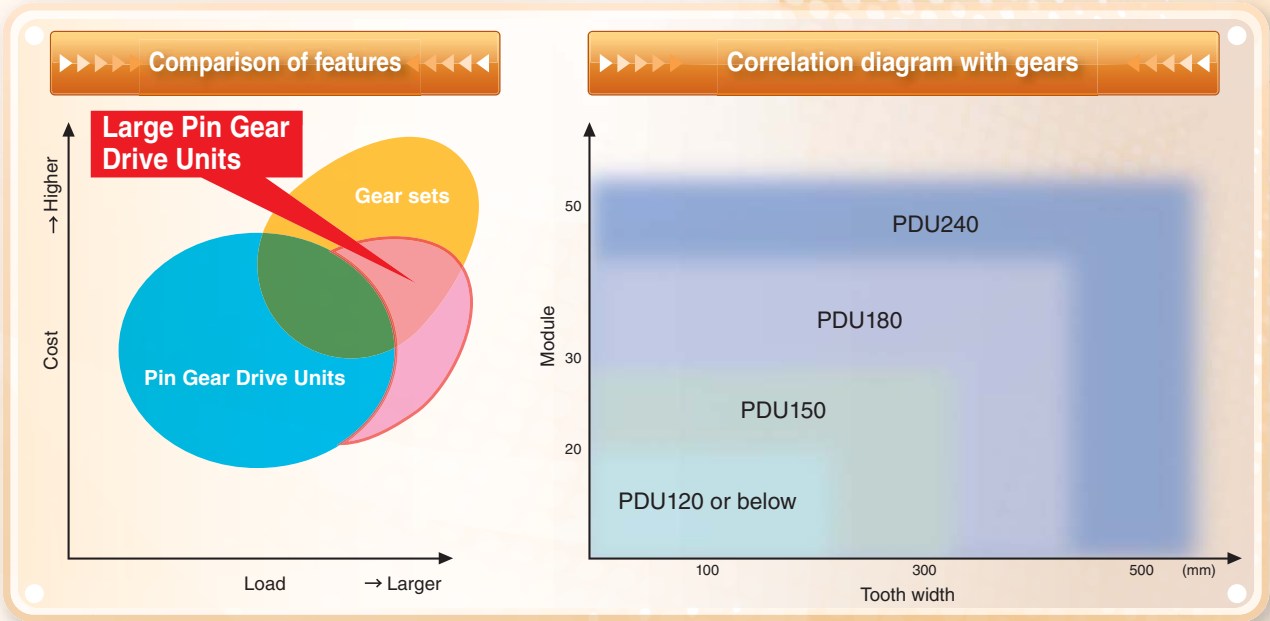


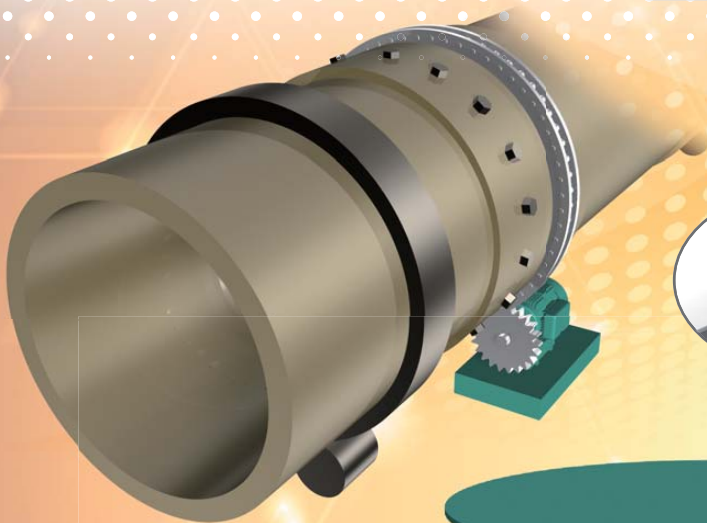
# TSUBAKI Pin Gear Drive Units

Large Pin Gear Drive Units now available

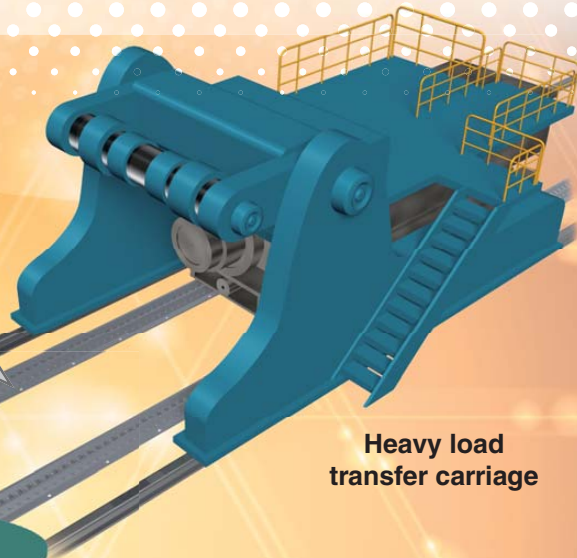
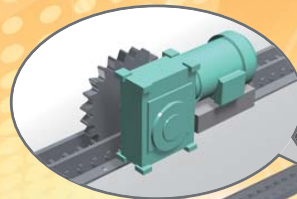
Provide superior **cost savings** and **tangential force** over large gears



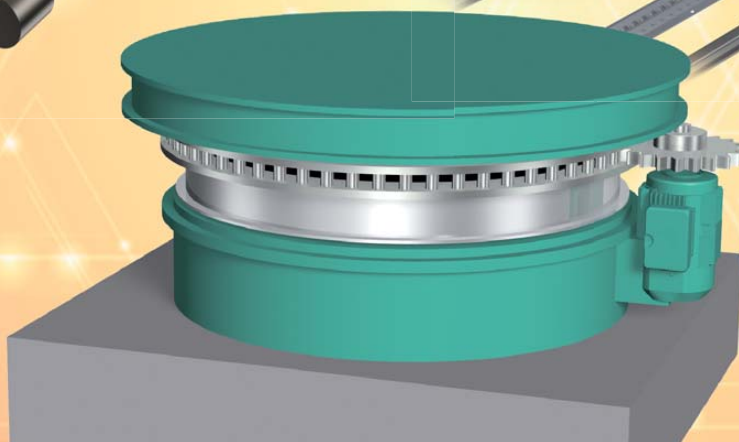
## Applications



Kiln cooler



Heavy load transfer carriage



Turntable

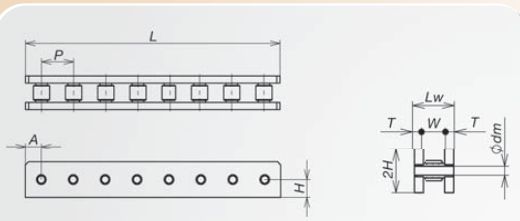
## List of standard specs

| Frame no. | Pitch mm | Allowable tangential load |
|-----------|----------|---------------------------|
|           |          | kN {kgf}                  |
| PDU150    | 150      | 240 {24500}               |
| PDU180    | 180      | 347 {35400}               |
| PDU240    | 240      | 525 {53500}               |

The above values are in SI units{gravimetric units}. Items in { } are reference values.

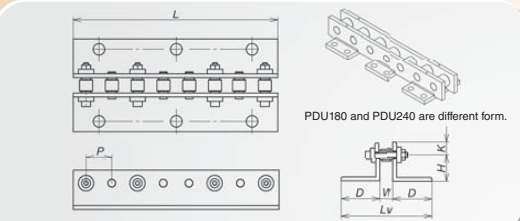
## Products and Specifications

### Flat Rack Specifications Table



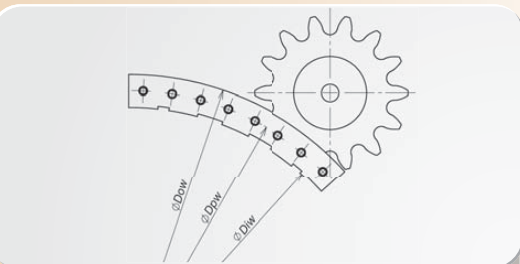
| Frame No. | Pitch | Standard Length |            | Plate Thickness | Pin Location | Inner Width | Overall Width | Frame Height | Mounting Hole | Bolt Size | Weight |
|-----------|-------|-----------------|------------|-----------------|--------------|-------------|---------------|--------------|---------------|-----------|--------|
|           | P     | Length L        | Roller Qty | T               | A            | W           | Lw            | 2H           | φ dm          |           | kg     |
| PDU150    | 150   | 1200            | 8          | 22              | 75           | 94          | 138           | 150          | 39            | M36       | 88.3   |
| PDU180    | 180   | 1260            | 7          | 30              | 90           | 112         | 172           | 200          | 45            | M42       | 161    |
| PDU240    | 240   | 1200            | 5          | 38              | 120          | 150         | 226           | 250          | 52            | M48       | 251    |

### Angle Rack Specifications Table



| Frame No. | Pitch | Standard Length |            | Inner Width | Overall Width | Angle Width | Center Height |     | Bolt Size | Weight |
|-----------|-------|-----------------|------------|-------------|---------------|-------------|---------------|-----|-----------|--------|
|           | P     | Length L        | Roller Qty | W           | Lw            | D           | H             | K   |           | kg     |
| PDU150    | 150   | 1200            | 8          | 94          | 394           | 150         | 85            | 68  | M36       | 131    |
| PDU180    | 180   | 1260            | 7          | 112         | 462           | 175         | 125           | 95  | M42       | 233    |
| PDU240    | 240   | 1200            | 5          | 150         | 554           | 202         | 157           | 119 | M48       | 362    |

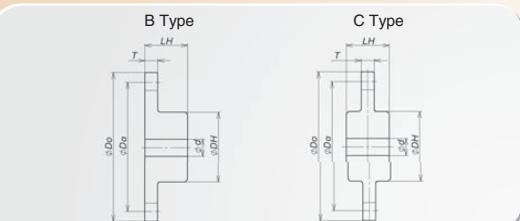
### Pin Wheel Specifications Table



| Frame No.  | PDU150               |                  |                | PDU180               |                  |                | PDU240               |                  |                |
|------------|----------------------|------------------|----------------|----------------------|------------------|----------------|----------------------|------------------|----------------|
|            | Circular Arc Pitch P | Overall Width Lw | Inner Width W  | Circular Arc Pitch P | Overall Width Lw | Inner Width W  | Circular Arc Pitch P | Overall Width Lw | Inner Width W  |
| Specs      | 150                  | 138              | 94             | 180                  | 172              | 112            | 240                  | 226              | 150            |
|            | Plate Thickness T    | 22               | 30             | Plate Thickness T    | 30               | 38             | Plate Thickness T    | 38               | 38             |
| Roller Qty | Pitch Diameter       | Outer Diameter   | Inner Diameter | Pitch Diameter       | Outer Diameter   | Inner Diameter | Pitch Diameter       | Outer Diameter   | Inner Diameter |
| NT         | Dpw                  | Dow              | Diw            | Dpw                  | Dow              | Diw            | Dpw                  | Dow              | Diw            |
| 60         | 2864.79              | 3015             | 2714           | 3437.75              | 3638             | 3237           | 4583.66              | 4834             | 4333           |
| 120        | 5729.58              | 5880             | 5579           | 6875.49              | 7076             | 6675           | 9167.32              | 9418             | 8917           |
| 180        | 8594.37              | 8745             | 8444           | 10313.24             | 10514            | 10113          | 13750.99             | 14001            | 13500          |
| 240        | 11459.16             | 11610            | 11309          | 13750.99             | 13951            | 13550          | 18334.65             | 18585            | 18084          |
| 300        | 14323.94             | 14474            | 14173          | 17188.73             | 17389            | 16988          | 22918.31             | 23169            | 22668          |

\* Some roller quantities may be unavailable depending on the drive method and number of pin gear teeth.

### Pin Gear Specifications Table



| Frame No.    | PDU150         |                        |                     |                |                | PDU180         |                        |                     |                |                | PDU240         |                        |                     |                |                |
|--------------|----------------|------------------------|---------------------|----------------|----------------|----------------|------------------------|---------------------|----------------|----------------|----------------|------------------------|---------------------|----------------|----------------|
|              | Pitch P        | Roller Diameter (Ref.) | Tooth Width T       | Pitch Diameter | Outer Diameter | Pitch P        | Roller Diameter (Ref.) | Tooth Width T       | Pitch Diameter | Outer Diameter | Pitch P        | Roller Diameter (Ref.) | Tooth Width T       | Pitch Diameter | Outer Diameter |
| Specs        | 150            | 79.35                  | 75                  |                |                | 180            | 95.25                  | 90                  |                |                | 240            | 127.0                  | 120                 |                |                |
| No. of Teeth | Pitch Diameter | Outer Diameter         | Pilot Bore Diameter | Hub Diameter   | Hub Length     | Pitch Diameter | Outer Diameter         | Pilot Bore Diameter | Hub Diameter   | Hub Length     | Pitch Diameter | Outer Diameter         | Pilot Bore Diameter | Hub Diameter   | Hub Length     |
| NT           | Da             | Do                     | d                   | DH             | LH             | Da             | Do                     | d                   | DH             | LH             | Da             | Do                     | d                   | DH             | LH             |
| 12           | 590.46         | 708                    | 68                  | 230            | 230            | 708.55         | 850                    | 78                  | 280            | 280            | 944.73         | 1137                   | 78                  | 370            | 370            |
| 14           | 683.45         | 787                    | 68                  | 270            | 270            | 820.14         | 945                    | 78                  | 320            | 320            | 1093.52        | 1264                   | 78                  | 430            | 430            |
| 16           | 776.44         | 872                    | 68                  | 310            | 310            | 931.73         | 1047                   | 78                  | 370            | 370            | 1242.31        | 1396                   | 78                  | 490            | 490            |

\* Some number of pin gear teeth may be unavailable depending on the drive method and roller quantities.

\* Pin gear tooth profile differs according to application (outer/inner/linear drive).