

**THE PHOENIX FORGE  
GROUP**



**Price Sheet  
FS-511**

Effective May 01, 2011  
Supersedes FS-808 rev.1

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[www.phoenixforge.com](http://www.phoenixforge.com)  
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**FORGED STEEL  
FITTINGS AND UNIONS**

Freight Allowance: Shipments F.O.B. Factory. Full freight allowed on shipments of \$2,500.00 net or more of Phoenix \* Capitol \* Camco product within the USA (Alaska and Hawaii excepted).  
Minimum invoice \$100.00 net. Terms 2% 10 days, net 30 days.  
ALL SHIPMENTS SUBJECT TO PRICE IN EFFECT AT TIME OF SHIPMENT.  
UPS Shipments \$7.00 Handling charge.

**Phoenix \* Capitol \* Camco**

## Forged Steel Fittings Threaded

### Class 2000

ASME B16.11 / ASME SA105 / ASTM A105

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
90° Elbows	List Price	<b>25.40</b>	<b>18.01</b>	<b>20.84</b>	<b>18.25</b>	<b>19.90</b>	<b>25.64</b>	<b>51.27</b>	<b>62.55</b>	<b>85.78</b>	<b>225.77</b>	<b>348.63</b>	<b>1143.07</b>
	Weight Ea.	.16	.17	.28	.49	.70	1.03	1.63	2.04	3.38	6.56	10.00	22.50
	Carton Qty.	25	25	25	25	25	25	25	25	10	---	---	---
45° Elbows	List Price	*	<b>26.92</b>	<b>27.90</b>	<b>26.53</b>	<b>29.71</b>	<b>34.77</b>	<b>55.01</b>	<b>69.23</b>	<b>107.95</b>	<b>288.65</b>	<b>466.09</b>	<b>1172.23</b>
	Weight Ea.		.14	.23	.45	.59	.90	1.40	1.65	2.63	7.63	12.00	
	Carton Qty.		25	25	25	25	25	25	25	10	---	---	
Tees	List Price	<b>34.02</b>	<b>23.03</b>	<b>25.71</b>	<b>22.11</b>	<b>29.95</b>	<b>41.61</b>	<b>73.62</b>	<b>89.10</b>	<b>111.39</b>	<b>282.43</b>	<b>486.79</b>	<b>1207.22</b>
	Weight Ea.	.25	.26	.34	.69	.95	1.35	2.10	2.75	4.25	9.06	13.50	32.50
	Carton Qty.	25	25	25	25	25	25	25	20	10	---	---	---
Crosses	List Price	*	<b>67.64</b>	<b>70.15</b>	<b>69.36</b>	<b>77.15</b>	<b>90.59</b>	<b>165.53</b>	<b>203.06</b>	<b>278.00</b>	<b>945.70</b>	<b>1169.74</b>	<b>1849.17</b>
	Weight Ea.		.50	.40	.80	1.05	1.65	2.35	3.28	5.00	17.20	22.10	34.13
	Carton Qty.		25	25	25	25	25	20	10	8	---	---	

- \* Available in Class 3000
- For threaded reducing fittings increase list price by 100%
- For electro zinc plated increase list price by 50%
- CapGuard coating P.O.A.

### Forged Steel Plugs

ASME B16.11 / ASME SA105 / ASTM A105

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
Solid Square Head Plugs	List Price	<b>4.37</b>	<b>4.37</b>	<b>4.58</b>	<b>4.80</b>	<b>5.98</b>	<b>9.16</b>	<b>18.89</b>	<b>21.57</b>	<b>34.07</b>	<b>87.65</b>	<b>146.71</b>	<b>231.77</b>
	Weight Ea.	.02	.03	.06	.11	.19	.36	.60	.84	1.38	2.12	3.38	8.44
	Carton Qty.	25	25	25	25	25	25	25	25	25	---	---	---
Hex Head Plugs	List Price	<b>3.66</b>	<b>3.66</b>	<b>3.81</b>	<b>3.81</b>	<b>7.07</b>	<b>9.96</b>	<b>16.93</b>	<b>24.08</b>	<b>37.37</b>	<b>84.26</b>	<b>153.94</b>	<b>253.34</b>
	Weight Ea.	.03	.06	.10	.16	.30	.55	1.03	1.36	2.29	3.81	4.75	13.00
	Carton Qty.	25	25	25	25	25	25	25	25	25	---	---	---
Round Head Plugs	List Price	<b>8.67</b>	<b>8.23</b>	<b>8.23</b>	<b>6.33</b>	<b>7.46</b>	<b>10.94</b>	<b>25.24</b>	<b>27.13</b>	<b>40.36</b>	<b>454.78</b>	<b>555.14</b>	<b>711.74</b>
	Weight Ea.	.05	.10	.16	.26	.43	.74	1.21	1.58	3.11	4.88	7.19	13.26
	Carton Qty.	25	25	25	25	25	25	25	25	20	---	---	---

- Electro Zinc plated – add 50% to List Price
- CapGuard coating P.O.A.

## Forged Steel Fittings Threaded

### Class 3000

ASME B16.11 / ASME SA105 / ASTM A105

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
90° Elbows	List Price	<b>25.77</b>	<b>25.77</b>	<b>25.77</b>	<b>19.75</b>	<b>24.78</b>	<b>36.84</b>	<b>69.98</b>	<b>90.29</b>	<b>109.65</b>	<b>324.60</b>	<b>467.63</b>	<b>1181.09</b>
	Weight Ea.	.21	.31	.60	.91	1.43	2.28	2.88	4.88	5.44	10.00	17.13	29.25
	Carton Qty.	25	25	25	25	25	25	20	10	9	---	---	---
45° Elbows	List Price	<b>32.72</b>	<b>32.72</b>	<b>32.72</b>	<b>32.26</b>	<b>37.26</b>	<b>50.75</b>	<b>70.15</b>	<b>100.71</b>	<b>138.96</b>	<b>324.69</b>	<b>527.87</b>	<b>965.60</b>
	Weight Ea.	.18	.26	.54	.75	1.18	2.03	2.13	4.05	4.25	7.63	12.00	19.75
	Carton Qty.	25	25	25	25	25	25	25	12	9	---	---	---
Tees	List Price	<b>31.30</b>	<b>31.30</b>	<b>31.30</b>	<b>28.19</b>	<b>38.07</b>	<b>50.14</b>	<b>97.31</b>	<b>113.54</b>	<b>146.82</b>	<b>397.86</b>	<b>741.94</b>	<b>1236.18</b>
	Weight Ea.	.28	.43	.84	1.23	1.85	3.00	3.63	6.83	7.00	13.75	21.00	38.00
	Carton Qty.	25	25	25	25	25	20	15	10	8	---	---	---
Crosses	List Price	<b>123.44</b>	<b>123.44</b>	<b>123.44</b>	<b>79.67</b>	<b>105.13</b>	<b>147.93</b>	<b>195.99</b>	<b>261.14</b>	<b>352.03</b>	<b>894.41</b>	<b>1184.29</b>	<b>1683.52</b>
	Weight Ea.	.44	.50	.96	1.43	2.30	3.73	4.40	8.13	8.31	16.94	20.75	34.13
	Carton Qty.	25	25	25	25	25	20	15	8	7	---	---	---
90° Street Elbows	List Price	<b>70.11</b>	<b>38.57</b>	<b>37.18</b>	<b>37.18</b>	<b>46.98</b>	<b>62.69</b>	<b>113.55</b>	<b>137.26</b>	<b>197.98</b>	---	---	---
	Weight Ea.	.20	.25	.32	.53	.85	1.38	2.25	2.81	5.09	---	---	---
	Carton Qty.	25	25	25	25	25	25	20	12	8	---	---	---
Laterals	List Price	---	---	---	<b>308.41</b>	<b>325.63</b>	<b>400.29</b>	<b>445.19</b>	<b>532.58</b>	<b>661.39</b>	---	---	---
	Weight Ea.	---	---	---	.93	1.50	2.62	2.94	4.50	8.25	---	---	---
	Carton Qty.	---	---	---	---	---	---	---	---	---	---	---	---
Couplings	List Price	<b>10.04</b>	<b>10.04</b>	<b>10.04</b>	<b>8.25</b>	<b>10.74</b>	<b>18.69</b>	<b>31.15</b>	<b>40.29</b>	<b>50.28</b>	<b>124.43</b>	<b>235.19</b>	<b>441.17</b>
	Weight Ea.	.11	.10	.13	.28	.42	.85	1.50	2.19	3.02	4.56	6.79	12.00
	Carton Qty.	25	25	25	25	25	25	25	25	16	---	---	---
Half Couplings	List Price	<b>5.22</b>	<b>5.22</b>	<b>5.41</b>	<b>5.03</b>	<b>7.21</b>	<b>9.89</b>	<b>17.89</b>	<b>23.80</b>	<b>31.99</b>	<b>65.59</b>	<b>147.55</b>	<b>257.80</b>
	Weight Ea.	.06	.05	.06	.14	.21	.43	.75	1.09	1.57	2.28	3.40	6.00
	Carton Qty.	25	25	25	25	25	25	25	25	25	---	---	---
Caps	List Price	<b>9.77</b>	<b>9.68</b>	<b>9.68</b>	<b>9.42</b>	<b>13.13</b>	<b>20.14</b>	<b>32.42</b>	<b>38.75</b>	<b>55.78</b>	<b>153.60</b>	<b>282.98</b>	<b>357.06</b>
	Weight Ea.	.08	.09	.11	.24	.39	.72	1.32	1.54	2.34	4.05	5.84	10.08
	Carton Qty.	25	25	25	25	25	25	25	25	25	---	---	---

## Forged Steel Fittings Threaded

### Class 6000

ASME B16.11 / ASME SA105 / ASTM A105

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
90° Elbows	List Price	---	<b>81.39</b>	<b>81.39</b>	<b>39.22</b>	<b>49.95</b>	<b>64.05</b>	<b>138.75</b>	<b>167.79</b>	<b>282.72</b>	<b>476.77</b>	<b>1186.25</b>	<b>2232.71</b>
	Weight Ea.	.38	.66	1.00	1.59	2.54	3.56	5.88	7.06	13.00	21.78	36.22	36.22
	Carton Qty.	25	25	25	25	25	20	10	9	---	---	---	---
45° Elbows	List Price	---	---	---	<b>54.64</b>	<b>70.88</b>	<b>85.53</b>	<b>212.23</b>	<b>212.23</b>	<b>285.52</b>	<b>1083.14</b>	<b>1138.27</b>	<b>2300.07</b>
	Weight Ea.	.38	.59	.85	1.34	2.25	2.59	4.56	5.75	9.63	15.46	31.21	---
	Carton Qty.	25	25	25	25	25	20	20	10	---	---	---	---
Tees	List Price	---	<b>143.75</b>	<b>143.75</b>	<b>53.80</b>	<b>72.77</b>	<b>125.71</b>	<b>152.98</b>	<b>217.41</b>	<b>393.08</b>	<b>1303.81</b>	<b>1309.64</b>	<b>3544.85</b>
	Weight Ea.	.44	.92	1.38	2.16	3.63	4.83	7.75	9.75	17.38	28.90	49.60	49.60
	Carton Qty.	25	20	20	25	20	15	10	8	---	---	---	---
Crosses	List Price	---	---	---	<b>173.26</b>	<b>355.54</b>	<b>511.92</b>	<b>699.89</b>	<b>841.99</b>	<b>886.90</b>	<b>1647.61</b>	<b>1749.49</b>	---
	Weight Ea.	.50	1.12	1.55	2.59	4.21	5.64	9.58	11.39	21.37	29.32	55.88	---
	Carton Qty.	25	20	20	25	20	10	8	7	---	---	---	---
90° Street Elbows	List Price	---	---	<b>89.70</b>	<b>75.88</b>	<b>119.14</b>	<b>195.29</b>	<b>367.59</b>	<b>472.63</b>	---	---	---	---
	Weight Ea.	.20	.40	.99	1.00	1.63	2.75	3.86	7.23	---	---	---	---
	Carton Qty.	---	---	---	---	---	---	---	---	---	---	---	---
Laterals	List Price	---	---	---	<b>490.29</b>	<b>595.98</b>	<b>639.58</b>	<b>985.75</b>	<b>1030.12</b>	---	---	---	---
	Weight Ea.	---	---	---	1.84	4.10	4.23	5.62	---	---	---	---	---
	Carton Qty.	---	---	---	---	---	---	---	---	---	---	---	---
Couplings	List Price	<b>24.79</b>	<b>24.79</b>	<b>24.79</b>	<b>21.09</b>	<b>24.15</b>	<b>32.42</b>	<b>60.76</b>	<b>66.96</b>	<b>99.42</b>	<b>467.64</b>	<b>681.99</b>	<b>1133.15</b>
	Weight Ea.	.18	.14	.40	.69	.90	1.88	2.31	4.00	7.50	9.25	13.44	22.13
	Carton Qty.	25	25	25	25	25	25	20	16	---	---	---	---
Half Couplings	List Price	<b>21.31</b>	<b>19.06</b>	<b>20.71</b>	<b>15.39</b>	<b>16.33</b>	<b>20.34</b>	<b>45.68</b>	<b>56.96</b>	<b>103.76</b>	<b>548.35</b>	<b>638.55</b>	<b>1047.23</b>
	Weight Ea.	.09	.07	.20	.35	.45	.94	1.15	2.00	3.75	4.62	6.72	11.06
	Carton Qty.	25	25	25	25	25	25	25	25	---	---	---	---
Caps	List Price	<b>33.42</b>	<b>33.42</b>	<b>33.42</b>	<b>29.46</b>	<b>35.36</b>	<b>37.64</b>	<b>95.74</b>	<b>97.51</b>	<b>115.94</b>	<b>836.43</b>	<b>905.06</b>	<b>1868.91</b>
	Weight Ea.	.13	.21	.35	.52	.80	1.53	1.82	2.82	4.36	8.10	11.70	20.00
	Carton Qty.	25	---	25	25	25	25	25	25	15	10	6	---

## Forged Steel Fittings Socket Weld

**Class 3000** For Sch 40 or Sch 80 Pipe **ASME B16.11 / ASME SA105 / ASTM A105**

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
90° Elbows	List Price	<b>35.02</b>	<b>35.02</b>	<b>35.02</b>	<b>19.53</b>	<b>20.33</b>	<b>26.10</b>	<b>50.17</b>	<b>58.29</b>	<b>85.74</b>	<b>243.73</b>	<b>420.95</b>	<b>1111.65</b>
	Weight Ea.	.20	.16	.25	.48	.68	1.06	1.59	2.13	3.78	6.74	10.94	24.13
	Carton Qty.	25	25	25	25	25	25	25	25	10	---	---	---
45° Elbows	List Price	<b>35.20</b>	<b>35.20</b>	<b>35.20</b>	<b>26.03</b>	<b>30.24</b>	<b>39.56</b>	<b>54.25</b>	<b>66.49</b>	<b>106.93</b>	<b>280.75</b>	<b>466.58</b>	<b>919.50</b>
	Weight Ea.	.15	.13	.20	.43	.58	.89	1.40	1.70	2.69	7.88	11.25	20.75
	Carton Qty.	25	25	25	25	25	25	25	25	10	---	---	---
Tees	List Price	<b>38.69</b>	<b>38.69</b>	<b>38.69</b>	<b>24.20</b>	<b>29.59</b>	<b>40.19</b>	<b>61.76</b>	<b>81.84</b>	<b>118.15</b>	<b>339.35</b>	<b>811.41</b>	<b>1305.69</b>
	Weight Ea.	.23	.19	.33	.71	.87	1.44	2.19	2.98	4.57	8.60	13.00	31.30
	Carton Qty.	25	25	25	25	25	25	25	20	10	---	---	---
Crosses	List Price	<b>100.02</b>	<b>100.02</b>	<b>100.02</b>	<b>87.84</b>	<b>90.74</b>	<b>98.31</b>	<b>133.38</b>	<b>192.06</b>	<b>276.72</b>	<b>646.00</b>	<b>857.94</b>	<b>2385.32</b>
	Weight Ea.	.57	.51	.39	.83	1.03	1.68	2.56	3.46	5.60	13.70	21.10	35.00
	Carton Qty.	25	25	25	25	25	25	14	12	8	---	---	---
Laterals	List Price	---	---	<b>369.11</b>	<b>402.72</b>	<b>436.23</b>	<b>516.97</b>	<b>572.42</b>	<b>600.10</b>	<b>655.60</b>	---	---	---
	Weight Ea.	---	---	1.26	.90	1.40	2.55	2.80	4.30	8.00	---	---	---
	Carton Qty.	---	---	---	---	---	---	---	---	---	---	---	---
Couplings	List Price	<b>26.71</b>	<b>22.25</b>	<b>22.25</b>	<b>10.27</b>	<b>13.29</b>	<b>14.66</b>	<b>26.00</b>	<b>28.75</b>	<b>45.92</b>	<b>102.69</b>	<b>230.82</b>	<b>347.10</b>
	Weight Ea.	.09	.11	.16	.29	.42	.59	1.07	1.30	2.13	3.14	4.14	7.30
	Carton Qty.	25	25	25	25	25	25	10	10	25	---	---	---
Half Couplings	List Price	---	---	---	<b>11.63</b>	<b>11.86</b>	<b>15.85</b>	<b>32.03</b>	<b>31.93</b>	<b>46.26</b>	<b>423.17</b>	<b>450.86</b>	<b>566.88</b>
	Weight Ea.	.09	.11	.16	.29	.42	.59	1.07	1.30	2.13	3.14	4.14	7.30
	Carton Qty.	25	25	25	25	25	25	25	25	25	---	---	---
Caps	List Price	<b>21.29</b>	<b>21.29</b>	<b>21.29</b>	<b>12.94</b>	<b>15.08</b>	<b>22.88</b>	<b>26.96</b>	<b>37.45</b>	<b>57.77</b>	<b>314.16</b>	<b>324.67</b>	<b>483.48</b>
	Weight Ea.	.07	.09	.12	.22	.36	.48	.91	1.12	1.88	2.74	4.27	7.40
	Carton Qty.	25	25	25	25	25	25	10	25	25	---	---	---

## Forged Steel Fittings Socket Weld

**Class 6000** For Sch 160 Pipe **ASME B16.11 / ASME SA105 / ASTM A105**

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
90° Elbows	List Price	<b>37.96</b>	<b>37.96</b>	<b>37.96</b>	<b>33.59</b>	<b>37.37</b>	<b>51.36</b>	<b>85.00</b>	<b>114.09</b>	<b>167.33</b>	<b>348.82</b>	<b>609.83</b>	<b>1516.39</b>
	Weight Ea.	.25	.35	.68	.88	1.38	2.63	3.00	5.31	6.00	10.47	18.84	31.54
	Carton Qty.	---	40	75	25	25	25	18	10	---	---	---	---
45° Elbows	List Price	<b>46.36</b>	<b>46.36</b>	<b>46.36</b>	<b>41.07</b>	<b>49.25</b>	<b>62.86</b>	<b>125.86</b>	<b>153.23</b>	<b>180.98</b>	<b>858.63</b>	<b>902.35</b>	<b>1046.52</b>
	Weight Ea.	.20	.30	.30	.68	1.14	2.03	2.25	4.22	5.03	8.88	12.76	23.45
	Carton Qty.	---	---	---	25	25	25	20	12	---	---	---	---
Tees	List Price	<b>86.72</b>	<b>86.72</b>	<b>86.72</b>	<b>50.70</b>	<b>58.46</b>	<b>73.10</b>	<b>160.49</b>	<b>188.77</b>	<b>239.16</b>	<b>455.79</b>	<b>882.91</b>	<b>1444.83</b>
	Weight Ea.	.35	.35	.42	1.16	1.94	3.17	3.95	7.13	7.72	15.30	23.10	34.90
	Carton Qty.	25	25	25	25	25	20	18	10	---	---	---	---
Crosses	List Price	---	---	---	<b>356.12</b>	<b>505.01</b>	<b>539.89</b>	<b>750.04</b>	<b>742.56</b>	<b>1046.63</b>	---	---	---
	Weight Ea.	---	---	---	1.38	2.29	3.75	4.65	8.70	9.30	---	---	---
	Carton Qty.	---	---	---	---	---	---	---	8	---	---	---	---
Laterals	List Price	---	---	---	<b>670.32</b>	<b>671.04</b>	<b>706.36</b>	<b>740.20</b>	<b>1189.29</b>	<b>1482.70</b>	---	---	---
	Weight Ea.	---	---	---	1.80	4.00	4.10	5.55	11.70	---	---	---	---
	Carton Qty.	---	---	---	---	---	---	---	---	---	---	---	---
Couplings	List Price	<b>30.49</b>	<b>30.49</b>	<b>30.49</b>	<b>19.99</b>	<b>22.08</b>	<b>27.85</b>	<b>73.05</b>	<b>73.05</b>	<b>104.69</b>	<b>310.95</b>	<b>673.49</b>	<b>1273.44</b>
	Weight Ea.	.09	.16	.28	.51	.70	1.40	1.59	2.58	4.58	6.14	7.10	13.70
	Carton Qty.	100	100	50	25	25	25	25	20	---	---	---	---
Half Couplings	List Price	<b>41.98</b>	<b>41.98</b>	<b>41.98</b>	<b>31.71</b>	<b>35.19</b>	<b>43.50</b>	<b>311.07</b>	<b>415.35</b>	<b>467.98</b>	<b>628.39</b>	<b>722.38</b>	---
	Weight Ea.	.13	.19	.38	.42	.70	1.40	1.59	2.58	4.58	6.14	7.10	13.70
	Carton Qty.	---	150	50	25	25	25	25	20	---	---	---	---
Caps	List Price	---	---	---	<b>26.76</b>	<b>38.95</b>	<b>41.36</b>	<b>96.08</b>	<b>125.53</b>	<b>186.19</b>	<b>630.26</b>	<b>875.35</b>	---
	Weight Ea.	---	---	---	.42	.58	1.16	1.40	2.14	3.62	4.90	7.60	13.30
	Carton Qty.	---	---	---	---	---	---	---	---	---	---	---	---

## Forged Steel Fittings

### Bushings

ASME B16.11 / ASME SA105 / ASTM A105

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
* Hex Bushings	List Price	---	<b>6.04</b>	<b>6.04</b>	<b>6.07</b>	<b>7.46</b>	<b>12.15</b>	<b>19.81</b>	<b>22.84</b>	<b>34.28</b>	<b>107.49</b>	<b>166.26</b>	<b>360.25</b>
	Weight Ea.	---	.03	.04	.06	.11	.21	.41	.39	.92	1.29	2.13	4.50
	Carton Qty.	---	25	25	25	25	25	25	25	25	25	---	---

### Threaded Reducers

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
* Class 3000 Reducers	List Price	---	<b>15.75</b>	<b>16.42</b>	<b>16.42</b>	<b>19.49</b>	<b>25.38</b>	<b>44.45</b>	<b>48.27</b>	<b>70.01</b>	<b>278.61</b>	<b>368.46</b>	<b>564.13</b>
	Weight Ea.	---	.12	.16	.34	.51	1.01	1.87	2.49	3.69	6.00	8.75	10.00
	Carton Qty.	---	25	25	25	25	25	25	25	16	---	---	---
* Class 6000 Reducers	List Price	---	<b>216.36</b>	<b>216.36</b>	<b>162.95</b>	<b>162.95</b>	<b>229.87</b>	<b>347.88</b>	<b>318.38</b>	<b>446.67</b>	<b>661.18</b>	<b>803.45</b>	---
	Weight Ea.	---	.25	.43	.75	1.05	2.00	3.70	4.60	7.00	11.00	15.00	15.00
	Carton Qty.	---	---	---	---	---	---	---	---	---	---	---	---

### Socket Weld Reducers

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
* Class 3000 Socket Weld Reducers Sch 40	List Price	---	<b>56.83</b>	<b>59.90</b>	<b>36.49</b>	<b>36.51</b>	<b>50.98</b>	<b>65.12</b>	<b>69.80</b>	<b>77.17</b>	<b>247.67</b>	<b>446.59</b>	<b>474.54</b>
	Weight Ea.	---	.12	.18	.34	.50	.73	1.35	1.58	3.50	6.20	6.50	7.00
	Carton Qty.	---	25	25	25	25	25	25	25	20	---	---	---
* Class 6000 Socket Weld Reducers Sch 160	List Price	---	---	---	<b>212.42</b>	<b>164.10</b>	<b>174.25</b>	<b>197.32</b>	<b>281.51</b>	<b>341.71</b>	<b>607.60</b>	<b>898.45</b>	<b>1316.65</b>
	Weight Ea.	---	---	---	.35	.50	1.00	1.85	2.32	3.66	6.00	8.75	10.00
	Carton Qty.	---	---	---	---	---	---	---	---	---	---	---	---

### Socket Weld Reducer Inserts MSS-SP-79

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
* Class 3000 Socket Weld Reducers Sch 40	List Price	---	<b>59.62</b>	<b>19.61</b>	<b>19.81</b>	<b>24.18</b>	<b>26.47</b>	<b>31.06</b>	<b>38.82</b>	<b>53.14</b>	<b>368.83</b>	<b>460.23</b>	<b>599.10</b>
	Weight Ea.	---	.40	.20	.20	.31	.42	.62	.68	.93	1.60	1.20	---
	Carton Qty.	---	---	---	25	25	25	25	25	25	---	---	---
* Class 6000 Socket Weld Reducers Sch 160	List Price	---	---	<b>97.98</b>	<b>97.98</b>	<b>90.79</b>	<b>94.11</b>	<b>240.07</b>	<b>201.96</b>	<b>264.10</b>	<b>705.01</b>	<b>920.04</b>	---
	Weight Ea.	---	---	---	.15	.20	.42	.90	.95	1.70	2.20	3.00	---
	Carton Qty.	---	---	---	---	---	---	---	---	---	---	---	---

Weight shown is for Minimum Reduction  
 \* Bushings, Reducers, and Reducer Inserts Limited to 5 Reductions, Otherwise P.O.A.  
 Forged Steel Unions

### Thread Unions – Class 3000 – MSS-SP83 ASME SA105 / ASTM A105

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	
Steel to Steel	Black	List Price	<b>40.52</b>	<b>40.52</b>	<b>41.24</b>	<b>35.03</b>	<b>42.87</b>	<b>56.02</b>	<b>88.86</b>	<b>105.97</b>	<b>143.68</b>	<b>356.10</b>	<b>419.23</b>
		Weight Ea.	.34	.34	.49	.68	1.19	1.68	2.54	3.33	5.30	8.60	12.70
		Carton Qty.	25	25	25	25	25	25	18	14	9	---	---
Steel to Steel	Elec-tro Zinc	List Price	<b>60.78</b>	<b>60.78</b>	<b>61.86</b>	<b>52.08</b>	<b>64.31</b>	<b>84.03</b>	<b>133.29</b>	<b>158.96</b>	<b>215.53</b>	<b>534.16</b>	<b>628.85</b>
		Weight Ea.	.34	.34	.49	.68	1.19	1.68	2.54	3.33	5.30	8.60	12.70
		Carton Qty.	25	25	25	25	25	25	18	14	9	---	---
Brass to Steel	Black	List Price	---	<b>71.50</b>	<b>71.50</b>	<b>68.52</b>	<b>91.69</b>	<b>103.62</b>	<b>201.19</b>	<b>207.09</b>	<b>245.63</b>	---	---
		Weight Ea.	---	.34	.49	.68	1.19	1.68	2.54	3.33	5.30	---	---
		Carton Qty.	---	25	25	25	25	25	18	14	9	---	---
Brass to Steel	Elec-tro Zinc	List Price	---	<b>107.25</b>	<b>107.25</b>	<b>102.78</b>	<b>137.55</b>	<b>155.42</b>	<b>301.78</b>	<b>310.63</b>	<b>368.45</b>	---	---
		Weight Ea.	---	.34	.49	.68	1.19	1.68	2.54	3.33	5.30	---	---
		Carton Qty.	---	25	25	25	25	25	18	14	9	---	---

### Thread Unions – Class 6000

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	
Steel to Steel	Black	List Price	<b>109.29</b>	<b>106.15</b>	<b>96.47</b>	<b>86.43</b>	<b>98.02</b>	<b>126.80</b>	<b>210.66</b>	<b>246.70</b>	<b>495.36</b>	<b>987.30</b>	---
		Weight Ea.	.36	.55	.75	1.36	2.00	3.10	5.85	6.55	10.50	11.00	---
		Carton Qty.	25	25	25	25	25	18	14	9	5	---	---

### Material – ASTM – A105, ASME-SA105

CARB. -MAX	MIN-MANG.-MAX	PHOS.-MAX	SUL.-MAX	SIL.-MAX	TENSILE-PSI	YIELD-PSI	ELON.	P.A.	HARDNESS
.35	.60 1.05	.04	.05	.35	70,000 MIN	36,000 MIN	22% MIN	30% MIN	HB187 MAX

Gauging: Army-Navy (ANPT)

Pipe Threads: ANSI/ASME B1.20.1

Mechanical Threads: ANSI B1.1

Dimensional – Class 3000 Only – MSS-SP83  
All Applicable Standards of Most Recent Date



## Forged Steel Unions

### Socket Welding Unions – Class 3000- MSS-SP83

ASME SA105 / ASTM A105

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	
Steel to Steel	Black	List Price	<b>47.72</b>	<b>47.72</b>	<b>47.72</b>	<b>40.00</b>	<b>46.66</b>	<b>60.11</b>	<b>96.96</b>	<b>105.01</b>	<b>151.19</b>	<b>381.16</b>	<b>459.50</b>
		Weight Ea.	.34	.34	.49	.68	1.19	1.68	2.54	3.33	5.30	8.60	12.70
		Carton Qty.	25	25	25	25	25	25	18	14	9	---	---
Steel to Steel	Elec-tro Zinc	List Price	<b>71.57</b>	<b>71.57</b>	<b>71.57</b>	<b>60.00</b>	<b>69.99</b>	<b>90.17</b>	<b>145.44</b>	<b>157.52</b>	<b>226.79</b>	<b>571.74</b>	<b>689.26</b>
		Weight Ea.	.34	.34	.49	.68	1.19	1.68	2.54	3.33	5.30	8.60	12.70
		Carton Qty.	25	25	25	25	25	25	18	14	9	---	---
Brass to Steel	Black	List Price	---	<b>76.36</b>	<b>76.36</b>	<b>70.01</b>	<b>111.85</b>	<b>126.24</b>	<b>194.21</b>	<b>219.45</b>	<b>277.79</b>	<b>434.80</b>	---
		Weight Ea.	---	.34	.49	.68	1.19	1.68	2.54	3.33	5.30	8.60	---
		Carton Qty.	---	25	25	25	25	25	18	14	9	---	---
Brass to Steel	Elec-tro Zinc	List Price	---	<b>114.55</b>	<b>114.55</b>	<b>105.03</b>	<b>167.78</b>	<b>189.35</b>	<b>291.32</b>	<b>329.18</b>	<b>416.72</b>	---	---
		Weight Ea.	---	.34	.49	.68	1.19	1.68	2.54	3.33	5.30	---	---
		Carton Qty.	---	25	25	25	25	25	18	14	9	---	---

### Socket Welding Unions – Class 6000

ASME SA105 / ASTM A105

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	
Steel to Steel	Black	List Price	<b>94.55</b>	<b>90.61</b>	<b>90.61</b>	<b>89.04</b>	<b>103.50</b>	<b>150.04</b>	<b>232.06</b>	<b>272.27</b>	<b>512.76</b>
		Weight Ea.	.50	.55	.75	1.36	2.00	3.10	5.85	6.55	10.50
		Carton Qty.	---	25	25	25	25	18	14	9	2

## O-Ring Unions

Buna-N STD 65° F. to 275° F. Use With: ---Oil ---Water ---Air ---Silicone Oil ---Silicone Grease ---Ethylene Glycol	Viton (Optional) -10° F. to 400° F Use With: ---Petroleum Oil ---Petroleum Grease ---Silicon Oil ---Silicon Grease ---Strong Acids	Teflon (Optional) 300° F to 600° F Use With: ---All Hyd. Fluids ---Harsh Acids --- All Solvents
--	--	---

#### Service Rating: Maximum Non-Shock Operating Temperatures and Pressures (Except O-Ring Unions)

Temperature	100F	200F	300F	400F	500F	600F	650F	700F
Class 3000 Steel Seat	3000PSI	2735	2655	2565	2425	2220	2180	2155
Class 3000 Brass Seat	3000PSI	1980	1900	1850	1740	---	---	---
Class 6000 Steel Seat	6000PSI	5470	5310	5130	4850	4440	4360	4310

### Class 3000 Threaded Lug Unions

ASME SA105 / ASTM A105

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	
Steel to Steel	Black	List Price	---	<b>60.13</b>	<b>60.13</b>	<b>46.60</b>	<b>52.20</b>	<b>68.42</b>	<b>108.76</b>	<b>114.47</b>	<b>135.37</b>	<b>254.45</b>	<b>363.64</b>	<b>736.71</b>
		Weight Ea.	---	.59	.59	.83	1.41	1.97	3.25	3.90	6.50	10.63	14.60	32.60
		Carton Qty.	---	---	25	25	25	10	10	5	5	---	---	---
Buna-N ORing	Black	List Price	---	---	---	<b>64.92</b>	<b>69.60</b>	<b>85.02</b>	<b>154.11</b>	<b>160.87</b>	<b>174.39</b>	<b>310.37</b>	<b>436.14</b>	---
		Weight Ea.	---	---	---	.83	1.41	1.97	3.25	3.90	6.50	10.63	14.60	32.60
		Carton Qty.	---	---	---	25	25	25	10	10	5	5	---	---

### Class 3000 Socket Welding Lug Unions

ASME SA105 / ASTM A105

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	
Steel to Steel	Black	List Price	---	---	---	<b>93.41</b>	<b>98.16</b>	<b>119.92</b>	<b>188.94</b>	<b>195.98</b>	<b>250.57</b>	<b>409.91</b>	<b>550.53</b>	<b>980.52</b>
		Weight Ea.	---	---	---	.83	1.41	1.97	3.25	3.90	6.50	10.63	14.60	32.60
		Carton Qty.	---	---	---	25	25	10	10	5	5	---	---	---
Buna-N ORing	Black	List Price	---	---	---	<b>103.27</b>	<b>109.42</b>	<b>131.46</b>	<b>221.85</b>	<b>231.91</b>	<b>284.07</b>	<b>448.64</b>	<b>593.54</b>	----
		Weight Ea.	---	---	---	.83	1.41	1.97	3.25	3.90	6.50	10.63	14.60	----
		Carton Qty.	---	---	---	25	25	10	10	5	5	---	---	---

### Class 3000 Hi-Speed Threaded Unions

ASME SA105 / ASTM A105

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	
Steel to Steel	Black	List Price	---	---	---	<b>68.86</b>	<b>81.05</b>	<b>92.17</b>	<b>156.42</b>	<b>182.00</b>	<b>222.93</b>	<b>441.06</b>	<b>662.88</b>
		Weight Ea.	---	---	---	.68	1.19	1.68	2.54	3.33	5.30	8.60	12.70
		Carton Qty.	---	---	---	25	25	10	10	5	5	---	---
Buna-N ORing	Black	List Price	---	---	---	<b>72.20</b>	<b>89.24</b>	<b>112.19</b>	<b>155.27</b>	<b>172.28</b>	<b>226.34</b>	<b>447.37</b>	<b>669.52</b>
		Weight Ea.	---	---	---	.68	1.19	1.68	2.54	3.33	5.30	8.60	12.70
		Carton Qty.	---	---	---	25	25	10	10	5	5	---	---

### Class 3000 Hi-Speed Socket Welding Unions

ASME SA105 / ASTM A105

Size (inches)		1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	
Steel to Steel	Black	List Price	---	---	---	<b>84.81</b>	<b>102.32</b>	<b>109.28</b>	<b>167.89</b>	<b>186.22</b>	<b>246.71</b>	<b>611.04</b>	<b>704.55</b>
		Weight Ea.	---	---	---	.68	1.19	1.68	2.54	3.33	5.30	8.60	12.70
		Carton Qty.	---	---	---	25	25	10	10	5	5	---	---
Buna-N ORing	Black	List Price	---	---	---	<b>90.61</b>	<b>113.90</b>	<b>139.84</b>	<b>188.92</b>	<b>229.72</b>	<b>297.11</b>	<b>547.31</b>	<b>875.17</b>
		Weight Ea.	---	---	---	.68	1.19	1.68	2.54	3.33	5.30	8.60	12.70
		Carton Qty.	---	---	---	25	25	10	10	5	5	---	---

For Electro-zinc plated Lug and O-Ring Unions  
 1/2" – 2 1/2" Sizes – Add 50% to List Price of Black  
 3" – 4" Sizes – add 50% to List price of Black

For Electro-Zinc Plated Hi-Speed or O-Ring  
 Hi-Speed Unions  
 Add 50% to List Price of Black

### Viton or Teflon O-Rings

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Lug	<b>9.85</b>	<b>11.95</b>	<b>16.31</b>	<b>37.99</b>	<b>43.12</b>	<b>50.72</b>	<b>55.18</b>	<b>63.93</b>
High-Speed	<b>9.85</b>	<b>11.95</b>	<b>16.31</b>	<b>37.99</b>	<b>43.12</b>	<b>50.72</b>	<b>55.18</b>	<b>63.93</b>

All Capitol Lug and Hi-Speed Union Nuts Have Modified ACME Thread with Blunt Start

Warranty

ALL PHOENIX PRODUCTS ARE WARRANTED TO BE FREE FROM MANUFACTURING DEFECTS AND ANY FOUND TO BE DEFECTIVE WILL BE REPLACED WITHOUT CHARGE PROVIDED (1) THE PRODUCT WAS USED AS RECOMMENDED AND IN ACCORDANCE WITH APPROVED INSTALLATION AND OPERATING PRACTICES; (2) THAT ITS FAILURE RESULTED FROM A MANUFACTURING DEFECT AND NOT FROM DAMAGE DUE TO CORROSIVE, ABRASIVE, OR OTHER WEAR NORMALLY EXPECTED IN THE SERVICES INVOLVED. NO LABOR COST OR OTHER EXPENSE WILL BE ASSUMED.



The Phoenix Forge Group

**Terms and Conditions**

Freight Terms: All shipments are F.O.B. plants in Pennsylvania and Louisiana. Our responsibility ceases after we make delivery to the carrier. Claims for damages, loss, or delay in transit should be made to the carrier. Full freight at the lowest published rate will be allowed on a single order to a single location in the Continental United States.  
 Freight allowance: Shipments F.O.B. Factory. Full freight allowed on shipments of \$2500.00 net or more of combined product within the USA (Alaska and Hawaii excepted).  
**ALL SHIPMENTS SUBJECT TO PRICE IN EFFECT AT TIME OF SHIPMENT.**

UPS Shipments \$7.00 Handling Charge.  
 Terms: 2% 10 days, net 30 days. Minimum Invoice Value: \$100.00 .  
 Restocking & Handling Charge: See Returned Parts Policy.  
**ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE.**

**Phoenix**

"Phoenix" as used throughout these terms and conditions means Phoenix Forging Company, Inc., Phoenix Fittings Company, LLC, and Capitol Manufacturing Company, LLC. CAMCO is a trade name of The Phoenix Forge Group.  
 Phoenix Terms & Conditions of Sale as outlined on acknowledgements and bid proposals govern all material transactions.

**Returned Parts**

Phoenix reserves the right to decline the return of material. We must issue a written return goods authorization and instructions (RGA) prior to the return of any material. A handling and restocking charge of 25% will be applicable to any authorized returned material. Authorization for the return of material more than 60 days old must be reviewed on an individual basis. Terms and conditions for the return of authorized material will be issued at the time of approval.

**Nonconforming Parts**

Phoenix reserves the right to replace, repair, or authorize the return of any material not in accordance with agreed upon and published manufacturing practices. Phoenix will only be responsible to the value of the nonconforming material.

**Entire Agreement**

This Contract contains the entire agreement between the parties and supercedes all prior agreements and representations, written and oral. Phoenix's acceptance of, or acquiescence in, a course of performance by Buyer shall not be relevant or admissible to determine the meaning of this Contract, even if Phoenix had knowledge of the nature of the performance and an opportunity to make objection. No changes, additions, or deletions shall incorporate the Terms and Conditions listed herein. Phoenix shall not be bound by any additional provisions or provisions at variance herewith that may appear in Buyer's purchase order(s) or acknowledgement(s) unless such provision is expressly agreed to in writing by Phoenix.

**Limited Warranty**

Phoenix warrants materials sold to be free from defects in workmanship for a period of one (1) year from the date of sale. Phoenix will, at its option, repair or replace any defective materials if reported in writing to Phoenix so that such writing is received within one (1) year after the date of sale. Such limited warranty shall be Phoenix's only obligation with respect to the materials sold hereunder. Phoenix specifically disclaims and buyer specifically waives any other express implied warranties, including any warranty of merchantability, warranty of fitness for a particular purpose, or warranties against latent defects or redhibitory vices. Buyer agrees that Phoenix is not liable for any claims, demands, or other liabilities whatsoever arising out of this Contract, including claims related to the sale, resale, timeliness of delivery, the delivery itself, or the assembly of materials, whether any of the foregoing are based in contract, tort, (including negligence or strict liability) or otherwise, and Buyer agrees to defend and hold Phoenix harmless from any such claims, demands, or liabilities. Buyer specifically waives any remedy or right of revocation of acceptance, rescission, or redhibition. Buyer specifically waives any right to recover any special, indirect, incidental, or consequential damages, lost profits, or damages from loss of use in connection with this sale. The foregoing waivers and disclaimers shall be considered a material and integral part of any sale between the parties.

**Freight, Sales Taxes**

Unless specifically set forth herein, the price for the goods does not include freight or delivery, neither does it include any sales taxes. Buyer agrees to remain responsible for any sales taxes which are not collected by Phoenix at the time of sale.

**Payment**

If Phoenix extends credit to Buyer, payment shall be due thirty days after the invoice date. Buyer agrees that all past due sums shall accrue interest at eighteen percent per annum. Should Phoenix institute legal action to collect any sums due to Phoenix, Buyer agrees to pay all costs of collection including attorney's fees of at least ten percent of the amount due.

**Severability**

Should any provision of the Contract be enforceable or ruled invalid under the law, the remainder of this Contract shall nonetheless remain valid.