PRODUCT RANGE

TYPE - 'S'
Standard star / spider couplings
- Widely accepted star/spider design.
- Low weight to high torque ratio.
- Easy for alignment of equipments.
- Capacity up to 24 kg-m of torque.
- Range of S-226 to 350 under development.

TYPE - 'SR'
CI Spacer coupling
- Spacing coupling with star/spider design.
- Recommended specially for back pull out pumps & when the distance between shafts is more than the standard.
- Capacity up to 24 kg-m of torque.
- Easy replacement of spider without removing equipment from base. Thus less down time.
- H.T. fasteners used.
- Available in various spacer lengths of 75, 90, 100, 135, 140, 180 mm.
- Also recommended where disconnection of driver & driven is required.

TYPE - 'SE'
External spider coupling
- Instead of a star, a strip/snap is provided which fits in the coupling from outside and can be replaced without disturbing the driver & driven unit.
- Practically no down time for replacement/inspection of the strip.
- A seamless retainer ring provided for proper location & stability of snap.

TYPE - 'SRE'
Aluminum spacer coupling with external spiders
- Spacer coupling with easy to remove snap design.
- Suitable for back pull out design pumps.
- Spacer of Aluminum to reduce load on the extended shafts.
- Can take larger mis-alignments because of two flexible membranes.
**TYPE - ‘K’**

**Cushion pad coupling**

- Suitable for larger torques up to 435 kg-m.
- Available with cushion pads instead of star which facilitates easy removal of rubber elements without disturbing the equipments.
- Seamless retainer rings provided on inside & outside diameter of couplings to support the pads.
- Pads can be inspected easily from time to time.

**TYPE - ‘KR’**

**Spacer coupling with cushion pad**

- Suitable for torques up to 435 kg-m.
- Convenient pad type design for easy removal/replacement of rubber elements.
- Spacer design advantageous for back pull out type pumps & where driver & driven needs to be disconnected.

**TYPE - ‘SN’ / ‘SEN’ / ‘KN’**

**Flange type coupling**

- Specially designed for engine-pump set/genset applications.
- Easy fitting & removal. The coupling flange fits directly on the engine fly wheel with SAE dimensions.
- All sizes from types S, SE & K are available
- Torques up to 435 kg-m.

**Note:** The flange details of couplings viz ØE, W, M, Z, n-d-p to be specified by the customer

---

**SALIENT FEATURES**

1. ‘Flex-C’ Couplings are simple & economic in design. The couplings are easy and fast to install, easy to align, with no lubrication required.
2. The couplings are manufactured from the best quality Graded Cast Iron produced on Induction Furnace, to get best possible and consistent composition, properties and grain structure. Every batch undergoes all the tests in physical and chemical laboratories. Utmost care is taken to ensure that the casting are free from any porosity, blow holes or any other irregularity.
3. The couplings are machined very accurately, closest to the tolerances in a well equipped machine shop. Specially trained Engineers and Shop Supervisors assure the consistent quality and superb finish.
4. Both the diameters of couplings are machined at one time, so they are 100% concentric.
5. The critical dimensions are inspected in a 3 point inspection program to deliver customer a 100% reliable product.
6. Couplings are Phosphated in-house to prevent them from rusting and giving them a highly elegant look. Painting is purposely avoided as it covers the blow holes / porosity in the castings.
7. The flexible rubber elements (Star / Spider / Strip Pad) are also manufactured in-house with best quality Synthetic Rubber - Nitrile on automated hydraulic moulding machines. These components thus possess highest compression / tensile strength, durability and mirror like finish.
8. Couplings and rubber elements are tested to two times the rated torque and no distortion of any kind is observed.
9. Couplings are manufactured in various designs STANDARD, SPACER, EXTERNAL SPIDER, PAD TYPE, FLANGE TYPE, etc., to suit most of the customer requirements.
10. The couplings design is simple & economic and facilitates quick installation and easier alignments. These couplings can take parallel misalignments upto 0.4 mm and angular misalignments upto 1.5 degree.
11. Couplings can be supplied with Boring & Key-way as per customers requirements, on request, at extra charges.
12. A Dealer network is available in major cities all over the country and abroad for effective sales and service and easy availability of spares.
<table>
<thead>
<tr>
<th>TYPE</th>
<th>SIZE</th>
<th>RATED HP AT 1000 rpm</th>
<th>RATED HP AT 1500 rpm</th>
<th>RATED HP AT 3000 rpm</th>
<th>WEIGHT** kg</th>
<th>RATED JAW RING size ØP</th>
<th>RATED BORE size ØP</th>
<th>BORE GAP size ØP</th>
<th>PILOT size ØP</th>
<th>MAX size ØP</th>
<th>TOTAL LENGTH L</th>
<th>HUB DIAMETER ØH</th>
<th>LENGTH THROUGH BORE ØG</th>
<th>LENGTH OF BUSH ØB</th>
<th>SPACER LENGTH</th>
<th>GAP BETWEEN JAW &amp; BODY F</th>
<th>BOLT DIST. X</th>
<th>DIST. BETWEEN SHAFTS D***</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>50</td>
<td>0.3</td>
<td>0.5</td>
<td>0.9</td>
<td>0.21</td>
<td>5</td>
<td>16</td>
<td>0.24</td>
<td>27</td>
<td>-</td>
<td>42</td>
<td>27</td>
<td>15</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>0.5</td>
<td>0.8</td>
<td>1.5</td>
<td>0.35</td>
<td>9</td>
<td>20</td>
<td>0.28</td>
<td>36</td>
<td>-</td>
<td>51</td>
<td>36</td>
<td>19</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td></td>
<td>75</td>
<td>1.0</td>
<td>1.5</td>
<td>3.0</td>
<td>0.71</td>
<td>9</td>
<td>22</td>
<td>0.45</td>
<td>44.5</td>
<td>-</td>
<td>56</td>
<td>39</td>
<td>21</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>95</td>
<td>2.8</td>
<td>4.2</td>
<td>8.4</td>
<td>2.00</td>
<td>10</td>
<td>28</td>
<td>0.80</td>
<td>54</td>
<td>64</td>
<td>63</td>
<td>49</td>
<td>25</td>
<td>25</td>
<td>75/90/100/140</td>
<td>2</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>99</td>
<td>4.0</td>
<td>6.0</td>
<td>12.0</td>
<td>2.86</td>
<td>10</td>
<td>30</td>
<td>1.10</td>
<td>65</td>
<td>77</td>
<td>72</td>
<td>51</td>
<td>27</td>
<td>-</td>
<td>75/90/100/135/140</td>
<td>3</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>6.0</td>
<td>9.0</td>
<td>18.0</td>
<td>4.29</td>
<td>10</td>
<td>38</td>
<td>1.50</td>
<td>65</td>
<td>77</td>
<td>88</td>
<td>57</td>
<td>35</td>
<td>30</td>
<td>2</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRE</td>
<td>110</td>
<td>11.0</td>
<td>16.5</td>
<td>33.0</td>
<td>7.87</td>
<td>15</td>
<td>*42</td>
<td>3.20</td>
<td>85</td>
<td>96</td>
<td>108</td>
<td>76</td>
<td>43</td>
<td>35</td>
<td>3</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>150</td>
<td>17.0</td>
<td>25.5</td>
<td>51.0</td>
<td>12.17</td>
<td>15</td>
<td>*48</td>
<td>4.00</td>
<td>96</td>
<td>111</td>
<td>115</td>
<td>80</td>
<td>45</td>
<td>45</td>
<td>3</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>190</td>
<td>22.0</td>
<td>33.0</td>
<td>66.0</td>
<td>15.75</td>
<td>20</td>
<td>*60/*55</td>
<td>7.50</td>
<td>115</td>
<td>129</td>
<td>133</td>
<td>102</td>
<td>54</td>
<td>51</td>
<td>3</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>225</td>
<td>33.0</td>
<td>49.5</td>
<td>99.0</td>
<td>23.62</td>
<td>20</td>
<td>*65</td>
<td>10.00</td>
<td>127</td>
<td>142</td>
<td>153</td>
<td>108</td>
<td>64</td>
<td>57</td>
<td>3</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>K</td>
<td>226</td>
<td>46.0</td>
<td>69.0</td>
<td>138.0</td>
<td>32.93</td>
<td>25</td>
<td>70</td>
<td>13.00</td>
<td>137</td>
<td>142</td>
<td>178</td>
<td>115</td>
<td>70</td>
<td>50</td>
<td>75/90/100/135/140</td>
<td>3</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>276</td>
<td>73.0</td>
<td>109.5</td>
<td>219.0</td>
<td>52.26</td>
<td>25</td>
<td>75</td>
<td>19.00</td>
<td>157</td>
<td>162</td>
<td>200</td>
<td>127</td>
<td>80</td>
<td>60</td>
<td>3</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KR</td>
<td>280</td>
<td>110.0</td>
<td>165.0</td>
<td>330.0</td>
<td>78.76</td>
<td>30</td>
<td>80</td>
<td>44.00</td>
<td>192</td>
<td>197</td>
<td>200</td>
<td>140</td>
<td>80</td>
<td>60</td>
<td>3</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>295</td>
<td>180.0</td>
<td>270.0</td>
<td>540.0</td>
<td>128.88</td>
<td>30</td>
<td>95</td>
<td>50.00</td>
<td>237</td>
<td>244</td>
<td>238</td>
<td>160</td>
<td>95</td>
<td>80</td>
<td>3</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KN</td>
<td>2955</td>
<td>300.0</td>
<td>450.0</td>
<td>900.0</td>
<td>214.80</td>
<td>30</td>
<td>100</td>
<td>55.00</td>
<td>237</td>
<td>244</td>
<td>264</td>
<td>180</td>
<td>108</td>
<td>80</td>
<td>3</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>300</td>
<td>434.0</td>
<td>651.0</td>
<td>-</td>
<td>310.74</td>
<td>30</td>
<td>100</td>
<td>UNDER</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>350</td>
<td>611.0</td>
<td>916.0</td>
<td>-</td>
<td>437.47</td>
<td>30</td>
<td>115</td>
<td>DEV.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* For triangular hubs max bore are 24,32,38,42 mm resp.  ** Approx. weights for S/SE/K models only  *** For non-spacer couplings only. All dimensions are in mm.

* For types S,SE,SRE - max bore 60 ,SR - 55
EXAMPLE

A) A coupling is to be selected to couple a centrifugal pump & an electric motor.

The Data is as below:

<table>
<thead>
<tr>
<th>Power</th>
<th>25 HP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>1500rpm</td>
</tr>
<tr>
<td>Shaft sizes:</td>
<td>Pump 28mm, Motor 48mm</td>
</tr>
</tbody>
</table>

1. From the 'SERVICE FACTOR GUIDE', the S.F. is 1.00.
2. Thus, the effective HP is 25x1.00 = 25HP
3. From the Table 1, scrolling down the column of 1500 rpm, 25.5HP is located which determines the smallest size of coupling which can transmit power of 25HP.
4. This coupling can take max shaft size of 48mm as required.
5. Thus, the size of coupling is '150'

B) If the shaft size in above application was say 55mm, size 190 coupling shall be appropriate.

MATERIALS OF CONSTRUCTION

<table>
<thead>
<tr>
<th>TYPES &amp; SIZES</th>
<th>MATERIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-50,70</td>
<td>SI/AI</td>
</tr>
<tr>
<td>S,SR,SE,SRE(hubs only),K,KR,SN,SEN,KN</td>
<td>CI</td>
</tr>
<tr>
<td>S-50,70 &amp; SRE(spacers only)</td>
<td>Al</td>
</tr>
<tr>
<td>Retainer rings</td>
<td>MS</td>
</tr>
<tr>
<td>Star/Spider/Strip/Spads/Pads</td>
<td>Nitrite Rubber</td>
</tr>
<tr>
<td>Screws/Bolts</td>
<td>MS/HT</td>
</tr>
</tbody>
</table>

FORMULAE

- 1 H.P. = 0.75 kw.
- 1 inch = 25.4 mm.
- Torque = \(\frac{\text{HP} \times 716}{\text{rpm}}\) (kg-m)

Due to constant research and development the specifications are subject to change without any prior notice.
EXPANDED VIEW OF COUPLINGS

**Type - S**
- Hub
- Star/Spider
- Screw & Washers
- O.D. Ring
- Hub
- I.D. Ring
- Pads

**Type - K**
- Screw & Washers
- O.D. Ring
- Hub
- I.D. Ring
- Pads

**Type - SR**
- Hexbolt & Washers
- Bush
- Spacer
- Star/Spider

**Type - SE**
- Hub
- O.D. Ring
- Screw & Washers
- Snap/Strip