

**CHUCK**

# パワーウイングチャック

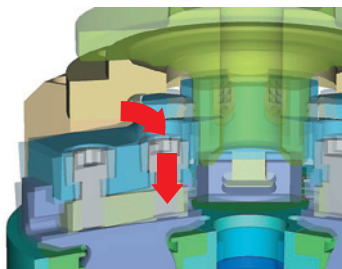
## PW(C) series

PW-C型はコンペセイティング（心補償把握）仕様です。センタやピン穴基準で位置決めされたワークに倣って把握します。寸法やその他の仕様はPW型と同一です。

### ワーク素材を引込む安定把握 しっかり掴んで荒加工に最適

#### ●把握安定性が高く重切削が可能です

ワークをラジアル方向へ把握し、さらに強力な引きつけ作用でチャック端面に密着させますから把握が確実で安定しており重切削が可能です。

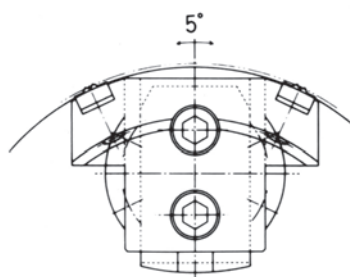


#### ●長期間安定した把握力が得られます

マスタジョーが球体構造となっていますからシール性がよく長期間安定した把握力が得られます。

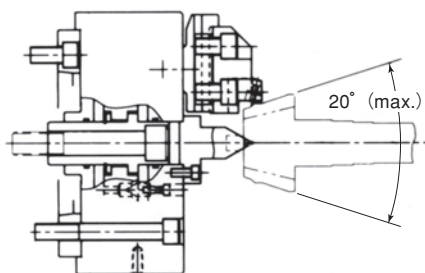
#### ●左右のイコライズは最大5°まで可能です

ばらつきのあるワークにも左右5°ジョーがイコライズし安定把握します。



#### ●最大テーパ20°までの把握が可能です

抜勾配のついた casting・鍛造品の黒皮面でもグリップピースで確実にテーパ部を把握します。

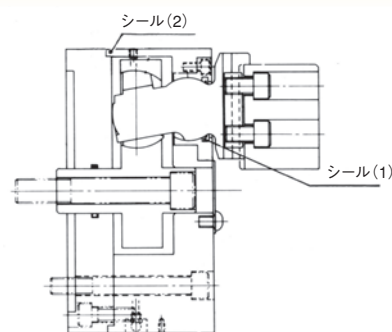


\*CE対応品



#### ●グリス密封性が大きく向上しました

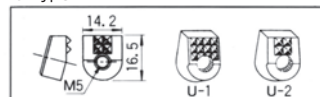
シール（1）に加え、ボデーとリアボデーの合わせ面にもシール（2）を挿入することにより封入グリスの密封性を大きく向上させました。



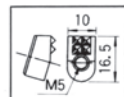
#### ■グリップピースの種類

\*グリップピースはワークの条件によってそれぞれ選定されます。

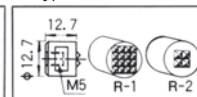
##### U-Type



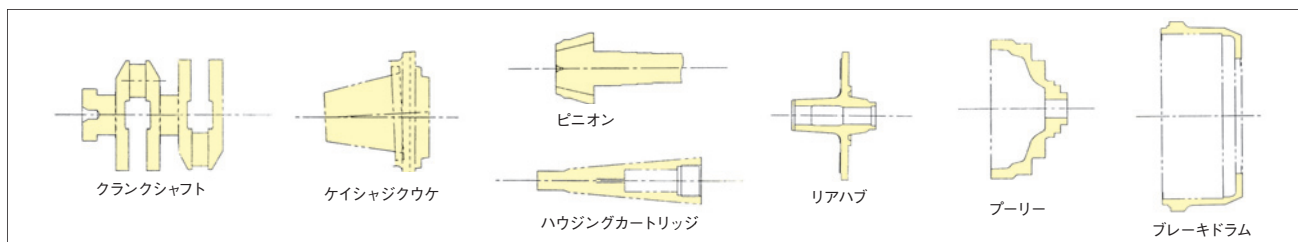
##### U-2S



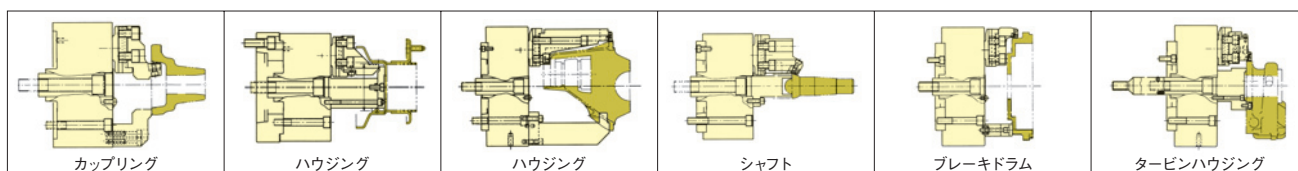
##### R-Type



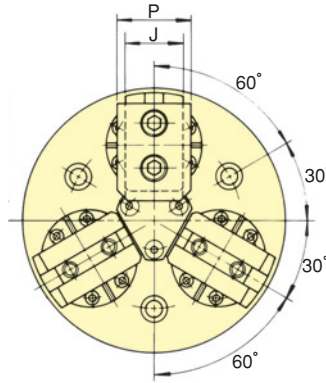
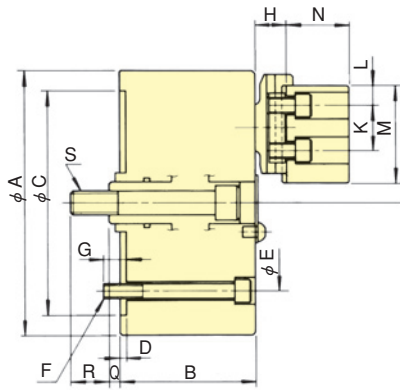
### ワーク実績



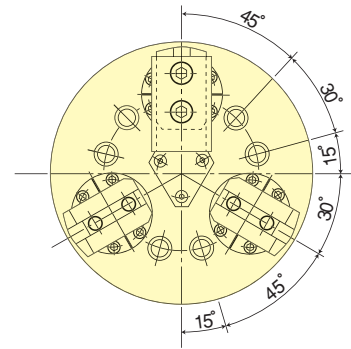
### 把握状態例



## ■ 寸法図



PW-06~10



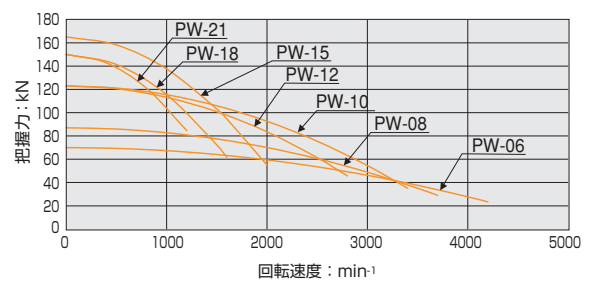
PW-12, 15, 18, 21

## ■ 寸法表

| 寸法    | A   | B   | C(H6) | D | E     | F     | G  | H     | J     |
|-------|-----|-----|-------|---|-------|-------|----|-------|-------|
| 型式    |     |     |       |   |       |       |    |       |       |
| PW-06 | 162 | 77  | 140   | 5 | 104.8 | 3-M10 | 14 | 19.3  | 38.07 |
| PW-08 | 200 | 88  | 170   | 5 | 133.4 | 3-M12 | 18 | 23.33 | 44.45 |
| PW-10 | 254 | 105 | 220   | 5 | 171.4 | 3-M16 | 25 | 29.14 | 57.1  |
| PW-12 | 300 | 105 | 220   | 5 | 171.4 | 6-M16 | 25 | 29.14 | 57.1  |
| PW-15 | 381 | 117 | 300   | 5 | 235   | 6-M20 | 30 | 32.4  | 66.62 |
| PW-18 | 450 | 117 | 300   | 5 | 235   | 6-M20 | 30 | 32.4  | 66.62 |
| PW-21 | 533 | 118 | 380   | 6 | 300.2 | 6-M22 | 31 | 32.4  | 66.62 |

| 寸法    | K     | L    | M     | N     | P    | Q max. | Q min. | R    | S   |
|-------|-------|------|-------|-------|------|--------|--------|------|-----|
| 型式    |       |      |       |       |      |        |        |      |     |
| PW-06 | 29.36 | 15   | 67.5  | 47.7  | 50.8 | 24     | 12.6   | 25.4 | M16 |
| PW-08 | 34.14 | 15   | 74    | 54.17 | 57   | 29.3   | 15.1   | 29.2 | M18 |
| PW-10 | 44.45 | 19   | 89.5  | 66.9  | 70.1 | 34.9   | 17.4   | 34.7 | M22 |
| PW-12 | 44.45 | 19   | 108.5 | 66.9  | 70.1 | 34.9   | 17.4   | 34.7 | M22 |
| PW-15 | 53.98 | 23.9 | 140   | 73.2  | 76.2 | 48.7   | 26.3   | 41   | M27 |
| PW-18 | 53.98 | 23.9 | 140   | 73.2  | 76.2 | 48.7   | 26.3   | 41   | M27 |
| PW-21 | 53.98 | 23.9 | 140   | 73.2  | 76.2 | 47.7   | 25.3   | 41   | M27 |

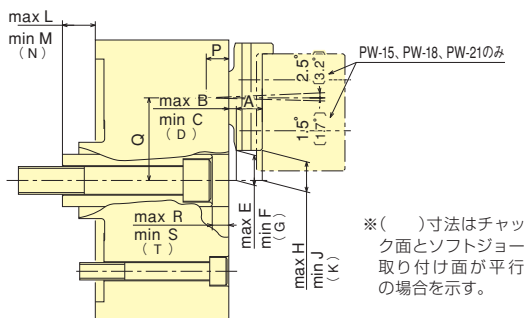
## 把握力性能曲線



## ■ 仕様表 ※把握径/把握範囲は標準のソフトジョーを使用した場合。

| 仕様    | ジョーストローク<br>(直径) mm | フランジ<br>ストローク<br>mm | 許容最大入力<br>kN | 最大静的<br>把握力<br>kN | 許容最高<br>回転速度<br>min⁻¹ | 質量<br>(標準ソフトジョー付)<br>kg | 慣性モーメント<br>kg・m² | 適合<br>シリンダ  | 許容最大<br>油圧力<br>MPa | 把握範囲            | 偏心量<br>PWCのみ<br>mm |
|-------|---------------------|---------------------|--------------|-------------------|-----------------------|-------------------------|------------------|-------------|--------------------|-----------------|--------------------|
| 型式    |                     |                     |              |                   |                       |                         |                  |             |                    | 外径 φmm 内径 φmm   |                    |
| PW-06 | 7.9                 | 11.4                | 23.3         | 70.0              | 4200                  | 14.7                    | 0.050            | Y1225R/RE47 | 2.30               | 13~120 70~160   | 1.0                |
| PW-08 | 9.5                 | 14.2                | 29.0         | 87.0              | 3700                  | 23.5                    | 0.110            | Y1225R/RE47 | 2.84               | 35~152 76~194   | 1.5                |
| PW-10 | 12.7                | 17.5                | 41.0         | 123.0             | 3400                  | 39.3                    | 0.265            | Y1530R/RE47 | 2.80               | 54~203 94~235   | 2.0                |
| PW-12 | 12.7                | 17.5                | 41.0         | 123.0             | 2800                  | 58.3                    | 0.523            | Y1530R/RE47 | 2.80               | 58~241 129~300  | 2.0                |
| PW-15 | 15.8                | 22.4                | 55.0         | 165.0             | 2000                  | 95.0                    | 1.943            | Y2035R/RE   | 2.14               | 73~317 163~381  | 3.0                |
| PW-18 | 15.8                | 22.4                | 55.0         | 150.0             | 1600                  | 152                     | 3.85             | Y2035R/RE   | 2.14               | 154~386 225~450 | 3.0                |
| PW-21 | 15.8                | 22.4                | 55.0         | 150.0             | 1200                  | 195                     | 7.06             | Y2035R/RE   | 2.14               | 229~470 305~533 | 3.0                |

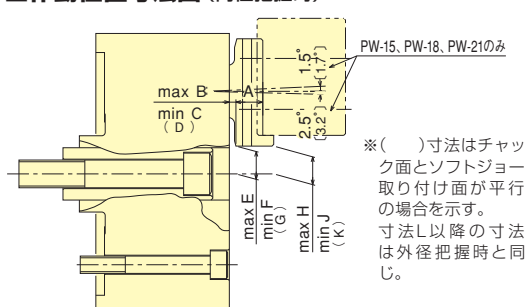
## ■ 作動位置寸法図 (外径把握時)



## ■ 作動位置寸法表 (外径把握時)

| 寸法    | A     | B    | C    | D    | E      | F      | G      | H      | J      | K      |
|-------|-------|------|------|------|--------|--------|--------|--------|--------|--------|
| 型式    |       |      |      |      |        |        |        |        |        |        |
| PW-06 | 15.50 | 5.02 | 3.05 | 3.80 | 20.09  | 18.89  | 19.33  | 20.77  | 18.48  | 19.33  |
| PW-08 | 18.50 | 5.68 | 3.24 | 4.80 | 22.63  | 21.18  | 22.10  | 23.08  | 20.36  | 22.10  |
| PW-10 | 25.61 | 5.47 | 2.44 | 3.53 | 31.16  | 29.44  | 30.03  | 32.37  | 28.77  | 30.03  |
| PW-12 | 25.61 | 5.47 | 2.44 | 3.53 | 51.81  | 50.09  | 50.68  | 53.02  | 49.42  | 50.68  |
| PW-15 | 28.67 | 6.27 | 2.35 | 3.73 | 75.85  | 73.76  | 74.45  | 77.45  | 72.91  | 74.45  |
| PW-18 | 28.67 | 6.27 | 2.35 | 3.73 | 110.35 | 108.26 | 108.95 | 111.95 | 107.41 | 108.95 |
| PW-21 | 28.67 | 6.27 | 2.35 | 3.73 | 152.05 | 149.96 | 150.65 | 153.65 | 149.11 | 150.65 |

## ■ 作動位置寸法図 (内径把握時)



## ■ 作動位置寸法表 (内径把握時)

| 寸法    | A     | B     | C    | D    | E      | F      | G      | H      | J      | K      |
|-------|-------|-------|------|------|--------|--------|--------|--------|--------|--------|
| 型式    |       |       |      |      |        |        |        |        |        |        |
| PW-06 | 15.03 | 5.66  | 3.43 | 4.27 | 16.32  | 15.08  | 15.53  | 17.25  | 14.52  | 15.53  |
| PW-08 | 16.71 | 8.35  | 5.56 | 6.62 | 18.04  | 16.41  | 17.00  | 18.99  | 15.84  | 17.00  |
| PW-10 | 20.51 | 10.92 | 7.23 | 8.63 | 19.59  | 17.61  | 18.33  | 20.74  | 16.92  | 18.33  |
| PW-12 | 20.51 | 10.92 | 7.23 | 8.63 | 40.24  | 38.26  | 38.98  | 41.39  | 37.57  | 38.98  |
| PW-15 | 23.94 | 12.19 | 6.44 | 8.46 | 54.75  | 52.23  | 53.05  | 56.41  | 51.35  | 53.05  |
| PW-18 | 23.94 | 12.19 | 6.44 | 8.46 | 89.25  | 86.73  | 87.55  | 90.91  | 85.85  | 87.55  |
| PW-21 | 23.94 | 12.19 | 6.44 | 8.46 | 130.95 | 128.43 | 129.25 | 132.61 | 127.55 | 129.25 |



**CHUCK**

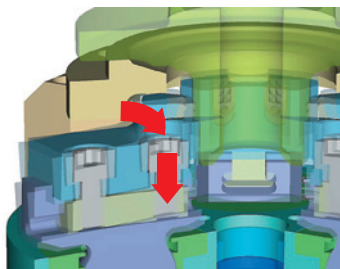
# Power Wing Chuck PW(C) series

The specification for PW-C is the compensation chuck. The jaws will follow and grip the component held by Centre and Pin.  
The dimensions and specification are the same as those for PW.

**Pull back of work-pieces for secure gripping of casting or forging**  
**PWC compensating type for rough casting through centre**

## ●Powerful Gripping

After gripping the component in a radial direction, a power PULL-BACK action is applied which significantly increases the Gripping Force, allowing a heavier machine cut to be taken.



## ●Complete Sealing

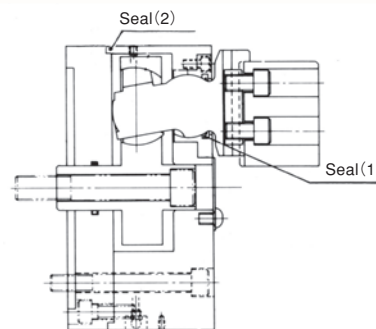
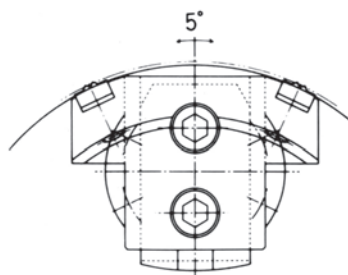
Additional sealing at (1) and (2) reduces grease contamination and increases maintenance period.

## ●High Durability

Master jaws are of spherical design and sealed against swarf and coolant. This permits High Gripping Forces to be retained between lubrication periods.

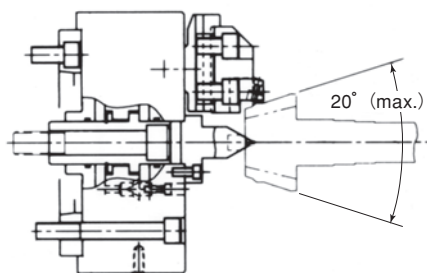
## ●JAW Equalising 5° max equalising angle

Various work-pieces can be firmly gripped by the self-equalising jaws to max. 5°.



## ●Gripping on Tapered Parts

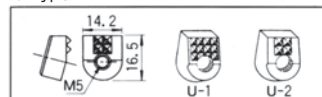
The radial and PULL-BACK jaw action allows rough tapered castings and forgings to be securely gripped to maximum 20°.



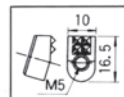
## ■Type of the gripping pieces

\*The type of the gripping pieces is selected according to the work-piece conditions.

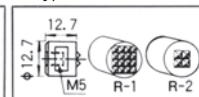
### U-Type



### U-2S

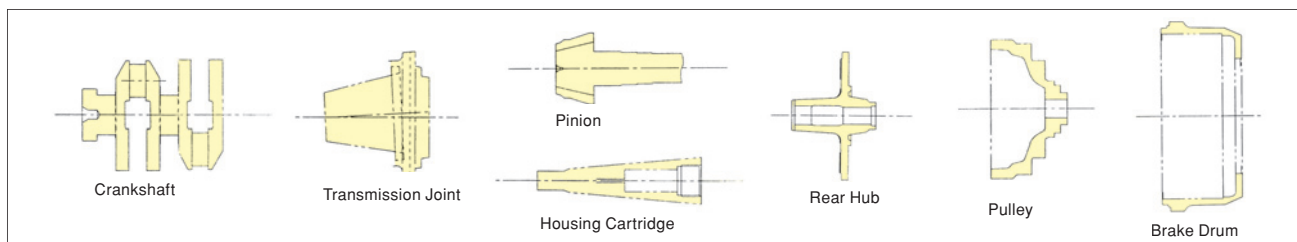


### R-Type

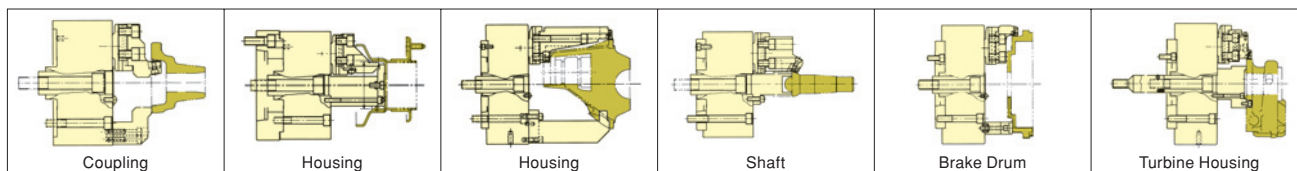


\*CE corresponding

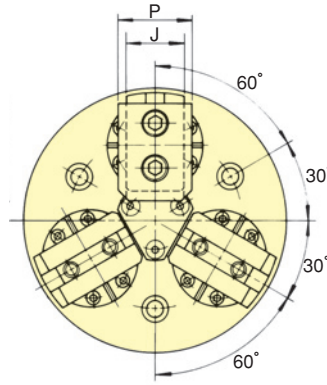
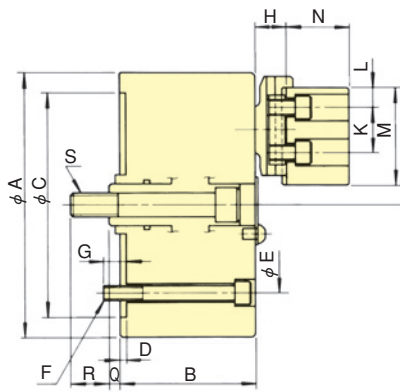
## Work-piece Examples



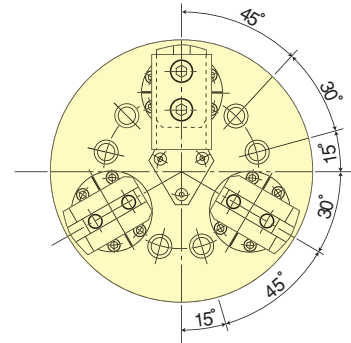
## Gripping Examples



## Dimensional Drawings



PW-06~10



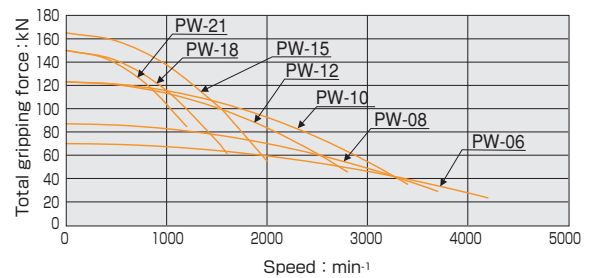
PW-12, 15, 18, 21

## Dimensions

| Model | A   | B   | C(H6) | D | E     | F     | G  | H     | J     |
|-------|-----|-----|-------|---|-------|-------|----|-------|-------|
| PW-06 | 162 | 77  | 140   | 5 | 104.8 | 3-M10 | 14 | 19.3  | 38.07 |
| PW-08 | 200 | 88  | 170   | 5 | 133.4 | 3-M12 | 18 | 23.33 | 44.45 |
| PW-10 | 254 | 105 | 220   | 5 | 171.4 | 3-M16 | 25 | 29.14 | 57.1  |
| PW-12 | 300 | 105 | 220   | 5 | 171.4 | 6-M16 | 25 | 29.14 | 57.1  |
| PW-15 | 381 | 117 | 300   | 5 | 235   | 6-M20 | 30 | 32.4  | 66.62 |
| PW-18 | 450 | 117 | 300   | 5 | 235   | 6-M20 | 30 | 32.4  | 66.62 |
| PW-21 | 533 | 118 | 380   | 6 | 300.2 | 6-M22 | 31 | 32.4  | 66.62 |

| Model | K     | L    | M     | N     | P    | Q max. | Q min. | R    | S   |
|-------|-------|------|-------|-------|------|--------|--------|------|-----|
| PW-06 | 29.36 | 15   | 67.5  | 47.7  | 50.8 | 24     | 12.6   | 25.4 | M16 |
| PW-08 | 34.14 | 15   | 74    | 54.17 | 57   | 29.3   | 15.1   | 29.2 | M18 |
| PW-10 | 44.45 | 19   | 89.5  | 66.9  | 70.1 | 34.9   | 17.4   | 34.7 | M22 |
| PW-12 | 44.45 | 19   | 108.5 | 66.9  | 70.1 | 34.9   | 17.4   | 34.7 | M22 |
| PW-15 | 53.98 | 23.9 | 140   | 73.2  | 76.2 | 48.7   | 26.3   | 41   | M27 |
| PW-18 | 53.98 | 23.9 | 140   | 73.2  | 76.2 | 48.7   | 26.3   | 41   | M27 |
| PW-21 | 53.98 | 23.9 | 140   | 73.2  | 76.2 | 47.7   | 25.3   | 41   | M27 |

## Gripping Performance

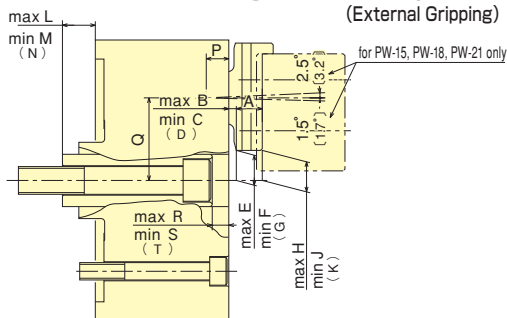


## Specifications

\*Gripping dia./gripping range is with standard soft jaws.

| Model | Specs Jaw Stroke (diameter) mm | Plunger Stroke mm | Max. Draw Bar Pull Force kN | Max. Gripping Force kN | Max. Speed min <sup>-1</sup> | Net Weight with Soft top jaws kg | Moment of inertia kg·m <sup>2</sup> | Matching Cylinder | Max. pressure MPa | Gripping range external φmm internal φmm | Compensation value for PWC only mm |
|-------|--------------------------------|-------------------|-----------------------------|------------------------|------------------------------|----------------------------------|-------------------------------------|-------------------|-------------------|------------------------------------------|------------------------------------|
| PW-06 | 7.9                            | 11.4              | 23.3                        | 70.0                   | 4200                         | 14.7                             | 0.050                               | Y1225R/RE47       | 2.30              | 13~120 70~160                            | 1.0                                |
| PW-08 | 9.5                            | 14.2              | 29.0                        | 87.0                   | 3700                         | 23.5                             | 0.110                               | Y1225R/RE47       | 2.84              | 35~152 76~194                            | 1.5                                |
| PW-10 | 12.7                           | 17.5              | 41.0                        | 123.0                  | 3400                         | 39.3                             | 0.265                               | Y1530R/RE47       | 2.80              | 54~203 94~235                            | 2.0                                |
| PW-12 | 12.7                           | 17.5              | 41.0                        | 123.0                  | 2800                         | 58.3                             | 0.523                               | Y1530R/RE47       | 2.80              | 58~241 129~300                           | 2.0                                |
| PW-15 | 15.8                           | 22.4              | 55.0                        | 165.0                  | 2000                         | 95.0                             | 1.943                               | Y2035R/RE         | 2.14              | 73~317 163~381                           | 3.0                                |
| PW-18 | 15.8                           | 22.4              | 55.0                        | 150.0                  | 1600                         | 152                              | 3.85                                | Y2035R/RE         | 2.14              | 154~386 225~450                          | 3.0                                |
| PW-21 | 15.8                           | 22.4              | 55.0                        | 150.0                  | 1200                         | 195                              | 7.06                                | Y2035R/RE         | 2.14              | 229~470 305~533                          | 3.0                                |

## Dimensional Drawing for actuated position (External Gripping)

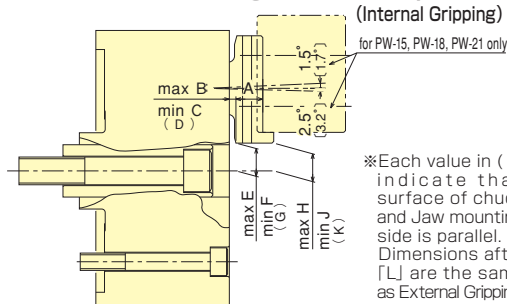


## Dimensions for actuated position (External Gripping)

| Model | A     | B    | C    | D    | E      | F      | G      | H      | J      | K      |
|-------|-------|------|------|------|--------|--------|--------|--------|--------|--------|
| PW-06 | 15.50 | 5.02 | 3.05 | 3.80 | 20.09  | 18.89  | 19.33  | 20.77  | 18.48  | 19.33  |
| PW-08 | 18.50 | 5.68 | 3.24 | 4.80 | 22.63  | 21.18  | 22.10  | 23.08  | 20.36  | 22.10  |
| PW-10 | 25.61 | 5.47 | 2.44 | 3.53 | 31.16  | 29.44  | 30.03  | 32.37  | 28.77  | 30.03  |
| PW-12 | 25.61 | 5.47 | 2.44 | 3.53 | 51.81  | 50.09  | 50.68  | 53.02  | 49.42  | 50.68  |
| PW-15 | 28.67 | 6.27 | 2.35 | 3.73 | 75.85  | 73.76  | 74.45  | 77.45  | 72.91  | 74.45  |
| PW-18 | 28.67 | 6.27 | 2.35 | 3.73 | 110.35 | 108.26 | 108.95 | 111.95 | 107.41 | 108.95 |
| PW-21 | 28.67 | 6.27 | 2.35 | 3.73 | 152.05 | 149.96 | 150.65 | 153.65 | 149.11 | 150.65 |

| Model | L     | M     | N     | P     | Q      | R     | S    | T     |
|-------|-------|-------|-------|-------|--------|-------|------|-------|
| PW-06 | 24.0  | 12.6  | 18.95 | 13.20 | 47.63  | 14.60 | 3.20 | 9.55  |
| PW-08 | 29.30 | 15.10 | 22.95 | 16.40 | 57.15  | 18.50 | 4.30 | 12.17 |
| PW-10 | 34.90 | 17.40 | 27.05 | 19.30 | 71.43  | 19.60 | 2.10 | 11.75 |
| PW-12 | 34.90 | 17.40 | 27.05 | 19.30 | 92.08  | 19.60 | 2.10 | 11.75 |
| PW-15 | 48.70 | 26.30 | 38.40 | 20.07 | 120.65 | 24.90 | 2.50 | 14.60 |
| PW-18 | 48.70 | 26.30 | 38.40 | 20.07 | 155.15 | 24.90 | 2.50 | 14.60 |
| PW-21 | 47.70 | 25.30 | 37.40 | 20.07 | 196.85 | 24.90 | 2.50 | 14.60 |

## Dimensional Drawing for actuated position (Internal Gripping)



## Dimensions for actuated position (Internal Gripping)

| Model | A     | B     | C    | D    | E      | F      | G      | H      | J      | K      |
|-------|-------|-------|------|------|--------|--------|--------|--------|--------|--------|
| PW-06 | 15.03 | 5.66  | 3.43 | 4.27 | 16.32  | 15.08  | 15.53  | 17.25  | 14.52  | 15.53  |
| PW-08 | 16.71 | 8.35  | 5.56 | 6.62 | 18.04  | 16.41  | 17.00  | 18.99  | 15.84  | 17.00  |
| PW-10 | 20.51 | 10.92 | 7.23 | 8.63 | 19.59  | 17.61  | 18.33  | 20.74  | 16.92  | 18.33  |
| PW-12 | 20.51 | 10.92 | 7.23 | 8.63 | 40.24  | 38.26  | 38.98  | 41.39  | 37.57  | 38.98  |
| PW-15 | 23.94 | 12.19 | 6.44 | 8.46 | 54.75  | 52.23  | 53.05  | 56.41  | 51.35  | 53.05  |
| PW-18 | 23.94 | 12.19 | 6.44 | 8.46 | 89.25  | 86.73  | 87.55  | 90.91  | 85.85  | 87.55  |
| PW-21 | 23.94 | 12.19 | 6.44 | 8.46 | 130.95 | 128.43 | 129.25 | 132.61 | 127.55 | 129.25 |