



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. After rolling, the rolled duct is laser welded 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.

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PO Box 2537, Kernersville, NC 27285

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www.us-duct.com

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.

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

Pipe and Elbows Gauge Tables

	Straight Pipe									
	Lip Turned onto pipe					Rolled Lip Collar Added to Straight Duct				
	24	22	20	18	16	14	12	10	18T	14T
3"	CLF								*	
4"	L			L						*
5"	L			L						*
6"	L			L	LC					*
7"		L		L	LC			**		
8"		L		L	LC			**		
9"		L		L	LC			**		
10"		L		L	LC			**		
11"		L		L	LC			**		
12"		L		L	LC			**		
13"		L		L	LC			**		
14"		L		L	LC			**		
15"		L		L	LC			**		
16"		L		L	LC			**		
17"		L		L	LC			**		
18"		L		L	LC			**		
19"		L		L	LC			**		
20"		L		L	LC			**		
22"		L		L	LC			**		
24"		L		L	LC			**		

CLF- Collared Lock Formed,
L- Laser Welded
*- HP Tubing- collared
LC- Laser Welded with Collars
**-Mig Welded with Collars

	Sleeves- Only available in.			
	24	22	20	18
3"	S			
4"	L			
5"	L			
6"	L			
7"		L		
8"		L		
9"		L		
10"		L		
11"		L		
12"		L		
13"		L		
14"		L		
15"		L		
16"		L		
17"		L		
18"		L		
19"		L		
20"		L		
22"		L		
24"		L		

	Adapters- Fittings					
	Light			Heavy		
	24	22	20	18	16T	14T
3"				X		
4"	X			X		
5"	X			X		
6"		X		X		
7"		X	X	X		
8"		X	X	X		
9"		X	X	X		
10"		X	X	X		
11"		X	X	X		
12"		X	X	X		
13"		X	X	X		
14"						
15"						
16"						
17"						
18"						
19"						
20"						
22"						
24"						

	Elbows				
	22	20	18	16T	14T
3"	S				
4"	S			T	
5"	S				T
6"	S				T
7"		*	*		
8"		*	*		
9"		*	*		
10"		*	*		
12"		*	*		
14"		*	*		
16"		*	*		
18"		*	*		
19"		*	*		
20"		*	*		
22"		*	*		
24"		*	*		

S- stitch welded
* -mechanically locked gores-
T- Seamless Tubed Elb (HP)



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US DUCT FLANGED (ANGLE RING) BID SPECS:

General Description: A full line of industrial ducting used primarily in the collection/transference of waste material created during manufacturing processes.

Basic Characteristics: Metal ducting utilizing one of several method to join the duct together. Methods include raw ends where duct is welded together, angle rings/flanges where the angle ring is welded to the duct in a fixed method, or angle rings/flanges where the ring is left loose so as to rotate freely on the duct 'behind' a van -stoned end (a 1/2" lip turned at 90 degrees) formed on the end of the duct. In this latter method, the van-stoned ends are pressed together between the joining flanges.

Material: Galvanized, 304 and 316 SS, or carbon steel

Gauges: Components available in 8-24gauge depending on diameter and radius of elbows. Elbows are typically 2 gauges heavier than the duct.

Sizes: 3" up to 120" (Call for larger.)

Components: All components. (Pipe, elbows, branches, gates, hoods, adapters, hangers, flex hose and ALL other components— standard and specials built to drawings.

Construction:

Pipe— Laser welded seams and/or tubed based upon classification, gauge and material.

Elbows— Stitch welded pressed halves, segmented 'gore' and then mechanically locked or welded, tubes. Any radius is available. Normally specified in Center Line Radius (CLR)

Branches— Spot welded or welded reducers with full welded laterals. Available in 30,45 or 90 degree laterals.

Cut-offs- Aluminum with Galvanized or SS blades

Gates— Full welded and/or folded metal in galvanized or SS. Optional pneumatic cylinders controlled by electrically activated solenoids.

All other fittings constructed to normally accepted standards.

Flex hose— Various materials (urethane, steel, poly carbonates) and thickness.

Application/Gauge/Welding Method Notes- Duct is built in accordance with SMACNA guidelines which are based upon operating pressures, abrasiveness relative to conveyed material and velocities. Angle ring/flanges are welded to the duct accordingly.

Hanging— Generally accepted methods include cable hangers and saddle hangers.

Warranty- a 1 year warranty for material defects and workmanship is provided from the date of manufacture for all fabricated items.



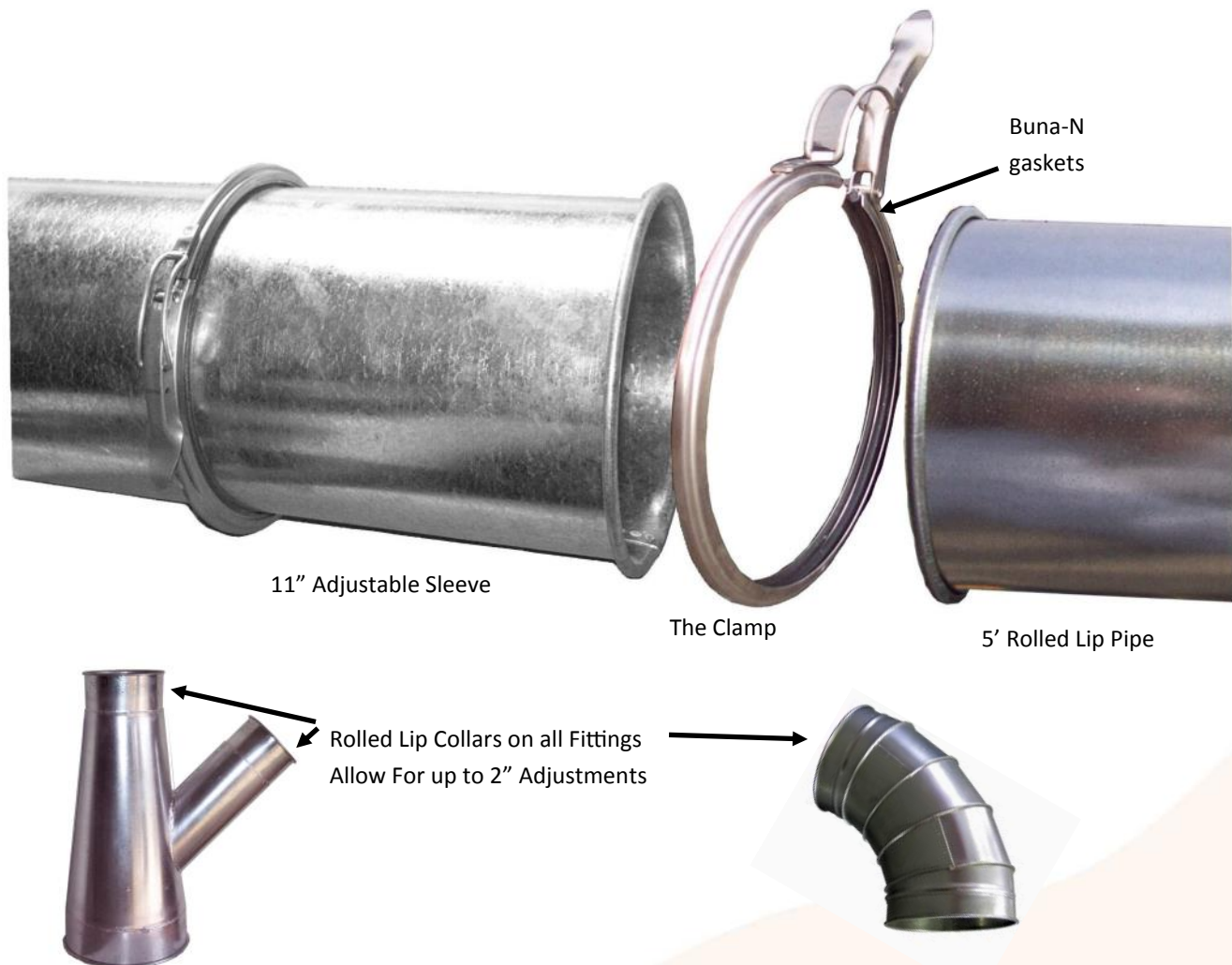
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Clamp Together Duct System

The Quick Connect, Quick Assembly, No-Weld Ductwork

At US Duct we know more about Clamp Together Duct than anyone. (see our profiles) Available in sizes 3"-24", in galvanized and SS, in standard and heavy (up to 10) gauge. We provide ALL components and special fittings. The system is infinitely adjustable with adjustment capability built into EVERY fitting. While Clamp Together Duct is often the fastest, easiest and cheapest way to address dust/mist collection, it is often best used in conjunction with other connection methods as dictated by application or duct size.

NOTE: Galvanized material ASTM A527 with G-90 rating.





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INSTALLATION INSTRUCTIONS:

(NOTIFY US IMMEDIATELY OF ANY DAMAGE TO CONTAINER!)

Step 1: **Stay calm!** You may have a lot of boxes and a lot of parts but they will all go together quickly— as long as you remain organized. Therefore:

Step 2: **DO NOT START TEARING INTO BOXES.** Your packing slip will tell you what box the various parts are in and help you organize the process.

Step 3: **Find the box with the first piece,** typically the adapter to the dust collector or fan. (You will want to work out from the fan or collector) Find it and make sure that it does indeed connect to the fan or collector.

Step 4: **Layout the horizontal run of your duct and remove as many obstacles** from the floor as possible. Optional: Once this is established, many people find it helpful to run the hangers first. Cable hangers can be used to make trapezes (tie off both ends to the beams and form a big loop) along the path. After the duct is hung in the trapeze, you can come back and place the hangers appropriately and level the duct.

Step 5: **Systematically unbox your parts** using the packing slip. Place them along the line of installation in the general location they will be needed, but out of the way of your Hi-lift or ladder. **Refrain from standing the duct on end. If it falls you knock the end out of shape, making it more difficult to clamp securely.**

Step 6: **Start from the collector/fan** and work your way out.

Step 7: **Refrain from branching off the trunk line with long runs that extend the 30 or 45 degree branch.** Trying to hit a distant point by coming off at an angle is VERY difficult. Even the slightest degree can cause you to be feet off when you have added multiple pieces of pipe. Instead, try to run at 90 degrees to the trunk and take each lateral run as you encounter it, completing that lateral run before continuing with the trunk line. That way you can still make adjustment in the trunk line without impacting the rest of the system.

Step 8: **THE ADJUSTABLE SLEEVE.** If you are using clamp together duct, the adjustable sleeve will be huge advantage to you as you make field adjustments. The sleeve is 11" long, with an inside diameter large enough to allow it to slide over a piece of pipe, once the rolled lip is cut off the pipe. Follow these instructions for using the sleeve.

THE ADJUSTABLE SLEEVE, CONT.

1. Let's consider making up 8' between two elbows for example. The pipe comes in a nominal 5' length. Therefore you will use one full length and still need a 3' section.
2. Take a standard length and cut it approximately 2" to 4" SHORTER than the length needed. In this case you would cut it about 32" to 34" long. (Cutting is best accomplished with a reciprocal saw. Make sure to de-burr the cut end with a file.
3. Take the sleeve (O-ring comes on the sleeve) and slide it onto the pipe and move until you have the 'assembly' of the pipe and sleeve to the right length.
4. Once adjusted, roll the O-ring off the sleeve and onto the pipe, and then roll it up against the rolled lip of the sleeve.
5. Using the standard clamp, clamp the O-ring to the rolled lip of the duct. This will secure the pipe. If at any time you discover you need to make adjustment, simply undo the clamp, move the O-ring and re-clamp.

NOTE: MAKING ADJUSTMENT SHORTER THAN THE 11" SLEEVE. In certain instances you may need to create a piece that is shorter even than the 11" sleeve. This situation is easily accommodated due to the fact that the collar on the end of each fitting is the same size as the sleeve, meaning that a cut piece of pipe will slide into the end of the fitting. You can use an O-ring to secure the pipe to the end of the fitting.

Using the Cable Hanger:



One end of the cable hanger will come with a ferruled loop. Use this end to lasso a point on the structure from which you are going to hang the duct. The other end of the cable will be cut (raw). Take that end and run it through the Clutcher, around the duct and then through the clamping side of the Clutcher. This is the side with the thumb tab release. Note: In the event you need to let-off or lengthen the cable, you will need to lift up on the duct to take pressure off the Clutcher, push the cable up to help release the alligator teeth inside and **THEN** use the thumb tab to release the cable.

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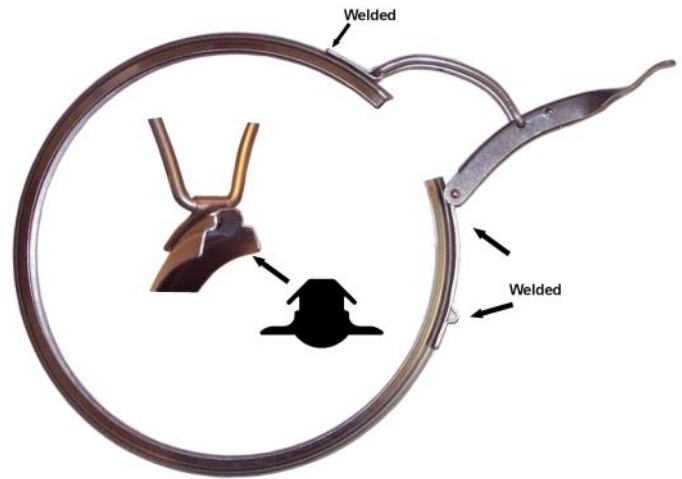
Clamp Together Duct System—The Clamp

Stainless Steel Duct Clamps

The stainless steel Duct Clamp is designed for repeatable and long term service. Like all of our products, these duct clamps are manufactured here in the states (with the exception of some very minor components not available in the US). The over center latch securely draws the special contoured band around the rolled lips of the components and seals them tightly.

The clamp securely holds the duct but is ready for easy release for the next move or modification. This is all done WITHOUT removing screws, tape or bolts. Like everything at US Duct- simple, easy and well-conceived

Dia.	Base #
3"	CL03
4"	CL04
5"	CL05
6"	CL06
7"	CL07
8"	CL08
9"	CL09
10"	CL10
11"	CL11
12"	CL12
13"	CL13
14"	CL14
15"	CL15
16"	CL16
17"	CL17
18"	CL18
19"	CL19
20"	CL20
22"	CL22
24"	CL24

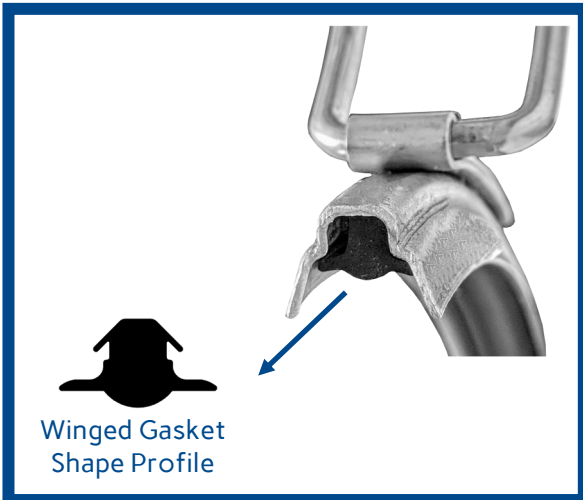


The clamp uses a Buna-N gaskets. Buna-N is standard and is highly resistant to most chemicals and oils with a MAX temperature rating to 250 degs F.



ROLLED-LIP GASKETS

A VARIETY OF GASKETS TO MEET ALL YOUR APPLICATION NEEDS



US Duct offers a variety of gaskets and overlays to meet your application needs. Our standard gaskets are made from Buna N (Nitrile), but we also offer FDA silicone (red hi-temp) gaskets, as well as Viton and GoreTex overlays.

All of our standard Buna N and FDA silicone gaskets are winged gaskets that are inserted inside the clamp. Overlays are laid on top of our standard gasket within the clamp.

Specs	Gaskets (formed to fit in clamp groove - winged)		Overlays (thin gasket laid over Buna N)	
	Buna N (Nitrile)	FDA Silicone/ Red Hi-Temp	GoreTex	Viton
Basic Info	Standard oil/mist & dust collection, Impervious to most chemicals	Moderate Solvent Resistance	Resistant to all common chemicals in the 0-14 pH range, except molten alkali metals and elemental fluorine	Good for oils and solvents
Durometer/ Hardness Range	20-95	40	N/A	N/A
Static Temp Range	(-)67F to (+)275F	(-)103F to (+)475F	(-)450F to (+)600F	(-)15F to (+)435F
Resistance to Compression Set	Very Good	Excellent	Minimum Retorque	Excellent

Buna N Gasket



FDA Silicone/ Red Hi-Temp Gasket



Overlay Gasket



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ROLLED-LIP GASKETS

A VARIETY OF GASKETS TO MEET ALL YOUR APPLICATION NEEDS

FLUID COMPATIBILITY CHART

FLUID TYPE:	N BUNA	SILICONE	VITON
Acid, Inorganic	Fair	Good	Excellent
Acid Organic	Good	Excellent	Good
Aging (Ozone, Oxygen, Weather)	Fair/Poor	Excellent	Very Good
Alcohols	Very Good	Very Good	Fair
Aldehydes	Fair/Poor	Good	Poor
Alkalis	Fair/Good	Very Good	Good
Animal Oils	Excellent	Good	Very Good
Ethers	Poor	Poor	Poor
Hydrocarbon Fuels- Aliphatic	Excellent	Fair	Excellent
Hydrocarbon Fuels- Aromatic	Good	Poor	Excellent
Hydrocarbons, Halogenated	Fair/Poor	Poor	Excellent
Hydrocarbon Oils, High Aniline	Excellent	Very Good	Excellent
Hydrocarbon Oils, Low Aniline	Very Good	Fair	Excellent
Imperability to Gases	Good	Poor	Very Good
Ketones	Poor	Poor	Poor
Silicon Oils	Excellent	Good	Excellent
Vegetable Oils	Excellent	Excellent	Excellent
Water/Steam	Good	Fair	Fair



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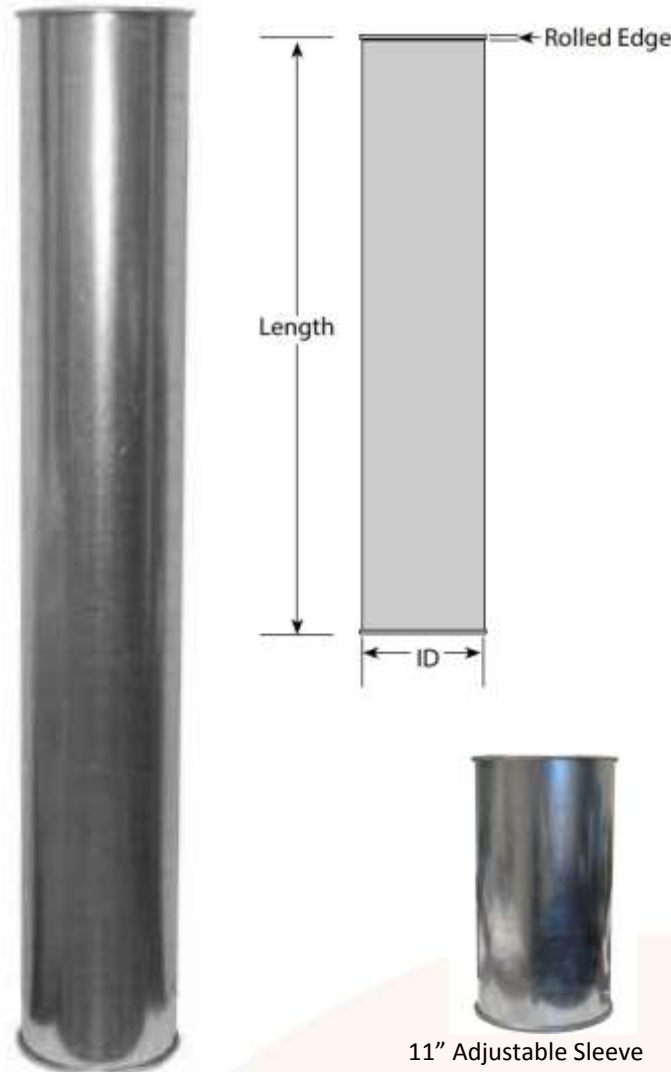
Clamp Together Duct System, cont.

The Rolled Lip pipe comes in standard 5' lengths. The seams are lock-seam connected along the length. The Rolled Lip and Clamp - Clamp it or rivet or weld it or bolt it together? It is a simple answer- if you want to save time and money. Clamp Together Duct is 70% faster. Don't believe us- call for a sample.

Anyone can do it- literally - In fact both self-installers and contractors love the product because it is so simple. US Duct will provide you with simple, easy to follow "A" to "B" drawings of your specific system. Large or small systems are literally quick and easy. Watch the whiteboard video: <https://youtu.be/Lx6Ghodh68Y>

Dia	Part#	GA
3"	P03C	24
4"	P04C	22
5"	P05C	22
6"	P06C	22
7"	P07C	22
8"	P08C	22
9"	P09C	22
10"	P10C	22
11"	P11C	22
12"	P12C	22
13"	P13C	20
14"	P14C	20
15"	P15C	20
16"	P16C	20
17"	P17C	20
18"	P18C	20
19"	P19C	20
20"	P20C	20
22"	P22C	20
24"	P24C	20

5' Sections of Rolled-Lip Pipe



Dia	Part#	GA
3"	AS03C	24
4"	AS04C	22
5"	AS05C	22
6"	AS06C	22
7"	AS07C	22
8"	AS08C	22
9"	AS09C	22
10"	AS10C	22
11"	AS11C	22
12"	AS12C	22
13"	AS13C	20
14"	AS14C	20
15"	AS15C	20
16"	AS16C	20
17"	AS17C	20
18"	AS18C	20
19"	AS19C	20
20"	AS20C	20
22"	AS22C	20
24"	AS24C	20



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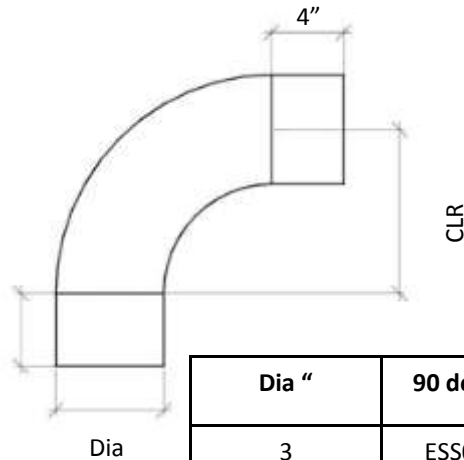
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Elbows— Stitch Welded

The name basically tells it all. These are elbows formed by stitch welding halves that have been stamped out using mechanical presses and forming dies. The stitch weld is virtually a continuous weld although a visual examination would lead one to think that the weld was an intermittent weld. HOWEVER, there is another weld on the reverse side welding the 'skipped space' from the other side. The result is a very tight elbow.

However, the mechanical stamping process places limits on the gauge that can be used limiting them to a maximum of 22 gauge. The result is that these elbows, while available in sizes 3",4",5",6",7",8",9",10" and 12" in 90,60,45 and 30 degrees, are good all around elbows for air or dust up to 8". Larger than that their application should be limited to light dust or air as the gauge is too light for heavy particle.

The stamping process also limits the elbow to fixed radii* of 1xD, 1.5xD, 2.5xD. .



Dia "	90 degree #	60 Degree #	45 Degree #	30 degree #	GA
3	ESS0390C	ESS0360C	ESS0345C	ESS0330C	22
4	ESS0490C	ESS0460C	ESS0445C	ESS0430C	22
5	ESS0590C	ESS0560C	ESS0545C	ESS0530C	22
6	ESS0690C	ESS0660C	ESS0645C	ESS0630C	22
7	ESS0790C	ESS0760C	ESS0745C	ESS0730C	22
8	ESS0890C	ESS0860C	ESS0845C	ESS0830C	22
9	ESS0990C	ESS0960C	ESS0945C	ESS0930C	22
10	ESS1090C	ESS1060C	ESS1045C	ESS1030C	22
12	ESS1290C	ESS1260C	ESS1245C	ESS1230C	22



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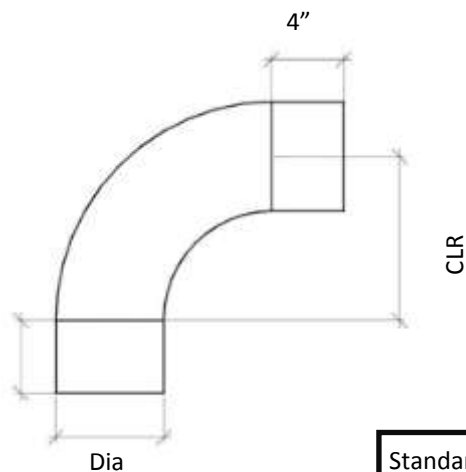
Elbows— Tubed

Tubed Elbow are constructed from non-seamed tubing that is mechanically bent. The elbows are available in 90, 60, 45 or 30 degrees, in 16,14 or 11 gauge and in galvanized or SS.

The ends can be fitted with a Rolled-Lipped collar or a angle ring flange.

US Duct tubed elbows are generally considered in applications for oil mist because they have no seam. Additionally they are widely used for paper trim for the same reason. A rolled-lip collar can be added for use with the Clamp Together Duct System.

They are the only SS option in sizes 3"-6".



Standard (1.5 x D) or Long Radius (2.5 x D)

Dia	GA
3"	16
4"	16
5"	14
6"	14
8"	14



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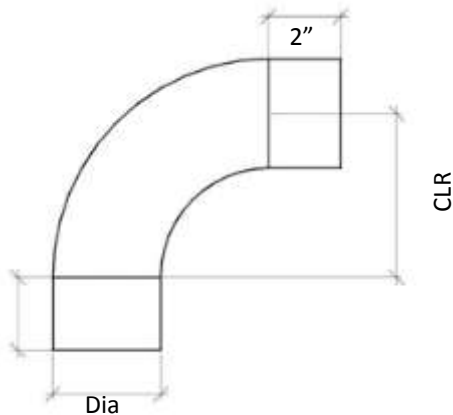
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Elbows— Segmented

Also known as 'Gored', 'Gored Segmented' elbows. Essentially the name says it all. These are segments that are then joined together by welding or mechanically. The mechanical method incorporates a machine that forms the ends of the segments (gores), so that one segment fits into the other and then mechanically locks them together. Because the metal is being formed, 18 gauge is the heaviest metal for this mechanical locking method. Heavier gauge metal require that the segments be welded.

Because the segment geometry controls the final geometry, these elbows are available in any degree and any radius*.

The ends of the elbow can be fitted with flanges or rolled lips or left raw for welding.



Dia "	90 degree #	60 Degree #	45 Degree #	30 Degree #	GA
8	EGS0890C	EGS0860C	EGS0845C	EGS0830C	20
9	EGS0990C	EGS0960C	EGS0945C	EGS0930C	20
10	EGS1090C	EGS1060C	EGS1045C	EGS1030C	20
11	EGS1190C	EGS1160C	EGS1145C	EGS1130C	18
12	EGS1290C	EGS1260C	EGS1245C	EGS1230C	18
13	EGS1390C	EGS1360C	EGS1345C	EGS1330C	18
14	EGS1490C	EGS1460C	EGS1445C	EGS1430C	18
15	EGS1590C	EGS1560C	EGS1545C	EGS1530C	18
16	EGS1690C	EGS1660C	EGS1645C	EGS1630C	18
17	EGS1790C	EGS1760C	EGS1745C	EGS1730C	18
18	EGS1890C	EGS1860C	EGS1845C	EGS1830C	18
19	EGS1990C	EGS1960C	EGS1945C	EGS1930C	18
20	EGS2090C	EGS2060C	EGS2045C	EGS2030C	18
22	EGS2290C	EGS2260C	EGS2245C	EGS2230C	18
24	EGS2490C	EGS2460C	EGS2445C	EGS2430C	18



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Branches

Also known as Lateral, 'Pant', T on taper and/or Y-branches, branches are still the same- a 'leg' is coming off the main line.

Typically, Single and Double Branches taper as the new line enters the main line. This is because the new line is bringing in more air. The exiting part of the branch (toward the fan) is therefore bigger to accommodate the increase in air. The new line typically enters at 30 or 45 degree so as to 'merge' into the air flow.

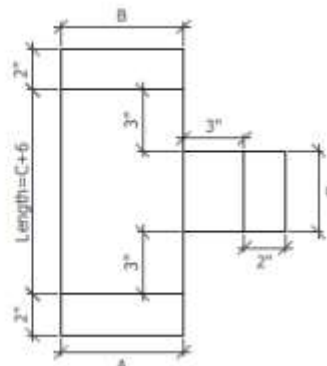
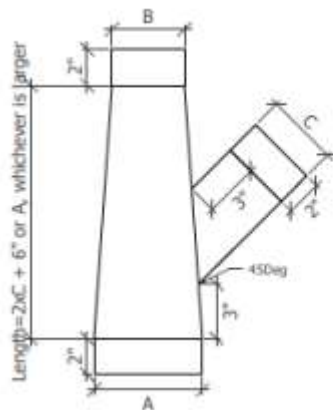
T's are called T's because the line enters the main line at 90 degree- forming a 'T'. T's are not the best air flow for negative systems as they increase static pressure to the point that the air can slide right by the side line and pull only from the straight end where the flow is 'easier'. T's however are often used in positive systems- where the air is being pushed.

Y's are exactly that- Y's with the two inlets diverging from the center line. Once again, the volume of the outlet is the sum of the two inlets. Typically the two inlets are the same size. If one needs to be smaller than the other, the branch is made with the two inlets equal to the largest requirement and then a reducer is used to reduce to the smaller requirement.

All US Duct branches are 18 gauge or heavier. This enables us to weld the branching part to the trunk and 'this' insures a very tight seal.



T-Branch



Single Branch



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Branches, cont.

Double Branches taper as the new line enters the main line. This is because the new line is bringing in more air. The exiting part of the branch (toward the fan) is therefore bigger to accommodate the increase in air. The new line typically enters at 30 or 45 degree so as to 'merge' into the air flow.

In cuts are used to create a branch on an existing trunk line. To create a new branch with an incut, a hole is cut in the pipe at the location of the branch. The incut is saddled over the hole and fastened with tech screws and caulked.

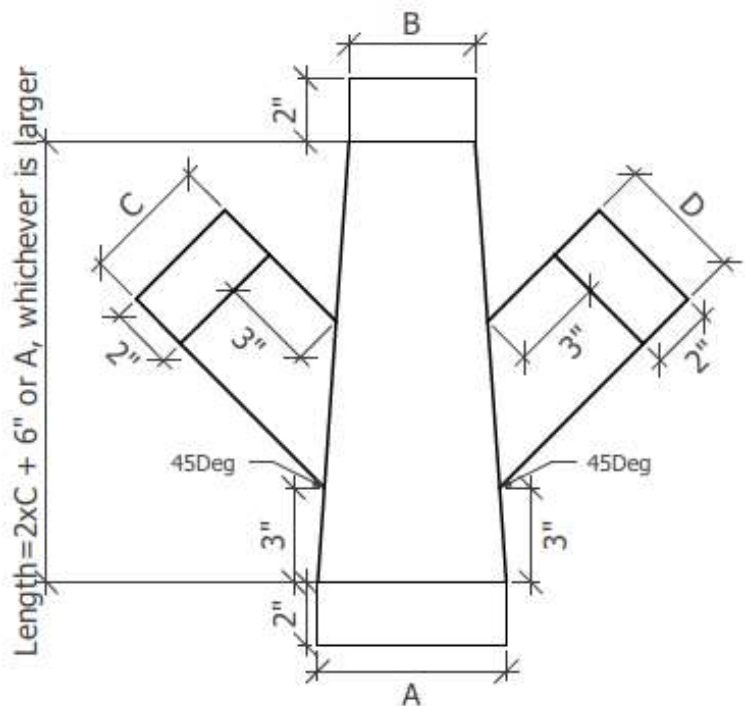
All US Duct branches are 18 gauge or heavier. This enables us to weld the branching part to the trunk and 'this' insures a very tight seal.



Double Branch



Incult





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Adapters

US Duct can adapt your duct to anything - a machine, a hose, or any outlet.

There are however some standard adapters.

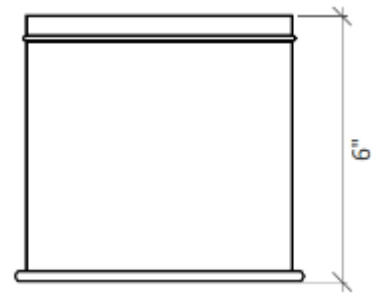
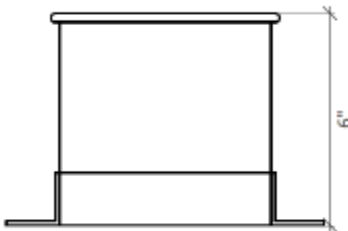
Hose Adapters adapt the duct to flex hose. An expanded bead is knurled onto the adapter. A worm clamp tightens the hose to the adapter and the expanded bead keeps it from sliding off.

Machine Adapters are made to adapt the duct to a machine. This adapter typically slides over the machine outlet and is affixed to the machine with tech screw or welding. Note about Oil/Mist Applications. - When connecting a flex hose to a machine where oil mist is being collected, there is a tendency for the fluid to seep by the hose clamp and spill onto the machine. To remedy this, US Duct offers an Oil/Mist Curb. The curb is a hose adapter with a curb directly under the hose. As the hose leaks (and it always does) the oil collects in the curb. The oil then 'leaks' back into the machine thru 'weep' holes that are drilled around the inside the curb where it is welded to the adapter. The unit then adapts to the machine.

Flanged Adapters are adapters that are flanged on one end and rolled lipped on the other.



Flange to Rolled-Lip Adapter



Hose to Rolled-Lip Adapter





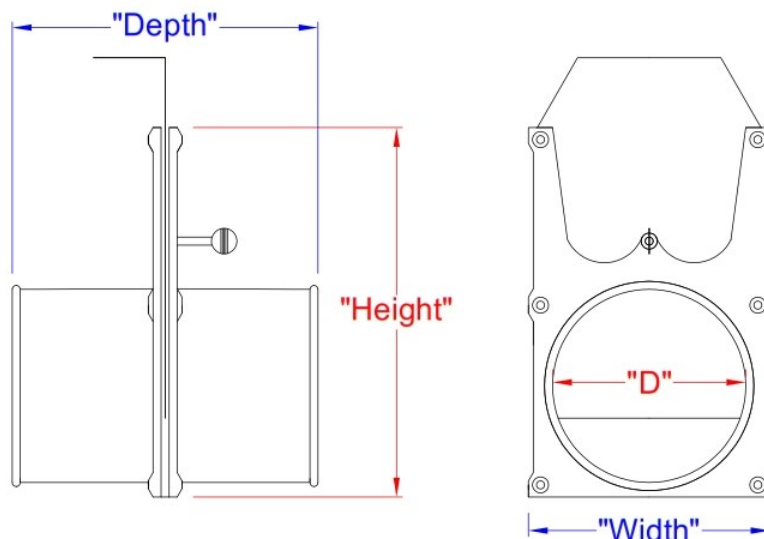
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US Duct—Gates

US Duct manual gates offer the same sliding closure but operated and 'locked' with a manual slide and thumb screw. These gates are great for application where changing air flow or regulating cfm is best done manually.

D	H	W	Depth	GA
3"	7"	5.25"	5.75"	22
4"	7"	6.12"	5.75"	22
5"	7"	6.12"	5.75"	22
6"	10"	7 "	5.75"	22
7"	11.25"	8"	5.75"	22
8"	12"	9.37"	5.75"	22
9"	13.25"	11"	5.50"	22
10"	14.37"	11.37"	5.50"	22
11"	16.25"	13.50"	5.00"	22
12"	16.25"	13.50"	5.00"	22
13"	17.87"	15.75"	5.00"	20
14"	17.87"	15.75"	5.00"	20
15"	28.50"	18"	11.00"	20
16"	28.50"	18"	11.00"	20
17"	32.75"	20.80"	11.00"	20
18"	32.75"	20.80"	11.00"	20
20"	34"	22.50"	11.00"	20
22"	34"	22.50"	11.00"	20
24"	34"	24.25"	11.00"	20
LARGER	CALL			





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Gates

US Duct offers a full and varied line of gates for industrial duct work and custom applications. US Duct gates - commonly called cut-offs and blast gates - serve a variety of purposes. From added safety to decreasing operations costs, gates are an essential part of any dust collection or industrial duct system. Full gates, half gates, blast gates and auto gates – any type of gate you might need – are all available from US Duct.

Full gates - These are cast aluminum body units with galvanized or SS steel blades that smoothly move in and out of the air stream to fully cut off the air or partially close off the duct so as to balance the system and direct the air. A thumb screw allows the gate to be locked in any position. These gates come with a raw end that will slide into a cut piece of duct. But they can also be fitted with a rolled lip collar or a flange. Available in sizes to 24”.

Half gates –Like the Full Gates, these are cast aluminum body units with galvanized or SS steel blades that smoothly move in and out of the air stream to fully cut off the air or partially close off the duct so as to balance the system and direct the air. A thumb screw allows the gate to be locked in any position. However these are designed to fit ONTO the duct once a slit for the blade has



Full Gates



Half Gates

Dia	Full Gate #	Half gate #
3	CO03C	COH03
4	CO04C	COH04
5	CO05C	COH05
6	CO06C	COH06
7	CO07C	COH07
8	CO08C	COH08
9	CO09C	COH09
10	CO10C	COH10
11	CO11C	COH11
12	CO12C	COH12
13	CO13C	COH13
14	CO14C	COH14
15	CO15C	COH15
16	CO16C	COH16
17	CO17C	COH17
18	CO18C	COH18
19	CO19C	COH19
20	CO20C	COH20
22	CO22C	COH22
24	CO24C	COH24



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Gates, cont.

Blast gates – These fabricated units have fully welded housing and a sealed rod that moves the blade in and out of the air stream. They are essentially air tight to atmosphere- NOT across the blade. They are recommended for high moisture systems where the standard gate may leak.

Automatic gates- utilize an electric solenoid to control compressed air as it is delivered to open and close pneumatic cylinders. The solenoids are available in varied voltages (12/24V AC/DC, 120 and 220 line voltage). They can be wired to any electrical source and are typically wired so that the gates open when the machine or process in need of dust/fume collection.

Automatic Full Gates- US Duct offers two kind of Automatic full gates. One is constructed by fabricating an angle iron flange that attaches to the standard aluminum gate. The second incorporates a sleek galvanized framed gate.

Automatic Air Tight Gates- US Duct offers the sleek galvanized frame gate in an air tight version. Round UHMW seals are pushed together by a resilient rubber. The blade 'knives' between the seals as it closes. When open the seals press against one another to create a continuous seal.



Automatic Gates



Manual Blast gate

Dia "	Blast Gate Base#	Auto Gate Base#
3	BG03C	ACO03C
4	BG04C	ACO04C
5	BG05C	ACO05C
6	BG06C	ACO06C
7	BG07C	ACO07C
8	BG08C	ACO08C
9	BG09C	ACO09C
10	BG10C	ACO10C
11	BG11C	ACO11C
12	BG12C	ACO12C
13	BG13C	ACO13C
14	BG14C	ACO14C
15	BG15C	ACO15C
16	BG16C	ACO16C
17	BG17C	ACO17C
18	BG18C	ACO18C
19	BG19C	ACO29C
20	BG20C	ACO20C
22	BG22C	ACO22C
24	BG24C	ACO24C

CUT OFFS-MANUAL

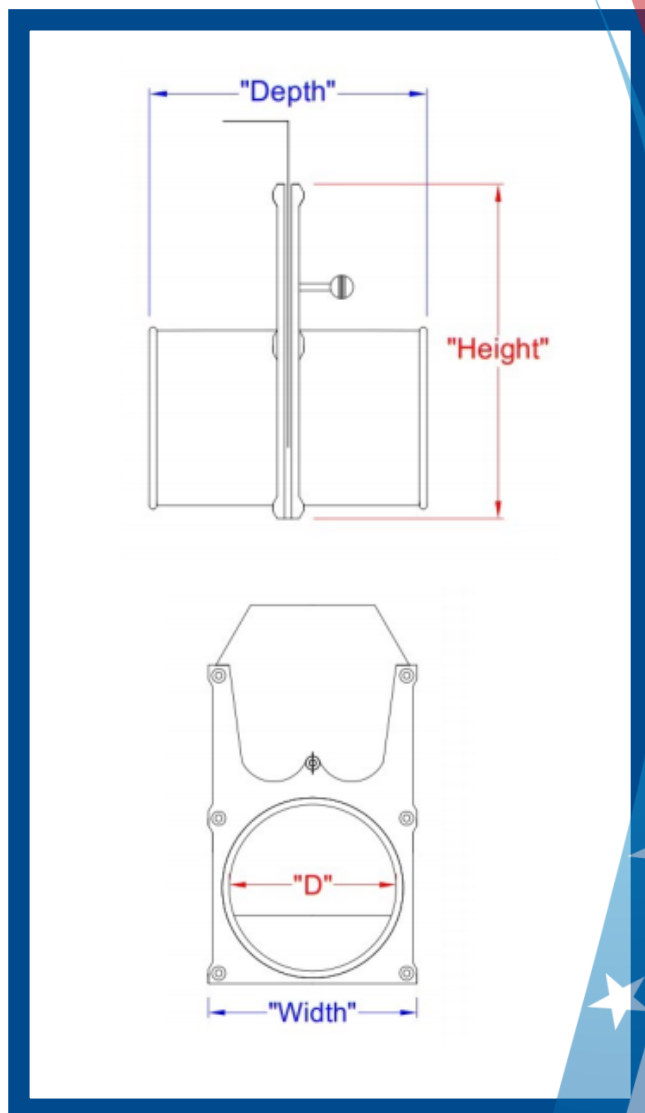
MANUAL GATES

US Duct's manual cut-off gates offer the same sliding closure of our automatic gates, but operate and lock with a manual slide and thumb screw. These gates are solid solutions for applications where changing air flow or regulating CFM are done manually.

Cast Aluminum body with GLV or SS blade and connections.

Connections- Roll Lip, Flange, US Tubing or Raw Ends

DIA"	H"	W"	Depth"	GAUGE
3	5 5/8	4	5 11/16	22
4	6 7/8	5	5 3/4	22
5	8	6	5 13/16	22
6	10 1/16	7	5 3/4	22
7	11 1/8	8	5 5/8	22
8	12 5/8	9 5/8	5 1/2	22
9	13 1/2	10 1/2	5 5/8	22
10	14 3/8	11 5/16	5 5/8	22
11	15 1/4	12 1/4	5 1/2	22
12	16 1/4	13 3/16	8 5/8	22
13*	18 7/8	15 3/4	14 5/8	20
14	18 7/8	15 3/4	5 5/8	20
15*	20 3/4	17 5/8	14 5/8	20
16	20 3/4	17 5/8	5 5/8	20
17*	32 1/4	19 3/4	14 5/8	20
18	32 1/4	19 3/4	8 7/8	20
20	33 3/8	22	8 7/8	20
22	33 3/8	24	9	20
24	33 3/8	26	9	20



*NOTE: Gates use reducers to accommodate diameter



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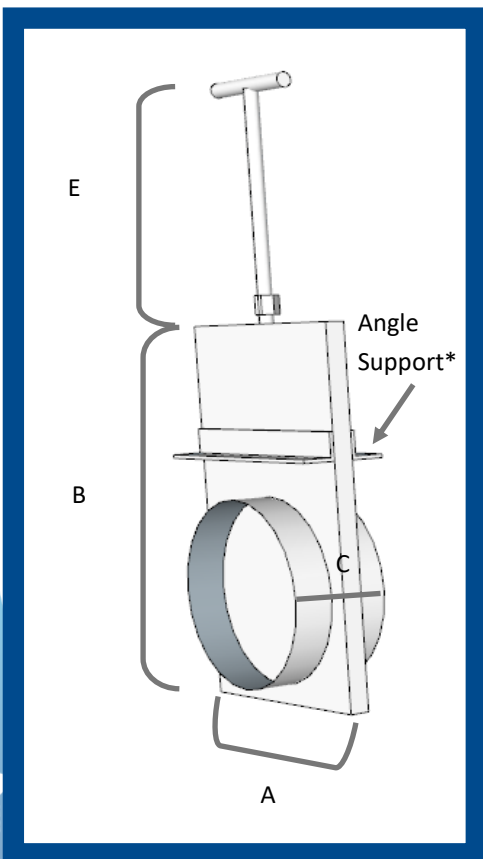


BLAST GATE-MANUAL

AIR TIGHT MANUAL BLAST GATES

US Duct's manual blast gates are air-tight, fully welded and sealed to prevent leaking to the outside atmosphere. The gates are available in stainless steel (304, 316) and galvanized metal. Available in all connection types: Rolled Lip, US Tubing, Raw End. Flanged.

Ideal for high moisture systems. Leak free to the atmosphere (not across the blade).



DIA"	A	B	C	E	GAUGE
3	3 13/16	7 15/16	6 1/2	6 1/2	16
4	4 3/4	9 1/2	6 1/2	7 1/2	16
5	5 7/8	12 15/16	6 1/2	8 1/2	16
6	7 1/8	13 3/4	6 1/2	9 1/2	16
7	7 15/16	16 1/8	6 1/2	10 1/2	16
8	9 3/16	18 1/4	6 1/2	11 1/2	16
9	10 3/8	20 7/16	6 1/2	12 1/2	16
10	11 3/8	22	6 1/2	13 1/2	16
11	12 3/8	24 1/8	6 1/2	14 1/2	16
12	13 7/16	26 1/8	6 1/2	15 1/2	16
13	14 7/16	28 3/8	6 1/2	16 1/2	14
14	15 3/8	30 1/2	6 1/2	17 1/2	14
15	16 5/8	32 3/4	6 1/2	18 1/2	14
16	17 3/8	34 1/2	6 1/2	19 1/2	14
17	18 7/16	36 5/8	6 1/2	20 1/2	14
18	19 9/16	38 13/16	6 1/2	21 1/2	14
19	20 9/16	40 5/8	6 1/2	22 1/2	14
20	21 9/16	42 7/16	6 1/2	23 1/2	14
22	23 1/2	46 3/4	6 1/2	25 1/2	14
24	25 1/2	51 3/4	6 1/2	17 1/2	14

*NOTE: Lateral angle support only on diameters 10" and above.



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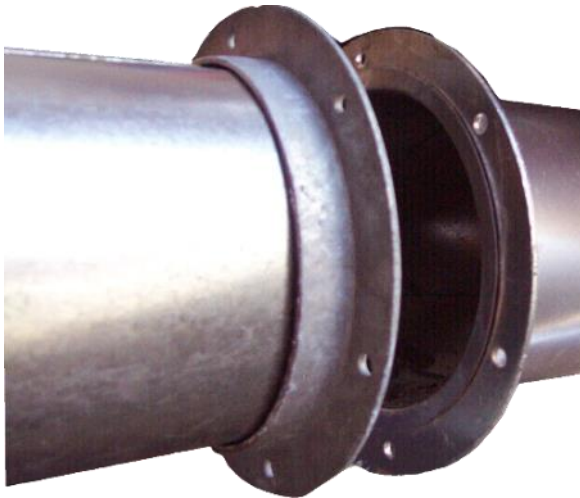
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Flanged Ducting

US Duct will provide duct with flanges (angle rings) in galvanized with holes. The duct to which these flanges are attached is available in sizes 3" and up, galvanized steel. Construction methods range from lock seamed pipe and mechanically lock elbows in lighter gauges to full welded product in heavy gauge (even up to 1/4")- all depending upon the application. APPLICATION FOR DUCT LARGER THAN 24"

The following are some facts about the options with regard to how the flanges can be utilized.

Vanstone - This term refers to a technique where by a flange is used to mate 90 degree lips turned onto the pipe or duct component. In this method the flange is placed onto the pipe, the lip turned back and the flange left loose. Typically the lip is 1/2" tall (or wide depending on your perspective) When the flanges are pulled together, the VanStoned lips of the pieces that are being connected, are pressed together to make a secure metal to metal connection. Because the flanges are loose on all pieces, alignment of the center-line of the components is easily accomplished.



GALVANIZED SHEET GAUGES to THICKNESS

Gauge Number	Inches	Weight Feet Squared
24	.0276	1.1563
22	.0336	1.4063
20	.0396	1.6563
18	.0516	2.1563
16	.0635	2.6563
14	.0785	3.2813
12	.1084	4.5313
11	.1233	5.1563
10	.1382	5.7813



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Angle Ring Products List

ID	Material	Material Type	Holes	Punch Size	Bolt circle	Net Weight Per Piece
3-1/16	10 Ga. Pressed	HR	6	9/32	4-5/16	0.70
4-1/16	10 Ga. Pressed	HR	6	9/32	5-5/16	0.85
5-1/16	10 Ga. Pressed	HR	6	9/32	6-5/16	1.20
6-3/32	1 x 1 x 1/8 HR Angle	HR	6	9/32	7-5/16	1.40
7-1/8	1-1/4 x 1-1/4 x 1/8 HR Angle	HR	6	3/8	8-1/2	2.00
8-1/8	1-1/4 x 1-1/4 x 1/8 HR Angle	HR	6	3/8	9-9/16	2.25
9-1/8	1-1/4 x 1-1/4 x 1/8 HR Angle	HR	6	7/16	10-5/8	2.50
10-1/8	1-1/2 x 1-1/2 x 1/8 HR Angle	HR	6	7/16	11-13/16	3.25
11-1/8	1-1/2 x 1-1/2 x 1/8 HR Angle	HR	6	7/16	12-3/4	3.50
12-1/8	1-1/2 x 1-1/2 x 1/8 HR Angle	HR	8	7/16	14	4.00
13-1/8	1-1/2 x 1-1/2 x 1/8 HR Angle	HR	8	7/16	15	4.25
14-1/8	1-1/2 x 1-1/2 x 1/8 HR Angle	HR	8	7/16	16	4.75
15-1/8	1-1/2 x 1-1/2 x 3/16 HR Angle	HR	8	7/16	17	7.50
16-1/8	1-1/2 x 1-1/2 x 3/16 HR Angle	HR	8	7/16	18	8.00
17-1/8	1-1/2 x 1-1/2 x 3/16 HR Angle	HR	8	7/16	19	8.25
18-1/8	1-1/2 x 1-1/2 x 3/16 HR Angle	HR	8	7/16	20	8.50
19-1/8	1-1/2 x 1-1/2 x 3/16 HR Angle	HR	12	7/16	20-3/4	8.75
20-1/8	1-1/2 x 1-1/2 x 3/16 HR Angle	HR	12	7/16	21-3/4	9.50
21-1/8	1-1/2 x 1-1/2 x 3/16 HR Angle	HR	12	7/16	22-3/4	10.25
22-1/8	1-1/2 x 1-1/2 x 3/16 HR Angle	HR	12	7/16	23-3/4	10.75
23-1/8	1-1/2 x 1-1/2 x 3/16 HR Angle	HR	12	7/16	24-7/8	11.25
24-1/8	1-1/2 x 1-1/2 x 3/16 HR Angle	HR	12	7/16	25-7/8	11.50
25-1/8	1-1/2 x 1-1/2 x 3/16 HR Angle	HR	16	7/16	26-7/8	12.10
26-1/8	2 x 2 x 3/16 HR Angle	HR	16	7/16	28-3/8	16.50
27-1/8	2 x 2 x 3/16 HR Angle	HR	16	7/16	29-3/8	16.75
28-1/8	2 x 2 x 3/16 HR Angle	HR	16	7/16	30-3/8	18.00
29-1/8	2 x 2 x 3/16 HR Angle	HR	16	7/16	31-3/8	18.75
30-1/8	2 x 2 x 3/16 HR Angle	HR	16	7/16	32-3/8	19.50
31-1/8	2 x 2 x 3/16 HR Angle	HR	16	7/16	33-3/8	19.75
32-1/8	2 x 2 x 3/16 HR Angle	HR	16	7/16	34-3/8	20.00
33-1/8	2 x 2 x 3/16 HR Angle	HR	16	7/16	35-3/8	21.25
34-1/8	2 x 2 x 3/16 HR Angle	HR	16	7/16	36-3/8	22.50
35-1/8	2 x 2 x 3/16 HR Angle	HR	16	7/16	37-3/8	22.75
36-1/8	2 x 2 x 3/16 HR Angle	HR	16	7/16	38-3/8	23.00
37-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	39-3/8	23.75
38-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	40-3/8	24.50
39-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	41-3/8	25.00

40-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	42-3/8	25.75
41-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	43-3/8	26.25
42-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	44-3/8	26.50
43-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	45-3/8	27.50
44-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	46-3/8	28.00
45-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	47-3/8	28.50
46-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	48-3/8	29.00
47-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	49-3/8	30.00
48-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	50-3/8	30.75
49-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	51-3/8	31.50
50-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	52-3/8	32.00
51-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	53-3/8	33.75
52-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	54-3/8	33.75
53-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	55-3/8	35.00
54-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	56-3/8	35.00
55-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	57-3/8	36.25
56-1/8	2 x 2 x 3/16 HR Angle	HR	24	7/16	58-3/8	36.25
57-1/8	2 x 2 x 3/16 HR Angle	HR	32	7/16	59-3/8	37.50
58-1/8	2 x 2 x 3/16 HR Angle	HR	32	7/16	60-3/8	37.50
59-1/8	2 x 2 x 3/16 HR Angle	HR	32	7/16	61-3/8	38.75
60-1/8	2 x 2 x 3/16 HR Angle	HR	32	7/16	62-3/8	38.75
61-1/8	2 x 2 x 3/16 HR Angle	HR	32	7/16	63-3/8	40.00
62-1/8	2 x 2 x 3/16 HR Angle	HR	32	7/16	64-3/8	40.00
63-1/8	2 x 2 x 3/16 HR Angle	HR	32	7/16	65-3/8	41.50
64-1/8	2 x 2 x 3/16 HR Angle	HR	32	7/16	66-3/8	41.50
65-1/8	2 x 2 x 3/16 HR Angle	HR	36	7/16	67-3/8	42.75
66-1/8	2 x 2 x 3/16 HR Angle	HR	36	7/16	68-3/8	42.75
67-1/8	2 x 2 x 3/16 HR Angle	HR	36	7/16	69-3/8	44.00
68-1/8	2 x 2 x 3/16 HR Angle	HR	36	7/16	70-3/8	44.00
69-1/8	2 x 2 x 3/16 HR Angle	HR	36	7/16	71-3/8	45.25
70-1/8	2 x 2 x 3/16 HR Angle	HR	36	7/16	72-3/8	45.25
71-1/8	2 x 2 x 3/16 HR Angle	HR	36	7/16	73-3/8	46.50
72-1/8	2 x 2 x 3/16 HR Angle	HR	36	7/16	74-3/8	46.50



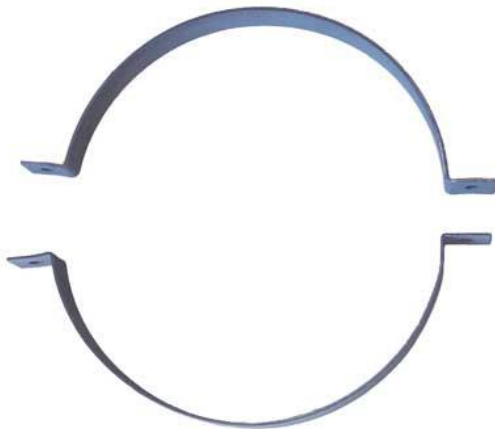
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Hangers

US Duct makes a full line of duct hangers and supports. Every above ground duct installation needs hangers or supports of some kind. US Duct offers a wide variety of hangers to accomplish the task.

Application Ductwork Hangers

Saddle hangers - A sturdy, vertically and horizontally stable option, sometimes called a 'pipe hanger,' is typically attached to rods or angel supports. This installation provides excellent support and security of the ductwork system. Saddle hangers usually take a bit longer to position and install, so they are often used in conjunction with other hangers.



Saddle Hanger



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Saddle Hanger Specifications

<u>Size"</u>	<u>Material Size</u>	<u>Length</u>	<u>Holes</u>	<u>Size</u>	<u>Material Size</u>	<u>Length</u>	<u>Holes</u>
3	1/8 x 1	6 1/2	3/8	25	3/16 X 1 1/2	42	7/16
4	1/8 x 1	8 1/16	3/8	26	3/16 x 2	44 5/8	7/16
5	1/8 x 1	9 5/8	3/8	27	3/16 x 2	46 3/16	7/16
5 1/2	1/8 x 1	10 3/8	3/8	28	3/16 x 2	47 11/16	7/16
6	1/8 x 1	11 3/16	3/8	29	1/4 x 2	49 3/8	7/16
7	1/8 x 1	12 3/4	3/8	30	1/4 x 2	50 7/8	7/16
8	1/8 x 1	14 3/16	3/8	31	1/4 x 2	52 5/8	9/16
9	1/8 x 1 1/4	16 3/8	3/8	32	1/4 x 2	54	9/16
10	1/8 x 1 1/4	17 15/16	3/8	33	1/4 x 2	55 3/8	9/16
11	1/8 x 1 1/2	20	3/8	34	1/4 x 2	57 1/16	9/16
12	1/8 x 1 1/2	21 5/8	7/16	35	1/4 x 2	58 3/4	9/16
13	1/8 x 1 1/2	23 3/16	7/16	36	1/4 x 2	60 5/16	9/16
14	1/8 x 1 1/2	24 3/4	7/16	37	1/4 x 2	61 15/16	9/16
15	1/8 x 1 1/2	26 5/16	7/16	38	1/4 x 2	63 7/16	9/16
16	1/8 x 1 1/2	27 7/8	7/16	39	1/4 x 2	65 1/4	9/16
17	3/16 X 1 1/2	29 7/8	7/16	40	1/4 x 2	66 9/16	9/16
18	3/16 X 1 1/2	31 1/16	7/16	41	1/4 x 2	68 5/32	9/16
19	3/16 X 1 1/2	32 5/8	7/16	42	1/4 x 2	69 5/8	9/16
20	3/16 X 1 1/2	34 3/16	7/16	43	1/4 x 2	71 9/32	9/16
21	3/16 X 1 1/2	35 3/4	7/16	44	1/4 x 2	72 7/8	9/16
22	3/16 X 1 1/2	37 3/8	7/16	45	1/4 x 2	74 7/16	9/16
23	3/16 X 1 1/2	39	7/16	46	1/4 x 2	76	9/16
24	3/16 X 1 1/2	40 5/8	7/16	47	1/4 x 2	77 9/16	9/16
				48	1/4 x 2	79 5/32	9/16

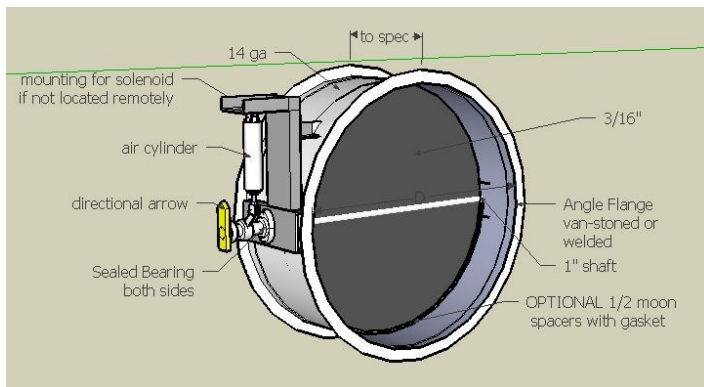


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Quality—Delivery—Service—Design—Price

US Duct—Automatic Butterfly

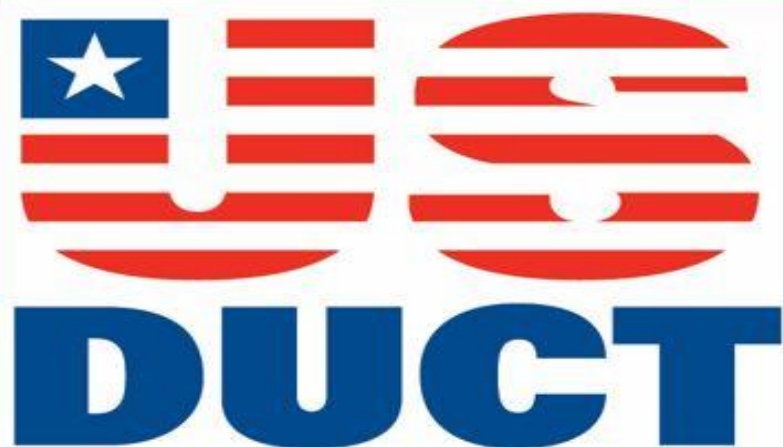
US Duct Automatic Butterfly Valves are pneumatically operated and electrically controlled. The pneumatic cylinder requires 90 psi to operate but uses very little volume. Dual solenoids activate the cylinder. The solenoids are activated by virtually any electrical signal—12/24 V, AC/DC, or 110/220 line voltage. These solenoids operate off of milliamps and therefore require only minimal wiring. The valve is powered in both directions to open and close the 3/16" steel flaps. Optional 1/2 moon spacers with gaskets for a tighter seal are available.



DIA.	LENGTH	HOUSING GAUGE	BLADE GAUGE	LBS.
8"	12"	16	10	18
10"	12"	16	10	2
12"	12"	16	10	24
14"	12"	16	10	30
16"	12"	16	10	35
18"	12"	16	10	40
20"	12"	16	3/16"	45
22"	12"	16	3/16"	50
24"	12"	16	3/16"	55
34"	12"	16	3/16"	80

Standard angle ring flanges are furnished on both ends.





Butterfly Damper

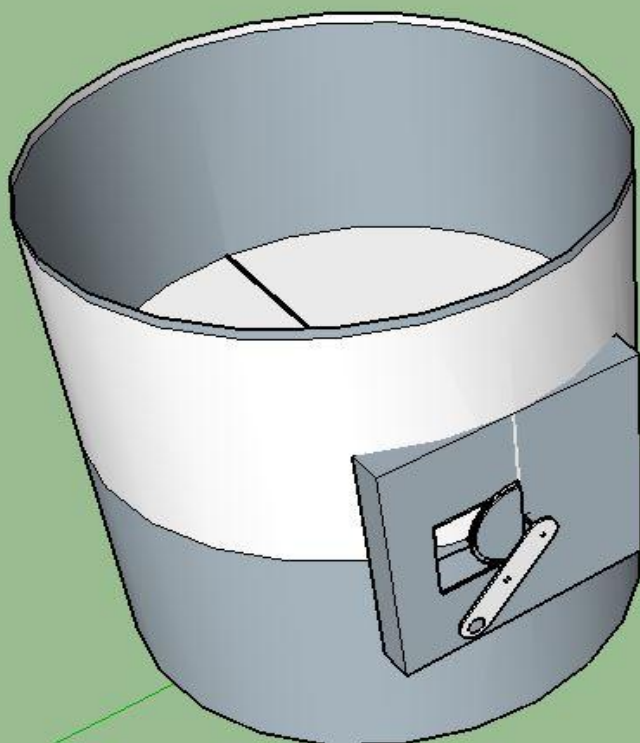
Diameter	Gauge	Length	Material
16"	18	16"	Glv

Standard Blade is 14ga

US Duct Butterfly Dampers can be built to meet the requirements of any application.

Options that need to be specified					Custom
Half Moon Stops					
Gauge					
Shaft Bearings					
Connection type	Raw Ends	Rolled Lip	Flanged	Hose	
Material	Galvanized Steel	Carbon Steel	SS304	316L SS	

Part Number	DIA	DESCRIPTION	End/FL	MAT	GA
BF03CT.G18	3"	Butter Fly Valve	R	Glv	18
BF04CT.G18	4"	Butter Fly Valve	R	Glv	18
BF05CT.G18	5"	Butter Fly Valve	R	Glv	18
BF06CT.G18	6"	Butter Fly Valve	R	Glv	18
BF07CT.G18	7"	Butter Fly Valve	R	Glv	18
BF08CT.G18	8"	Butter Fly Valve	R	Glv	18
BF09CT.G18	9"	Butter Fly Valve	R	Glv	18
BF10CT.G18	10"	Butter Fly Valve	R	Glv	18
BF11CT.G18	11"	Butter Fly Valve	R	Glv	18
BF12CT.G18	12"	Butter Fly Valve	R	Glv	18
BF13CT.G18	13"	Butter Fly Valve	R	Glv	18
BF14CT.G18	14"	Butter Fly Valve	R	Glv	18
BF15CT.G18	15"	Butter Fly Valve	R	Glv	18
BF16CT.G18	16"	Butter Fly Valve	R	Glv	18
BF17CT.G18	17"	Butter Fly Valve	R	Glv	18
BF18CT.G18	18"	Butter Fly Valve	R	Glv	18
BF19CT.G18	19"	Butter Fly Valve	R	Glv	18
BF20CT.G18	20"	Butter Fly Valve	R	Glv	18
BF22CT.G18	22"	Butter Fly Valve	R	Glv	18
BF24CT.G18	24"	Butter Fly Valve	R	Glv	18



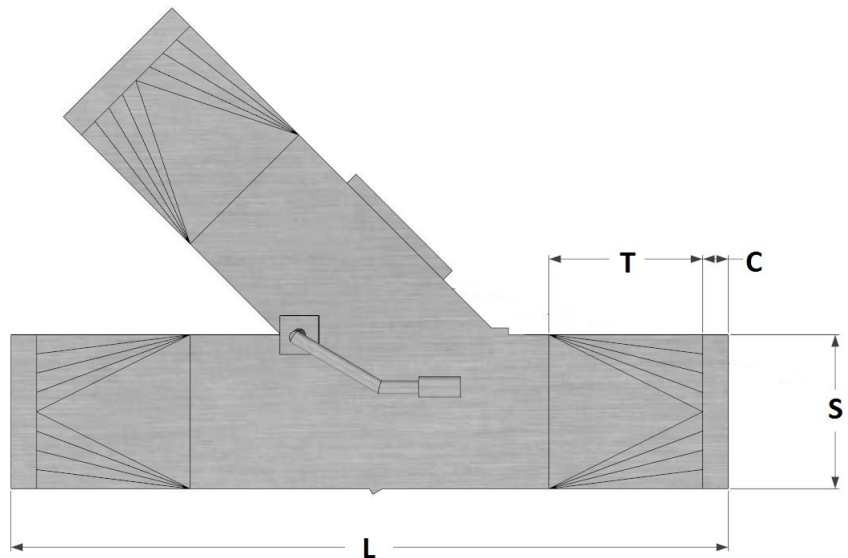


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US Duct—Diverter Valves

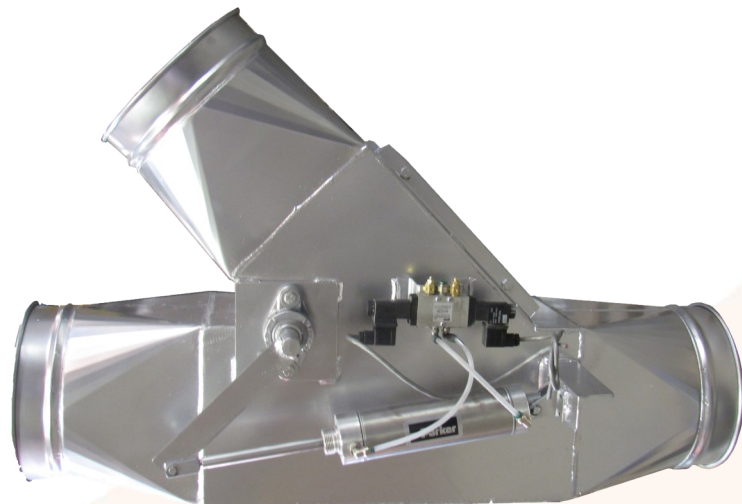
US Duct Diverter Valves are pneumatically operated and electrically controlled. The pneumatic cylinder requires 90 psi to operate but uses very little volume. Dual solenoids activate the cylinder. The solenoids are activated by virtually any electrical signal—12/24 V, AC/DC, or 110/220 line voltage. These solenoids operate off of milliamps and therefore require only minimal wiring. The valve is powered in both directions to deflect the air through the primary or secondary exit.

(S)ize	(L)ength	(C)ollar	(T)ransition
4"	33.6	2"	4"
5"	35.6	2"	5"
6"	37.6	2"	6"
7"	38.6	2"	7"
8"	41.5	2"	8"
9"	38.8	2"	9"
10"	45.1	2"	10"
11"	50	2"	11"
12"	52	2"	12"
13"	56.9	2"	13"
14"	58.9	2"	14"
15"	62.2	2"	15"
16"	65.6	2"	16"
17"	70.4	2"	17"
18"	72.4	2"	18"
19"	84.1	2"	19"
20"	86.1	2"	20"
22"	88.1	2"	22"
24"	92.9	2"	24"
26"	99.8	2"	26"



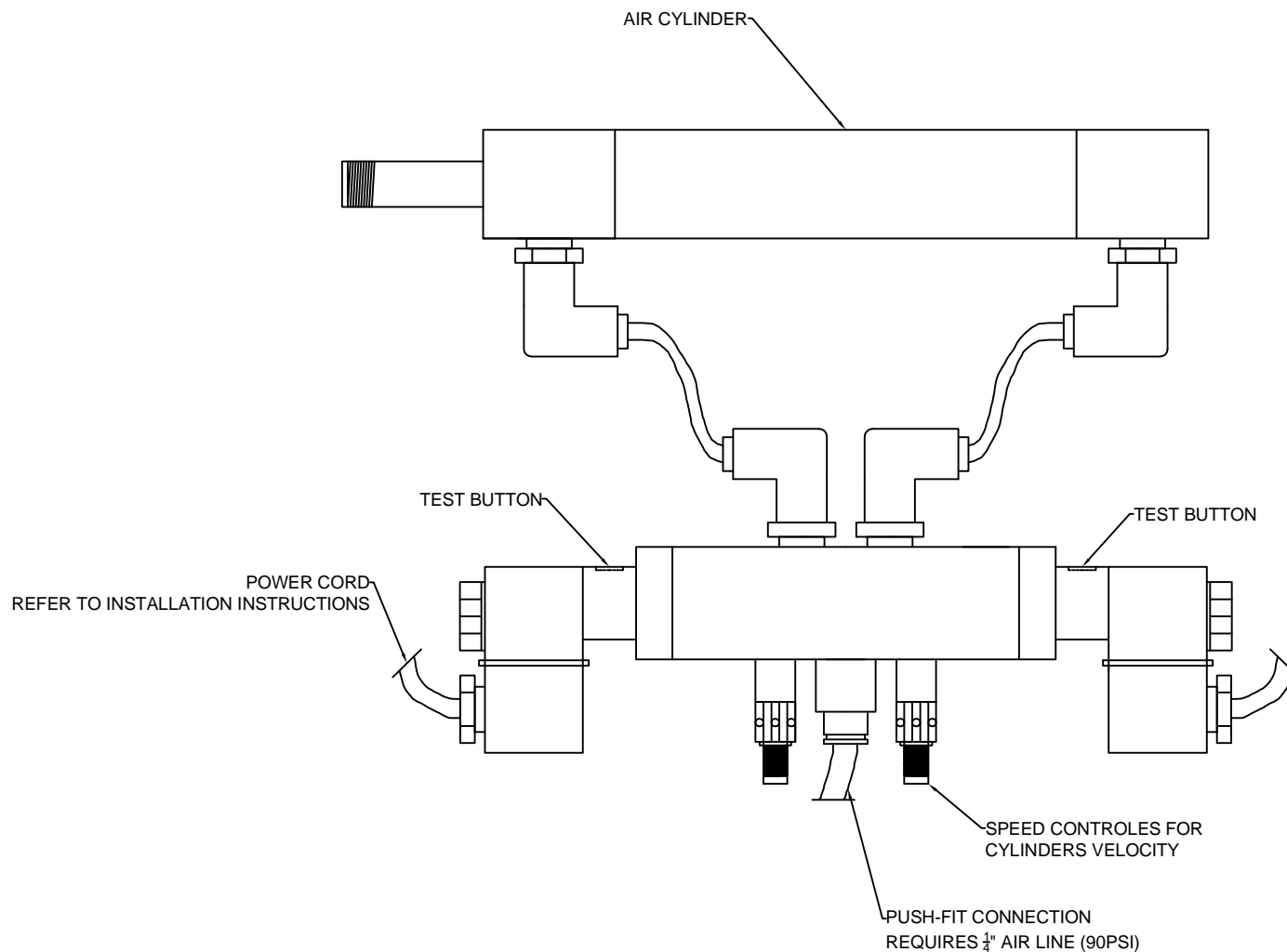
CONTACT

DUCT

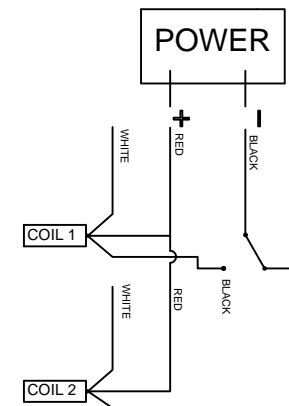




DIVERTER VALVES



INSTALLATION



VOLTAGE			ENCLOSURE "5"		
CODE	AC		DC	POWER CONSUMPTION	HOLDING (AMPS)
	60HZ	50HZ			
42	24	22		1.6VA	0.065
45			12	1.2W	0.098
47			12	.91W	0.074
48			24	.91W	0.033
49			24	1.2W	0.049
53	120	110		1.6VA	0.013
57	240	230		1.6VA	0.007

SPARKTRAP

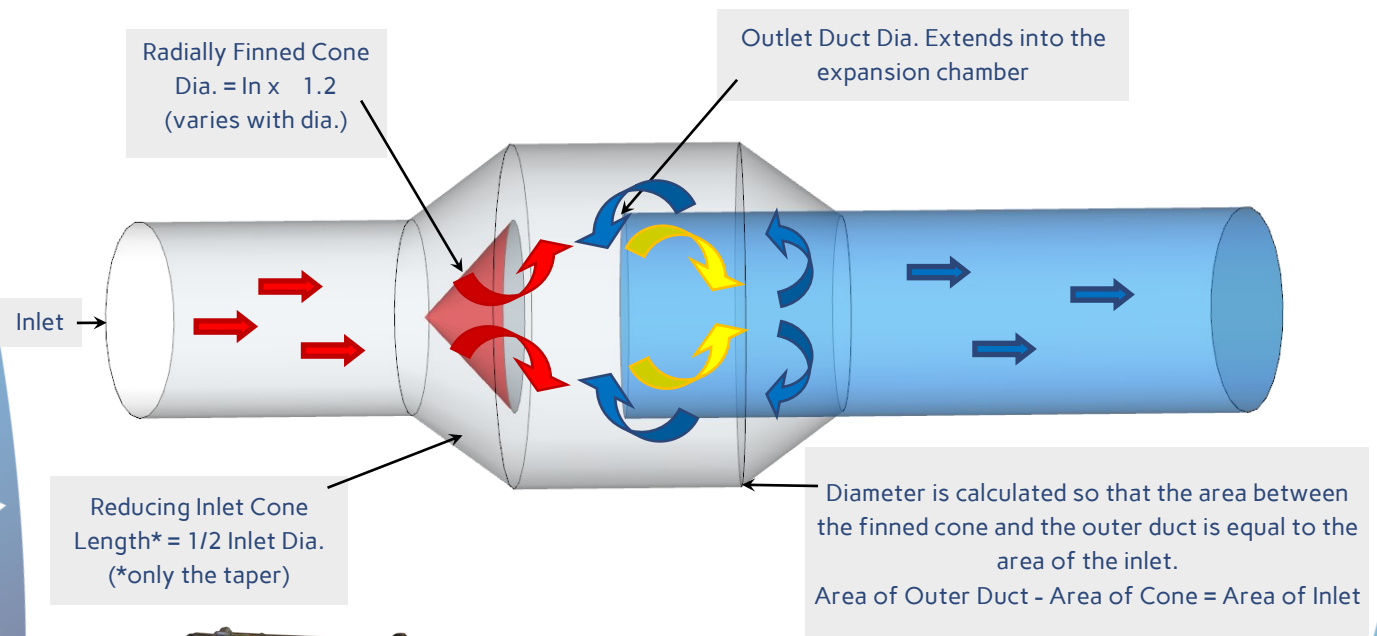
ALL SPARK TRAPS AREN'T CREATED EQUAL!

Patent Number 10,119,443

All spark traps aren't created equal. Looking inside, the problem with most spark traps is they simply swirl the air. Many forget that the ember travels with the air, with a relative velocity of zero. Well, that isn't a problem anymore with US Duct's spark trap. Its patented technology "tumbles" the ember through a "Tortuous Path" forcing contact with more oxygen, and allowing more time for the spark to burn out.



Because of the custom cone and the outlet inset design, our spark trap effectively eliminates sparks before they can exit the trap and thus, it can be installed right at the dust collector, adding convenience and eliminating distance requirements!



Also available with drop out (boot trap) for application with dust. Must be connected to sealed container.

Check out the Spark Trap in Action!

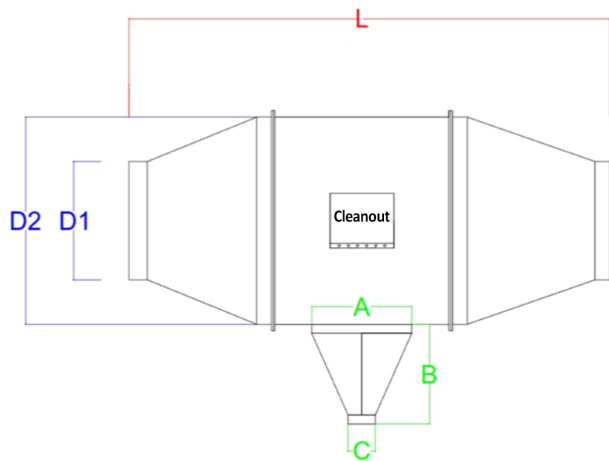
Visit the link below:

www.bettersparktrap.com



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SPARKTRAP



Recommended velocity is 3200 FPM - Pressure drop .8". The unit can be applied to higher velocities but the pressure will jump exponentially to ~ 2.8" if run at 4500 FPM.

US Duct Spark Trap Dimensions (in inches)

Inlet (D1)	Outside Dia of Mid Section (D2)	Overall Length (L)	Dropout: (A)	Dropout: (B)	Dropout: (C)	Clean-Out Door (CO)
4	8	36	4	8	4	6x8
5	9	40	5	8	4	6x8
6	11	45	6	8	4	8x10
7	12	41	7	8	4	8x10
8	14	46	8	8	4	8x10
9	16	48	9	8	4	8x10
10	18	51	10	8	4	8x10
12	22	59	12	8	4	10x12
14	25	66	14	14	6	10x12
16	29	70	16	14	6	10x12
18	33	78	18	14	6	12x14
20	36	81	20	14	6	12x14
22	40	85	22	14	6	12x14
24	44	96	24	14	6	12x14
26	46	102	24	18	6	12x14
28	50	110	24	18	6	12x14
30	54	114	24	18	6	12x14
32	58	121	24	18	6	12x14
34	62	131	24	18	6	12x14
36	66	137	24	18	6	12x14
38	70	155	24	18	6	12x14
40	72	159	24	18	6	12x14
42	76	163	24	18	6	12x14
44	80	167	24	18	6	12x14
46	84	184	24	18	6	12x14
48	88	188	24	18	6	12x14
50	92	192	24	18	6	12x14



NO-LOSS STACKHEADS

NO LOSS STACKS REDUCE AIRFLOW RESISTANCE AND SAVE MONEY!



No-Loss Stacks avoid creating back pressure often caused by less efficient caps or exhaust elbows. Poor exhaust options can cause increased fan resistance and allow rainwater to enter the system. Increased resistance causes the fan to use additional power to maintain the appropriate CFM required for the system. Rain water intrusion can cause corrosion. With our no-loss stack, rain falls into the upper part of the stack, ultimately contacting the sides and draining down the sides of the larger pipe and out the space between the square bars. Air can then exhaust in a straight, unobstructed path.

OPTIONS

Available in: Stainless Steel (304, 316), Galvanized and Carbon steel.

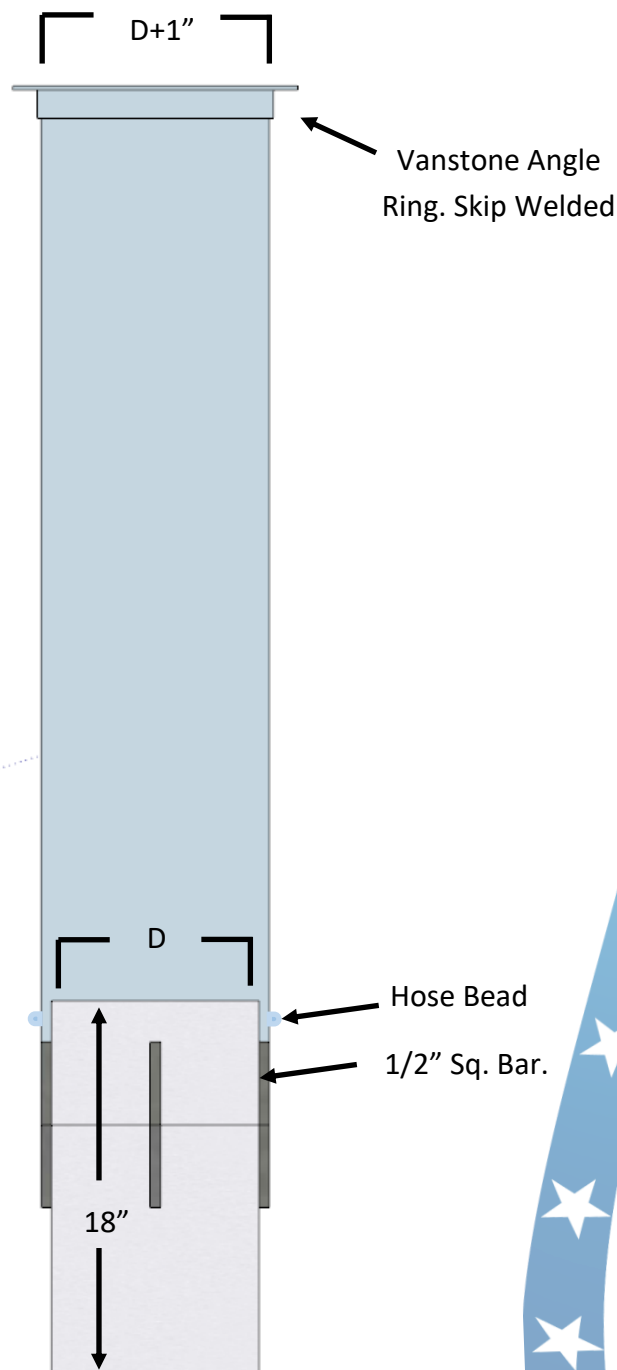
Connection Ends: Rolled Lip, US Tubing, Flange and Raw end.

Diameter	# Bars	Bar Length	Gauge
4"-12"	4	8"	20
13"-17"	6	8"	18
19"-24"	8	8"	18
25"-35"	8	8"	16
36" - up	10	8"	16

4XD+6"



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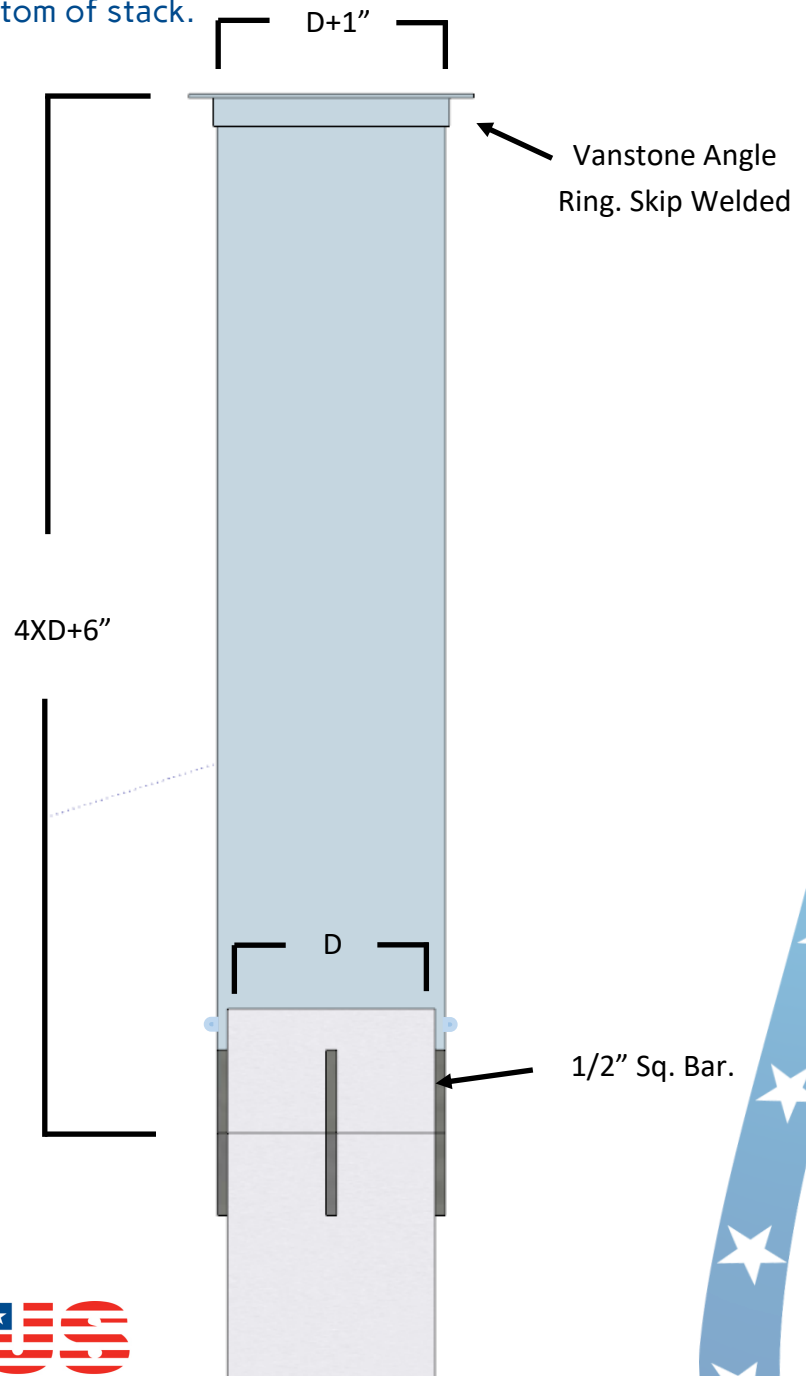


NO-LOSS STACKHEADS

NO LOSS STACKS REDUCE AIRFLOW RESISTANCE AND SAVE MONEY!

Manufacturing Notes:

1. If length exceeds 7', the stack will be made in multiple sections and flanged together.
2. 1/2" square bars are to be welded 2" at top and bottom of bar.
3. Angle Rings are skip-welded at every other hole.
4. Lower 18" duct section to be inset 6" into stack.
5. Fabricate hose bead at 1/2" up from bottom of stack.



Diameter	# Bars	Bar Length	Gauge
4"-12"	4	8"	20
13"-17"	6	8"	18
19"-24"	8	8"	18
25"-35"	8	8"	16
36" - up	10	8"	16





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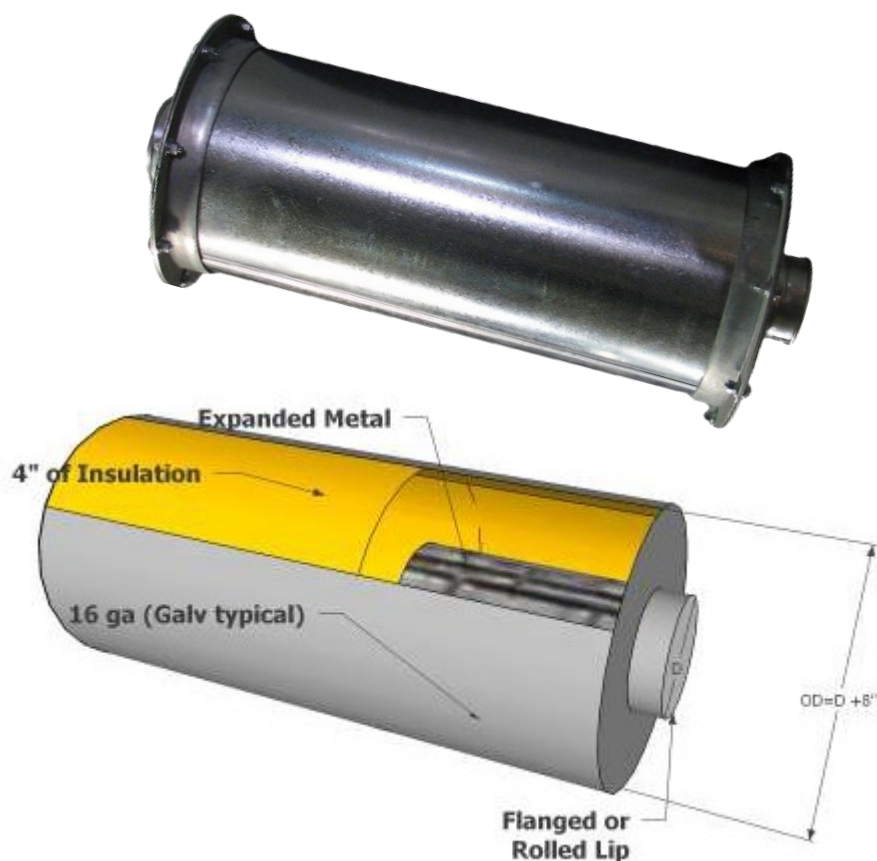
US Duct—SILENCERS

US Duct Silencers are designed to 'deadend' the noise created by exhausting air. Noise from exhausting air is created by disturbance and turbulence created as the air leaves various apparatuses. Given time in straight duct the turbulence would subside. However such lengths are neither practical or economical.

Silencers serve as a means of deadening the turbulence by providing soft sides— usually of common insulation. Expanded metal on the inside of the duct holds the insulation in place but allows the air and sound a means to come in contact with the insulation. Vibration is absorbed.

Because there are so many variable with each application, it is difficult (if not impossible) to provide data that will be applicable in all cases. Types of fans, number of elbows, density of air, temperature and all impact the sound.

Dia	Length
3"	30"
4"	30"
5"	30"
6"	30"
7"	30"
8"	36"
9"	30"
10"	48"
11"	54"
12"	60"
13"	64"
14"	68"
15"	72"
16"	76"
18"- 24"	80"
larger	call





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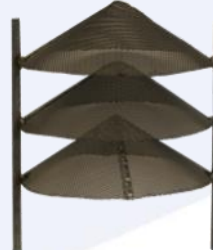
Oil Mist Solutions



**Oil Mist Accumulator
in Vertical**



**Oil Mist Accumulator
in Horizontal**



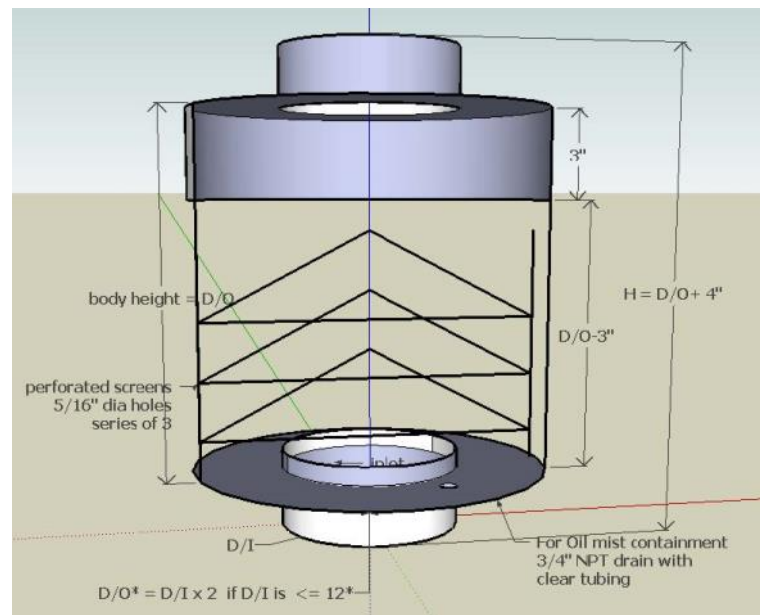
**Oil Mist Accumulator
Inner Core**



Oil Mist Curb

**Recommended
Velocity:**

**2,000-3,500
feet-per-minute**

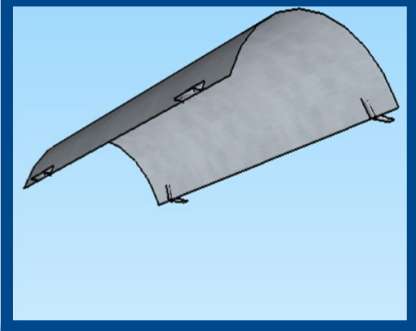
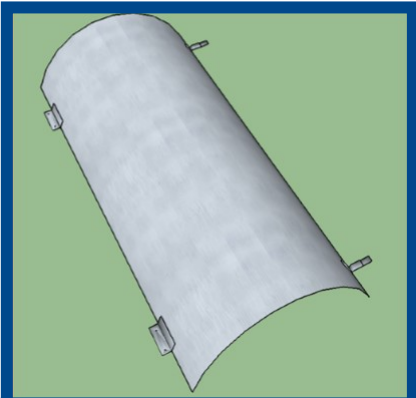


US Duct offers several specialty products designed specifically for unique issues with oil mist applications.

The OIL MIST ACCUMULATOR is a product designed to address problems that arise with today's high speed, effluent intensive grinding/milling machines. Because of the high volume in closed cabinets, many collections system end up sucking up more effluent than grindings. These units provide an enlarged chamber to slow the material down and a series of cones that helps the mist condense/agglomerate. The excess then rips off the cones and collects in the sump where it is rained directly back to the machine.

The OIL MIST CURB address the problem of leaks on top of machines when flex hose is used. You simply CANNOT stop these leaks. The curb simply collects the effluent as it leaks in the curb/trough which is welded around the unit. The captured liquid then "weeps" back into the machine through tiny 1/8 in. holes drill into the side of the collar at the base of the curb.

CLEAN-OUT DOORS



Whether you want to buy from our standard design options or you have us fabricate for your specific application, US Duct is a great choice. We will build it accurately, and delivery quickly and keep it on budget.

Clean Out access panels are provided as per specs to allow for the removal of debris or sediment without disassembly of the duct system.

Pipe Size (dia.)	Hole Size	Door Size	Number of Latches	Gauge
3" – 6"	4" x 6"	6" x 8"	1	16
7" – 10"	6" x 8"	8" x 10"	2	16
11" – 18"	8" x 10"	10" x 12"	2	16
19" – 32"	10" x 12"	12" x 14"	2	14
32" – 47"	12" x 14"	14" x 16"	2	14
48" and UP	16" x 18"	18" x 20"	2	14

Cleans are constructed:

- Standard Clean-Out placed 12" from top of pipe
- 1" wide gasket around perimeter of door interior, available in Buna N (Nitrile), EDPM, Silicone/Red Hi-temp, or sponge foam material.
- Standard overlap is 1" on each side (add 2" to length and width of opening size)
- Available with smooth inside, option gasket or plug style.



Double Latch Clean-Out Door

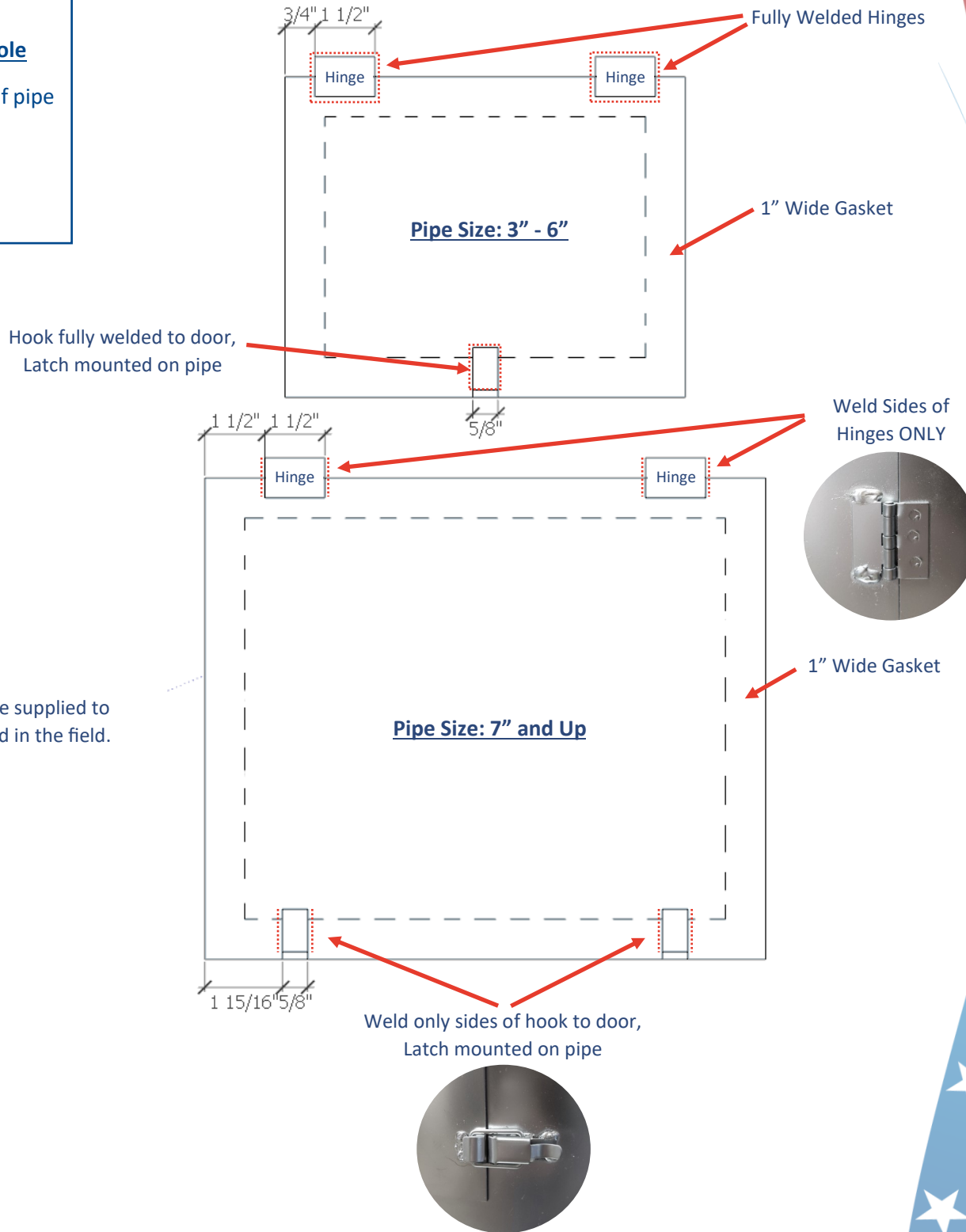


CLEAN-OUT DOORS

MANUFACTURING SPECIFICATIONS

Standard Hole

12" from top of pipe



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FLEX Hose Options—Thermoplastic

Molecularly bonded high temperature thermo plastic rubber. Exceeds temperature limit of most plastics and is an economical alternative to specialty fabric duct. SF-TPR provides outstanding performance and flex fatigue resistance. Smooth interior design allows for superior flow and maximum efficiency. Extremely flexible with excellent shape retention. *See SF-TPR-FR for flame retardant applications

Applications

- Excellent flex fatigue resistance
- Light duty material handling
- Hot exhaust extraction
- Medium duty chemical fume removal

Construction

- Product code: 9SFTPRX, 9SFTPRW (with wire)
- Material: Thermo Plastic Rubber with molecularly bonded wear strip
- Diameters: 1.5" to 24"
- Bend Radius: 6" = 6.5"
- Weight: 6" I.D. = .77 lbs/ft
- Lengths: 25 & 50 ft. up to 8" diam., 25' -10" diam. and up
- Compression Ratio: 2:1
- Temperature range: -40°F to +275°F continuous, (+300°F intermittent)
- Color: Black with black wear strip.*



*(available with and without encapsulated wire)



THE COMPLETE DUCT SOURCE
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FLEX Hose Options—Thermoplastic

All extruded, molecularly bonded urethane duct with encapsulated wire offers maximum abrasion resistance and superior tear resistance/tensile strength. Molecularly bonded construction reduces turbulence for maximum flow efficiency.

Encapsulated wire protects surfaces from scuffing. Manufactured with FDA approved materials.

Applications

Sawdust collection

Lavatory waste

Pellet, material transfer

Excellent low temperature flexibility

Abrasion, oil, ozone and fungus

Construction:

Product code: 9SFTPUX

9SFTPUW (with wire)

Material: 0.030" clear extruded urethane

Diameters: 1.5" to 24"

Weight: 6" I.D.= 0.84 lbs/ft

Lengths: 25 & 50 ft. to 8" diam., 25'-10" diam. and up

Compression Ratio: 2:1

Temperature range: -65°F to +200°F

Color: Clear with clear helix



*(available with and without encapsulated wire)



THE COMPLETE DUCT SOURCE
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FLEX Hose Options—Static Dissipating

Static Dissipating Urethane Duct (Wall gauge 0.030")

Manufactured using inherently dissipating urethane permanently protects against electrostatic discharge. The static dissipating material with the wire helix allows for safe grounding when used with metallic fittings. Excellent flexibility with maximum abrasion and superior tear resistance and high tensile strength. The special molecular bonded construction generates less turbulence. Clear construction for visual monitoring and maximum flow efficiency. Lightweight and extremely flexible. Will perform under the toughest conditions. Manufactured from FDA approved material.

Applications

Plastics processing, dust and shavings

Woodworking equipment

Plant debris collection

Dust collection

Material handling

Specifications

Temperature range: -65°F to 200°F

Lengths: 25 & 50 ft

Sizes: 2" to 12" (larger diameters available, please contact the factory)

Compression ratio: 2:1



*Conductivity of hose should be tested regularly. Test with OHMS meter using conductive fittings inserted into each end of hose.