



# THE COMPLETE DUCT SOURCE

## Quality—Delivery—Service—Design—Price

### Clamp Together Duct- Specifications and General Info

**General Clamp Together Description:** This system is also often referred to as a rolled-lip system due the fact that ALL components have a rolled lip on at least one end. The rolled lip is formed directly onto the end of the straight duct/pipe. On the fittings- elbows, branches, hoods, adapters etc., the rolled lip is formed onto a 2.5" long collar which is applied to the fitting. The application method consists of spot welding and 'swedging/beading' the collar to the fitting for a tight smooth transition between the fitting and the collar. An over-center locking clamp is then used to encompass the two rolled lips of any two joining parts, pulling them together in the locking motion and then sealing them through the use of the gasket imbedded in the clamp.

**Clamp:** The clamp is all stainless in construction. The standard clamp has an N-Butyl rubber, 'winged' gasket that fits into the formed groove in the circumference of the clamp. Other gasket materials such as Silicon, Goretex and even fiberglass rope are available to address corrosive, food grade and temperature specific applications. An optional adjustable clamp with tightening screw is also available.

**Straight Duct:** The duct is a nominal 5 feet in length- the variation being by the diameter of the pipe and the corresponding size of the rolled lip. The standard gauge duct is first formed by cutting stock sheet metal to specific widths. An 'Acme Lock' is then formed onto edges of the sheet. After rolling, the rolled duct with the interlocking edges mated together are placed into a high pressure lock seamer which rolls across the 'lock' compressing the metal to a completely sealed seam. The final forming of the rolled lip onto the duct is accomplished by using opposing dies in a 5' hydraulic press.

Duct Standard Gauges for the duct are 26 ga for 3", 24 ga for 4-6", 22 ga for 7-12" and 20 ga for sizes 13-22". Typically, all sizes can go 2 gauges heavier and still have the rolled lip formed onto the end. But the duct is also available in gauges up to and including 10 gauge. At the higher gauges and dependent upon the size, a collar is applied to welded duct or tubing.

**Field Adjustment:** As the pipe is 5' in length, fitting to length is completed using either a part called an 'adjustable sleeve' or the collars on the fittings. Either will receive and slide over a cut piece of pipe that is cut to approximate length, where it is then locked to the pipe with the standard clamp. An O-ring slid over the cut pipe serves as the opposing rolled lip, to which the clamp attaches the rolled lip formed on the sleeve or collar. For more info go to <http://www.us-duct.com/clamp-together-duct/adjustability>.

**Elbows:** Elbows are available in a variety of styles depending upon the diameter, radius (length of turn), and gauge and material required. These include welded halves with a longitudinally welded seam, formed tube elbows, and gore/segmented elbow which are mechanically locked or fully welded to form the elbow. Typical degrees are 90, 60, 45 and 30 degree with standard radii of 1, 1.5 and 2.5 x Diameter. BUT ALL DEGREES AND ALL RADII ARE AVAILABLE. Elbows are typically two gauge heavier than the duct.

Branches (Lateral, T on tapers, Y's, double Branches, etc.): These are built to specification with the lightest gauge being 18 gauge. The laterals are FULLY welded to the body for a smooth transition. Standard degrees are 30, 45 or 90.

Cut-offs and Blast Gates: Standard cut-offs consist of aluminum body gates with either galvanized or SS blades. Other options include

- Fabricated galvanized or SS bodies
- Full welded air tight galvanized or SS bodies
- Fabricated bodies with UHMW seals that press against the blade
- Automatic gates- pneumatically operated/electrically activated- in any of the above styles. Cylinders require a minimum of 90 psi. Activating voltages can be 12 or 24V AC or DC and line voltage up to 240V.

Miscellaneous Fittings: Adapters, hoods, transitions, reducers et al. are available to specification. Gauge is dependent upon size and application but range from 22 to 10 ga.

Materials: All Duct and Components are available in galvanized, stainless (304-316) as a standard. Optional: carbon steel and galvanized.

Gauges:

#### PRESSURE RATING

Typically pressures for applications of US Duct range to 40 inches of water. However higher pressures are not out of the norm and particular pressure rating guarantees can be acquired by contacting US Duct.

Warranty- a 1 year warranty for material defects and workmanship is provided from the date of manufacture for all fabricated items. Our Stainless steel clamps have a lifetime replacement guarantee.

NOTE: we are often asked - Can clamp together be used in Oil Mist applications?

Absolutely- When a job is specified as oil mist, epoxy caulk is used in lieu of the standard sealants. HOWEVER there are some additional aspects to be considered during installation as well. The duct must be hung straight, without any lateral stress caused by 'pulling' the duct into alignment with a pickup point. Pulling the duct opens up the clamp and will prevent the gasket in the clamp from sealing properly. Additionally adjustable sleeve/ pipe assemblies need to be installed with consideration to the drainage of the liquid. And lastly, the standard gasket is buna-n rubber and may be affected by certain phosphorus or Sulphur based effluents. Such may require a gore-tex or viton gaskets.

**CALL US DUCT 1-855-487-3828 with any questions.**