Renold Gears has been manufacturing high quality, high specification gear units for over 100 years and has always been at the leading edge of gear technology with innovative products and power transmission solutions.

**Interchangeability**
Many of the products from Renold Gears are dimensionally interchangeable with other manufacturers' gear units, allowing a trouble free replacement of gearboxes, in most cases upgrading the capacity through state of the art technology and materials.

**Custom Made**
Renold Gears is unique in its ability to offer custom made products designed to meet customers' exacting requirements without compromise on availability and cost. From complete package solutions to individual precision replacement gears, all can be tailor made to meet specific applicational requirements.

**Available**
The most popular ranges of gearboxes are available from local distribution stock, backed up by extensive stocks from our manufacturing plant in the UK.
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renold Gears</td>
<td>inside front cover</td>
</tr>
<tr>
<td>The Renold Collection</td>
<td>02</td>
</tr>
<tr>
<td>Coupling Selection Guide</td>
<td>04</td>
</tr>
<tr>
<td>Load Classification by Application</td>
<td>05</td>
</tr>
<tr>
<td>Service Factors and Selection</td>
<td>06</td>
</tr>
<tr>
<td>Key and Keyway Dimensions</td>
<td>07</td>
</tr>
<tr>
<td>Pinflex</td>
<td>08</td>
</tr>
<tr>
<td>Pinflex Brakedrum Coupling</td>
<td>11</td>
</tr>
<tr>
<td>Pinflex Shearpin Coupling</td>
<td>12</td>
</tr>
<tr>
<td>Renold Chain</td>
<td>inside back cover</td>
</tr>
</tbody>
</table>
Max power / 100 rpm (kW) | 33 kW
Max weight | 63 kg
Max shaft size | 115 mm
Max speed (rpm) | 7,700 rpm
Max outer diameter | 275 mm
Max torque (Nm) | 3,150 Nm

Max power / 100 rpm (kW) | 45 kW
Max weight | 84 kg
Max shaft size | 115 mm
Max speed (rpm) | 31,000 rpm
Max outer diameter | 305 mm
Max torque (Nm) | 4,308 Nm

Max power / 100 rpm (kW) | 45 kW
Max weight | 84 kg
Max shaft size | 115 mm
Max speed (rpm) | 9,000 rpm
Max outer diameter | 323 mm
Max torque (Nm) | 4,308 Nm

Max power / 100 rpm (kW) | 340 kW
Max weight | 423 kg
Max shaft size | 260 mm
Max speed (rpm) | 6,800 rpm
Max outer diameter | 490 mm
Max torque (Nm) | 32,500 Nm

Max power / 100 rpm (kW) | 2,607 kW
Max weight | 2,250 kg
Max shaft size | 300 mm
Max speed (rpm) | 6,210 rpm
Max outer diameter | 1,220 mm
Max torque (Nm) | 249,400 Nm

Max power / 100 rpm (kW) | 45 kW
Max weight | 67 kg
Max shaft size | 110 mm
Max speed (rpm) | 2,900 rpm
Max outer diameter | 324 mm
Max torque (Nm) | 4,298 Nm

Max power / 100 rpm (kW) | 90 kW
Max weight | 85 kg
Max shaft size | 140 mm
Max speed (rpm) | 3,500 rpm
Max outer diameter | 357 mm
Max torque (Nm) | 8,595 Nm

Max power / 100 rpm (kW) | 66 kW
Max weight | 49 kg
Max shaft size | 150 mm
Max speed (rpm) | 4,500 rpm
Max outer diameter | 470 mm
Max torque (Nm) | 6,270 Nm

Max power / 100 rpm (kW) | 45 kW
Max weight | 67 kg
Max shaft size | 110 mm
Max speed (rpm) | 2,900 rpm
Max outer diameter | 324 mm
Max torque (Nm) | 4,298 Nm

Max power / 100 rpm (kW) | 90 kW
Max weight | 85 kg
Max shaft size | 140 mm
Max speed (rpm) | 3,500 rpm
Max outer diameter | 357 mm
Max torque (Nm) | 8,595 Nm
Flexible Couplings should be used to accommodate any combination of misalignment conditions described below.

At installation all couplings should be aligned as near to perfect as possible.

1. Angular
Angular misalignment is present when the shaft axes are inclined one to the other. Its magnitude can be measured at the coupling faces.

2. Parallel Offset
Parallel misalignment is present when the axes of the driving and driven shafts are parallel but laterally displaced.

3. End float (axial)
End float is the ability to accommodate a relative axial displacement of the connected shafts; achieved by sliding members or flexing of resilient components.

4. Torsional flexibility
Torsional flexibility is a design feature necessary to permit shock and impulsive loadings to be suitably dampened. It is achieved by the provision of a flexible medium such as rubber, springs, etc., between the two halves of the coupling.

Selection
In order to select the correct type and size of coupling, the following basic information should be known:

Power to be transmitted
(a) Normal.
(b) Maximum.
(c) Whether continuous or intermittent.

Characteristics of the drive
(a) Type of prime mover and associated equipment.
(b) Degree of impulsiveness of driven load.

Speed in revolutions per minute
(a) At which normal power is transmitted.
(b) At which maximum power is transmitted.
(c) Maximum speed.

Dimensions of shafts to be connected
(a) Actual diameter.
(b) Length of shaft extension.
(c) Full keyway particulars.

Selection Procedure
1. Nominal power in kW to be transmitted = \( K \).
2. Select appropriate load classification from Table 1, denoted as either S, M or H.
3. From Table 2, establish Service Factor(s) to be applied, taking into account hours of operation/day and prime mover = \( f_D \).
4. From Table 3 select factor for the required frequency of starts/hr = \( f_S \).
5. Selection Power \( K_S = K \times f_D \times f_S \).
6. Equivalent power at 100 RPM = \( \frac{K_S \times 100}{\text{RPM}} \).
7. Check that coupling selected will accept the required shaft diameters. Should shaft diameter exceed maximum permissible, then re-select using next larger size of coupling.

Pinflex Couplings
### Table 1

#### Agitators
- Pure liquids 5
- Liquids and solids M
- Liquids - variable density M

#### Centrifuges
- Centrifugal M
- Lobe M
- Vane S

#### Leasing and distilling
- Bottling machinery S
- Brew kettles - continuous duty S
- Cookers - continuous duty S
- Mash tubs - continuous duty S
- Scale hopper - frequent starts M

#### Can filling machines
- Can knives (1) M
- Car dumpers M
- Car pullers M
- Clarifiers S
- Classifiers M
- Clay working machinery
  - Brick press H
  - Briquette machine H
  - Clay working machinery M
  - Pug mill M

#### Conveyors
- Centrifugal S
- Lobe M
- Reciprocating - multi-cylinder S
- Reciprocating - single cylinder H

#### Conveyors - uniformly loaded or fed
- Apron S
- Assembly S
- Belt S
- Bucket S
- Chain S
- Flight S
- Oven S
- Screw S

#### Conveyors - heavy duty not uniformly fed
- Apron M
- Assembly M
- Belt M
- Bucket M
- Chain M
- Flight M
- Live roll *
- Oven M
- Reciprocating H
- Screw M
- Shaker H

#### Crane Drives - not dry dock
- Main hoists S
- Bridge travel *
- Trolley travel *

#### Crushers
- Ore H
- Stone H
- Sugar (1) H

#### Drives
- Cable reels M
- Conveyors M
- Cutter head drives H
- Jig drives H
- Manoeuvring winches M
- Pumps M
- Screen drive H
- Stackers H
- Utility winches M

### Dry dock cranes
- Main hoist (2)
- Auxiliary hoist (2)
- Rotating, swing or slew (3)
- Tracking, drive wheels (4)

### Elevators
- Bucket - uniform load S
- Bucket - heavy load M
- Bucket - continuous S
- Centrifugal discharge S
- Escalators S
- Freight M
- Gravity discharge S
- Man lifts *
- Passenger *

### Extruders (plastic)
- Film S
- Sheet S
- Coating S
- Rods S
- Tubing S
- Blow moulders S

### Fans
- Centrifugal S
- Cooling towers *
- Forced draft *
- Induced draft *
- Induced draft S
- Large, mine etc. M
- Large, industrial M
- Light, small diameter S

### Feed industry
- Beef slicer M
- Cereal cooker S
- Dough mixer S
- Meat grinder M

### Generators - not welding S
- Hammer mills H

### Hoists
- Heavy duty S
- Medium duty H
- Skip hoist M

### Laundering
- Washers - reversing M
- Tumblers M

### Line shafts
- Driving processing equipment M
- Light S
- Other line shafts S

### Lumber industry
- Barkers, hydraulic, mechanical M
- Burner conveyor M
- Chain saw and drag saw H
- Chain transfer H
- Craneway transfer H
- De-barking drum H
- Edger feed M
- Gang feed M
- Green chain M
- Live rolls M
- Log deck M
- Log haul - incline H
- Log haul - well type H
- Log turning device H
- Main log conveyor H
- Off bearing rolls M

### Planer feed chains
- Planer floor chains M
- Planer tilting hoist M
- Re-saw merry-go-round conveyor M
- Roll cases H
- Slab conveyor H
- Small waste conveyor H
- Small waste conveyor - chain M
- Sorting table M
- Tilt hoist conveyor H
- Tilt hoist drill S
- Transfer conveyors M
- Transfer rolls M
- Tray drive H
- Trimmer feed M
- Waste conveyor M

### Machine tools
- Bending roll M
- Punch press - gear driven H
- Notching press - belt drive H
- Plate planers H
- Tap [ing machine H
- Other machine tools M
- Main drives M
- Auxiliary drives S

### Mills, rotary type
- Ball (1) M
- Cement kilns (1) M
- Dryers and coolers (1) M
- Kilns other than cement M
- Pebble (1) M
- Rod, plain & wedge bar (1) H
- Tumbling barrels H

### Mixers
- Concrete mixers continuous M
- Concrete mixers intermittent M
- Constant density S
- Variable density S

### Oil industry
- Chillers S
- Oil well pumping S
- Paraffin filter press M
- Rotary kilns M

### Paper mills
- Agitators (mixers) S
- Barker - auxiliary hydraulic S
- Barker - mechanical H
- Barking drum H
- Beater and pulper M
- Bleacher S
- Calendaring - super H
- Converting machine apart cutters, platers M
- Conveyors S
- Couch M
- Cutters, platers H
- Cylinders M
- Dryers M
- Feel stretcher M
- Feather S
- Jenny M
- Log haul H

### Printing presses
- Barge haul H

### Pumps
- Centrifugal S
- Proportioning M
- Reciprocating single acting: 3 or more cylinders M
- double acting: 2 or more cylinders M
- single acting: 1 or 2 cylinders *
- double acting: single cylinder *
- Rotary - gear type S
- Rotary - lobe, vane M

### Rubber and plastics industries
- Crackers (1) H
- Laboratory equipment M
- Mixed mills (1) H
- Refiners (1) M
- Rubber calendars (1) M
- Rubber mill, 2 on line (1) S
- Rubber mill, 3 on line (1) S
- Sheeter (1) M
- Tire building machines M
- Tyre and tube press openers *
- Tubers and striainers (1) M
- Warming mills (1) M

### Sand & gravel
- Screws M

### Sewage disposal equipment
- Air washing S
- Rotary, stone or gravel M
- Travelling water intake S

### Textile industry
- Batching S
- Calenders M
- Cards M
- Dry cans M
- Dryers M
- Dyeing machinery M
- Looms M
- Mangels M
- Nappers M
- Pads M
- Range drives *
- Slashers M
- Soapers M
- Spinners M
- Tenter frames M
- Washers M
- Winders M
- Windlass *

### Key

- S = Steady
- M = Medium Impulsive
- H = Highly Impulsive
- * = Refer to Renold

### Note

- Machinery characteristics and service factors listed in this catalogue are a guide only. Some applications (e.g. constant power) may require special considerations. Please consult Renold.

- (1) = Select on 24 hours per day service factor only.
- (2) = Use service factor of 1.00 for any duration of service.
- (3) = Use service factor of 1.25 for any duration of service.
- (4) = Use service factor of 1.50 for any duration of service.

www.renold.com
Service Factors and Selection

**Table 2 Service Factor (f_D)**

<table>
<thead>
<tr>
<th>Prime mover (Drive input)</th>
<th>Duration service hours/day</th>
<th>Steady load</th>
<th>Medium impulsive</th>
<th>Highly impulsive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric, air &amp; hydraulic Motors or steam turbine (Steady input)</td>
<td>Intermittent - 3hrs/day max 3 - 10</td>
<td>0.90</td>
<td>1.00</td>
<td>1.50</td>
</tr>
<tr>
<td></td>
<td>over 10</td>
<td>1.25</td>
<td>1.25</td>
<td>1.75</td>
</tr>
<tr>
<td>Multi-cylinder I.C. engine (Medium impulsive input)</td>
<td>Intermittent - 3hrs/day max 3 - 10</td>
<td>1.00</td>
<td>1.25</td>
<td>1.75</td>
</tr>
<tr>
<td></td>
<td>over 10</td>
<td>1.50</td>
<td>1.50</td>
<td>2.00</td>
</tr>
<tr>
<td>Single-cylinder I.C. engine (Highly impulsive input)</td>
<td>Intermittent - 3hrs/day max 3 - 10</td>
<td>1.25</td>
<td>1.50</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>over 10</td>
<td>1.75</td>
<td>1.75</td>
<td>2.25</td>
</tr>
</tbody>
</table>

**Table 3 Factor for Starts/Hour (f_S)**

<table>
<thead>
<tr>
<th>No of starts per hour</th>
<th>0-1</th>
<th>1-30</th>
<th>30-60</th>
<th>60+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
<td>1.0</td>
<td>1.2</td>
<td>1.3</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**Example of Selection**

Coupling is required to transmit 7.5kW at 1440 RPM to connect an electric motor to a gear box driving a chain conveyor running for 18 hours/day and starting 15 times/hour. Shaft diameters /55mm respectively.

K = 7.5kW

From Table 1 Load Classification = M (medium impulsive)

From Table 2 Service Factor f_D = 1.5

From Table 3 f_S = 1.2

Therefore selection kW is:

\[ K_s = K \times f_D \times f_S \]

\[ = 7.5 \times 1.5 \times 1.2 \]

\[ = 13.5 \text{ kW} \]

Equivalent power at 100 RPM = \( \frac{K_s \times 100}{RPM} \)

\[ = \frac{13.5 \times 100}{1440} \]

\[ = 0.9375\text{ kW} @ 100\text{ RPM} \]

From page 17 selection is RSC110 (644911) (maximum bore 55 mm).

---

**Key Stress**

1. Permissible key stress = 70N/mm²
2. Nominal torque \( T_{KM} = \frac{K \times 9550}{\text{RPM}} \text{Nm} \)
3. Force at key \( F = \frac{T_{KM}}{r} \)
4. Shaft Rad r. metres
5. Key area \( A = J \times \text{HUB length mm} \)
   (Obtain from relevant catalogue page).
6. Key stress \( f_k = \frac{F}{A} \text{N/mm}^2 \)
7. If resultant stress is less than 70 N/mm² key stress is acceptable.
   If resultant \( f_k \) is greater than 70, consider either two keyways or extending hub length.
8. Example:

   \[ T_{KM} = \frac{7.5 \times 9550}{1440} = 49.7\text{Nm} \]

   \[ r = \frac{55}{2} = 27.5\text{mm} \div 1000 = 0.0275\text{m} \]

   \[ F = \frac{49.7}{0.0275} = 1741\text{N} \]

   \[ A = 16 \times 45 = 720\text{mm}^2 \]

   \[ f_k = \frac{1741}{720} = \text{N/mm}^2 \]

   Selection is therefore good.

For operation above 80% of the declared maximum coupling speed it is recommended that the coupling is dynamically balanced.

---

**WARNING**

It is the responsibility of the system designer to ensure that the application of the coupling does not endanger the other constituent components in the system. Service factors given are an initial selection guide.

---

**WARNING**

Rotating equipment must be provided with a suitable guard before operating or injury may result.
### Key and Keyway Dimensions

**Metric (mm)**

Keyways comply with BS4235: Part 1: 1972

<table>
<thead>
<tr>
<th>Shaft dia.</th>
<th>Key &amp; keyway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over</td>
<td>Incl.</td>
</tr>
<tr>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>12</td>
<td>17</td>
</tr>
<tr>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>22</td>
<td>30</td>
</tr>
<tr>
<td>30</td>
<td>38</td>
</tr>
<tr>
<td>38</td>
<td>44</td>
</tr>
<tr>
<td>44</td>
<td>50</td>
</tr>
<tr>
<td>50</td>
<td>58</td>
</tr>
<tr>
<td>58</td>
<td>65</td>
</tr>
<tr>
<td>65</td>
<td>75</td>
</tr>
<tr>
<td>75</td>
<td>85</td>
</tr>
<tr>
<td>85</td>
<td>95</td>
</tr>
<tr>
<td>95</td>
<td>110</td>
</tr>
<tr>
<td>110</td>
<td>130</td>
</tr>
<tr>
<td>130</td>
<td>150</td>
</tr>
<tr>
<td>150</td>
<td>170</td>
</tr>
<tr>
<td>170</td>
<td>200</td>
</tr>
<tr>
<td>200</td>
<td>230</td>
</tr>
</tbody>
</table>

**Imperial (inches)**

Keyways comply with BS46: Part 1: 1958

<table>
<thead>
<tr>
<th>Shaft dia.</th>
<th>Key &amp; keyway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over</td>
<td>Incl.</td>
</tr>
<tr>
<td>0.25</td>
<td>0.05</td>
</tr>
<tr>
<td>0.50</td>
<td>0.75</td>
</tr>
<tr>
<td>0.75</td>
<td>1.00</td>
</tr>
<tr>
<td>1.00</td>
<td>1.25</td>
</tr>
<tr>
<td>1.25</td>
<td>1.50</td>
</tr>
<tr>
<td>1.50</td>
<td>1.75</td>
</tr>
<tr>
<td>1.75</td>
<td>2.00</td>
</tr>
<tr>
<td>2.00</td>
<td>2.50</td>
</tr>
<tr>
<td>2.50</td>
<td>3.00</td>
</tr>
<tr>
<td>3.00</td>
<td>3.50</td>
</tr>
<tr>
<td>3.50</td>
<td>4.00</td>
</tr>
<tr>
<td>4.00</td>
<td>5.00</td>
</tr>
<tr>
<td>5.00</td>
<td>6.00</td>
</tr>
</tbody>
</table>

Keyway dimensions [fig 01]

Parallel keyways are supplied unless customer states otherwise.
A robust, general purpose pin/buffer coupling providing reliable fail safe transmission of torque and misalignment capability.

Coupling capacity
- Maximum power @ 100RPM: 340kW
- Maximum torque: 32500Nm

Features and benefits
- Steel half bodies, strong yet compact.
- Heavy duty pin and buffer coupling - for heavy shock load conditions.
- Torsionally flexible - shock absorbing, extending machine life.
- Maintenance free - minimum number of wearing parts.
- Misalignment capabilities allowing flexibility in installation.
- Common half bodies - minimalise stock holding.
- Polyurethane buffers, reliable/ flexible and temperature resistant.

Modular construction - available as coupling, brakedrum and shear pin designs.
- Taper bores available for ease of maintenance.
- Potential energy saving when used to replace older cast iron pin and bush couplings.

Standard range comprises
- Shaft to Shaft
- Shear Pin
- Brake Drum/Disc

Construction details
- Steel Half Bodies
- Urethane Buffer (Blue), Shore hardness 90-95A Temp range; -40°C to +80°C
- Hytrel Buffer (White) Shore hardness 55D Temp range: -50°C to +120°C

General misalignments
Parallel Offset
- Max 0.13mm
Angular
- Max 0.25°

Applications
- Conveyors
- Escalators
- Mixers
- Pumps
- General Industrial Applications

Can be certified for use in potentially explosive atmospheres containing gas or dust, according to ATEX directive 94/9/EC.
The couplings are classified for equipment group II, categories 2 and 3.
Contact Renold for further details.
<table>
<thead>
<tr>
<th>Catalogue number</th>
<th>Product number</th>
<th>Power/ Torque nominal</th>
<th>Speed max rpm</th>
<th>Type B</th>
<th>Type F &amp; H</th>
<th>Dimensions</th>
<th>Type B</th>
<th>Type F &amp; H</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>100rpm kW</td>
<td>Nm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF1# #3</td>
<td>8001042/3</td>
<td>2.03</td>
<td>194</td>
<td>6800</td>
<td>50 0</td>
<td>TB1215 32 11</td>
<td>70 44 40 125 20 4</td>
<td>5.2 0.00828 5.0 0.00813</td>
</tr>
<tr>
<td>PF1# #6</td>
<td>8001042/6</td>
<td>4.05</td>
<td>387</td>
<td>5900</td>
<td>55 0</td>
<td>TB1615 42 14</td>
<td>80 50 40 145 25 5</td>
<td>8.3 0.01843 7.6 0.01780</td>
</tr>
<tr>
<td>PF1B9</td>
<td>8001042/9</td>
<td>6.08</td>
<td>581</td>
<td>5200</td>
<td>72 0</td>
<td>TB2017 50 18</td>
<td>100 60 47 165 25 6</td>
<td>13.8 0.03335 12.1 0.03143</td>
</tr>
<tr>
<td>PF1B12</td>
<td>8001042/12</td>
<td>8.1</td>
<td>774</td>
<td>4400</td>
<td>80 0</td>
<td>TB2525 60 19</td>
<td>113 75 65 195 35 6</td>
<td>22.0 0.08470 20.3 0.08195</td>
</tr>
<tr>
<td>PF# #3</td>
<td>8002050/3</td>
<td>3.59</td>
<td>343</td>
<td>3600</td>
<td>75 0</td>
<td>TB3030 75 35</td>
<td>150 89 80 235 35 6</td>
<td>37.8 0.19972 35.3 0.19274</td>
</tr>
<tr>
<td>PF3# #6</td>
<td>8003060/3</td>
<td>4.24</td>
<td>405</td>
<td>2900</td>
<td>110 0</td>
<td>TB3535 90 35</td>
<td>180 110 91 290 50 7</td>
<td>73.2 0.61140 65.2 0.58086</td>
</tr>
<tr>
<td>PF3B9</td>
<td>8003060/6</td>
<td>8.48</td>
<td>810</td>
<td>2200</td>
<td>130 0</td>
<td>TB4040 100 40</td>
<td>210 130 105 320 50 7</td>
<td>103.0 0.99756 88.5 0.92310</td>
</tr>
<tr>
<td>PF3B12</td>
<td>8003060/12</td>
<td>16.96</td>
<td>1620</td>
<td>1700</td>
<td>260 75</td>
<td>N/A N/A N/A 355 220 - 490 60 7</td>
<td>423.0 9.19000 N/A N/A</td>
<td></td>
</tr>
<tr>
<td>PF3# #3</td>
<td>8004075/3</td>
<td>8.32</td>
<td>795</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF4# #6</td>
<td>8004075/6</td>
<td>16.65</td>
<td>1590</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF4B9</td>
<td>8004075/9</td>
<td>24.97</td>
<td>2384</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF4B12</td>
<td>8004075/12</td>
<td>33.29</td>
<td>3179</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF5# #4</td>
<td>8005090/4</td>
<td>13.94</td>
<td>1331</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF5# #8</td>
<td>8005090/8</td>
<td>27.88</td>
<td>2662</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF5# #12</td>
<td>8005090/12</td>
<td>41.82</td>
<td>3994</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF5B16</td>
<td>8005090/16</td>
<td>55.76</td>
<td>5325</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF6# #3</td>
<td>8006110/3</td>
<td>24.70</td>
<td>2359</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF6# #6</td>
<td>8006110/6</td>
<td>49.40</td>
<td>4717</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF6B9</td>
<td>8006110/9</td>
<td>74.10</td>
<td>7076</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF6B12</td>
<td>8006110/12</td>
<td>98.80</td>
<td>9435</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF7# #4</td>
<td>8007130/4</td>
<td>37.18</td>
<td>3550</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF7# #8</td>
<td>8007130/8</td>
<td>74.35</td>
<td>7100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF7# #12</td>
<td>8007130/12</td>
<td>111.53</td>
<td>10650</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF7B16</td>
<td>8007130/16</td>
<td>148.70</td>
<td>14200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF8# #4</td>
<td>8008150/4</td>
<td>64.70</td>
<td>6179</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF8# #8</td>
<td>8008150/8</td>
<td>129.40</td>
<td>12357</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF8# #12</td>
<td>8008150/12</td>
<td>194.10</td>
<td>18536</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF8B16</td>
<td>8008150/16</td>
<td>258.80</td>
<td>24714</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF9B4</td>
<td>8009240/4</td>
<td>85.00</td>
<td>8130</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF9B8</td>
<td>8009240/8</td>
<td>170.00</td>
<td>16255</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF9B12</td>
<td>8009240/12</td>
<td>255.00</td>
<td>24385</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PF9B16</td>
<td>8009240/16</td>
<td>340.00</td>
<td>32500</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Maximum power and torques for taper bore options are limited by the taper bush capacity.

* Values are for couplings with no bore and a full set of pin assemblies.
### Component Spares

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Half body pilot bored</th>
<th>Half body F type</th>
<th>Half body H type</th>
<th>Pin and buffer set</th>
<th>Coupling Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Catalogue number</td>
<td>Product number</td>
<td>Catalogue number</td>
<td>Product number</td>
<td>Number per set</td>
</tr>
<tr>
<td>PF1</td>
<td>PF1 B</td>
<td>8001042</td>
<td>PF1 F</td>
<td>8001042/77</td>
<td>800 0008</td>
</tr>
<tr>
<td>PF2</td>
<td>PF2 B</td>
<td>8002050</td>
<td>PF2 F</td>
<td>8002050/77</td>
<td>800 0010</td>
</tr>
<tr>
<td>PF3</td>
<td>PF3 B</td>
<td>8003060</td>
<td>PF3 F</td>
<td>8003060/77</td>
<td>800 0010</td>
</tr>
<tr>
<td>PF4</td>
<td>PF4 B</td>
<td>8004075</td>
<td>PF4 F</td>
<td>8004075/77</td>
<td>800 0012</td>
</tr>
<tr>
<td>PF5</td>
<td>PF5 B</td>
<td>8005090</td>
<td>PF5 F</td>
<td>8005090/77</td>
<td>800 0012</td>
</tr>
<tr>
<td>PF6</td>
<td>PF6 B</td>
<td>8006110</td>
<td>PF6 F</td>
<td>8006110/77</td>
<td>800 0016</td>
</tr>
<tr>
<td>PF7</td>
<td>PF7 B</td>
<td>8007130</td>
<td>PF7 F</td>
<td>8007130/77</td>
<td>800 0016</td>
</tr>
<tr>
<td>PF8</td>
<td>PF8 B</td>
<td>8008150</td>
<td>PF8 F</td>
<td>8008150/77</td>
<td>800 0020</td>
</tr>
<tr>
<td>PF9</td>
<td>PF9 B</td>
<td>8009240</td>
<td>N/A</td>
<td>N/A</td>
<td>800 0020</td>
</tr>
</tbody>
</table>

- **Ordering code**: `PF3 # # 9`
- **Half body type**
  - B: Plain bore
  - F: Taper bush
  - H: Taper bush

**Note**: The table lists the catalogs for Pinflex couplings, including their ordering codes and specifications. The table is structured to show the coupling sizes, product numbers, and the respective catalog numbers for the half body types (pilot bored, F type, H type). Additionally, it provides the product buffer set numbers and the size of each coupling.
### Pinflex Brakedrum Coupling

#### Ordering code

- **PF**: Pinflex
- **BD**: Brakedrum
- **5**: Metric drum dia
- **#**: Imperial drum dia

**Disc brake version also available - consult Renold for details**

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Product number</th>
<th>Power /100rpm kW</th>
<th>Torque nominal Nm</th>
<th>Speed max rpm</th>
<th>Bore A1 max mm</th>
<th>A2 max mm</th>
<th>Drum dimensions Dia E mm</th>
<th>Width G mm</th>
<th>Dia E inch</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFBD1 #</td>
<td>8101042</td>
<td>8.1</td>
<td>774</td>
<td>3600</td>
<td>50</td>
<td>45</td>
<td>160</td>
<td>92</td>
<td>6</td>
</tr>
<tr>
<td>PFBD2 #</td>
<td>8102050</td>
<td>14.35</td>
<td>1370</td>
<td>2850</td>
<td>55</td>
<td>50</td>
<td>200</td>
<td>105</td>
<td>8</td>
</tr>
<tr>
<td>PFBD3 #</td>
<td>8103060</td>
<td>16.96</td>
<td>1620</td>
<td>2300</td>
<td>72</td>
<td>60</td>
<td>250</td>
<td>124</td>
<td>10</td>
</tr>
<tr>
<td>PFBD4 #</td>
<td>8104075</td>
<td>33.29</td>
<td>3179</td>
<td>1900</td>
<td>80</td>
<td>75</td>
<td>315</td>
<td>140</td>
<td>12</td>
</tr>
<tr>
<td>PFBD5 #</td>
<td>8105090</td>
<td>55.76</td>
<td>5325</td>
<td>1400</td>
<td>110</td>
<td>90</td>
<td>400</td>
<td>184</td>
<td>16</td>
</tr>
<tr>
<td>PFBD6 #</td>
<td>8106110</td>
<td>98.8</td>
<td>9435</td>
<td>1400</td>
<td>130</td>
<td>110</td>
<td>400</td>
<td>184</td>
<td>16</td>
</tr>
<tr>
<td>PFBD7 #</td>
<td>8107130</td>
<td>148.7</td>
<td>14200</td>
<td>1100</td>
<td>150</td>
<td>130</td>
<td>500</td>
<td>241</td>
<td>20</td>
</tr>
<tr>
<td>PFBD8 #</td>
<td>8108150</td>
<td>258.8</td>
<td>24714</td>
<td>900</td>
<td>175</td>
<td>150</td>
<td>630</td>
<td>267</td>
<td>24</td>
</tr>
</tbody>
</table>

#### Dimensions

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Product number</th>
<th>B1 mm</th>
<th>B2 mm</th>
<th>C1 mm</th>
<th>C2 mm</th>
<th>D mm</th>
<th>F mm</th>
<th>H mm</th>
<th>WR¹ kg m²</th>
<th>Mass kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFBD1 #</td>
<td>8201042</td>
<td>70</td>
<td>70</td>
<td>44</td>
<td>44</td>
<td>125</td>
<td>4</td>
<td>-</td>
<td>0.0277</td>
<td>8.7</td>
</tr>
<tr>
<td>PFBD2 #</td>
<td>8202050</td>
<td>80</td>
<td>80</td>
<td>50</td>
<td>50</td>
<td>145</td>
<td>5</td>
<td>-</td>
<td>0.0696</td>
<td>14.3</td>
</tr>
<tr>
<td>PFBD3 #</td>
<td>8203060</td>
<td>100</td>
<td>100</td>
<td>60</td>
<td>60</td>
<td>165</td>
<td>5</td>
<td>-</td>
<td>0.1801</td>
<td>24.2</td>
</tr>
<tr>
<td>PFBD4 #</td>
<td>8204075</td>
<td>113</td>
<td>113</td>
<td>75</td>
<td>75</td>
<td>195</td>
<td>6</td>
<td>-</td>
<td>0.5487</td>
<td>49.0</td>
</tr>
<tr>
<td>PFBD5 #</td>
<td>8205090</td>
<td>150</td>
<td>150</td>
<td>90</td>
<td>90</td>
<td>235</td>
<td>6</td>
<td>-</td>
<td>1.6548</td>
<td>82.2</td>
</tr>
<tr>
<td>PFBD6 #</td>
<td>8206110</td>
<td>180</td>
<td>180</td>
<td>110</td>
<td>110</td>
<td>290</td>
<td>7</td>
<td>22</td>
<td>2.0706</td>
<td>114.1</td>
</tr>
<tr>
<td>PFBD7 #</td>
<td>8207130</td>
<td>210</td>
<td>210</td>
<td>130</td>
<td>130</td>
<td>320</td>
<td>7</td>
<td>20</td>
<td>5.2192</td>
<td>199.7</td>
</tr>
<tr>
<td>PFBD8 #</td>
<td>8208150</td>
<td>245</td>
<td>245</td>
<td>150</td>
<td>150</td>
<td>380</td>
<td>7</td>
<td>20</td>
<td>13.566</td>
<td>303.4</td>
</tr>
</tbody>
</table>

#### Pin & buffer set

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Product number</th>
<th>Number of pins per coupling</th>
<th>Part number</th>
<th>Number per set</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFBD1 #</td>
<td>8201042</td>
<td>12</td>
<td>8000008</td>
<td>3</td>
</tr>
<tr>
<td>PFBD2 #</td>
<td>8202050</td>
<td>12</td>
<td>8000010</td>
<td>3</td>
</tr>
<tr>
<td>PFBD3 #</td>
<td>8203060</td>
<td>12</td>
<td>8000010</td>
<td>3</td>
</tr>
<tr>
<td>PFBD4 #</td>
<td>8204075</td>
<td>12</td>
<td>8000012</td>
<td>1</td>
</tr>
<tr>
<td>PFBD5 #</td>
<td>8205090</td>
<td>16</td>
<td>8000012</td>
<td>1</td>
</tr>
<tr>
<td>PFBD6 #</td>
<td>8206110</td>
<td>12</td>
<td>8000016</td>
<td>1</td>
</tr>
<tr>
<td>PFBD7 #</td>
<td>8207130</td>
<td>16</td>
<td>8000016</td>
<td>1</td>
</tr>
<tr>
<td>PFBD8 #</td>
<td>8208150</td>
<td>16</td>
<td>8000020</td>
<td>1</td>
</tr>
</tbody>
</table>
## Pinflex Shearpin Coupling

### Ordering code

<table>
<thead>
<tr>
<th>Coupling size</th>
<th>Nominal torque</th>
<th>Shear torque</th>
<th>Speed max rpm</th>
<th>Bore A1</th>
<th>Bore A2</th>
<th>Dimensions</th>
<th>No. of pins</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Min Nm</td>
<td>Max Nm</td>
<td>Max mm</td>
<td>Min mm</td>
<td>Max mm</td>
<td>Min mm</td>
</tr>
<tr>
<td>PFS1 #</td>
<td>387</td>
<td>194</td>
<td>774</td>
<td>800</td>
<td>50</td>
<td>70</td>
<td>44</td>
</tr>
<tr>
<td>PFS2 #</td>
<td>685</td>
<td>220</td>
<td>1370</td>
<td>900</td>
<td>55</td>
<td>80</td>
<td>50</td>
</tr>
<tr>
<td>PFS3 #</td>
<td>810</td>
<td>350</td>
<td>1620</td>
<td>1200</td>
<td>72</td>
<td>100</td>
<td>60</td>
</tr>
<tr>
<td>PFS4 #</td>
<td>1590</td>
<td>425</td>
<td>3180</td>
<td>1500</td>
<td>80</td>
<td>113</td>
<td>75</td>
</tr>
<tr>
<td>PFS5 #</td>
<td>2662</td>
<td>520</td>
<td>5324</td>
<td>1800</td>
<td>110</td>
<td>150</td>
<td>89</td>
</tr>
<tr>
<td>PFS6 #</td>
<td>4717</td>
<td>1100</td>
<td>9434</td>
<td>2100</td>
<td>130</td>
<td>180</td>
<td>110</td>
</tr>
<tr>
<td>PFS7 #</td>
<td>7100</td>
<td>2750</td>
<td>14200</td>
<td>2400</td>
<td>150</td>
<td>210</td>
<td>130</td>
</tr>
<tr>
<td>PFS8 #</td>
<td>12357</td>
<td>5900</td>
<td>24714</td>
<td>2700</td>
<td>175</td>
<td>245</td>
<td>150</td>
</tr>
<tr>
<td>PFS9 #</td>
<td>16255</td>
<td>8130</td>
<td>32510</td>
<td>3000</td>
<td>200</td>
<td>355</td>
<td>220</td>
</tr>
</tbody>
</table>

Select coupling based on nominal torque using service factors from page 13. Then select required shear torque from table below.

![Pinflex Shearpin Coupling Diagram](image-url)
The best range of solution chain products available anywhere

**RENOLD Synergy™**
- High performance
- Superior wear life
- Outstanding fatigue resistance

**RENOLD Syno™**
- Maintenance free
- Self-lubricating chain
- Food industry-approved lubricant

**RENOLD**
- Best premium chain
- Leading performance
- Solid bush / solid roller / end softened pin

**Hydro-Service™**
- Superior corrosion resistant coating
- Alternative choice to stainless steel chain
- Will not chip or peel
- Hexavalent chrome-free

**Steel Pin Bush Roller Chain**
- Manufactured to international stds
- Full range of pitch alternatives
- Breaking loads 13 to 900 kN as std
- Attachments to suit varied applications

**Leaf Chain**
- Comprehensive ranges used worldwide for safety critical lifting applications
- 100 years experience in developing and maintaining lifting chain

**Steel Knuckle Chain**
- Heavy duty, detachable elevator chains
- Integral K type attachments
- Breaking loads from 642kN to 1724kN
- Sealed joint to extend chain life

**Roll-Ring™**
- Revolutionary chain tensioner
- Installed in seconds and self adjusting
- Maintenance free
- Also acts as noise damper

**Customised Engineering Chain**
- Wide range to suit specialised applications using high specification materials and treatment processes
- Designed in close collaboration with customer

**Smartlink™**
- Load monitoring technology
- Technical reports & data logging

Hydro-Service™

Leaf Chain

Roll-Ring™

Customised Engineering Chain

Smartlink™

RENOLD
Superior Chain Technology

www.renold.com
UK
Renold Clutches & Couplings
Cardiff
Tel + 44 (0) 29 20792737
Fax + 44 (0) 29 20791360
couplings@cc.renold.com

Renold Hi-Tec Couplings
Halifax
Tel + 44 (0) 1422 255000
Fax + 44 (0) 1422 320273
couplings@hi-tec.renold.com

Renold Gears
Milnrow
Tel + 44 (0) 1706 751000
Fax + 44 (0) 1706 751001
gears.sales@renold.com

USA
Renold Ajax
Westfield, New York State
Tel +1 716 326 3121
Fax + 1 716 326 8229
ainfo@renoldajax.com

WEB
www.renold.com

E-MAIL
enquiry@renold.com

For you nearest Renold dedicated
specialist or distributor please visit the
Renold website - www.renold.com or
contact Renold UK

Whilst all reasonable care in compiling
the information contained in this brochure
is taken, no responsibility is accepted for
printing errors. All information contained
in this brochure is subject to change after
the date of publication.