

## Figure 730 Mechanical Tees & Crosses – Threaded

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Tech Data Sheet: TFP1860

**10**  
YEAR  
LIMITED  
WARRANTY

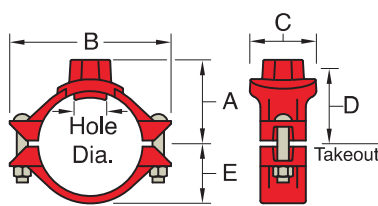


Figure 730 Branch Outlet with Female NPT/BSP Threaded Branch (Tee Configuration)

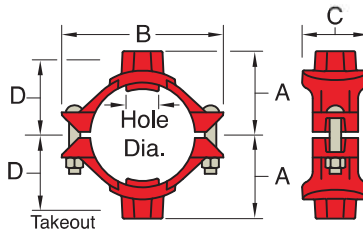


Figure 730 Branch Outlet with Female NPT/BSP Threaded Branch (Cross Configuration)

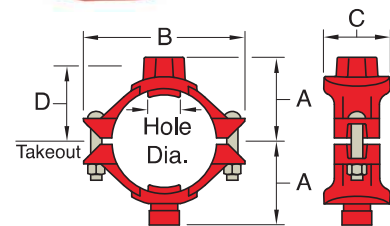


Figure 730 Branch Outlet with a Female NPT/BSP Threaded Branch and a Grooved Branch (Cross Configuration)

Outlet  
Fittings

| Nominal Size Run x Branch<br>mm<br>Inches | Hole Dia.†          |                     | Max.‡ Branch End Load<br>kN<br>Lbs. | Dimensions - mm Inches |                      |                      |                     |                     | Bolt Size<br>mm<br>Inches      | Tee Approx. Weight<br>kg<br>Lbs. | Cross Approx. Weight<br>kg<br>Lbs. |
|-------------------------------------------|---------------------|---------------------|-------------------------------------|------------------------|----------------------|----------------------|---------------------|---------------------|--------------------------------|----------------------------------|------------------------------------|
|                                           | Min. mm Inches      | Max. mm Inches      |                                     | A                      | B                    | C                    | D                   | E                   |                                |                                  |                                    |
| <b>50 x 15</b><br>2 x 1/2                 | <b>38.1</b><br>1.50 | <b>41.3</b><br>1.63 | <b>1.2</b><br>277.1                 | <b>66.5</b><br>2.62    | <b>124.0</b><br>4.88 | <b>78.0</b><br>3.07  | <b>53.8</b><br>2.12 | <b>40.4</b><br>1.59 | <b>M10 x 57</b><br>3/8 x 2-1/4 | <b>1.1</b><br>2.5                | <b>1.5</b><br>3.4                  |
| <b>50 x 20</b><br>2 x 3/4                 | <b>38.1</b><br>1.50 | <b>41.3</b><br>1.63 | <b>1.9</b><br>433.0                 | <b>66.5</b><br>2.62    | <b>124.0</b><br>4.88 | <b>78.0</b><br>3.07  | <b>53.8</b><br>2.12 | <b>40.4</b><br>1.59 | <b>M10 x 57</b><br>3/8 x 2-1/4 | <b>1.0</b><br>2.3                | <b>1.4</b><br>3.0                  |
| <b>50 x 25</b><br>2 x 1                   | <b>38.1</b><br>1.50 | <b>41.3</b><br>1.63 | <b>3.0</b><br>679.1                 | <b>66.5</b><br>2.62    | <b>124.0</b><br>4.88 | <b>78.0</b><br>3.07  | <b>53.8</b><br>2.12 | <b>40.4</b><br>1.59 | <b>M10 x 57</b><br>3/8 x 2-1/4 | <b>1.0</b><br>2.2                | <b>1.5</b><br>3.2                  |
| <b>50 x 32</b><br>2 x 1-1/4               | <b>44.5</b><br>1.75 | <b>47.6</b><br>1.88 | <b>4.8</b><br>1082.1                | <b>70.6</b><br>2.78    | <b>124.0</b><br>4.88 | <b>84.3</b><br>3.32  | <b>49.0</b><br>1.93 | <b>40.4</b><br>1.59 | <b>M10 x 57</b><br>3/8 x 2-1/4 | <b>1.1</b><br>2.4                | <b>1.5</b><br>3.4                  |
| <b>50 x 40</b><br>2 x 1-1/2               | <b>44.5</b><br>1.75 | <b>47.6</b><br>1.88 | <b>6.3</b><br>1417.6                | <b>69.9</b><br>2.75    | <b>124.0</b><br>4.88 | <b>84.3</b><br>3.32  | <b>49.0</b><br>1.93 | <b>40.4</b><br>1.59 | <b>M10 x 57</b><br>3/8 x 2-1/4 | <b>1.1</b><br>2.5                | <b>1.8</b><br>3.9                  |
| <b>65 x 15</b><br>2-1/2 x 1/2             | <b>38.1</b><br>1.50 | <b>41.3</b><br>1.63 | <b>1.2</b><br>277.1                 | <b>73.2</b><br>2.88    | <b>133.4</b><br>5.25 | <b>78.0</b><br>3.07  | <b>60.5</b><br>2.38 | <b>46.0</b><br>1.81 | <b>M10 x 57</b><br>3/8 x 2-1/4 | <b>1.1</b><br>2.4                | <b>1.5</b><br>3.4                  |
| <b>65 x 20</b><br>2-1/2 x 3/4             | <b>38.1</b><br>1.50 | <b>41.3</b><br>1.63 | <b>1.9</b><br>433.0                 | <b>73.2</b><br>2.88    | <b>133.4</b><br>5.25 | <b>78.0</b><br>3.07  | <b>60.5</b><br>2.38 | <b>46.0</b><br>1.81 | <b>M10 x 57</b><br>3/8 x 2-1/4 | <b>1.1</b><br>2.4                | <b>1.5</b><br>3.4                  |
| <b>65 x 25</b><br>2-1/2 x 1               | <b>38.1</b><br>1.50 | <b>41.3</b><br>1.63 | <b>3.0</b><br>679.1                 | <b>73.2</b><br>2.88    | <b>133.4</b><br>5.25 | <b>78.0</b><br>3.07  | <b>60.5</b><br>2.38 | <b>46.0</b><br>1.81 | <b>M10 x 57</b><br>3/8 x 2-1/4 | <b>1.1</b><br>2.4                | <b>1.5</b><br>3.4                  |
| <b>65 x 32</b><br>2-1/2 x 1-1/4           | <b>50.8</b><br>2.00 | <b>54.0</b><br>2.13 | <b>4.8</b><br>1082.1                | <b>76.2</b><br>3.00    | <b>133.4</b><br>5.25 | <b>90.4</b><br>3.56  | <b>55.6</b><br>2.19 | <b>46.0</b><br>1.81 | <b>M10 x 57</b><br>3/8 x 2-1/4 | <b>1.1</b><br>2.5                | <b>1.7</b><br>3.8                  |
| <b>65 x 40</b><br>2-1/2 x 1-1/2           | <b>50.8</b><br>2.00 | <b>54.0</b><br>2.13 | <b>6.3</b><br>1417.6                | <b>78.0</b><br>3.07    | <b>133.4</b><br>5.25 | <b>91.2</b><br>3.59  | <b>55.1</b><br>2.17 | <b>46.0</b><br>1.81 | <b>M10 x 57</b><br>3/8 x 2-1/4 | <b>1.2</b><br>2.6                | <b>1.9</b><br>4.1                  |
| <b>65 x 50</b><br>2-1/2 x 2               | <b>50.8</b><br>2.00 | <b>54.0</b><br>2.13 | <b>9.9</b><br>2215.1                | <b>81.0</b><br>3.19    | <b>133.4</b><br>5.25 | <b>101.6</b><br>4.00 | <b>62.0</b><br>2.44 | <b>46.0</b><br>1.81 | <b>M10 x 57</b><br>3/8 x 2-1/4 | <b>1.2</b><br>2.7                | <b>1.9</b><br>4.1                  |
| <b>65 x 15</b><br>76.1mm x 1/2            | <b>38.1</b><br>1.50 | <b>41.3</b><br>1.63 | <b>1.2</b><br>277.1                 | <b>74.5</b><br>2.94    | <b>142.7</b><br>5.62 | <b>78.0</b><br>3.07  | <b>62.0</b><br>2.44 | <b>47.5</b><br>1.87 | <b>M10 x 57</b><br>–           | <b>1.1</b><br>2.5                | <b>1.6</b><br>3.5                  |
| <b>65 x 20</b><br>76.1mm x 3/4            | <b>38.1</b><br>1.50 | <b>41.3</b><br>1.63 | <b>1.9</b><br>433.0                 | <b>74.5</b><br>2.94    | <b>142.7</b><br>5.62 | <b>78.0</b><br>3.07  | <b>62.0</b><br>2.44 | <b>47.5</b><br>1.87 | <b>M10 x 57</b><br>–           | <b>1.1</b><br>2.5                | <b>1.6</b><br>3.5                  |
| <b>65 x 25</b><br>76.1mm x 1              | <b>38.1</b><br>1.50 | <b>41.3</b><br>1.63 | <b>3.0</b><br>679.1                 | <b>74.5</b><br>2.94    | <b>142.7</b><br>5.62 | <b>78.0</b><br>3.07  | <b>62.0</b><br>2.44 | <b>47.5</b><br>1.87 | <b>M10 x 57</b><br>–           | <b>1.1</b><br>2.5                | <b>1.6</b><br>3.5                  |
| <b>65 x 32</b><br>76.1mm x 1-1/4          | <b>50.8</b><br>2.00 | <b>54.0</b><br>2.13 | <b>4.8</b><br>1082.1                | <b>77.7</b><br>3.06    | <b>142.7</b><br>5.62 | <b>90.4</b><br>3.56  | <b>57.2</b><br>2.25 | <b>47.5</b><br>1.87 | <b>M10 x 57</b><br>–           | <b>1.5</b><br>3.3                | <b>2.3</b><br>5.1                  |
| <b>65 x 40</b><br>76.1mm x 1-1/2          | <b>50.8</b><br>2.00 | <b>54.0</b><br>2.13 | <b>6.3</b><br>1417.6                | <b>79.5</b><br>3.13    | <b>142.7</b><br>5.62 | <b>90.4</b><br>3.56  | <b>57.2</b><br>2.25 | <b>47.5</b><br>1.87 | <b>M10 x 57</b><br>–           | <b>1.6</b><br>3.6                | <b>2.6</b><br>5.7                  |
| <b>65 x 50</b><br>76.1mm x 2              | <b>50.8</b><br>2.00 | <b>54.0</b><br>2.13 | <b>9.9</b><br>2215.1                | <b>82.6</b><br>3.25    | <b>142.7</b><br>5.62 | <b>101.6</b><br>4.00 | <b>63.5</b><br>2.50 | <b>47.5</b><br>1.87 | <b>M10 x 57</b><br>–           | <b>1.7</b><br>3.7                | <b>2.6</b><br>5.8                  |
| <b>80 x 15</b><br>3 x 1/2                 | <b>38.1</b><br>1.50 | <b>41.3</b><br>1.63 | <b>1.2</b><br>277.1                 | <b>81.0</b><br>3.19    | <b>155.7</b><br>6.13 | <b>78.0</b><br>3.07  | <b>65.0</b><br>2.56 | <b>56.1</b><br>2.21 | <b>M12 x 89</b><br>1/2 x 3     | <b>1.7</b><br>3.7                | <b>2.4</b><br>5.2                  |

## Figure 730 Mechanical Tees & Crosses – Threaded

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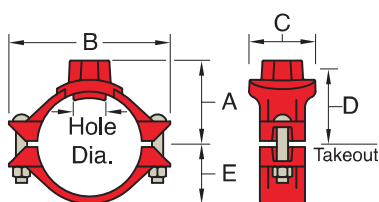
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Figure 730 Branch Outlet with Female NPT/BSP Threaded Branch (Tee Configuration)

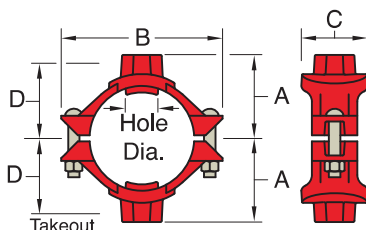


Figure 730 Branch Outlet with Female NPT/BSP Threaded Branch (Cross Configuration)

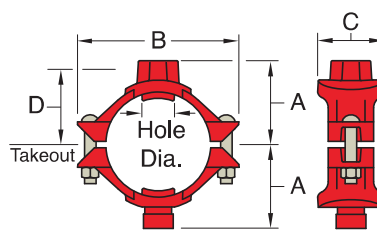


Figure 730 Branch Outlet with a Female NPT/BSP Threaded Branch and a Grooved Branch (Cross Configuration)

| Nominal Size Run x Branch<br>mm<br>Inches | Hole Dia.†           |                      | Max.‡ Branch End Load<br>kN<br>Lbs. | Dimensions - mm Inches |              |              |              |             | Bolt Size<br>mm<br>Inches | Tee Approx. Weight<br>kg<br>Lbs. | Cross Approx. Weight<br>kg<br>Lbs. |
|-------------------------------------------|----------------------|----------------------|-------------------------------------|------------------------|--------------|--------------|--------------|-------------|---------------------------|----------------------------------|------------------------------------|
|                                           | Min.<br>mm<br>Inches | Max.<br>mm<br>Inches |                                     | A                      | B            | C            | D            | E           |                           |                                  |                                    |
| <b>80 x 20</b>                            | <b>38.1</b>          | <b>41.3</b>          | <b>1.9</b>                          | <b>81.0</b>            | <b>155.7</b> | <b>78.0</b>  | <b>65.0</b>  | <b>56.1</b> | <b>M12 x 89</b>           | <b>1.7</b>                       | <b>2.4</b>                         |
| 3 x 3/4                                   | 1.50                 | 1.63                 | 433.0                               | 3.19                   | 6.13         | 3.07         | 2.56         | 2.21        | 1/2 x 3                   | 3.7                              | 5.2                                |
| <b>80 x 25</b>                            | <b>38.1</b>          | <b>41.3</b>          | <b>3.0</b>                          | <b>81.0</b>            | <b>155.7</b> | <b>78.0</b>  | <b>65.0</b>  | <b>56.1</b> | <b>M12 x 89</b>           | <b>1.7</b>                       | <b>2.4</b>                         |
| 3 x 1                                     | 1.50                 | 1.63                 | 679.1                               | 3.19                   | 6.13         | 3.07         | 2.56         | 2.21        | 1/2 x 3                   | 3.7                              | 5.2                                |
| <b>80 x 32</b>                            | <b>44.5</b>          | <b>47.6</b>          | <b>4.8</b>                          | <b>84.8</b>            | <b>155.7</b> | <b>84.3</b>  | <b>63.5</b>  | <b>56.1</b> | <b>M12 x 89</b>           | <b>1.6</b>                       | <b>2.1</b>                         |
| 3 x 1-1/4                                 | 1.75                 | 1.88                 | 1082.1                              | 3.34                   | 6.13         | 3.32         | 2.50         | 2.21        | 1/2 x 3                   | 3.5                              | 4.6                                |
| <b>80 x 40</b>                            | <b>50.8</b>          | <b>54.0</b>          | <b>6.3</b>                          | <b>85.9</b>            | <b>155.7</b> | <b>90.4</b>  | <b>63.0</b>  | <b>56.1</b> | <b>M12 x 89</b>           | <b>1.7</b>                       | <b>2.4</b>                         |
| 3 x 1-1/2                                 | 2.00                 | 2.13                 | 1417.6                              | 3.38                   | 6.13         | 3.56         | 2.48         | 2.21        | 1/2 x 3                   | 3.7                              | 5.2                                |
| <b>80 x 50</b>                            | <b>63.5</b>          | <b>66.7</b>          | <b>9.9</b>                          | <b>88.9</b>            | <b>155.7</b> | <b>103.9</b> | <b>69.9</b>  | <b>56.1</b> | <b>M12 x 89</b>           | <b>2.1</b>                       | <b>3.1</b>                         |
| 3 x 2                                     | 2.50                 | 2.63                 | 2215.1                              | 3.50                   | 6.13         | 4.09         | 2.75         | 2.21        | 1/2 x 3                   | 4.7                              | 6.8                                |
| <b>100 x 15</b>                           | <b>38.1</b>          | <b>41.3</b>          | <b>1.2</b>                          | <b>93.7</b>            | <b>181.1</b> | <b>78.0</b>  | <b>77.7</b>  | <b>70.6</b> | <b>M12 x 89</b>           | <b>2.2</b>                       | <b>2.5</b>                         |
| 4 x 1/2                                   | 1.50                 | 1.63                 | 277.1                               | 3.69                   | 7.13         | 3.07         | 3.06         | 2.78        | 1/2 x 3                   | 4.8                              | 5.6                                |
| <b>100 x 20</b>                           | <b>38.1</b>          | <b>41.3</b>          | <b>1.9</b>                          | <b>93.7</b>            | <b>181.1</b> | <b>78.0</b>  | <b>77.7</b>  | <b>70.6</b> | <b>M12 x 89</b>           | <b>2.2</b>                       | <b>2.5</b>                         |
| 4 x 3/4                                   | 1.50                 | 1.63                 | 433.0                               | 3.69                   | 7.13         | 3.07         | 3.06         | 2.78        | 1/2 x 3                   | 4.8                              | 5.6                                |
| <b>100 x 25</b>                           | <b>38.1</b>          | <b>41.3</b>          | <b>3.0</b>                          | <b>93.7</b>            | <b>181.1</b> | <b>78.0</b>  | <b>77.7</b>  | <b>70.6</b> | <b>M12 x 89</b>           | <b>2.2</b>                       | <b>2.5</b>                         |
| 4 x 1                                     | 1.50                 | 1.63                 | 679.1                               | 3.69                   | 7.13         | 3.07         | 3.06         | 2.78        | 1/2 x 3                   | 4.8                              | 5.6                                |
| <b>100 x 32</b>                           | <b>44.5</b>          | <b>47.6</b>          | <b>4.8</b>                          | <b>99.6</b>            | <b>181.1</b> | <b>84.3</b>  | <b>76.2</b>  | <b>70.6</b> | <b>M12 x 89</b>           | <b>2.2</b>                       | <b>2.5</b>                         |
| 4 x 1-1/4                                 | 1.75                 | 1.88                 | 1082.1                              | 3.92                   | 7.13         | 3.32         | 3.00         | 2.78        | 1/2 x 3                   | 4.8                              | 5.6                                |
| <b>100 x 40</b>                           | <b>50.8</b>          | <b>54.0</b>          | <b>6.3</b>                          | <b>101.6</b>           | <b>181.1</b> | <b>90.4</b>  | <b>75.7</b>  | <b>70.6</b> | <b>M12 x 89</b>           | <b>2.3</b>                       | <b>2.5</b>                         |
| 4 x 1-1/2                                 | 2.00                 | 2.13                 | 1417.6                              | 4.00                   | 7.13         | 3.56         | 2.98         | 2.78        | 1/2 x 3                   | 5.1                              | 6.4                                |
| <b>100 x 50</b>                           | <b>63.5</b>          | <b>66.7</b>          | <b>9.9</b>                          | <b>101.6</b>           | <b>181.1</b> | <b>103.1</b> | <b>82.6</b>  | <b>70.6</b> | <b>M12 x 89</b>           | <b>2.5</b>                       | <b>3.3</b>                         |
| 4 x 2                                     | 2.50                 | 2.63                 | 2215.1                              | 4.00                   | 7.13         | 4.06         | 3.25         | 2.78        | 1/2 x 3                   | 5.5                              | 7.3                                |
| <b>100 x 65</b>                           | <b>69.9</b>          | <b>73.0</b>          | <b>14.4</b>                         | <b>101.6</b>           | <b>181.1</b> | <b>111.3</b> | <b>79.2</b>  | <b>70.6</b> | <b>M12 x 89</b>           | <b>2.8</b>                       | <b>3.9</b>                         |
| 4 x 2-1/2                                 | 2.75                 | 2.88                 | 3245.9                              | 4.00                   | 7.13         | 4.38         | 3.12         | 2.78        | 1/2 x 3                   | 6.2                              | 8.7                                |
| <b>100 x 65</b>                           | <b>69.9</b>          | <b>73.0</b>          | <b>15.7</b>                         | <b>101.6</b>           | <b>181.1</b> | <b>111.3</b> | <b>79.2</b>  | <b>70.6</b> | <b>M12 x 89</b>           | <b>2.8</b>                       | <b>3.9</b>                         |
| 4 x 76.1mm                                | 2.75                 | 2.88                 | 3534.3                              | 4.00                   | 7.13         | 4.38         | 3.12         | 2.78        | –                         | 6.2                              | 8.7                                |
| <b>100 x 80</b>                           | <b>88.9</b>          | <b>92.1</b>          | <b>21.4</b>                         | <b>104.9</b>           | <b>181.1</b> | <b>130.3</b> | <b>84.1</b>  | <b>70.6</b> | <b>M12 x 89</b>           | <b>3.5</b>                       | <b>5.4</b>                         |
| 4 x 3                                     | 3.50                 | 3.63                 | 4810.6                              | 4.13                   | 7.13         | 5.13         | 3.31         | 2.78        | 1/2 x 3                   | 7.8                              | 11.9                               |
| <b>125 x 40</b>                           | <b>50.8</b>          | <b>54.0</b>          | <b>6.3</b>                          | <b>117.6</b>           | <b>206.5</b> | <b>90.4</b>  | <b>101.6</b> | <b>85.6</b> | <b>M16 x 121</b>          | <b>3.5</b>                       | <b>4.3</b>                         |
| 5 x 1-1/2                                 | 2.00                 | 2.13                 | 1417.6                              | 4.63                   | 8.13         | 3.56         | 4.00         | 3.37        | 5/8 x 4-3/4               | 7.8                              | 9.4                                |
| <b>125 x 50</b>                           | <b>63.5</b>          | <b>66.7</b>          | <b>9.9</b>                          | <b>117.6</b>           | <b>206.5</b> | <b>103.1</b> | <b>98.6</b>  | <b>85.6</b> | <b>M16 x 121</b>          | <b>3.5</b>                       | <b>4.3</b>                         |
| 5 x 2                                     | 2.50                 | 2.63                 | 2215.1                              | 4.63                   | 8.13         | 4.06         | 3.88         | 3.37        | 5/8 x 4-3/4               | 7.8                              | 9.4                                |
| <b>125 x 65</b>                           | <b>69.9</b>          | <b>73.0</b>          | <b>14.4</b>                         | <b>120.7</b>           | <b>206.5</b> | <b>111.3</b> | <b>98.6</b>  | <b>85.6</b> | <b>M16 x 121</b>          | <b>4.0</b>                       | <b>5.2</b>                         |
| 5 x 2-1/2                                 | 2.75                 | 2.88                 | 3245.9                              | 4.75                   | 8.13         | 4.38         | 3.88         | 3.37        | 5/8 x 4-3/4               | 8.9                              | 11.5                               |
| <b>125 x 65</b>                           | <b>69.9</b>          | <b>73.0</b>          | <b>15.7</b>                         | <b>120.7</b>           | <b>206.5</b> | <b>111.3</b> | <b>98.6</b>  | <b>85.6</b> | <b>M16 x 121</b>          | <b>4.0</b>                       | <b>5.2</b>                         |
| 5 x 76.1mm                                | 2.75                 | 2.88                 | 3534.3                              | 4.75                   | 8.13         | 4.38         | 3.88         | 3.37        | –                         | 8.9                              | 11.5                               |
| <b>125 x 80</b>                           | <b>88.9</b>          | <b>92.1</b>          | <b>21.4</b>                         | <b>127.0</b>           | <b>206.5</b> | <b>130.3</b> | <b>103.1</b> | <b>85.6</b> | <b>M16 x 121</b>          | <b>5.8</b>                       | <b>6.0</b>                         |
| 5 x 3                                     | 3.50                 | 3.63                 | 4810.6                              | 5.00                   | 8.13         | 5.13         | 4.06         | 3.37        | 5/8 x 4-3/4               | 12.7                             | 13.3                               |
| <b>150 x 32</b>                           | <b>50.8</b>          | <b>54.0</b>          | <b>4.8</b>                          | <b>130.3</b>           | <b>235.0</b> | <b>90.4</b>  | <b>108.0</b> | <b>99.1</b> | <b>M16 x 121</b>          | <b>3.5</b>                       | <b>4.3</b>                         |
| 165.1mm x 1-1/4                           | 2.00                 | 2.13                 | 1082.1                              | 5.13                   | 9.25         | 3.56         | 4.25         | 3.90        | –                         | 7.7                              | 9.5                                |
| <b>150 x 40</b>                           | <b>50.8</b>          | <b>54.0</b>          | <b>6.3</b>                          | <b>130.3</b>           | <b>235.0</b> | <b>90.4</b>  | <b>102.6</b> | <b>99.1</b> | <b>M16 x 121</b>          | <b>3.5</b>                       | <b>4.3</b>                         |
| 165.1mm x 1-1/2                           | 2.00                 | 2.13                 | 1417.6                              | 5.13                   | 9.25         | 3.56         | 4.04         | 3.90        | –                         | 7.7                              | 9.5                                |
| <b>150 x 50</b>                           | <b>63.5</b>          | <b>66.7</b>          | <b>9.9</b>                          | <b>130.3</b>           | <b>235.0</b> | <b>103.1</b> | <b>109.5</b> | <b>99.1</b> | <b>M16 x 121</b>          | <b>3.7</b>                       | <b>4.3</b>                         |
| 165.1mm x 2                               | 2.50                 | 2.63                 | 2215.1                              | 5.13                   | 9.25         | 4.06         | 4.31         | 3.90        | –                         | 8.2                              | 9.5                                |
| <b>150 x 65</b>                           | <b>69.9</b>          | <b>73.0</b>          | <b>14.4</b>                         | <b>130.3</b>           | <b>235.0</b> | <b>111.3</b> | <b>106.2</b> | <b>99.1</b> | <b>M16 x 121</b>          | <b>4.1</b>                       | <b>5.1</b>                         |
| 165.1mm x 2-1/2                           | 2.75                 | 2.88                 | 3245.9                              | 5.13                   | 9.25         | 4.38         | 4.18         | 3.90        | –                         | 9.0                              | 11.3                               |

Outlet  
Fittings

## Figure 730 Mechanical Tees & Crosses – Threaded

(Page 3 of 3)

Tech Data Sheet: TFP1860

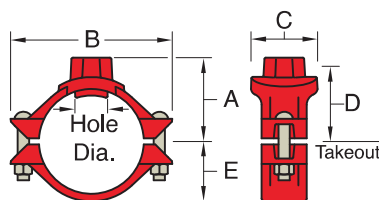


Figure 730 Branch Outlet with Female NPT/BSP Threaded Branch (Tee Configuration)

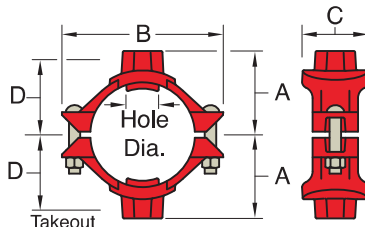


Figure 730 Branch Outlet with Female NPT/BSP Threaded Branch (Cross Configuration)

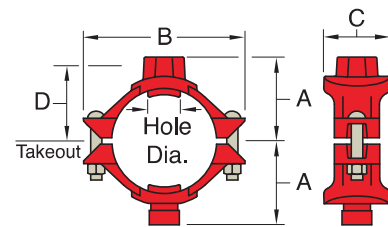


Figure 730 Branch Outlet with a Female NPT/BSP Threaded Branch and a Grooved Branch (Cross Configuration)

Outlet  
Fittings

| Nominal Size Run x Branch<br>mm<br>Inches | Hole Dia.†           |                      | Max.‡<br>Branch<br>End Load<br>kN<br>Lbs. | Dimensions - mm Inches |                       |                      |                      |                      | Bolt<br>Size<br>mm<br>Inches    | Tee<br>Approx.<br>Weight<br>kg<br>Lbs. | Cross<br>Approx.<br>Weight<br>kg<br>Lbs. |
|-------------------------------------------|----------------------|----------------------|-------------------------------------------|------------------------|-----------------------|----------------------|----------------------|----------------------|---------------------------------|----------------------------------------|------------------------------------------|
|                                           | Min.<br>mm<br>Inches | Max.<br>mm<br>Inches |                                           | A                      | B                     | C                    | D                    | E                    |                                 |                                        |                                          |
| <b>150 x 65</b><br>165.1mm x 76.1mm       | <b>69.9</b><br>2.75  | <b>73.0</b><br>2.88  | <b>15.7</b><br>3584.3                     | <b>130.3</b><br>5.13   | <b>235.0</b><br>9.25  | <b>111.3</b><br>4.38 | <b>106.2</b><br>4.18 | <b>99.1</b><br>3.90  | <b>M16 x 121</b><br>—           | <b>4.1</b><br>9.0                      | <b>5.1</b><br>11.3                       |
| <b>150 x 80</b><br>165.1mm x 3            | <b>88.9</b><br>3.50  | <b>92.1</b><br>3.63  | <b>21.4</b><br>4810.6                     | <b>139.7</b><br>5.50   | <b>235.0</b><br>9.25  | <b>130.3</b><br>5.13 | <b>111.0</b><br>4.37 | <b>99.1</b><br>3.90  | <b>M16 x 121</b><br>—           | <b>4.8</b><br>10.5                     | <b>6.4</b><br>14.1                       |
| <b>150 x 100</b><br>165.1mm x 4           | <b>114.3</b><br>4.50 | <b>117.5</b><br>4.63 | <b>35.4</b><br>7952.2                     | <b>136.7</b><br>5.38   | <b>235.0</b><br>9.25  | <b>155.7</b><br>6.13 | <b>115.8</b><br>4.56 | <b>99.1</b><br>3.90  | <b>M16 x 121</b><br>—           | <b>5.5</b><br>12.1                     | <b>7.8</b><br>17.3                       |
| <b>150 x 32</b><br>6 x 1-1/4              | <b>50.8</b><br>2.00  | <b>54.0</b><br>2.13  | <b>4.8</b><br>1082.1                      | <b>130.3</b><br>5.13   | <b>235.0</b><br>9.25  | <b>90.4</b><br>3.56  | <b>108.0</b><br>4.25 | <b>99.1</b><br>3.90  | <b>M16 x 121</b><br>5/8 x 4-3/4 | <b>3.4</b><br>7.5                      | <b>3.9</b><br>8.7                        |
| <b>150 x 40</b><br>6 x 1-1/2              | <b>50.8</b><br>2.00  | <b>54.0</b><br>2.13  | <b>6.3</b><br>1417.6                      | <b>130.3</b><br>5.13   | <b>235.0</b><br>9.25  | <b>90.4</b><br>3.56  | <b>102.6</b><br>4.04 | <b>99.1</b><br>3.90  | <b>M16 x 121</b><br>5/8 x 4-3/4 | <b>3.4</b><br>7.5                      | <b>3.9</b><br>8.7                        |
| <b>150 x 50</b><br>6 x 2                  | <b>63.5</b><br>2.50  | <b>66.7</b><br>2.63  | <b>9.9</b><br>2215.1                      | <b>130.3</b><br>5.13   | <b>235.0</b><br>9.25  | <b>103.1</b><br>4.06 | <b>109.5</b><br>4.31 | <b>99.1</b><br>3.90  | <b>M16 x 121</b><br>5/8 x 4-3/4 | <b>3.5</b><br>7.7                      | <b>4.3</b><br>9.5                        |
| <b>150 x 65</b><br>6 x 2-1/2              | <b>69.9</b><br>2.75  | <b>73.0</b><br>2.88  | <b>14.4</b><br>3245.9                     | <b>130.3</b><br>5.13   | <b>235.0</b><br>9.25  | <b>111.3</b><br>4.38 | <b>106.2</b><br>4.18 | <b>99.1</b><br>3.90  | <b>M16 x 121</b><br>5/8 x 4-3/4 | <b>4.0</b><br>8.9                      | <b>5.1</b><br>11.3                       |
| <b>150 x 65</b><br>6 x 76.1mm             | <b>69.9</b><br>2.75  | <b>73.0</b><br>2.88  | <b>14.4</b><br>3245.9                     | <b>130.3</b><br>5.13   | <b>235.0</b><br>9.25  | <b>111.3</b><br>4.38 | <b>106.2</b><br>4.18 | <b>99.1</b><br>3.90  | <b>M16 x 121</b><br>5/8 x 4-3/4 | <b>4.0</b><br>8.9                      | <b>5.1</b><br>11.3                       |
| <b>150 x 80</b><br>6 x 3                  | <b>88.9</b><br>3.50  | <b>92.1</b><br>3.63  | <b>21.4</b><br>4810.6                     | <b>139.7</b><br>5.50   | <b>235.0</b><br>9.25  | <b>130.3</b><br>5.13 | <b>111.0</b><br>4.37 | <b>99.1</b><br>3.90  | <b>M16 x 121</b><br>5/8 x 4-3/4 | <b>4.7</b><br>10.3                     | <b>6.4</b><br>14.1                       |
| <b>150 x 100</b><br>6 x 4                 | <b>114.3</b><br>4.50 | <b>117.5</b><br>4.63 | <b>35.4</b><br>7952.2                     | <b>136.7</b><br>5.38   | <b>235.0</b><br>9.25  | <b>155.7</b><br>6.13 | <b>115.8</b><br>4.56 | <b>99.1</b><br>3.90  | <b>M16 x 121</b><br>5/8 x 4-3/4 | <b>5.4</b><br>11.9                     | <b>7.8</b><br>17.3                       |
| <b>200 x 50</b><br>8 x 2                  | <b>69.9</b><br>2.75  | <b>73.0</b><br>2.88  | <b>14.4</b><br>3245.9                     | <b>158.8</b><br>6.25   | <b>317.5</b><br>12.50 | <b>103.1</b><br>4.06 | <b>130.0</b><br>5.12 | <b>124.5</b><br>4.90 | <b>M20 x 121</b><br>3/4 x 4-3/4 | <b>5.5</b><br>12.1                     | <b>6.4</b><br>14.1                       |
| <b>200 x 65</b><br>8 x 2-1/2              | <b>69.9</b><br>2.75  | <b>73.0</b><br>2.88  | <b>14.4</b><br>3245.9                     | <b>158.8</b><br>6.25   | <b>317.5</b><br>12.50 | <b>111.3</b><br>4.38 | <b>130.0</b><br>5.12 | <b>124.5</b><br>4.90 | <b>M20 x 121</b><br>3/4 x 4-3/4 | <b>5.7</b><br>12.6                     | <b>6.8</b><br>15.0                       |
| <b>200 x 65</b><br>8 x 76.1mm             | <b>69.9</b><br>2.75  | <b>73.0</b><br>2.88  | <b>15.7</b><br>3534.3                     | <b>158.8</b><br>6.25   | <b>317.5</b><br>12.50 | <b>111.3</b><br>4.38 | <b>130.0</b><br>5.12 | <b>124.5</b><br>4.90 | <b>M20 x 121</b><br>—           | <b>5.7</b><br>12.6                     | <b>6.8</b><br>15.0                       |
| <b>200 x 80</b><br>8 x 3                  | <b>88.9</b><br>3.50  | <b>92.1</b><br>3.63  | <b>21.4</b><br>4810.6                     | <b>165.1</b><br>6.50   | <b>317.5</b><br>12.50 | <b>130.3</b><br>5.13 | <b>136.4</b><br>5.37 | <b>124.5</b><br>4.90 | <b>M20 x 121</b><br>3/4 x 4-3/4 | <b>6.1</b><br>13.6                     | <b>7.7</b><br>16.9                       |
| <b>200 x 100</b><br>8 x 4                 | <b>114.3</b><br>4.50 | <b>117.5</b><br>4.63 | <b>35.4</b><br>7952.2                     | <b>162.1</b><br>6.38   | <b>317.5</b><br>12.50 | <b>155.7</b><br>6.13 | <b>141.2</b><br>5.56 | <b>124.5</b><br>4.90 | <b>M20 x 121</b><br>3/4 x 4-3/4 | <b>6.9</b><br>15.2                     | <b>9.1</b><br>20.0                       |

† Proper hole preparation is required for effective sealing and performance. Check the pipe seal surface within 15.9mm (5/8") of the hole to ensure it is free from conditions affecting proper gasket sealing. Remove any sharp or rough edges from the hole or upper housing contact area that might affect assembly, proper seating of the locating collar, or flow from the outlet. For crosses, ensure double outlet holes are aligned on opposite sides of the pipe. The use of threaded products other than steel pipe, such as dry pendent sprinklers, may not be compatible with the female threaded outlet on the Mechanical Tee. Always confirm compatibility by contacting GRINNELL Products.

‡ Maximum pressures and end loads are total from all loads based on standard weight steel pipe. Pressure ratings and end loads may differ on other pipe materials and/or wall thickness. Contact GRINNELL Products for details.

Threads are BSP. Some size outlets are available with NPT threads. Contact GRINNELL Products for details.

For information on larger sizes, Chinese sizes or other alternative sizes, contact GRINNELL Products.

See page 50 for mechanical tee specifications, and see pages 76 - 78 for gasket information.

## Figure 730 Mechanical Tees & Crosses – Grooved

(Page 1 of 3)

Tech Data Sheet: TFP1860

**10**  
YEAR  
LIMITED  
WARRANTY

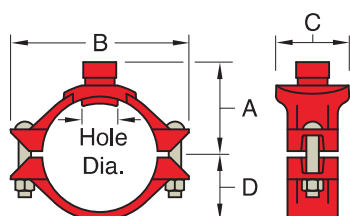


Figure 730 Branch Outlet  
with Grooved Branch  
(Tee Configuration)

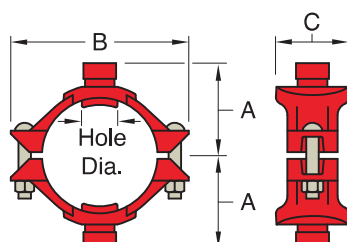


Figure 730 Branch Outlet  
with Grooved Branch  
(Cross Configuration)

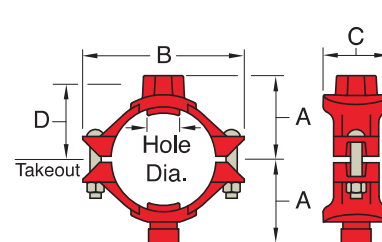


Figure 730 Branch Outlet with a Female  
NPT/BSP Threaded Branch and a Grooved  
Branch (Cross Configuration)

Outlet  
Fittings

| Nominal Size<br>Run x Branch<br>mm<br>Inches | Hole Dia.†           |                      | Max.‡<br>End Load<br>Branch<br>kN<br>Lbs. | Dimensions - mm Inches |              |              |             | Bolt<br>Size<br>mm<br>Inches | Tee<br>Approx.<br>Weight<br>kg<br>Lbs. | Cross<br>Approx.<br>Weight<br>kg<br>Lbs. |
|----------------------------------------------|----------------------|----------------------|-------------------------------------------|------------------------|--------------|--------------|-------------|------------------------------|----------------------------------------|------------------------------------------|
|                                              | Min.<br>mm<br>Inches | Max.<br>mm<br>Inches |                                           | A                      | B            | C            | D           |                              |                                        |                                          |
| <b>50 x 32</b>                               | <b>44.5</b>          | <b>47.6</b>          | <b>4.8</b>                                | <b>70.6</b>            | <b>124.0</b> | <b>84.3</b>  | <b>40.4</b> | <b>M10 x 57</b>              | <b>1.1</b>                             | <b>1.5</b>                               |
| 2 x 1-1/4                                    | 1.75                 | 1.88                 | 1082.1                                    | 2.78                   | 4.88         | 3.32         | 1.59        | 3/8 x 2-1/4                  | 2.5                                    | 3.3                                      |
| <b>50 x 40</b>                               | <b>44.5</b>          | <b>47.6</b>          | <b>6.3</b>                                | <b>66.5</b>            | <b>124.0</b> | <b>84.3</b>  | <b>40.4</b> | <b>M10 x 57</b>              | <b>1.1</b>                             | <b>1.7</b>                               |
| 2 x 1-1/2                                    | 1.75                 | 1.88                 | 1417.6                                    | 2.62                   | 4.88         | 3.32         | 1.59        | 3/8 x 2-1/4                  | 2.4                                    | 3.7                                      |
| <b>65 x 32</b>                               | <b>50.8</b>          | <b>54.0</b>          | <b>4.8</b>                                | <b>76.2</b>            | <b>133.4</b> | <b>90.4</b>  | <b>46.0</b> | <b>M10 x 57</b>              | <b>1.1</b>                             | <b>1.7</b>                               |
| 2-1/2 x 1-1/4                                | 2.00                 | 2.13                 | 1082.1                                    | 3.00                   | 5.25         | 3.56         | 1.81        | 3/8 x 2-1/4                  | 2.5                                    | 3.8                                      |
| <b>65 x 40</b>                               | <b>50.8</b>          | <b>54.0</b>          | <b>6.3</b>                                | <b>78.0</b>            | <b>133.4</b> | <b>91.2</b>  | <b>46.0</b> | <b>M10 x 57</b>              | <b>1.1</b>                             | <b>1.8</b>                               |
| 2-1/2 x 1-1/2                                | 2.00                 | 2.13                 | 1417.6                                    | 3.07                   | 5.25         | 3.59         | 1.81        | 3/8 x 2-1/4                  | 2.5                                    | 3.9                                      |
| <b>65 x 50</b>                               | <b>50.8</b>          | <b>54.0</b>          | <b>9.9</b>                                | <b>81.0</b>            | <b>133.4</b> | <b>101.6</b> | <b>46.0</b> | <b>M10 x 57</b>              | <b>1.1</b>                             | <b>1.7</b>                               |
| 2-1/2 x 2                                    | 2.00                 | 2.13                 | 2215.1                                    | 3.19                   | 5.25         | 4.00         | 1.81        | 3/8 x 2-1/4                  | 2.5                                    | 3.8                                      |
| <b>65 x 32</b>                               | <b>50.8</b>          | <b>54.0</b>          | <b>4.8</b>                                | <b>77.7</b>            | <b>142.7</b> | <b>90.4</b>  | <b>47.5</b> | <b>M10 x 57</b>              | <b>1.1</b>                             | <b>1.7</b>                               |
| 76.1mm x 1-1/4                               | 2.00                 | 2.13                 | 1082.1                                    | 3.06                   | 5.62         | 3.56         | 1.87        | —                            | 2.5                                    | 3.8                                      |
| <b>65 x 40</b>                               | <b>50.8</b>          | <b>54.0</b>          | <b>6.3</b>                                | <b>79.5</b>            | <b>142.7</b> | <b>90.4</b>  | <b>47.5</b> | <b>M10 x 57</b>              | <b>1.1</b>                             | <b>1.8</b>                               |
| 76.1mm x 1-1/2                               | 2.00                 | 2.13                 | 1417.6                                    | 3.13                   | 5.62         | 3.56         | 1.87        | —                            | 2.5                                    | 3.9                                      |
| <b>65 x 50</b>                               | <b>50.8</b>          | <b>54.0</b>          | <b>9.9</b>                                | <b>82.6</b>            | <b>142.7</b> | <b>101.6</b> | <b>47.5</b> | <b>M10 x 57</b>              | <b>1.1</b>                             | <b>1.7</b>                               |
| 76.1mm x 2                                   | 2.00                 | 2.13                 | 2215.1                                    | 3.25                   | 5.62         | 4.00         | 1.87        | —                            | 2.5                                    | 3.8                                      |
| <b>80 x 32</b>                               | <b>44.5</b>          | <b>47.6</b>          | <b>4.8</b>                                | <b>84.8</b>            | <b>155.7</b> | <b>84.3</b>  | <b>56.1</b> | <b>M12 x 89</b>              | <b>1.6</b>                             | <b>2.1</b>                               |
| 3 x 1-1/4                                    | 1.75                 | 1.88                 | 1082.1                                    | 3.34                   | 6.13         | 3.32         | 2.21        | 1/2 x 3                      | 3.5                                    | 4.6                                      |
| <b>80 x 40</b>                               | <b>50.8</b>          | <b>54.0</b>          | <b>6.3</b>                                | <b>85.9</b>            | <b>155.7</b> | <b>90.4</b>  | <b>56.1</b> | <b>M12 x 89</b>              | <b>1.6</b>                             | <b>2.3</b>                               |
| 3 x 1-1/2                                    | 2.00                 | 2.13                 | 1417.6                                    | 3.38                   | 6.13         | 3.56         | 2.21        | 1/2 x 3                      | 3.6                                    | 5.0                                      |
| <b>80 x 50</b>                               | <b>63.5</b>          | <b>66.7</b>          | <b>9.9</b>                                | <b>88.9</b>            | <b>155.7</b> | <b>103.9</b> | <b>56.1</b> | <b>M12 x 89</b>              | <b>2.0</b>                             | <b>2.9</b>                               |
| 3 x 2                                        | 2.50                 | 2.63                 | 2215.1                                    | 3.50                   | 6.13         | 4.09         | 2.21        | 1/2 x 3                      | 4.5                                    | 6.4                                      |
| <b>100 x 32</b>                              | <b>44.5</b>          | <b>47.6</b>          | <b>4.8</b>                                | <b>99.6</b>            | <b>181.1</b> | <b>84.3</b>  | <b>70.6</b> | <b>M12 x 89</b>              | <b>2.2</b>                             | <b>2.5</b>                               |
| 4 x 1-1/4                                    | 1.75                 | 1.88                 | 1082.1                                    | 3.92                   | 7.13         | 3.32         | 2.78        | 1/2 x 3                      | 4.8                                    | 5.6                                      |
| <b>100 x 40</b>                              | <b>50.8</b>          | <b>54.0</b>          | <b>6.3</b>                                | <b>101.6</b>           | <b>181.1</b> | <b>90.4</b>  | <b>70.6</b> | <b>M12 x 89</b>              | <b>2.3</b>                             | <b>2.8</b>                               |
| 4 x 1-1/2                                    | 2.00                 | 2.13                 | 1417.6                                    | 4.00                   | 7.13         | 3.56         | 2.78        | 1/2 x 3                      | 5.0                                    | 6.2                                      |

## Figure 730 Mechanical Tees & Crosses – Grooved

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Tech Data Sheet: TFP1860

**10**  
YEAR  
LIMITED  
WARRANTY

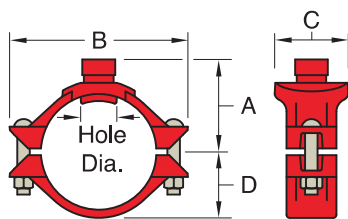


Figure 730 Branch Outlet  
with Grooved Branch  
(Tee Configuration)

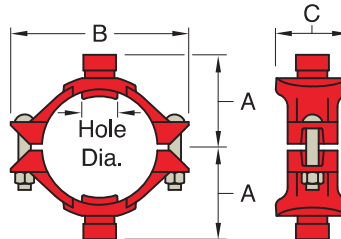


Figure 730 Branch Outlet  
with Grooved Branch  
(Cross Configuration)

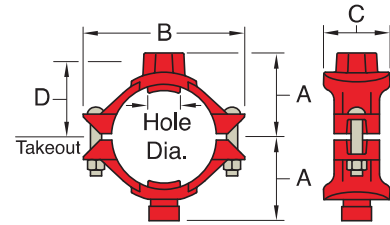


Figure 730 Branch Outlet with a Female  
NPT/BSP Threaded Branch and a Grooved  
Branch (Cross Configuration)

Outlet  
Fittings

| Nominal Size<br>Run x Branch<br>mm<br>Inches | Hole Dia.†           |                      | Max.‡<br>End Load<br>Branch<br>kN<br>Lbs. | Dimensions - mm Inches |              |              |             | Bolt<br>Size<br>mm<br>Inches | Tee<br>Approx.<br>Weight<br>kg<br>Lbs. | Cross<br>Approx.<br>Weight<br>kg<br>Lbs. |
|----------------------------------------------|----------------------|----------------------|-------------------------------------------|------------------------|--------------|--------------|-------------|------------------------------|----------------------------------------|------------------------------------------|
|                                              | Min.<br>mm<br>Inches | Max.<br>mm<br>Inches |                                           | A                      | B            | C            | D           |                              |                                        |                                          |
| <b>100 x 50</b>                              | <b>63.5</b>          | <b>66.7</b>          | <b>9.9</b>                                | <b>101.6</b>           | <b>181.1</b> | <b>103.1</b> | <b>70.6</b> | <b>M12 x 89</b>              | <b>2.4</b>                             | <b>3.1</b>                               |
| 4 x 2                                        | 2.50                 | 2.63                 | 2215.1                                    | 4.00                   | 7.13         | 4.06         | 2.78        | ½ x 3                        | 5.3                                    | 6.9                                      |
| <b>100 x 65</b>                              | <b>69.9</b>          | <b>73.0</b>          | <b>14.4</b>                               | <b>101.6</b>           | <b>181.1</b> | <b>111.3</b> | <b>70.6</b> | <b>M12 x 89</b>              | <b>2.7</b>                             | <b>3.7</b>                               |
| 4 x 2½                                       | 2.75                 | 2.88                 | 3245.9                                    | 4.00                   | 7.13         | 4.38         | 2.78        | ½ x 3                        | 5.9                                    | 8.2                                      |
| <b>100 x 65</b>                              | <b>69.9</b>          | <b>73.0</b>          | <b>15.7</b>                               | <b>101.6</b>           | <b>181.1</b> | <b>111.3</b> | <b>70.6</b> | <b>M12 x 89</b>              | <b>2.7</b>                             | <b>3.7</b>                               |
| 4 x 76.1mm                                   | 2.75                 | 2.88                 | 3534.3                                    | 4.00                   | 7.13         | 4.38         | 2.78        | —                            | 5.9                                    | 8.2                                      |
| <b>100 x 80</b>                              | <b>88.9</b>          | <b>92.1</b>          | <b>21.4</b>                               | <b>104.9</b>           | <b>181.1</b> | <b>130.3</b> | <b>70.6</b> | <b>M12 x 89</b>              | <b>3.4</b>                             | <b>5.0</b>                               |
| 4 x 3                                        | 3.50                 | 3.63                 | 4810.6                                    | 4.13                   | 7.13         | 5.13         | 2.78        | ½ x 3                        | 7.4                                    | 11.1                                     |
| <b>125 x 40</b>                              | <b>50.8</b>          | <b>54.0</b>          | <b>6.3</b>                                | <b>117.6</b>           | <b>206.5</b> | <b>90.4</b>  | <b>85.6</b> | <b>M16 x 121</b>             | <b>3.5</b>                             | <b>4.2</b>                               |
| 5 x 1½                                       | 2.00                 | 2.13                 | 1417.6                                    | 4.63                   | 8.13         | 3.56         | 3.37        | ⅝ x 4¾                       | 7.7                                    | 9.2                                      |
| <b>125 x 50</b>                              | <b>63.5</b>          | <b>66.7</b>          | <b>9.9</b>                                | <b>117.6</b>           | <b>206.5</b> | <b>103.1</b> | <b>85.6</b> | <b>M16 x 121</b>             | <b>3.4</b>                             | <b>4.1</b>                               |
| 5 x 2                                        | 2.50                 | 2.63                 | 2215.1                                    | 4.63                   | 8.13         | 4.06         | 3.37        | ⅝ x 4¾                       | 7.6                                    | 9.0                                      |
| <b>125 x 65</b>                              | <b>69.9</b>          | <b>73.0</b>          | <b>14.4</b>                               | <b>120.7</b>           | <b>206.5</b> | <b>111.3</b> | <b>85.6</b> | <b>M16 x 121</b>             | <b>3.9</b>                             | <b>5.0</b>                               |
| 5 x 2½                                       | 2.75                 | 2.88                 | 3245.9                                    | 4.75                   | 8.13         | 4.38         | 3.37        | ⅝ x 4¾                       | 8.6                                    | 11.0                                     |
| <b>125 x 65</b>                              | <b>69.9</b>          | <b>73.0</b>          | <b>15.7</b>                               | <b>120.7</b>           | <b>206.5</b> | <b>111.3</b> | <b>85.6</b> | <b>M16 x 121</b>             | <b>3.9</b>                             | <b>5.0</b>                               |
| 5 x 76.1mm                                   | 2.75                 | 2.88                 | 3534.3                                    | 4.75                   | 8.13         | 4.38         | 3.37        | —                            | 8.6                                    | 11.0                                     |
| <b>125 x 80</b>                              | <b>88.9</b>          | <b>92.1</b>          | <b>21.4</b>                               | <b>127.0</b>           | <b>206.5</b> | <b>130.3</b> | <b>85.6</b> | <b>M16 x 121</b>             | <b>5.6</b>                             | <b>5.7</b>                               |
| 5 x 3                                        | 3.50                 | 3.63                 | 4810.6                                    | 5.00                   | 8.13         | 5.13         | 3.37        | ⅝ x 4¾                       | 12.3                                   | 12.5                                     |
| <b>150 x 32</b>                              | <b>50.8</b>          | <b>54.0</b>          | <b>4.8</b>                                | <b>130.3</b>           | <b>235.0</b> | <b>90.4</b>  | <b>99.1</b> | <b>M16 x 121</b>             | <b>3.5</b>                             | <b>4.3</b>                               |
| 165.1mm x 1¼                                 | 2.00                 | 2.13                 | 1082.1                                    | 5.13                   | 9.25         | 3.56         | 3.90        | —                            | 7.7                                    | 9.5                                      |
| <b>150 x 40</b>                              | <b>50.8</b>          | <b>54.0</b>          | <b>6.3</b>                                | <b>130.3</b>           | <b>235.0</b> | <b>90.4</b>  | <b>99.1</b> | <b>M16 x 121</b>             | <b>3.4</b>                             | <b>4.2</b>                               |
| 165.1mm x 1½                                 | 2.00                 | 2.13                 | 1417.6                                    | 5.13                   | 9.25         | 3.56         | 3.90        | —                            | 7.6                                    | 9.3                                      |
| <b>150 x 50</b>                              | <b>63.5</b>          | <b>66.7</b>          | <b>9.9</b>                                | <b>130.3</b>           | <b>235.0</b> | <b>103.1</b> | <b>99.1</b> | <b>M16 x 121</b>             | <b>3.6</b>                             | <b>4.1</b>                               |
| 165.1mm x 2                                  | 2.50                 | 2.63                 | 2215.1                                    | 5.13                   | 9.25         | 4.06         | 3.90        | —                            | 8.0                                    | 9.1                                      |
| <b>150 x 65</b>                              | <b>69.9</b>          | <b>73.0</b>          | <b>14.4</b>                               | <b>130.3</b>           | <b>235.0</b> | <b>111.3</b> | <b>99.1</b> | <b>M16 x 121</b>             | <b>4.0</b>                             | <b>4.9</b>                               |
| 165.1mm x 2½                                 | 2.75                 | 2.88                 | 3245.9                                    | 5.13                   | 9.25         | 4.38         | 3.90        | —                            | 8.8                                    | 10.8                                     |
| <b>150 x 65</b>                              | <b>69.9</b>          | <b>73.0</b>          | <b>15.7</b>                               | <b>130.3</b>           | <b>235.0</b> | <b>111.3</b> | <b>99.1</b> | <b>M16 x 121</b>             | <b>4.0</b>                             | <b>4.9</b>                               |
| 165.1mm x 76.1mm                             | 2.75                 | 2.88                 | 3534.3                                    | 5.13                   | 9.25         | 4.38         | 3.90        | —                            | 8.8                                    | 10.8                                     |
| <b>150 x 80</b>                              | <b>88.9</b>          | <b>92.1</b>          | <b>21.4</b>                               | <b>139.7</b>           | <b>235.0</b> | <b>130.3</b> | <b>99.1</b> | <b>M16 x 121</b>             | <b>4.6</b>                             | <b>6.0</b>                               |
| 165.1mm x 3                                  | 3.50                 | 3.63                 | 4810.6                                    | 5.50                   | 9.25         | 5.13         | 3.90        | —                            | 10.1                                   | 13.3                                     |
| <b>150 x 100</b>                             | <b>114.3</b>         | <b>117.5</b>         | <b>35.4</b>                               | <b>136.7</b>           | <b>235.0</b> | <b>155.7</b> | <b>99.1</b> | <b>M16 x 121</b>             | <b>5.3</b>                             | <b>7.4</b>                               |
| 165.1mm x 4                                  | 4.50                 | 4.63                 | 7952.2                                    | 5.38                   | 9.25         | 6.13         | 3.90        | —                            | 11.6                                   | 16.3                                     |
| <b>150 x 32</b>                              | <b>50.8</b>          | <b>54.0</b>          | <b>4.8</b>                                | <b>130.3</b>           | <b>235.0</b> | <b>90.4</b>  | <b>99.1</b> | <b>M16 x 121</b>             | <b>3.5</b>                             | <b>4.3</b>                               |
| 6 x 1¼                                       | 2.00                 | 2.13                 | 1082.1                                    | 5.13                   | 9.25         | 3.56         | 3.90        | ⅝ x 4¾                       | 7.7                                    | 9.5                                      |
| <b>150 x 40</b>                              | <b>50.8</b>          | <b>54.0</b>          | <b>6.3</b>                                | <b>130.3</b>           | <b>235.0</b> | <b>90.4</b>  | <b>99.1</b> | <b>M16 x 121</b>             | <b>3.4</b>                             | <b>4.2</b>                               |
| 6 x 1½                                       | 2.00                 | 2.13                 | 1417.6                                    | 5.13                   | 9.25         | 3.56         | 3.90        | ⅝ x 4¾                       | 7.6                                    | 9.3                                      |

## Figure 730 Mechanical Tees & Crosses – Grooved

(Page 3 of 3)

Tech Data Sheet: TFP1860

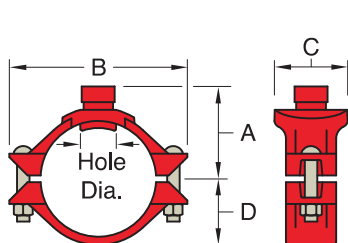


Figure 730 Branch Outlet with Grooved Branch (Tee Configuration)

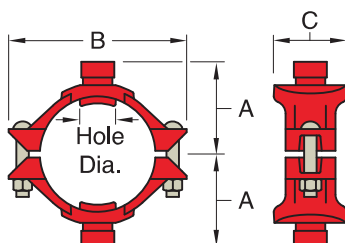


Figure 730 Branch Outlet with Grooved Branch (Cross Configuration)

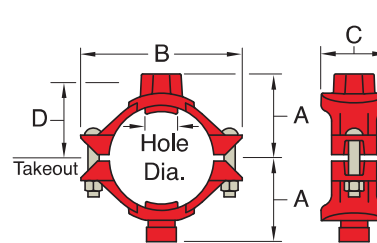


Figure 730 Branch Outlet with a Female NPT/BSP Threaded Branch and a Grooved Branch (Cross Configuration)

| Nominal Size<br>Run x Branch<br>mm<br>Inches | Hole Dia.†           |                      | Max.‡<br>End Load<br>Branch<br>kN<br>Lbs. | Dimensions - mm Inches |              |              |              | Bolt<br>Size<br>mm<br>Inches | Tee<br>Approx.<br>Weight<br>kg<br>Lbs. | Cross<br>Approx.<br>Weight<br>kg<br>Lbs. |
|----------------------------------------------|----------------------|----------------------|-------------------------------------------|------------------------|--------------|--------------|--------------|------------------------------|----------------------------------------|------------------------------------------|
|                                              | Min.<br>mm<br>Inches | Max.<br>mm<br>Inches |                                           | A                      | B            | C            | D            |                              |                                        |                                          |
| <b>150 x 50</b>                              | <b>63.5</b>          | <b>66.7</b>          | <b>9.9</b>                                | <b>130.3</b>           | <b>235.0</b> | <b>103.1</b> | <b>99.1</b>  | <b>M16 x 121</b>             | <b>3.6</b>                             | <b>4.1</b>                               |
| 6 x 2                                        | 2.50                 | 2.63                 | 2215.1                                    | 5.13                   | 9.25         | 4.06         | 3.90         | 5/8 x 4-3/4                  | 8.0                                    | 9.1                                      |
| <b>150 x 65</b>                              | <b>69.9</b>          | <b>73.0</b>          | <b>14.4</b>                               | <b>130.3</b>           | <b>235.0</b> | <b>111.3</b> | <b>99.1</b>  | <b>M16 x 121</b>             | <b>4.0</b>                             | <b>4.9</b>                               |
| 6 x 2-1/2                                    | 2.75                 | 2.88                 | 3245.9                                    | 5.13                   | 9.25         | 4.38         | 3.90         | 5/8 x 4-3/4                  | 8.8                                    | 10.8                                     |
| <b>150 x 65</b>                              | <b>69.9</b>          | <b>73.0</b>          | <b>14.4</b>                               | <b>130.3</b>           | <b>235.0</b> | <b>111.3</b> | <b>99.1</b>  | <b>M16 x 121</b>             | <b>4.0</b>                             | <b>4.9</b>                               |
| 6 x 76.1mm                                   | 2.75                 | 2.88                 | 3245.9                                    | 5.13                   | 9.25         | 4.38         | 3.90         | 5/8 x 4-3/4                  | 8.8                                    | 10.8                                     |
| <b>150 x 80</b>                              | <b>88.9</b>          | <b>92.1</b>          | <b>21.4</b>                               | <b>139.7</b>           | <b>235.0</b> | <b>130.3</b> | <b>99.1</b>  | <b>M16 x 121</b>             | <b>4.6</b>                             | <b>6.0</b>                               |
| 6 x 3                                        | 3.50                 | 3.63                 | 4810.6                                    | 5.50                   | 9.25         | 5.13         | 3.90         | 5/8 x 4-3/4                  | 10.1                                   | 13.3                                     |
| <b>150 x 100</b>                             | <b>114.3</b>         | <b>117.5</b>         | <b>35.4</b>                               | <b>136.7</b>           | <b>235.0</b> | <b>155.7</b> | <b>99.1</b>  | <b>M16 x 121</b>             | <b>5.3</b>                             | <b>7.4</b>                               |
| 6 x 4                                        | 4.50                 | 4.63                 | 7952.2                                    | 5.38                   | 9.25         | 6.13         | 3.90         | 5/8 x 4-3/4                  | 11.6                                   | 16.3                                     |
| <b>200 x 65</b>                              | <b>69.9</b>          | <b>73.0</b>          | <b>14.4</b>                               | <b>158.8</b>           | <b>317.5</b> | <b>111.3</b> | <b>124.5</b> | <b>M20 x 121</b>             | <b>5.6</b>                             | <b>6.6</b>                               |
| 8 x 2-1/2                                    | 2.75                 | 2.88                 | 3245.9                                    | 6.25                   | 12.50        | 4.38         | 4.90         | 3/4 x 4-3/4                  | 12.3                                   | 14.5                                     |
| <b>200 x 65</b>                              | <b>69.9</b>          | <b>73.0</b>          | <b>15.7</b>                               | <b>158.8</b>           | <b>317.5</b> | <b>111.3</b> | <b>124.5</b> | <b>M20 x 121</b>             | <b>5.6</b>                             | <b>6.6</b>                               |
| 8 x 76.1mm                                   | 2.75                 | 2.88                 | 3534.3                                    | 6.25                   | 12.50        | 4.38         | 4.90         | —                            | 12.3                                   | 14.5                                     |
| <b>200 x 80</b>                              | <b>88.9</b>          | <b>92.1</b>          | <b>21.4</b>                               | <b>165.1</b>           | <b>317.5</b> | <b>130.3</b> | <b>124.5</b> | <b>M20 x 121</b>             | <b>6.0</b>                             | <b>7.3</b>                               |
| 8 x 3                                        | 3.50                 | 3.63                 | 4810.6                                    | 6.50                   | 12.50        | 5.13         | 4.90         | 3/4 x 4-3/4                  | 13.2                                   | 16.1                                     |
| <b>200 x 100</b>                             | <b>114.3</b>         | <b>117.5</b>         | <b>35.4</b>                               | <b>162.1</b>           | <b>317.5</b> | <b>155.7</b> | <b>124.5</b> | <b>M20 x 121</b>             | <b>6.7</b>                             | <b>8.6</b>                               |
| 8 x 4                                        | 4.50                 | 4.63                 | 7952.2                                    | 6.38                   | 12.50        | 6.13         | 4.90         | 3/4 x 4-3/4                  | 14.7                                   | 19.0                                     |

◆ Contact GRINNELL for dimension details.

† Proper hole preparation is required for effective sealing and performance. Check the pipe seal surface within 15.9mm (5/8") of the hole to ensure it is free from conditions affecting proper gasket sealing. Remove any sharp or rough edges from the hole or upper housing contact area that might affect assembly, proper seating of the locating collar, or flow from the outlet. For crosses, ensure double outlet holes are aligned on opposite sides of the pipe.

‡ Maximum pressures and end loads are total from all loads based on standard weight steel pipe. Pressure ratings and end loads may differ on other pipe materials and/or wall thickness. Contact GRINNELL Products for details.

For information on larger sizes, Chinese sizes or other alternative sizes, contact GRINNELL Products.

See page 50 for mechanical tee specifications, and see pages 76 - 78 for gasket information.

Outlet  
Fittings