

## A Guide to Understanding Sidewall Fittings

All sidewall fittings are designed to fuse onto the "side" of the pipe. They may have either a butt, socket, or multi (will work for one butt fusion size as well as one socket fusion size) outlet. **Heater face selection is highly dependent on a number of factors. One cannot select the correct heater face with knowing all of the details about the fitting, including the manufacturer, the size, the type of fitting, and the geometry of the base. If these factors cannot be determined, careful measurements of the fitting to be used must be made.**

**Service Saddles.** Fittings that allow a gas pipeline to tee from a main or branch line to a home service line. This generally means that the largest "branch" size is 1 1/4 butt or 1 1/2 socket for service saddles. (Please remember that it is possible to have 2-inch to 6-inch "service" lines to commercial establishments, and that a contractor might refer to a fitting transitioning to such a line as a "service saddle," whereas in reality it would be a "branch saddle.")

**Branch Saddles.** Fittings that tee from a main to a "branch"; these have branch outlets larger than 1 1/4 inches.

**High Volume Multisaddles.** A term from the old Dupont fittings where the "branch" outlet could be fused to either a 1 1/4 socket fusion fitting or a 2-inch butt fusion fitting. The base was heavier and larger as well. These are not in much use today.

**Service Punch Tees.** "Tapping" tees that have a maximum branch outlet of 1-inch.

**High Volume Punch Tees.** "Tapping" tees that have a branch outlet of 1 1/4 to 2-inches.

"**Punch tees**" and "**Tapping tees**" are functionally the same as far as the heater face is concerned.

**Cold Spot.** This is a circular recess in the surface of the female heater face to prevent over heating of the pipe wall on small diameter pipes while doing "hot taps," and is a customer preference.

**High Profile.** Some heater faces are made on an elevated base, effectively raising the contact surface further from the heater iron surface. This is done to provide a better view for visually inspecting the melt bead, and is a customer preference.

**Serrated and Smooth heater faces.** The standard heater face for many years had a smooth finish. However, testing has indicated that a grooved pattern in the face provides more melt contact area and a higher quality fusion; thus, most gas companies today specify serrated faces. However, some companies still maintain a smooth wall specification, so, once again, this is a customer preference.

**Combination Faces.** These faces are designed to fuse tapping tees that have a socket outlet, and as such they provide the male and female socket heater faces as an integrated part of the sidewall face. The first size descriptor is the size of the main pipe. The second size descriptor is the size of the socket branch outlet.

**Round Base and Rectangular Base Branch Saddles.** Some sidewall fittings are made with round bases and some with rectangular bases. This naturally affects the geometry of the heater face, especially because many users, and particularly gas companies, will not accept an excessive melt pattern, i.e., a melt pattern that extends significantly beyond the edges of the fitting.