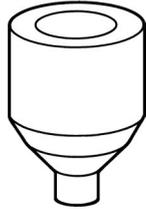


## Copper-Nickel Fittings

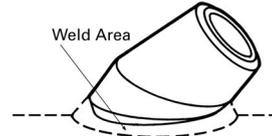
### 90-10 & 70-30 Copper-Nickel Bosses



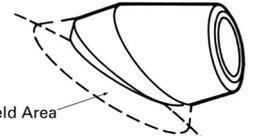
Straight Pipe Outlet



NAVSEA Outlet



Lateral Outlet



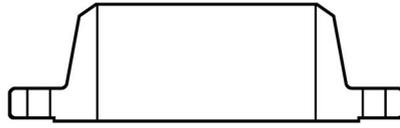
Elbow Outlet

- Bosses Provide a contoured internal joint with a gradual transition from header to branch allowing full penetration welds while reducing installation costs over tees or other nozzle connections.
- Boss outlets can be supplied with threaded, socket welding or butt welding ends. Socket welding ends can be grooved for pre-installed sil-braze rings per MIL-F-1183.
- Bosses can be manufactured to non-standard dimensions or alloys and are available in full and reducing sizes.

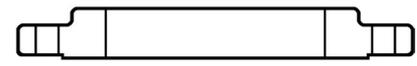
### Sold Copper-Nickel Flanges, Classes 150, 250, 300 and 700



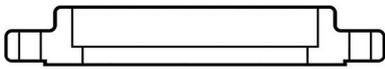
Weld Neck



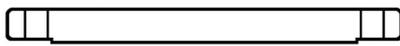
Weld Neck



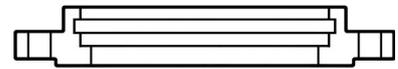
Slip-On



Socket Welding



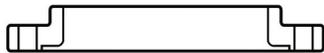
Blind



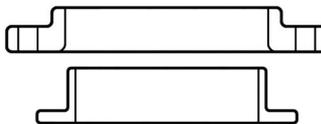
Silver-Brazing

- Solid 90-10 and 70-30 copper nickel flanges are available in sizes  $\frac{1}{2}$ " nominal and larger.
- Flanges can be supplied as slip-on, threaded, socket welding or weld neck.
- Silver-brazing flange ends comply dimensionally with MIL-F-1183 and can be finished as a face fed socket without a groove, or a grooved socket for use with a pre-inserted silver-brazing ring. Rings are ordered and supplied separately.
- Flanges may be ordered manufactured from material conforming to the requirements of MIL-C-15726F or ASTM B 171.
- Alloys UNS C70600 and UNS C71500.

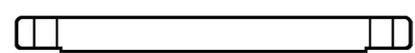
### Special Copper-Nickel Flanges, Classes 150, 250 and 300



Overlay



Composite



Clad

- These special flanges offer an economical alternative to the solid copper-nickel flanges listed above and are available in sizes  $\frac{1}{2}$ " nominal and larger.
- Overlay slip-on flanges utilize a forged steel slip-on flange which is weld overlaid with copper-nickel material on the gasket and wetted surfaces.
- Composite flange sets are generally used instead of weld neck flanges when butt welding to a pipe or fitting is necessary but a loose backing flange is desired for ease of installation.
- Clad blind flanges utilize a forged steel blind flange which is clad with copper-nickel material on the wetted surfaces.

Note: Alaskan also stocks a complete line of MSS and ANSI style stainless steel flanges and can manufacture flanges to special dimensions, specifications and alloys.