                                  | Air Pressure<br>MPa | Free Speed<br>min <sup>-1</sup> (r.p.m) | Speed at<br>Max.Power<br>min <sup>-1</sup> (r.p.m) | Torque at<br>Max.Power<br>N·m | Maximum<br>Power<br>Kw | Starting<br>Torque<br>N·m | Air Con-<br>sumption<br>ml/min(ANR) | Mass<br>kg | Hose<br>Diameter<br>mm |
|--|---------------------|---|--|-------------------------------|------------------------|---------------------------|-------------------------------------|------------|------------------------|
| <b>NRM08-540</b><br>460<br>380         | 0.59                | 540                                     | 270  | 21                            | 0.59                   | 33                        | 0.7                                 | 2.2        | 9.5                    |
|  |                     | 460                                     | 230  | 25                            |                        | 39                        |                                     |            |                        |
|  |                     | 380                                     | 190  | 29                            |                        | 47                        |                                     |            |                        |
| <b>NRM15-380</b><br>320<br>250<br>220  | 0.59                | 380                                     | 190  | 55                            | 1.1                    | 88                        | 1.3                                 | 4.2        | 12.7                   |
|  |                     | 320                                     | 160  | 66                            |                        | 105                       |                                     |            |                        |
|  |                     | 250                                     | 130  | 81                            |                        | 130                       |                                     |            |                        |
|  |                     | 220                                     | 110  | 95                            |                        | 152                       |                                     |            |                        |
| <b>NRM18-200</b>                       | 0.59                | 200                                     | 100  | 126                           | 1.3                    | 201                       | 1.6                                 | 7.3        | 12.7                   |
| <b>NRM22-200</b>                       | 0.59                | 200                                     | 100  | 155                           | 1.6                    | 248                       | 2.0                                 | 7.5        | 19.0                   |
| <b>NRM3 - 220</b><br>180<br>150<br>120 | 0.59                | 220                                     | 110  | 191                           | 2.2                    | 306                       | 2.7                                 | 9.5        | 19.0                   |
|  |                     | 180                                     | 90   | 233                           |                        | 373                       |                                     |            |                        |
|  |                     | 150                                     | 75   | 279                           |                        | 447                       |                                     |            |                        |
|  |                     | 120                                     | 60   | 351                           |                        | 562                       |                                     |            |                        |

### 主要寸法 <DIMENSIONS>

<mm>

| Model                                  | Dwg.No. | A  | B  | C  | D   | E   | F   | G<br>Rd(PT) | φ H | φ I                                | J  | K    | φ L                                | M | Key<br>b x h x l |
|--|---------|----|----|----|-----|-----|-----|-------------|-----|------------------------------------|----|------|------------------------------------|---|------------------|
| <b>NRM08-540</b><br>460<br>380         | 212×※※  | 25 | 20 | 45 | 200 | 245 | 4.0 | 3/8         | 56  | 32 <sup>+0</sup> <sub>-0.016</sub> | 45 | 6~M6 | 15 <sup>+0</sup> <sub>-0.011</sub> | 3 | 5×5×20           |
|  |         |    |    |    |     |     |     |             |     |                                    |    |      |                                    |   |                  |
|  |         |    |    |    |     |     |     |             |     |                                    |    |      |                                    |   |                  |
| <b>NRM15-380</b><br>320<br>250<br>220  | 238×※※  | 28 | 25 | 53 | 228 | 281 | 4.5 | 1/2         | 70  | 46 <sup>+0</sup> <sub>-0.016</sub> | 58 | 6~M8 | 18 <sup>+0</sup> <sub>-0.011</sub> | 3 | 6×6×22           |
|  |         |    |    |    |     |     |     |             |     |                                    |    |      |                                    |   |                  |
|  |         |    |    |    |     |     |     |             |     |                                    |    |      |                                    |   |                  |
|  |         |    |    |    |     |     |     |             |     |                                    |    |      |                                    |   |                  |
| <b>NRM18-200</b>                       | 205×※※  | 28 | 25 | 53 | 274 | 327 | 3.0 | 1/2         | 80  | 50 <sup>+0</sup> <sub>-0.016</sub> | 65 | 6~M8 | 18 <sup>+0</sup> <sub>-0.011</sub> | 3 |                  |
| <b>NRM22-200</b>                       | 224×※※  | 35 | 30 | 65 | 295 | 360 | 4.0 | 3/4         | 86  | 54 <sup>+0</sup> <sub>-0.019</sub> | 70 | 6~M8 | 22 <sup>+0</sup> <sub>-0.013</sub> | 3 |                  |
| <b>NRM3 - 220</b><br>180<br>150<br>120 | 229×※※  | 35 | 32 | 67 | 304 | 371 | 5.0 | 3/4         | 100 | 60 <sup>+0</sup> <sub>-0.019</sub> | 80 | 6~M8 | 25 <sup>+0</sup> <sub>-0.013</sub> | 3 | 8×7×28           |
|  |         |    |    |    |     |     |     |             |     |                                    |    |      |                                    |   |                  |
|  |         |    |    |    |     |     |     |             |     |                                    |    |      |                                    |   |                  |
|  |         |    |    |    |     |     |     |             |     |                                    |    |      |                                    |   |                  |

## エアモータNRL-K型

## AIR MOTORS NRL-K TYPE

### ■特徴

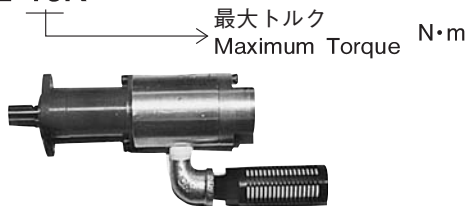
- 小型・軽量・高出力
- 可逆式（オプション：右回転式 又 左回転式）
- 多翼式ロータリエンジン
- 遊星歯車減速機構
- 接続：キー及び四角
- 取付：フランジ
- 操作：遠隔

### ■FEATURES

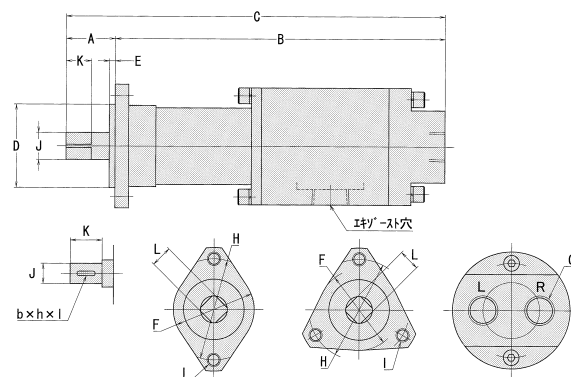
- Compact · Light · Weight · High Out put
- Reversible (Option: Forward or Unforward)
- Multi-Vane Rotary Engine
- Planetary Gear Mechanism
- Connection : Key or Square
- Mounting : Flange
- Operation : Remote

### ■型式名の説明<DESCRIPTION OF TYPE>

NRL-16K



NRL-16K



NRL-8K~40K NRL-50K~340K

### ■仕様 <SPECIFICATIONS>

| Model    | Air Pressure<br>MPa | Free Speed<br>min <sup>1</sup> (r.p.m) | Speed<br>at Max.PS<br>min <sup>1</sup> (r.p.m) | Torque<br>at Max.PS<br>N·m | Maximum<br>Power<br>kw | Starting<br>Torque<br>N·m | Air Con-<br>sumption<br>ml/min(ANR) | Mass<br>kg | Hose<br>Diameter<br>mm |
|----------|---------------------|--|--|----------------------------|------------------------|---------------------------|-------------------------------------|------------|------------------------|
| NRL-8K   | 0.39                | 550                                    | 275  | 3.3                        | 0.10                   | 3.3                       | 0.2                                 | 0.75       | 6.3                    |
| NRL-12K  |                     | 380                                    | 190  | 4.6                        |                        | 4.6                       |                                     |            |                        |
| NRL-16K  |                     | 290                                    | 145  | 6.5                        |                        | 6.5                       |                                     |            |                        |
| NRL-26K  | 0.39                | 340                                    | 170  | 10                         | 0.19                   | 10                        | 0.35                                | 1.5        | 6.3                    |
| NRL-33K  |                     | 270                                    | 135  | 13                         |                        | 13                        |                                     |            |                        |
| NRL-40K  |                     | 220                                    | 110  | 16                         |                        | 16                        |                                     |            |                        |
| NRL-50K  | 0.39                | 230                                    | 115  | 21                         | 0.25                   | 21                        | 0.6                                 | 1.8        | 9.5                    |
| NRL-60K  |                     | 200                                    | 100  | 25                         |                        | 25                        |                                     |            |                        |
| NRL-70K  | 0.39                | 220                                    | 100  | 30                         | 0.32                   | 30                        | 0.7                                 | 2.0        | 9.5                    |
| NRL-90K  |                     | 160                                    | 80   | 37                         |                        | 37                        |                                     |            |                        |
| NRL-110K | 0.39                | 180                                    | 80   | 43                         | 0.36                   | 43                        | 0.8                                 | 3.9        | 9.5                    |
| NRL-130K |                     | 162                                    | 65   | 53                         |                        | 53                        |                                     |            |                        |
| NRL-160K |                     | 130                                    | 55   | 65                         |                        | 65                        |                                     |            |                        |
| NRL-210K | 0.39                | 102                                    | 51   | 84                         | 0.45                   | 84                        | 0.9                                 | 4.0        | 9.5                    |
| NRL-240K | 0.39                | 140                                    | 70   | 97                         | 0.70                   | 97                        | 1.4                                 | 6.8        | 12.7                   |
| NRL-280K |                     | 118                                    | 59   | 114                        |                        | 114                       |                                     |            |                        |
| NRL-340K |                     | 92                                     | 46   | 142                        |                        | 139                       |                                     |            |                        |

### ■主要寸法 <DIMENSIONS>

<mm>

| Model                            | A    | B              | C              | D  | E   | F   | G<br>Rc(PT) | H  | I     | Spindle Type |    |      |                                   |    |        |
|----------------------------------|------|----------------|----------------|----|-----|-----|-------------|----|-------|--------------|----|------|-----------------------------------|----|--------|
|                                  |      |                |                |    |     |     |             |    |       | Square       |    |      | Key                               |    |        |
|                                  |      |                |                |    |     |     |             |    |       | φ J          | K  | □ L  | φ J'                              | K' | b×h×l  |
| NRL-8K<br>NRL-12K<br>NRL-16K     | 21.5 | 148            | 169.5          | 27 | 2.5 | 52  | 1/4         | 45 | 2~M6  | 12           | 11 | 9.5  | 10 <sup>0</sup> <sub>-0.01</sub>  | 14 | 4×4×10 |
| NRL-26K<br>NRL-33K<br>NRL-40K    | 26.5 | 171.5          | 198            | 32 | 2.5 | 57  | 1/4         | 50 | 2~M6  | 15           | 16 | 12.7 | 15 <sup>0</sup> <sub>-0.01</sub>  | 20 | 5×5×16 |
| NRL-50K<br>NRL-60K               | 38   | 203.5          | 241.5          | 37 | 4   | 72  | 3/8         | 63 | 3~M8  | 20           | 18 | 15.9 | 18 <sup>0</sup> <sub>-0.011</sub> | 24 | 6×6×20 |
| NRL-70K<br>NRL-90K               |      | 215.5          | 253.5          |    |     |     |             |    |       |              |    |      |                                   |    |        |
| NRL-110K<br>NRL-130K             | 38   | 224.5          | 262.5          | 50 | 4   | 84  | 3/8         | 76 | 3~M8  | 20           | 18 | 15.9 | 18 <sup>0</sup> <sub>-0.011</sub> | 24 | 6×6×20 |
| NRL-160K<br>NRL-210K             | 42   | 224.5<br>236.5 | 270.5<br>282.5 | 50 | 4   | 84  |             |    |       |              |    |      |                                   |    |        |
| NRL-240K<br>NRL-280K<br>NRL-340K | 63   | 276            | 338.5          | 60 | 4   | 110 | 1/2         | 98 | 3~M10 | 30           | 31 | 24   | 30 <sup>0</sup> <sub>-0.013</sub> | 40 | 8×7×28 |

注意：空気圧力0.39Mpa以下でご使用下さい。 Caution: Please use air pressure at 0.39 Mpa or below.

## エアモータRM型

## AIR MOTORS RM TYPE

### ■特徴

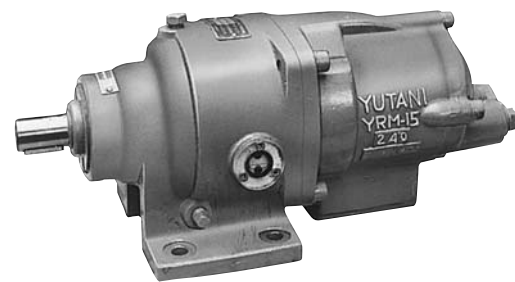
- 高トルク
- 可逆式
- 多翼式ロータリエンジン
- 遊星歯車減速機構
- 接続：キーまたはスプライン
- 取付：ベース
- 操作：手元または遠隔

### ■FEATURES

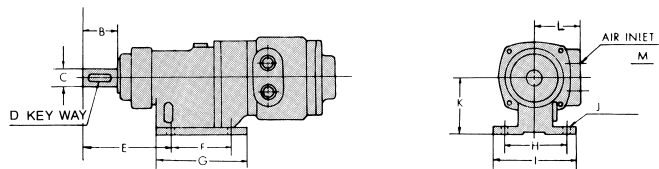
- High Torque
- Reversible
- Multi-Vane Rotary Engine
- Planetary Gear Mechanism
- Connection : Key or Spline
- Mounting : Base
- Operation : Manual or Remote



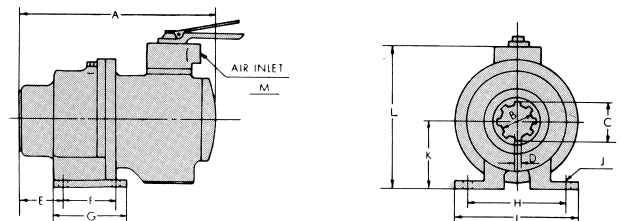
**YRM05-450**  
遠隔操作式のみ  
Remote Operation Type Only



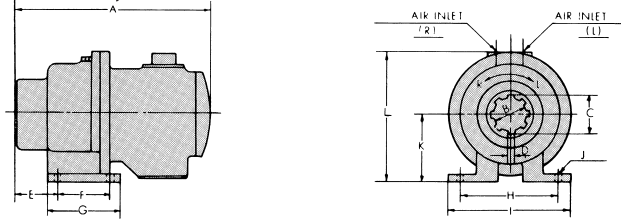
**YRM15-240**  
遠隔操作式のみ  
Remote Operation Type Only



**YRM05-450 YRM15-240** エアインレット後方  
**YRM15B-460 32-RM** REAR AIR INLET



**3RM,5RHM** 手元操作式〈Manual Operation Type〉



**3RM,5RHM** 遠隔操作式〈Remote Operation Type〉

### ■仕様〈SPECIFICATIONS〉

| Model             | Air Pressure MPa | Free Speed min <sup>1</sup> (r.p.m) | Speed at Max.Power min <sup>1</sup> (r.p.m) | Torque at Max.Power N·m | Maximum Power kw | Starting Torque N·m | Air Consumption ml/min(ANR) | Mass kg | Hose Diameter mm |
|-------------------|------------------|-------------------------------------|---|-------------------------|------------------|---------------------|-----------------------------|---------|------------------|
| <b>YRM05-450</b>  | 0.59             | 450                                 | 225   | 25                      | 0.59             | 41                  | 0.7                         | 3.9     | 12.7             |
| <b>YRM15-240</b>  | 0.59             | 240                                 | 120   | 93                      | 1.2              | 149                 | 1.5                         | 10.4    | 19.0             |
| <b>YRM15B-460</b> | 0.59             | 460                                 | 230   | 38                      | 0.96             | 61                  | 1.2                         | 5.0     | 12.7             |
| <b>32-RM</b>      | 0.59             | 455                                 | 230   | 71                      | 1.7              | 113                 | 2.0                         | 14.5    | 19.0             |
| <b>3RM</b>        | 0.59             | 40                                  | 20  | 706                     | 1.5              | 1,079               | 2.5                         | 30.0    | 25.4             |
| <b>5RHM</b>       | 0.59             | 20                                  | 10  | 1,177                   | 1.5              | 1,863               | 2.5                         | 42.0    | 25.4             |

### ■主要寸法〈DIMENSIONS〉

#### ○手元操作式〈Manual Operation Type〉

〈mm〉

| Model       | Dwg.No. | A   | B    | C    | D    | E  | F  | G   | H   | I   | J     | K   | L   | Rc(PT)M |
|-------------|---------|-----|------|------|------|----|----|-----|-----|-----|-------|-----|-----|---------|
| <b>3RM</b>  | 769×34  | 291 | 50.3 | 58.3 | 10.2 | 72 | 80 | 120 | 160 | 200 | 4~φ14 | 115 | 240 | 3/4     |
| <b>5RHM</b> | 757×10  | 336 | 50.3 | 58.3 | 10.2 | 72 | 85 | 125 | 160 | 200 | 4~φ14 | 115 | 258 | 3/4     |

#### ○遠隔操作式〈Remote Operation Type〉

〈mm〉

| Model             | Dwg.No. | A   | B    | C                                   | D <sub>Key</sub> | E   | F  | G   | H   | I   | J      | K   | L   | Rc(PT)M |
|-------------------|---------|-----|------|-------------------------------------|------------------|-----|----|-----|-----|-----|--------|-----|-----|---------|
| <b>YRM05-450</b>  | 618×14  | 233 | 40   | φ 18 <sup>0</sup> <sub>-0.011</sub> | 6×6×35           | 141 | 55 | 90  | 80  | 104 | 4~φ10  | 60  | 52  | 3/8     |
| <b>YRM15-240</b>  | 632×18  | 331 | 30   | φ 20 <sup>0</sup> <sub>-0.013</sub> | 6×6×24           | 87  | 60 | 90  | 100 | 130 | 4~φ10  | 75  | 40  | 1/2     |
| <b>YRM15B-460</b> | 606×48  | 277 | 40   | φ 20 <sup>0</sup> <sub>-0.013</sub> | 6×6×40           | 98  | 70 | 100 | 90  | 115 | 4~φ8.5 | 61  | 66  | 3/8     |
| <b>32-RM</b>      | 601×78  | 328 | 30   | φ 25 <sup>0</sup> <sub>-0.013</sub> | 8×7×24           | 93  | 50 | 100 | 90  | 120 | 4~φ10  | 76  | 68  | 3/4     |
| <b>3RM</b>        | 769×40  | 291 | 50.3 | 58.3                                | 10.2             | 72  | 80 | 120 | 160 | 200 | 4~φ14  | 115 | 207 | 3/4     |
| <b>5RHM</b>       | 757×51  | 336 | 50.3 | 58.3                                | 10.2             | 72  | 85 | 125 | 160 | 200 | 4~φ14  | 115 | 220 | 3/4     |

## 取扱説明

### 1. 配管 (図2参照)

- (1)配管取出口は、エアータンクの底面より充分高い位置に設けて下さい。
- (2)全ての配管は1/100以上の勾配を設けてふ設して下さい。
- (3)配管径はエアーモータの空気消費量を充分満足できる大きさにして下さい。
- (4)主管からの取出口はその管の高所部から取り出し、低所部やめくらの部には必ずドレン分離器を設けて下さい。

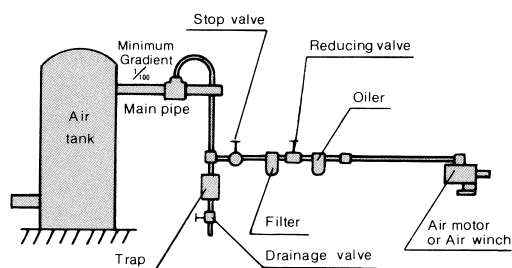
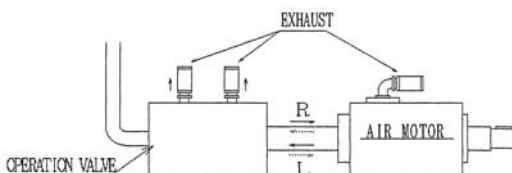


図2 <Fig.2> 配管<Piping>



### 2. 使用上の御注意

- (1)空気圧力を0.59MPa(6kg/cm<sup>2</sup>または85psi)にして下さい。
- (2)乾燥した清浄な空気を使用して下さい。
- (3)定時注油を実施して下さい。
- (4)使用前にネジ部およびナットの弛みを十分点検して下さい。
- (5)安全のため、作業が終了しましたらエアーモータ、エアーウインチのバルブおよびストップバルブが閉じていることを確認して下さい。作業を再開する場合、エアーモータ、エアーウインチのバルブが閉じているのを確認してからストップバルブを開けて下さい。
- (6)製品の管理上、定時検査を実施して下さい。

### 3. 給油

- (1)エンジン部……タービン油(ISO VG32)
- (2)ギヤケース部…ギヤ油VG32、オイルゲージがない場合にはリチウムセッケン基グリース#2。

### 4. 故障原因とその処置

- (1)エアーは入っているがスタートしない。  
原因：ロータベーンの膨張。  
処置：エンジンを分解し、ロータベーンの長さがロータの長さより0.05~0.1mm短くなるよう調整する。
- (2)作動中、急に停まった。  
原因：砂、ゴミなどのエンジン内への吸い込み、または、ロータベーンの破損。  
処置：エンジンを分解し、オイル洗浄する。または、ロータベーンを取替える。
- (3)エンジンがオーバーヒートし、出力が低下した。  
原因：潤滑不足  
処置：十分に給油する。作業を中止し、エンジンを冷却する。

## INSTRUCTION MANUAL

### 1. PIPING(See Fig.2)

- (1) The pipe outlet must be located at a position sufficiently higher than the bottom of the air tank.
- (2) All piping arrangement must have a slope of 1/100 or more.
- (3) Pipe diameter must be large enough to sufficiently handle required air consumption volume.
- (4) Outlets from the main must be provided only where the main has sufficient height. Drain separators must be equipped at all low and closed position.

### 2. OPERATION

- (1) Maintain air pressure at 0.59 MPa (6kg/cm<sup>2</sup> or 85 psi) in use.
- (2) Use only clean-dry air.
- (3) Be sure to lubricate periodically.
- (4) Thoroughly check all parts for loose screws or nuts before use.
- (5) For safety control, be sure to close the stop valve and valve of Air Motor or Air Winch when work is completed. When restarting operation, open the stop valve after making certain that the valve of Air Motor or Air Winch is closed.
- (6) Make periodic inspections for proper maintenance of Air Motor or Air Winch.

### 3. LUBRICATION

- (1) Engine Part.....Turbine oil ISO VG32
- (2) Gearcase Part...Gear oil ISO VG150 or lithium alkaline grease #2 if an oil gauge is not installed.

### 4. POSSIBLE TROUBLESHOOTINGS

- (1) Air is supplied but does not start.  
Cause: Swelling of the rotor vane - stretching out to the inner surface of the top/bottom bearing case.  
Measure: Disassemble the engine to remove the rotor vane. Adjust the length of the rotor vane so that its length is slightly shorter (0.05~0.1mm) than that of the rotor.
- (2) Abrupt stop during operation.  
Cause: Suction of sand, dust, etc. into the engine or breakage of the rotor vane.  
Measure: Disassemble the engine and clean the engine room or replace the rotor vane.
- (3) Overheat of the engine and drop of output.  
Cause: Insufficient lubrication.  
Measure: Make sufficient lubrication. Interrupt operation to cool down.