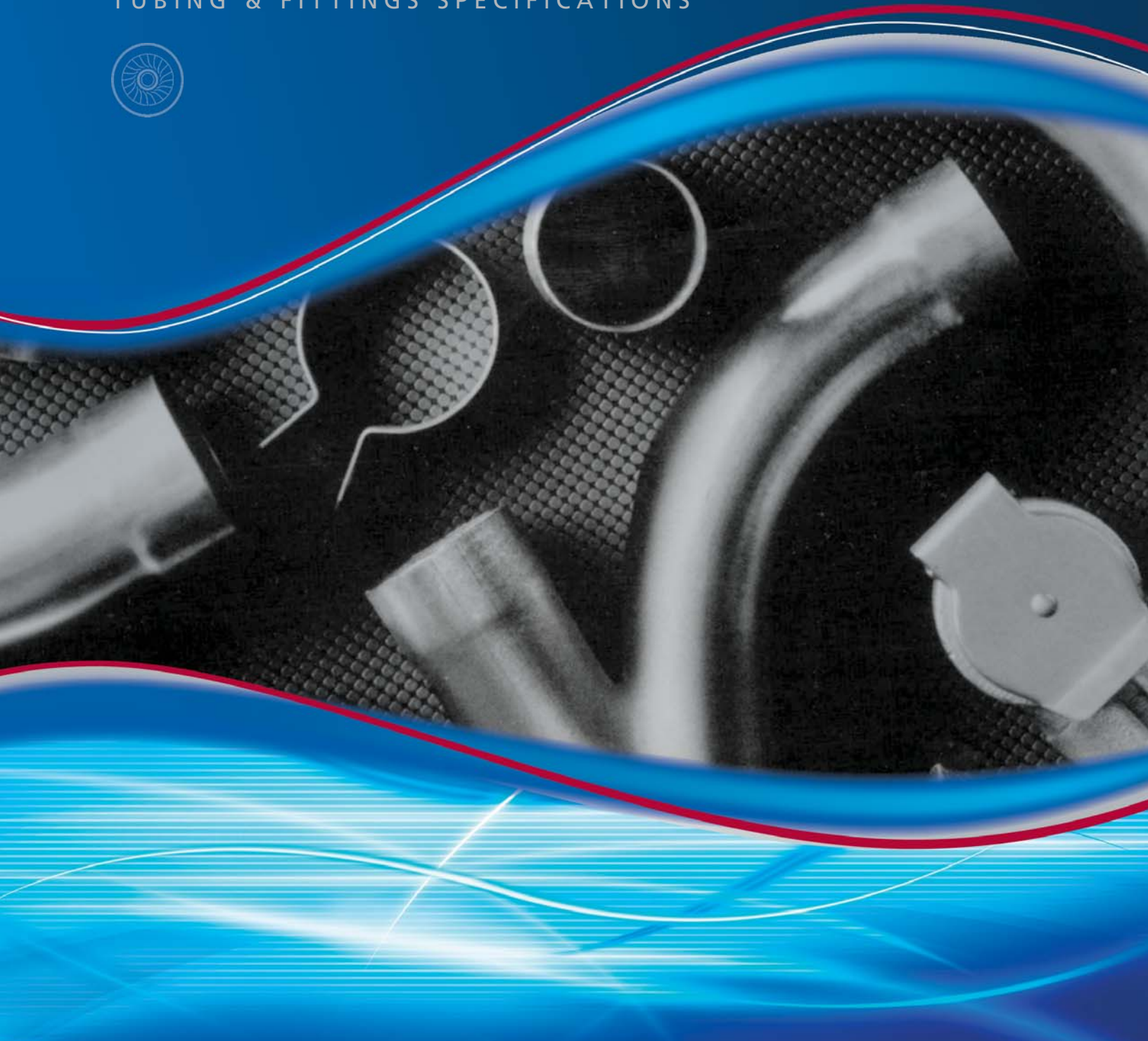


Smooth Flow™

TUBING & FITTINGS SPECIFICATIONS



Index

INDEX

TUBING3

Standard Elbows & Bends

Bending Capabilities.....4

Standard Radius Elbows5

Short Radius Elbows.....5

Standard Long Radius Bends6

Fittings

Standard 90° TY's.....7-8

Standard 45° YL's.....9-10

Standard Double Y's11-14

Standard Adapters15-17

Standard Reducing Couplings.....18

Methods of Joining

Instalok™ Couplings19

Slip Couplings20

Shrink Sleeves20

Wrapped Sleeves.....20

Compression Couplings21-22

Slip Welding Rings23

Tube Hangers, Plugs, Nipples23

Design Guide

Typical System Layout24

Tubing

Our standard catalog items include tube sizes from 2-1/8" through 14" OD in Carbon, Stainless, Aluminum and Galvanized Steel. 1-1/2" and 2" OD are available upon request.

Tube Dimensions

16 Gauge	= .065"
14 Gauge	= .083"
12 Gauge	= .109"
11 Gauge	= .120"

Catalog Part Variations

If our standard items don't meet your specific needs, contact us to request a quote. Custom tube fabrications are available to meet your exact specifications.

Delivery

Fast delivery is available on a wide selection of in-stock Tubing, Bends, Couplings, Fittings and Installation Components. We'll also make every effort to meet emergency requirements for non-stock items.

Standard Tubing Packaging

All 20 foot tubing orders are packaged in heavy duty tri-wall cartons. While all efforts will be made to minimize any additional costs associated with this packaging, an additional charge will be assessed for these cartons.

Pricing

All prices are FOB factory

Terms: Net 30 days

Prices are in U.S. dollars

Prices and specifications are subject to change without notice, and without obligation. All material is invoiced at the price in effect at time of shipment. All prices and discounts are based on one shipment to one destination. Please see current price list for pricing.

Note

Specifications subject to change without notice, without incurring any obligation on our part.

Inside and Outside Diameters Polishing

Provides smooth ID (180 grit) and OD (150 grit) surfaces. ID and OD polishing available only for 2"-4" OD Long Radius Bends and Straights.

Tubing

Standard Tubing

- 2-1/8" through 14" OD
- Wall Thickness: 16, 14, 12, 11 Gauge
- Materials: Carbon, Stainless, Aluminum, Galvanized Steel
- We are capable of providing 1-1/2" to 14"

When Ordering, Please Specify Type of Material:

- Carbon
- Aluminum
- Stainless
- Galvanized Steel

OD (In.)	Gauge	Nominal wall Thickness (In.)	Carbon	Galvanized Steel	Stainless	Aluminum
2-1/8	16	0.065	SF16WT212C	SF16WT212Z	SF16WT212S	SF16ST212A
2-1/8	11	0.120	SF11WT212C	SF11WT212Z*	SF11WT212S	SF11ST212A
2-1/2	16	0.065	SF16WT250C	SF16WT250Z	SF16WT250S	SF16ST250A
2-1/2	11	0.120	SF11WT250C	SF11WT250Z*	SF11WT250S	SF11ST250A
3	16	0.065	SF16WT300C	SF16WT300Z	SF16WT300S	SF16ST300A
3	11	0.120	SF11WT300C	SF11WT300Z	SF11WT300S	SF11ST300A
3-1/2	16	0.065	SF16WT350C	SF16WT350Z	SF16WT350S	SF16ST350A
3-1/2	11	0.120	SF11WT350C	SF11WT350Z*	SF11WT350S	SF11ST350A
4	16	0.065	SF16WT400C	SF16WT400Z	SF16WT400S	SF16ST400A
4	11	0.120	SF11WT400C	SF11WT400Z	SF11WT400S	SF11ST400A
5	14	0.083	SF14WT500C	SF14WT500Z	SF14WT500S	SF14ST500A
5	11	0.120	SF11WT500C	SF11WT500Z	SF11WT500S	SF11ST500A
6	14	0.083	SF14WT600C	SF14WT600Z	SF14WT600S	SF14ST600A
6	11	0.120	SF11WT600C	SF11WT600Z	SF11WT600S	SF11ST600A
8	14	0.083	SF14WT800C	SF14WT800Z	SF14WT800S	SF14ST800A
8	11	0.120	SF11WT800C	SF11WT800Z	SF11WT800S	SF11ST800A
10	12	0.109	SF12WT1000C	SF12WT1000Z	SF12WT1000S	SF12ST1000A†
12	12	0.109	SF12WT1200C	SF12WT1200Z	SF12WT1200S	SF12ST1200A†
14	12	0.109	SF12WT1400C	SF12WT1400Z	**	**

• Our standard stock (unless noted) is 20 ft. lengths, but we will cut to your specifications

* 10 ft. lengths

** Quotation Basis

† 13 GAUGE

Key

OD = Outside Diameter

GALV = Galvanized

WT = Welded Tubing

ST = Seamless Tubing

All reference dimensions are nominal.

Standard Elbows & Bends

When Ordering, Please Specify Type of Material:

Standard Specifications

- Inventories include a wide range of parts:
 - Standard Elbows (2-1/2" times OD)
 - Short Radius Elbows (1-1/2" times OD)
 - Long Radius Bends (over 2-1/2" times OD)
- Smooth, wrinkle free elbows
- Wall Thicknesses: 16, 14, 12, (11 Gauge Available in Straight Ends Only)
- (2-1/8" to 4" OD = 16 Gauge) (5" to 8" OD = 14 Gauge) (10" to 14" OD = 12 Gauge)
- Materials: Carbon, Stainless, Aluminum, Galvanized Steel

- Carbon
- Aluminum
- Stainless
- Galvanized Steel

Tube Bending Capabilities

OD (IN.)	Center Line Radius	Gauge	Wall Thickness
1-1/2	1-3/4, 2-1/2, 3, 3-1/4, 4, 6, 7-1/2, 9, 12, 15, 18, 24, 30, 36	11, 14, 16, 18	.120, .083, .065, .049
1-5/8	2-1/8, 2-1/2	16	.065
1-3/4	2-1/2, 3, 4, 4-1/2, 6, 8, 9, 12, 15, 18, 24, 30, 36	11, 14, 16	.120, .083, .065
2	2, 2-1/2, 3, 3-1/2, 4, 5, 6, 8, 9, 12, 15, 18, 24, 30, 36, 48	11, 14, 16, 18, 20	.120, .083, .065, .049, .035
2-1/8	2-7/8, 3-1/2, 4-1/4, 5, 20, 24, 36	11, 16	.120, .065
2-1/4	2-1/2, 4, 5-1/2, 8, 9, 12, 15, 18, 24, 30, 36, 42	11, 13, 14, 16, 18, 20	.120, .095, .083, .065, .049, .035
2-3/8	2-3/8, 6, 8, 12, 18, 24, 30, 36, 48	16, 18	.065, .049
2-1/2	2-1/2, 3, 3-1/4, 3-3/4, 4, 5, 6, 9, 12, 15, 18, 24, 30, 36, 48	11, 13, 14, 16	.120, .095, .083, .065, .049
2-3/4	2-3/4, 3-7/8, 15, 24, 30	11, 14, 16, 18	.120, .083, .065, .049
2-7/8	9, 10, 10-1/2, 12, 24, 30, 36, 48, 60	11, 12, 13, 14, 16, 18	.120, .109, .095, .083, .065, .049
3	3, 4-1/2, 6, 7-1/2, 9, 12, 15, 18, 24, 30, 36, 38, 48, 60	11, 12, 13, 14, 16, 18	.120, .109, .095, .083, .065, .049
3-1/8	6	16	.065
3-1/2	4, 5, 6, 7-1/2, 8, 8-3/4, 9, 12, 13, 15, 18, 24, 30,	11, 14, 15, 16, 18	.120, .083, .072, .065, .049
4	4, 6, 8, 9, 10, 12, 18, 24, 30, 36, 48, 60	10, 11, 14, 16, 18	.134, .120, .083, .065, .049
4-1/4	60	11, 13, 14	.120, .095, .083
4-1/2	9, 12, 16, 20, 24, 30, 36, 48, 60	11, 14, 16	.120, .083, .065
5	5, 5-1/2, 7-1/2, 12-1/2, 18, 24, 30, 36, 48, 60, 72	10, 11, 14, 16	.134, .120, .083, .065
6	7, 9, 15, 24, 30, 36, 48, 60, 72	10, 11, 14, 16	.134, .120, .083, .065
8	12, 20, 32, 48, 60, 72	11, 14	.120, .083
10	20, 32, 48	11, 12	.120, .109

Key

OD = Outside Diameter

All reference dimensions are nominal.

Standard Elbows & Bends

Standard Radius Elbows

- 30° and 60° elbows available
- 11 gauge elbows available (straight ends only)
- Expanded ends standard through 6" size
- Expanded one end available
- Straight ends available on all sizes by request (add "S" to the end of part no.)
- 8" size and larger only available with straight ends

A (OD) (In.)	B (CLR) (In.)	Gauge	Tan. (In.)	C (in.)	90° Part No	C (in.)	45° Part No
2-1/8	5	16	2	7	SFEL-212	4-1/16	SFEL-211
2-1/2	6	16	2	8	SFEL-252	4-1/2	SFEL-251
3	7-1/2	16	2	9-1/2	SFEL-302	5-1/8	SFEL-301
3-1/2	8-3/4	16	2	10-3/4	SFEL-352	5-5/8	SFEL-351
4	10	16	2	12	SFEL-402	6-1/8	SFEL-401
5	12-1/2	14	2-5/8	15-1/8	SFEL-502	7-13/16	SFEL-501
6	15	14	3-1/4	18-1/4	SFEL-602	9-7/16	SFEL-601
8	20	14	4-1/4	24-1/4	SFEL-802	12-9/16	SFEL-801
10	32	12	15	47	SFEL-1002	28-1/4	SFEL-1001
12	36	12	6-1/4	42-1/4	SFEL-1202	21-5/32	SFEL-1201
14	36	12	7-1/4	43-1/4	SFEL-1402	21-5/32	SFEL-1401

NOTE: Add -C, -S, -A or -Z to the end of Part No. to indicate material (e.g., SFEL-211-Z = Zinc, SFEL-211-ZS = Zinc/Straight end)

- Expansion depth for standard and short radius elbows: 1-3/8" through 4" OD and 1-5/8" for 5" and 6" OD
- 10" OD stainless parts only are segmented
- All 12" and larger OD parts are segmented

Short Radius Elbows

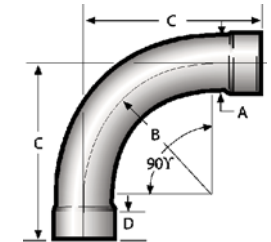
- 30° and 60° Elbows Available
- 11 Gauge Elbows Available (straight ends only)
- Expanded ends standard through 6" size
- Expanded one end available
- Straight ends available on all sizes be request (add "S" to the end of part no..)
- 8" size only available with straight ends

A (OD) (In.)	B (CLR) (In.)	Gauge	Tan. (In.)	C (in.)	90° Part No	C (in.)	45° Part No
2-1/8	3-1/2	16	2	5-1/2	SFSR-212	3-7/16	SFSR-211
2-1/2	4	16	2	6	SFSR-252	3-21/32	SFSR-251
3	4-1/2	16	2	6-1/2	SFSR-342	3-7/8	SFSR-341
3-1/2	5	16	2	7	SFSR-352	4-1/16	SFSR-354
4	6	16	2	8	SFSR-442	4-1/2	SFSR-441
5	7-1/2	14	2-5/8	10-1/8	SFSR-542	5-23/32	SFSR-541
6	9	14	3-1/4	12-1/4	SFSR-642	6-31/32	SFSR-641
8	12	14	4-1/4	16-1/4	SFSR-842	9-7/32	SFSR-841

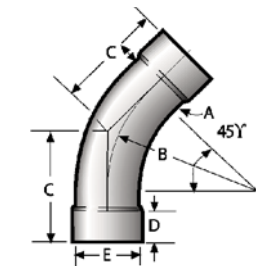
- Expansion depth for standard and short radius elbows: 1-3/8" through 4" OD and 1-5/8" for 5" and 6" OD

When Ordering, Please Specify Type of Material:

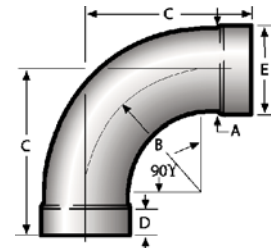
- Carbon
- Aluminum
- Stainless
- Galvanized Steel



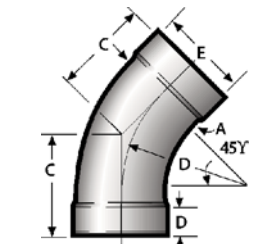
90° Standard Radius Elbow



45° Standard Radius Elbow



90° Short Radius Elbow



45° Short Radius Elbow

Key

- OD = Outside Diameter
 - CLR = Center Line Radius
 - Tan = Tangent Length
 - D = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD
 - E = Inside Diameter (ID)
= A Outside Diameter (OD)
- All reference dimensions are nominal.

Standard Elbows & Bends

Standard Long Radius Bends

- Expanded ends not available on 8" and 10" bends and all 11 gauge bends. They are available on all other sizes on a special order basis only. Please contact Customer Service for a quote.

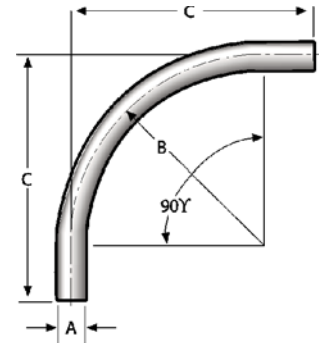
A (OD) (In.)	B (CLR) (In.)	Gauge	C (In.)	90° PART NO.	C (In.)	45° PART NO.
2-1/8	24	16	30	SF16-212242	15-15/16	SF16-212241
2-1/8	24	11	30	SF11-212242	15-15/16	SF11-212241
2-1/8	36	16	42	SF16-212362	20-15/16	SF16-212361
2-1/8	36	11	42	SF11-212362	20-15/16	SF11-212361
2-1/2	24	16	30	SF16-250242	15-15/16	SF16-250241
2-1/2	24	11	30	SF11-250242	15-15/16	SF11-250241
2-1/2	36	16	42	SF16-250362	20-15/16	SF16-250361
2-1/2	36	11	42	SF11-250362	20-15/16	SF11-250361
3	24	16	30	SF16-300242	15-15/16	SF16-300241
3	24	11	30	SF11-300242	15-15/16	SF11-300241
3	30	16	36	SF16-300302	18-7/16	SF16-300301
3	30	11	36	SF11-300302	18-7/16	SF11-300301
3	36	16	42	SF16-300362	20-15/16	SF16-300361
3	36	11	42	SF11-300362	20-15/16	SF11-300361
3	38	16	44	SF16-300382	21-3/4	SF16-300381
3	38	11	44	SF11-300382	21-3/4	SF11-300381
3	48	16	54	SF16-300482	25-7/8	SF16-300481
3	48	11	54	SF11-300482	25-7/8	SF11-300481
3-1/2	30	16	37	SF16-350302	19-7/16	SF16-350301
3-1/2	30	11	37	SF11-350302	19-7/16	SF11-350301
3-1/2	36	16	43	SF16-350362	21-15/16	SF16-350361
3-1/2	36	11	43	SF11-350362	21-15/16	SF11-350361
3-1/2	48	16	55	SF16-350482	26-7/8	SF16-350481
3-1/2	48	11	55	SF11-350482	26-7/8	SF11-350481
4	24	16	32	SF16-400242	17-15/16	SF16-400241
4	24	11	32	SF11-400242	17-15/16	SF11-400241
4	30	16	38	SF16-400302	20-7/16	SF16-400301
4	30	11	38	SF11-400302	20-7/16	SF11-400301
4	36	16	44	SF16-400362	22-15/16	SF16-400361
4	36	11	44	SF11-400362	22-15/16	SF11-400361
4	48	16	56	SF16-400482	27-7/8	SF16-400481
4	48	11	56	SF11-400482	27-7/8	SF11-400481
4	60	16	68	SF16-400602	32-7/8	SF16-400601
4	60	11	68	SF11-400602	32-7/8	SF11-400601
5	30	14	40	SF14-500302	22-7/16	SF14-500301
5	30	11	40	SF11-500302	22-7/16	SF11-500301
5	48	14	58	SF14-500482	29-7/8	SF14-500481
5	48	11	58	SF11-500482	29-7/8	SF11-500481
6	30	14	42	SF14-600302	24-7/16	SF14-600301
6	30	11	42	SF11-600302	24-7/16	SF11-600301
6	48	14	60	SF14-600482	31-7/8	SF14-600481
6	48	11	60	SF11-600482	31-7/8	SF11-600481
6	60	14	72	SF14-600602	36-7/8	SF14-600601
6	60	11	72	SF11-600602	36-7/8	SF11-600601
8	32	14	48	SF14-800322	25-1/4	SF14-800321
8	32	11	48	SF11-800322	25-1/4	SF11-800321
8	48	14	64	SF14-800482	31-7/8	SF14-800481
8	48	11	64	SF11-800482	31-7/8	SF11-800481
10	48	12	70	SF12-1000482	41-7/8	SF12-1000481

NOTE: Add -C, -S, -A or -Z to the end of Part No. to indicate material (e.g., SFEL-211-Z = Zinc, SFEL-211-ZS = Zinc/Straight end)

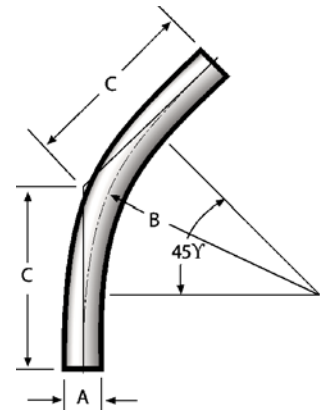
- Nominal standard tangent is two times tube OD, 6" minimum
- All standard bends have straight ends
- Nominal standard tangent for 10" bend is 22"
- 10" OD stainless parts only are segmented

When Ordering, Please Specify Type of Material:

- Carbon
- Aluminum
- Stainless
- Galvanized Steel



90° Long Radius Bend



45° Long Radius Bend

Key

OD = Outside Diameter

CLR = Center Line Radius

C = Center to end

All reference dimensions are nominal.

Fittings

Standard 90° TY's

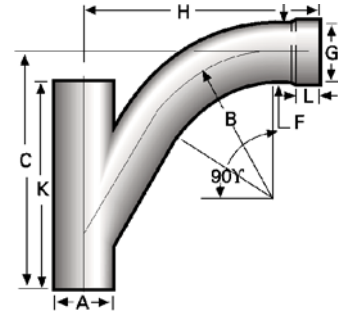
- 2-1/8" through 14" OD
- Wall Thickness: 16, 14, 12, (11 Gauge Available in Straight Ends Only)
- (• 16 Gauge: 2-1/8" to 4" OD) (14 Gauge: 5" to 8" OD) (12 Gauge: 10" to 14" OD)
- Materials: Carbon, Stainless, Aluminum, Galvanized Steel
- 11 Gauge TY's Available (straight ends only)
- Expanded ends standard through 6" size
- Straight and Expanded combinations available
- Straight ends available on all sizes by request (add "S" to the end of part no.)
- 8" size and larger only available with straight ends

Size (In.)	Gauge	A (OD)	B (In.)	C (In.)	F (OD) (In.)	H (In.)	K (In.)	Part No.
2-1/8	16	2-1/8	5	9-5/32	2-1/8	8-13/16	9-1/2	SFTY-215
2-1/2 x 2-1/8	16	2-1/2	5	9-11/32	2-1/8	9	10	SFTY-255
2-1/2	16	2-1/2	6	10-1/2	2-1/2	10-1/32	10	SFTY-256
3 x 2-1/8	16	3	5	9-19/32	2-1/8	9-1/4	10-1/2	SFTY-305
3 x 2-1/2	16	3	6	10-3/4	2-1/2	10-9/32	10-1/2	SFTY-306
3	16	3	7-1/2	12-3/8	3	11-25/32	11-1/2	SFTY-307
3-1/2 x 2-1/8	16	3-1/2	5	9-27/32	2-1/8	9-1/2	11	SFTY-355
3-1/2 x 2-1/2	16	3-1/2	6	11	2-1/2	10-17/32	11	SFTY-356
3-1/2 x 3	16	3-1/2	7-1/2	12-5/8	3	12-1/32	13	SFTY-356
3-1/2	16	3-1/2	8-3/4	14-1/8	3-1/2	13-11/32	13	SFTY-358
4 x 2-1/8	16	4	5	10-3/32	2-1/8	9-3/4	12	SFTY-405
4 x 2-1/2	16	4	6	11-1/4	2-1/2	10-25/32	12	SFTY-406
4 x 3	16	4	7-1/2	12-7/8	3	12-9/32	12	SFTY-407
4 x 3-1/2	16	4	8-3/4	14-3/8	3-1/2	13-19/32	14	SFTY-408
4	16	4	10	15-7/8	4	14-29/32	14	SFTY-409
5 x 2-1/8	14	5	5	10-19/32	2-1/8	10-1/4	13	SFTY-505
5 x 2-1/2	14	5	6	11-3/4	2-1/2	11-9/32	13	SFTY-506
5 x 3	14	5	7-1/2	13-3/8	3	12-25/32	15-1/2	SFTY-507
5 x 3-1/2	14	5	8-3/4	14-7/8	3-1/2	14-3/32	15-1/2	SFTY-508
5 x 4	14	5	10	16-3/8	4	15-13/32	15-1/2	SFTY-509
5	14	5	12-1/2	19-3/8	5	18-5/8	18-1/2	SFTY-515
6 x 2-1/8	14	6	5	11-3/32	2-1/8	10-3/4	15	SFTY-605
6 x 2-1/2	14	6	6	12-1/4	2-1/2	11-25/32	15	SFTY-606
6 x 3	14	6	7-1/2	13-7/8	3	13-9/32	15	SFTY-607
6 x 3-1/2	14	6	8-3/4	15-3/8	3-1/2	14-19/32	17	SFTY-608
6 x 4	14	6	10	16-7/8	4	15-29/32	17	SFTY-609
6 x 5	14	6	12-1/2	19-7/8	5	19-1/8	21	SFTY-614
6	14	6	15	22-7/8	6	22-11/32	21	SFTY-615
8 x 2-1/8	14	8	5	12-3/32	2-1/8	11-3/4	18	SFTY-805
8 x 2-1/2	14	8	6	13-1/4	2-1/2	12-25/32	18	SFTY-806
8 x 3	14	8	7-1/2	14-7/8	3	14-9/32	18	SFTY-807
8 x 3-1/2	14	8	8-3/4	16-3/8	3-1/2	15-19/32	21	SFTY-808
8 x 4	14	8	10	17-7/8	4	16-29/32	21	SFTY-809
8 x 5	14	8	12-1/2	20-7/8	5	20-1/8	24	SFTY-814
8 x 6	14	8	15	23-7/8	6	23-11/32	24	SFTY-815
8	14	8	20	29-7/8	8	29-17/32	29	SFTY-816
10 x 2-1/8	12	10	5	13-3/32	2-1/8	12-3/4	21	SFTY-1005

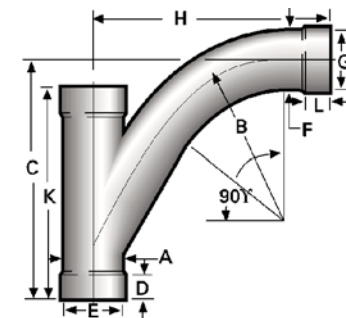
NOTE: Add -C, -S, -A or -Z to the end of Part No. to indicate material (e.g., SFEL-211-Z = Zinc, SFEL-211-ZS = Zinc/Straight end)

When Ordering, Please Specify Type of Material:

- Carbon
- Aluminum
- Stainless
- Galvanized Steel



90° TY
(one end expanded)



90° TY
(three ends expanded)

Key

- OD = Outside Diameter
- D = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD
- A = Outside Diameter (OD) = E = Inside Diameter (ID)
- F = Outside Diameter (OD) = G = Inside Diameter (ID)
- L = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD

All reference dimensions are nominal.

Fittings

Standard 90° TY's (cont.)

- 11 Gauge TY's Available (Straight ends only)
- Expanded ends standard through 6" size
- Straight and Expanded combinations available
- Straight ends available on all sizes by request (add "S" to the end of part No.)
- 8" size and larger only available with straight ends

Size (In)	Gauge	A (OD) (In)	B (In)	C (In)	F (OD) (In)	H (In)	K (In)	Part No.
10 x 2-1/2	12	10	6	14-1/4	2-1/2	13-25/32	21	SFTY-1006
10 x 3	12	10	7-1/2	15-7/8	3	15-9/32	21	SFTY-1007
10 x 3-1/2	12	10	8-3/4	17-3/8	3-1/2	16-17/32	24	SFTY-1008
10 x 4	12	10	10	18-7/8	4	17-29/32	24	SFTY-1009
10 x 5	12	10	12-1/2	21-7/8	5	21-1/8	24	SFTY-1014
10 x 6	12	10	15	24-7/8	6	24-11/32	28	SFTY-1015
10 x 8	12	10	20	30-7/8	8	30-17/32	32	SFTY-1016
10	12	10	32	40-3/8	10	42-25/32	36	SFTY-1017
12 x 2-1/8	12	12	5	14-3/32	2-1/8	13-3/4	25	SFTY-1205
12" x 2-1/2	12	12	6	15-1/4	2-1/2	14-25/32	25	SFTY-1206
12 x 3	12	12	7-1/2	16-7/8	3	16-9/32	25	SFTY-1207
12 x 3-1/2	12	12	8-3/4	18-3/8	3-1/2	17-19/32	27	SFTY-1208
12 x 4	12	12	10	19-7/8	4	18-29/32	27	SFTY-1209
12 x 5	12	12	12-1/2	22-7/8	5	22-1/8	27	SFTY-1214
12 x 6	12	12	15	25-7/8	6	25-11/32	31	SFTY-1215
12 x 8	12	12	20	31-7/8	8	31-17/32	35	SFTY-1216
12 x 10	12	12	32	41-3/8	10	43-25/32	39	SFTY-1217
12	12	12	36	46-7/8	12	49-1/8	43	SFTY-1218
14 x 8	12	14	20	32-7/8	8	32-17/23	39	SFTY-1416
14 x 10	12	14	32	42-3/8	10	44-25/32	42	SFTY-1417
14 x 12	12	14	36	47-7/8	12	50-1/8	46	SFTY-1418
14	12	14	36	51-3/8	14	50-3/4	52	SFTY-1419

- 10" od stainless branches only are segmented
- All 12" and larger OD branches are segmented

Key

OD = Outside Diameter

F = Outside Diameter (OD) = G

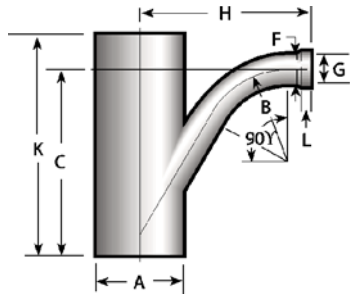
Inside Diameter (ID) (expanded end)

L = Expansion Depth 1-3/8" through 4" OD,
1-5/8" for 5" and 6" OD

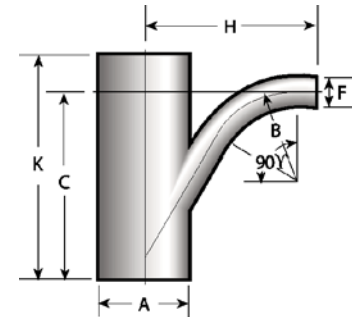
All reference dimensions are nominal.

When Ordering, Please Specify Type of Material:

- Carbon
- Aluminum
- Stainless
- Galvanized Steel



90° TY
(one end expanded)



90° TY
(straight ends)

Fittings

Standard 45° YL's

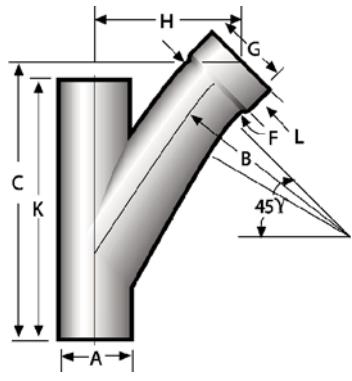
- 2-1/8" through 14" OD
- Wall Thickness: 16, 14, 12, (11 Gauge Available in Straight Ends Only)
- (16 Gauge: 2-1/8" to 4" OD) (14 Gauge: 5" to 8" OD) (12 Gauge: 10" to 14" OD)
- Materials: Carbon, Stainless, Aluminum, Galvanized Steel
- 11 Gauge YL's Available (straight ends only)
- Expanded ends standard through 6" size
- Straight and Expanded combinations available
- Straight ends available on all sizes by request (add "S" to the part No.)
- 8" size and larger only available with straight ends

Size (In)	Gauge	A (OD) (In)	B (In)	C (In)	F (OD) (In)	H (In)	K (In)	Part No.
2-1/8	16	2-1/8	5	9-3/32	2-1/8	4-11/16	9-1/2	SFYL-2151
2-1/2 x 2-1/8	16	2-1/2	5	9-9/32	2-1/8	4-7/8	10	SFYL-2551
2-1/2	16	2-1/2	6	10-5/32	2-1/2	5-3/16	10	SFYL-2561
3 x 2-1/8	16	3	5	9-17/32	2-1/8	5-1/8	10-1/2	SFYL-3051
3 x 2-1/2	16	3	6	10-13/32	2-1/2	5-7/16	10-1/2	SFYL-3061
3	16	3	7-1/2	11-19/32	3	5-29/32	11-1/2	SFYL-3071
3-1/2 x 2-1/8	16	3-1/2	5	9-25/32	2-1/8	5-3/8	11	SFYL-3551
3-1/2 x 2-1/2	16	3-1/2	6	10-21/32	2-1/2	5-11/16	11	SFYL-3561
3-1/2 x 3	16	3-1/2	7-1/2	11-27/32	3	6-5/32	13	SFYL-3571
3-1/2	16	3-1/2	8-3/4	12-31/32	3-1/2	6-9/16	13	SFYL-3581
4 x 2-1/8	16	4	5	10-1/32	2-1/8	5-5/8	12	SFYL-4051
4 x 2-1/2	16	4	6	10-29/32	3-1/2	5-15/16	12	SFYL-4061
4 x 3	16	4	7-1/2	12-3/32	3	6-13/32	12	SFYL-4071
4 x 3-1/2	16	4	8-3/4	13-7/32	3-1/2	6-13/16	14	SFYL-4081
4	16	4	10	14-11/32	4	7-1/4	14	SFYL-4091
5 x 2-1/8	14	5	5	10-17/32	2-1/8	6-1/8	13	SFYL-5051
5 x 2-1/2	14	5	6	11-13/32	2-1/2	6-7/16	13	SFYL-5061
5 x 3	14	5	7-1/2	12-19/32	3	6-29/32	15-1/2	SFYL-5071
5 x 3-1/2	14	5	8-3/4	13-23/32	3-1/2	7-5/16	15-1/2	SFYL-5081
5 x 4	14	5	10	14-27/32	4	7-3/4	15-1/2	SFYL-5091
5	14	5	12-1/2	17-9/16	5	9	15-1/2	SFYL-5151
6 x 2-1/8	14	6	5	11-1/32	2-1/8	6-5/8	15	SFYL-6051
6 x 2-1/2	14	6	6	11-29/32	2-1/2	6-15/16	15	SFYL-6061
6 x 3	14	6	7-1/2	13-3/32	3	7-13/32	15	SFYL-6071
6 x 3-1/2	14	6	8-3/4	14-7/32	3-1/2	7-13/16	17	SFYL-6081
6 x 4	14	6	10	15-11/32	4	8-1/4	17	SFYL-6091
6 x 5	14	6	12-1/2	18-1/16	5	9-1/2	21	SFYL-6141
6	14	6	15	20-25/32	6	10-25/32	21	SFYL-6151
8 x 2-1/8	14	8	5	12-1/32	2-1/8	7-5/8	18	SFYL-8051
8 x 2-1/2	14	8	6	12-29/32	2-1/2	7-15/16	18	SFYL-8061
8 x 3	14	8	7-1/2	14-3/32	3	8-13/32	18	SFYL-8071
8 x 3-1/2	14	8	8-3/4	15-7/32	3-1/2	8-13/16	21	SFYL-8081
8 x 4	14	8	10	16-11/32	4	9-1/4	21	SFYL-8091
8 x 5	14	8	12-1/2	19-1/16	5	10-1/2	24	SFYL-8141
8 x 6	14	8	15	21-25/32	6	11-25/32	24	SFYL-8151
8	14	8	20	27	8	14-5/32	29	SFYL-8161
10 x 2-1/8	12	10	5	13-1/32	2-1/8	8-5/8	21	SFYL-10051

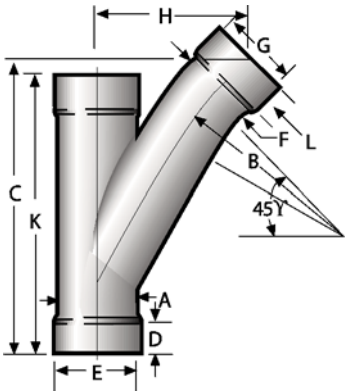
NOTE: Add -C, -S, -A or -Z to the end of Part No. to indicate material (e.g., SFEL-211-Z = Zinc, SFEL-211-ZS = Zinc/Straight end)

When Ordering, Please Specify Type of Material:

- Carbon
- Aluminum
- Stainless
- Galvanized Steel



45° YL
(one end expanded)



45° YL
(three ends expanded)

Key
 OD = Outside Diameter
 D = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD
 A = Outside Diameter (OD) = E = Inside Diameter (ID)
 F = Outside Diameter (OD) = G = Inside Diameter (ID)
 L = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD
 All reference dimensions are nominal.

Fittings

Standard 45° YL's (cont.)

- 11 Gauge YL's Available (straight ends only)
- Expanded ends standard through 6" size
- Straight and Expanded combinations available
- Straight ends available on all sizes by request (add "S" to the part No.)
- 8" size and larger only available with straight ends

Size (In)	Gauge	A (OD) (In)	B (In)	C (In)	F (OD) (In)	H (In)	K (In)	Part No.
10 x 2-1/2	12	10	6	13-29/32	2-1/2	8-15/16	21	SFYL-10061
10 x 3	12	10	7-1/2	15-3/32	3	9-13/32	21	SFYL-10071
10 x 3-1/2	12	10	8-3/4	16-7/32	3-1/2	9-13/16	24	SFYL-10081
10 x 4	12	10	10	17-11/32	4	10-1/4	24	SFYL-10091
10 x 5	12	10	12-1/2	20-1/16	5	11-1/2	24	SFYL-10141
10 x 6	12	10	15	22-3/4	6	12-25/32	28	SFYL-10151
10 x 8	12	10	20	28	8	15-5/32	32	SFYL-10161
10	12	10	32	34-11/16	10	18-5/8	36	SFYL-10171
12 x 2-1/8	12	12	5	14-1/32	2-1/8	9-5/8	24	SFYL-12051
12 x 2-1/2	12	12	6	14-29/32	2-1/2	9-31/32	24	SFYL-12061
12 x 3	12	12	7-1/2	16-3/32	3	10-13/32	24	SFYL-12071
12 x 3-1/2	12	12	8-3/4	17-7/32	3-1/2	10-13/16	27	SFYL-12081
12 x 4	12	12	10	18-11/32	4	11-1/4	27	SFYL-12091
12 x 5	12	12	12-1/2	21-1/16	5	12-1/2	27	SFYL-12141
12 x 6	12	12	15	23-3/4	6	13-25/32	31	SFYL-12151
12 x 8	12	12	20	29	8	16-5/32	35	SFYL-12161
12 x 10	12	12	32	35-11/16	10	19-5/8	39	SFYL-12171
12	12	12	36	40-3/4	12	21-27/32	43	SFYL-12181
14 x 8	12	14	20	30	8	17-5/32	38	SFYL-14161
14 x 10	12	14	32	36-11/32	10	20-5/8	42	SFYL-14171
14 x 12	12	14	36	41-3/4	12	22-27/32	46	SFYL-14181
14	12	14	36	45-15/16	14	24-13/32	52	SFYL-14191

- 10" od stainless branches only are segmented
- All 12" and larger OD branches are segmented

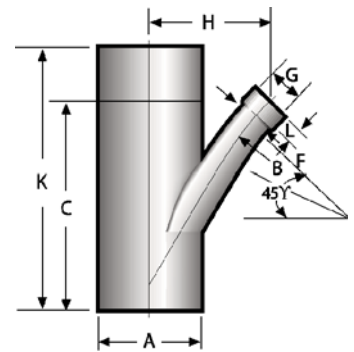
Key

- OD = Outside Diameter
 D = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD
 A = Outside Diameter (OD) =
 E = Inside Diameter (ID)
 F = Outside Diameter (OD) =
 G = Inside Diameter (ID)
 L = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD

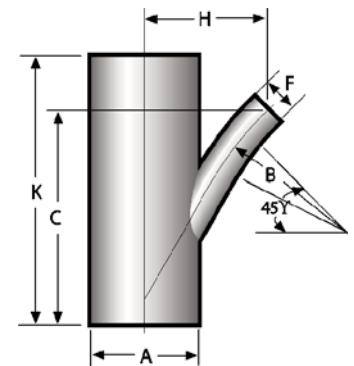
All reference dimensions are nominal.

When Ordering, Please Specify Type of Material:

- Carbon
- Aluminum
- Stainless
- Galvanized Steel



45° YL
(one end expanded)



45° YL
(straight ends)

Fittings

STANDARD DOUBLE Y'S

Standard Double 90° TY's

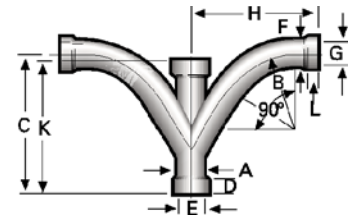
- 2-1/8" through 14" OD
- Wall Thickness: 16, 14, 12, (11 Gauge Available in Straight Ends Only)
- (16 Gauge: 2-1/8" to 4" OD) (14 Gauge: 5" to 8" OD) (12 Gauge: 10" to 14" OD)
- Materials: Carbon, Stainless, Aluminum, Galvanized Steel
- 11 Gauge TY's Available (straight ends only)
- Expanded ends standard through 6" size
- Straight and Expanded combinations available
- Straight ends available on all sizes by request (add "S" to the part No.)
- 8" size and larger only available with straight ends

Size (In)	Gauge	A (OD) (In)	B (In)	C (In)	F (OD) (In)	H (In)	K (In)	Part No.
2-1/8	16	2-1/8	5	9-5/32	2-1/8	8-13/16	9-1/2	SFDTY-215
2-1/2 x 2-1/8	16	2-1/2	5	9-11/32	2-1/8	9	10	SFDTY-255
2-1/2	16	2-1/2	6	10-1/2	2-1/2	10-1/32	10	SFDTY-256
3 x 2-1/8	16	3	5	9-19/32	2-1/8	9-1/4	10-1/2	SFDTY-305
3 x 2-1/2	16	3	6	10-3/4	2-1/2	10-9/32	10-1/2	SFDTY-306
3	16	3	7-1/2	12-3/8	3	11-25/32	10-1/2	SFDTY-307
3-1/2 x 2-1/8	16	3-1/2	5	9-27/32	2-1/8	9-1/2	11	SFDTY-355
3-1/2 x 2-1/2	16	3-1/2	6	11	2-1/2	10-17/32	11	SFDTY-356
3-1/2 x 3	16	3-1/2	7-1/2	12-5/8	3	12-1/32	13	SFDTY-357
3-1/2	16	3-1/2	8-3/4	14-1/8	3-1/2	13-11/32	13	SFDTY-358
4 x 2-1/8	16	4	5	10-3/32	2-1/8	9-3/4	12	SFDTY-405
4 x 2-1/2	16	4	6	11-1/4	2-1/2	10-25/32	12	SFDTY-406
4 x 3	16	4	7-1/2	12-7/8	3	12-9/32	12	SFDTY-407
4 x 3-1/2	16	4	8-3/4	14-3/8	3-1/2	13-19/32	14	SFDTY-408
4	16	4	10	15-7/8	4	14-29/32	14	SFDTY-409
5 x 2-1/8	14	5	5	10-19/32	2-1/8	10-1/4	13	SFDTY-505
5 x 2-1/2	14	5	6	11-3/4	2-1/2	11-9/32	13	SFDTY-506
5 x 3	14	5	7-1/2	13-3/8	3	12-25/32	15-1/2	SFDTY-507
5 x 3-1/2	14	5	8-3/4	14-7/8	3-1/2	14-3/32	15-1/2	SFDTY-508
5 x 4	14	5	10	16-3/8	4	15-13/32	15-1/2	SFDTY-509
5	14	5	12-1/2	19-3/8	5	18-5/8	18-1/2	SFDTY-515
6 x 2-1/8	14	6	5	11-3/32	2-1/8	10-3/4	15	SFDTY-605
6 x 2-1/2	14	6	6	12-1/4	2-1/2	11-25/32	15	SFDTY-606
6 x 3	14	6	7-1/2	13-7/8	3	13-9/32	15	SFDTY-607
6 x 3-1/2	14	6	8-3/4	15-3/8	3-1/2	14-19/32	17	SFDTY-608
6 x 4	14	6	10	16-7/8	4	15-29/32	17	SFDTY-609
6 x 5	14	6	12-1/2	19-7/8	5	19-1/8	21	SFDTY-614
6	14	6	15	22-7/8	6	22-11/32	21	SFDTY-615
8 x 2-1/8	14	8	5	12-3/32	2-1/8	11-3/4	18	SFDTY-805
8 x 2-1/2	14	8	6	13-1/4	2-1/2	12-25/32	18	SFDTY-806
8 x 3	14	8	7-1/2	14-7/8	3	14-9/32	18	SFDTY-807
8 x 3-1/2	14	8	8-3/4	16-3/8	3-1/2	15-19/32	21	SFDTY-808
8 x 4	14	8	10	17-7/8	4	16-29/32	21	SFDTY-809
8 x 5	14	8	12-1/2	20-7/8	5	20-1/8	24	SFDTY-814
8 x 6	14	8	15	23-7/8	6	23-11/32	24	SFDTY-815
8	14	8	20	29-7/8	8	29-17/32	29	SFDTY-816
10 x 2-1/8	12	10	5	13-3/32	2-1/8	12-3/4	21	SFDTY-1005
10 x 2-1/2	12	10	6	14-1/4	2-1/2	13-25/32	21	SFDTY-1006
10 x 3	12	10	7-1/2	15-7/8	3	15-9/32	21	SFDTY-1007
10 x 3-1/2	12	10	8-3/4	17-3/8	3-1/2	16-17/32	24	SFDTY-1008
10 x 4	12	10	10	18-7/8	4	17-29/32	24	SFDTY-1009
10 x 5	12	10	12-1/2	21-7/8	5	21-1/8	24	SFDTY-1014

NOTE: Add -C, -S, -A or -Z to the end of Part No. to indicate material (e.g., SFEL-211-Z = Zinc, SFEL-211-ZS = Zinc/Straight end

When Ordering, Please Specify Type of Material:

- Carbon
- Aluminum
- Stainless
- Galvanized Steel



Standard Double 90° TY

NOTE:

All standard Double Y's are special order and non-returnable.

Key

- OD = Outside Diameter
- D = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD
- A = Outside Diameter (OD) = E = Inside Diameter (ID)
- F = Outside Diameter (OD) = G = Inside Diameter (ID)
- L = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD

All reference dimensions are nominal.

Fittings

STANDARD DOUBLE Y'S

Standard Double 90° TY's (cont.)

- 11 Gauge TY's Available (straight ends only)
- Expanded ends standard through 6" size
- Straight and Expanded combinations available
- Straight ends available on all sizes by request (add "S" to the part No.)
- 8" size and larger only available with straight ends

Size (In)	Gauge	A (OD) (In)	B (In)	C (In)	F (OD) (In)	H (In)	K (In)	Part No.
10 x 8	12	10	20	30-7/8	8	30-17/32	32	SFDTY-1016
10	12	10	32	40-3/8	10	42-25/32	36	SFDTY-1017
12 x 2-1/8	12	12	5	14-3/32	2-1/8	13-3/4	24	SFDTY-1205
12 x 2-1/2	12	12	6	15-1/4	2-1/2	14-25/32	24	SFDTY-1206
12 x 3	12	12	7-1/2	16-7/8	3	16-9/32	24	SFDTY-1207
12 x 3-1/2	12	12	8-3/4	18-3/8	3-1/2	17-19/32	27	SFDTY-1208
12 x 4	12	12	10	19-7/8	4	18-29/32	27	SFDTY-1209
12 x 5	12	12	12-1/2	22-7/8	5	22-1/8	27	SFDTY-1214
12 x 6	12	12	15	25-7/8	6	25-11/32	31	SFDTY-1215
12 x 8	12	12	20	31-7/8	8	31-17/32	35	SFDTY-1216
12 x 10	12	12	32	41-3/8	10	43-25/32	39	SFDTY-1217
12	12	12	36	46-7/8	12	49-1/8	43	SFDTY-1218
14 x 8	12	14	20	32-7/8	8	32-17/23	38	SFDTY-1416
14 x 10	12	14	32	42-3/8	10	44-25/32	42	SFDTY-1417
14 x 12	12	14	36	47-7/8	12	50-1/8	46	SFDTY-1418
14	12	14	36	51-3/8	14	50-3/4	52	SFDTY-1419

- 10" od stainless branches only are segmented
- All 12" and larger OD branches are segmented

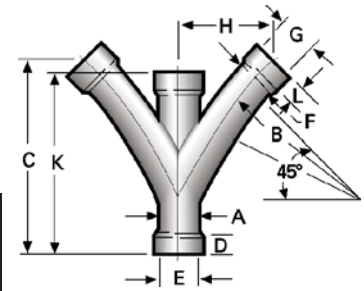
Standard Double 45° YL's

- 11 Gauge YL's Available (straight ends only)
- Expanded ends standard through 6" size
- Straight and Expanded combinations available
- Straight ends available on all sizes by request (add "S" to the part No.)
- 8" size and larger only available with straight ends

Size (In)	Gauge	A (OD) (In)	B (In)	C (In)	F (OD) (In)	H (In)	K (In)	Part No.
2-1/8	16	2-1/8	5	9-3/32	2-1/8	4-11/16	9-1/2	SFDYL-2151
2-1/2 x 2-1/8	16	2-1/2	5	9-9/32	2-1/8	4-7/8	10	SFDYL-2551
2-1/2	16	2-1/2	6	10-5/32	2-1/2	5-3/16	10	SFDYL-2561
3 x 2-1/8	16	3	5	9-17/32	2-1/8	5-1/8	10-1/2	SFDYL-3051
3 x 2-1/2	16	3	6	10-13/32	2-1/2	5-7/16	10-1/2	SFDYL-3061
3	16	3	7-1/2	11-19/32	3	5-29/32	10-1/2	SFDYL-3071
3-1/2 x 2-1/8	16	3-1/2	5	9-25/32	2-1/8	5-3/8	11	SFDYL-3551
3-1/2 x 2-1/2	16	3-1/2	6	10-21/32	2-1/2	5-11/16	11	SFDYL-3561
3-1/2 x 3	16	3-1/2	7-1/2	11-27/32	3	6-5/32	13	SFDYL-3571
3-1/2	16	3-1/2	8-3/4	12-31/32	3-1/2	6-9/16	13	SFDYL-3581
4 x 2-1/8	16	4	5	10-1/32	2-1/8	5-5/8	12	SFDYL-4051
4 x 2-1/2	16	4	6	10-29/32	2-1/2	5-15/16	12	SFDYL-4061
4 x 3	16	4	7-1/2	12-3/32	3	6-13/32	12	SFDYL-4071
4 x 3-1/2	16	4	8-3/4	13-7/32	2-1/2	6-13/16	14	SFDYL-4081
4	16	4	10	14-11/32	4	7-1/4	14	SFDYL-4091
5 x 2-1/8	14	5	5	10-17/32	2-1/8	6-1/8	13	SFDYL-5051

When Ordering, Please Specify Type of Material:

- Carbon
- Aluminum
- Stainless
- Galvanized Steel



Standard Double 45° YL

NOTE:

All standard Double Y's are special order and non-returnable.

Key

- OD = Outside Diameter
- D = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD
- A = Outside Diameter (OD) = E = Inside Diameter (ID)
- F = Outside Diameter (OD) = G = Inside Diameter (ID)
- L = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD

All reference dimensions are nominal.

Fittings

STANDARD DOUBLE Y'S

Standard Double 45° YL's (cont.)

- 11 Gauge YL's Available (straight ends only)
- Expanded ends standard through 6" size
- Straight and Expanded combinations available
- Straight ends available on all sizes by request (add "S" to the part No.)
- 8" size and larger only available with straight ends

Size (In)	Gauge	A (OD) (In)	B (In)	C (In)	F (OD) (In)	H (In)	K (In)	Part No.
5 x 2-1/2	14	5	6	11-13/32	2-1/2	6-7/16	13	SFDYL-5061
5 x 3	14	5	7-1/2	12-19/32	3	6-29/32	15-1/2	SFDYL-5071
5 x 3-1/2	14	5	8-3/4	13-23/32	3-1/2	7-5/16	15-1/2	SFDYL-5081
5 x 4	14	5	10	14-27/32	4	7-3/4	15-1/2	SFDYL-5091
5 x 5	14	5	12-1/2	17-9/16	5	9	18-1/2	SFDYL-5151
6 x 2-1/8	14	6	5	11-1/32	2-1/8	6-5/8	15	SFDYL-6051
6 x 2-1/2	14	6	6	11-29/32	2-1/2	6-15/16	15	SFDYL-6061
6 x 3	14	6	7-1/2	13-3/32	3	7-13/32	15	SFDYL-6071
6 x 3-1/2	14	6	8-3/4	14-7/32	3-1/2	7-13/16	17	SFDYL-6081
6 x 4	14	6	10	15-11/32	4	8-1/4	17	SFDYL-6091
6 x 5	14	6	12-1/2	18-1/16	5	9-1/2	21	SFDYL-6141
6 x 6	14	6	15	20-25/32	6	10-25/32	21	SFDYL-6151
8 x 2-1/8	14	8	5	12-1/32	2-1/8	7-5/8	18	SFDYL-8051
8 x 2-1/2	14	8	6	12-29/32	2-1/2	7-15/16	18	SFDYL-8061
8 x 3	14	8	7-1/2	14-3/32	3	8-13/32	18	SFDYL-8071
8 x 3-1/2	14	8	8-3/4	15-7/32	3-1/2	8-13/16	21	SFDYL-8081
8 x 4	14	8	10	16-11/32	4	9-1/4	21	SFDYL-8091
8 x 5	14	8	12-1/2	19-1/16	5	10-1/2	24	SFDYL-8141
8 x 6	14	8	15	21-25/32	6	11-25/32	24	SFDYL-8151
8 x 8	14	8	20	27	8	14-5/32	29	SFDYL-8161
10 x 2-1/8	12	10	5	13-1/32	2-1/8	8-5/8	21	SFDYL-10051
10x x 2-1/2	12	10	6	13-29/32	2-1/2	8-15/16	21	SFDYL-10061
10 x 3	12	10	7-1/2	15-3/32	3	9-13/32	21	SFDYL-10071
10 x 3-1/2	12	10	8-3/4	16-7/32	3-1/2	9-13/16	24	SFDYL-10081
10 x 4	12	10	10	17-11/32	4	10-1/4	24	SFDYL-10091
10 x 5	12	10	12-1/2	20-1/16	5	11-1/2	24	SFDYL-10141
10 x 6	12	10	15	22-3/4	6	12-25/32	28	SFDYL-10151
10x x 8	12	10	20	28	8	15-5/32	32	SFDYL-10161
10	12	10	32	34-11/16	10	18-5/8	36	SFDYL-10171
12 x 2-1/8	12	12	5	14-1/32	2-1/8	9-5/8	24	SFDYL-12051
12 x 2-1/2	12	12	6	14-29/32	2-1/2	9-31/32	24	SFDYL-12061
12 x 3	12	12	7-1/2	16-3/32	3	10-13/32	24	SFDYL-12071
12 x 3-1/2	12	12	8-3/4	17-7/32	3-1/2	10-13/16	27	SFDYL-12081
12 x 4	12	12	10	18-11/32	4	11-1/4	27	SFDYL-12091
12 x 5	12	12	12-1/2	21-1/16	5	12-1/2	27	SFDYL-12141
12 x 6	12	12	15	23-3/4	6	13-25/32	31	SFDYL-12151

- 10" od stainless branches only are segmented
- All 12" and larger OD branches are segmented

When Ordering, Please Specify Type of Material:

- Carbon
- Aluminum
- Stainless
- Galvanized Steel

NOTE:

All standard Double Y's are special order and non-returnable.

Key

- OD = Outside Diameter
 D = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD
 A = Outside Diameter (OD) =
 E = Inside Diameter (ID)
 F = Outside Diameter (OD) =
 G = Inside Diameter (ID)
 L = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD

All reference dimensions are nominal.

Fittings

STANDARD DOUBLE Y'S

Standard Double 45° YL's (cont.)

- 11 Gauge YL's Available (straight ends only)
- Expanded ends standard through 6" size
- Straight and Expanded combinations available
- Straight ends available on all sizes by request (add "S" to the part No.)
- 8" size and larger only available with straight ends

Size (In)	Gauge	A (OD) (In)	B (In)	C (In)	F (OD) (In)	H (In)	K (In)	Part No.
12 x 8	12	12	20	29	8	16-5/32	35	SFDYL-12161
12 x 10	12	12	32	35-11/16	10	19-5/8	39	SFDYL-12171
12	12	12	36	40-3/4	12	21-27/32	43	SFDYL-12181
14 x 8	12	14	20	30	8	17-5/32	38	SFDYL-14161
14 x 10	12	14	32	36-11/32	10	20-5/8	42	SFDYL-14171
14 x 12	12	14	36	41-3/4	12	22-27/32	46	SFDYL-14181
14	12	14	36	45-15/16	14	24-13/32	52	SFDYL-14191

- 10" od stainless branches only are segmented
- All 12" and larger OD branches are segmented

Standard Double 90° Y's

- 11 Gauge Y's Available (straight ends only)
- Expanded ends standard through 6" size
- Straight and Expanded combinations available
- Straight ends available on all sizes by request (add "S" to the part No.)

Size (In)	Gauge	A (OD) (In)	B (In)	C (In)	F (OD) (In)	H (In)	K (In)	Part No.
2-1/8	16	2-1/8	5	7	2-1/8	7	—	SFDY-215
2-1/2	16	2-1/2	6	8	2-1/2	8	—	SFDY-256
3	16	3	7-1/2	9-1/2	3	9-1/2	—	SFDY-307
3-1/2	16	3-1/2	8-3/4	10-3/4	3-1/2	10-3/4	—	SFDY-358
4	16	4	10	12	4	12	—	SFDY-409
5	14	5	12-1/2	15-1/8	5	15-1/8	—	SFDY-515
6	14	6	15	18-1/4	6	18-1/4	—	SFDY-615

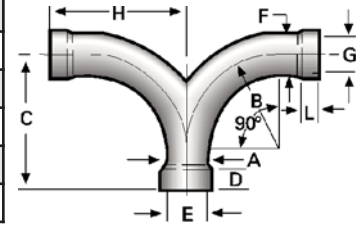
Key

- OD = Outside Diameter
 D = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD
 A = Outside Diameter (OD) =
 E = Inside Diameter (ID)
 F = Outside Diameter (OD) =
 G = Inside Diameter (ID)
 L = Expansion Depth 1-3/8" through 4" OD, 1-5/8" for 5" and 6" OD

All reference dimensions are nominal.

When Ordering, Please Specify Type of Material:

- Carbon
- Aluminum
- Stainless
- Galvanized Steel



Standard Double 90° Y

NOTE:

All standard Double Y's are special order and non-returnable.

Fittings

STANDARD ADAPTERS

Female and Male Adapters

- 2" to 12"
- Wall Thickness: 16, 14, 12, 11 Gauge
- Materials: Carbon, Stainless, Aluminum, Galvanized Steel

Female Adapters

- 11 Gauge Available

Size (In)	Gauge	A-FNPT (In)	C (In)	F (OD) (In)	Part No.
2 to 2-1/8	16	2	6	2-1/8	SFFA-211
2-1/2 to 2-1/2	16	2-1/2	6	2-1/2	SFFA-251
3 to 3	16	3	6	3	SFFA-301
3-1/2 to 3-1/2	16	3-1/2	6	3-1/2	SFFA-351
4 to 4	16	4	6-1/2	4	SFFA-401
5 to 5	14	5	6-3/4	5	SFFA-501
6 to 6	14	6	7	6	SFFA-601
8 to 8	14	2	9	8	SFFA-801
10 to 10	12	10	11	10	SFFA-1001
12 to 12	12	12	13	12	SFFA-1201

NOTE: Add -C, -S, -A or -Z to the end of Part No. to indicate material (e.g., SFEL-211-Z = Zinc, SFEL-211-ZS = Zinc/Straight end) • 10" od stainless branches only are segmented

Male Adapters

- 11 Gauge Available

Size (In)	Gauge	A-MNPT (In)	C (In)	F (OD) (In)	Part No.
2 to 2-1/8	16	2	6	2-1/8	SFMA-212
2-1/2 to 2-1/2	16	2-1/2	6	2-1/2	SFMA-252
3 to 3	16	3	6	3	SFMA-302
3-1/2 to 3-1/2	16	3-1/2	6	3-1/2	SFMA-352
4 to 4	16	4	6	4	SFMA-402
5 to 5	14	5	6-1/2	5	SFMA-502
6 to 6	14	6	7	6	SFMA-602
8 to 8	14	8	8	8	SFMA-802
10 to 10	12	10	8-1/2	10	SFMA-1002
12 to 12	12	12	9	12	SFMA-1202

NOTE: Add -C, -S, -A or -Z to the end of Part No. to indicate material (e.g., SFEL-211-Z = Zinc, SFEL-211-ZS = Zinc/Straight end)

Male Adapters

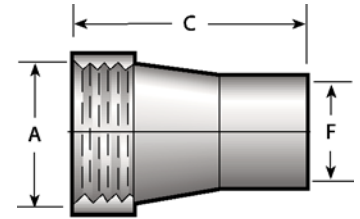
- 2-1/8"
- Materials: Carbon, Stainless, Aluminum, Galvanized Steel

Size (In)	A-MNPT (In)	C (In)	D (In)	F (ID) (In)	F (OD) (In)	Part No.
2-1/8" x 1-1/4	1-1/4	5-3/4	—	—	2-1/8	SFMA-16
2-1/8" x 1-1/2	1-1/2	5-3/4	—	—	2-1/8	SFMA-17
2-1/8" x 1-1/4	1-1/4	5-3/4	1-1/4 *	2-1/8	—	SFMA-18
2-1/8" x 1-1/2	1-1/2	5-3/4	1-1/4 *	2-1/8	—	SFMA-19

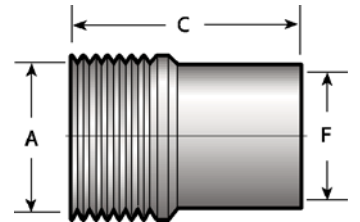
* Expansion Depth

When Ordering, Please Specify Type of Material:

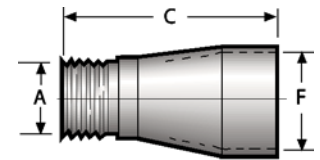
- Carbon
- Aluminum
- Stainless
- Galvanized Steel



Female Adapter



Male Adapter



Male Adapter

Key

FNPT = Female National Pipe Thread
 OD = Outside Diameter
 MNPT = Male National Pipe Thread
 ID = Inside Diameter
 All reference dimensions are nominal.

Fittings

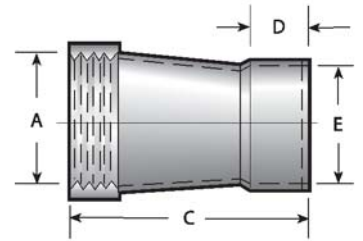
STANDARD ADAPTERS (CONT.)

Female and Male Adapter Expanded

- 2" to 6"
- Wall Thickness: 16, 14, 12, Gauge
- Materials: Carbon, Stainless, Aluminum, Galvanized Steel

Female Adapter Expanded

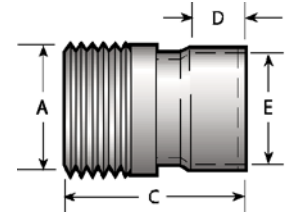
Size (In)	Gauge	A-FNPT (In)	C (In)	D (In)	E (ID) (In)	Part No.
2 to 2-1/8	16	2	6	1-3/8	2-1/8	SFFA-213
2-1/2 to 2-1/2	16	2-1/2	5	1-3/8	2-1/2	SFFA-253
3 to 3	16	3	5-1/4	1-3/8	3	SFFA-303
3-1/2 to 3-1/2	16	3-1/2	5-1/2	1-3/8	3-1/2	SFFA-353
4 to 4	16	4	6-1/2	1-3/8	4	SFFA-403
5 to 5	14	5	6-3/4	1-5/8	5	SFFA-503
6 to 6	14	6	7	1-5/8	6	SFFA-603



Female Adapter Expanded

Male Adapter Expanded

Size (In)	Gauge	A-MNPT (In)	C (In)	D (In)	E (ID) (In)	Part No.
2 to 2-1/8	16	2	4	1-3/8	2-1/8	SFMA-214
2-1/2 to 2-1/2	16	2-1/2	4	1-3/8	2-1/2	SFMA-254
3 to 3	16	3	4-3/4	1-3/8	3	SFMA-304
3-1/2 to 3-1/2	16	3-1/2	4-3/4	1-3/8	3-1/2	SFMA-354
4 to 4	16	4	4-3/4	1-3/8	4	SFMA-404
5 to 5	14	5	5	1-5/8	5	SFMA-504
6 to 6	14	6	5-1/4	1-5/8	6	SFMA-604



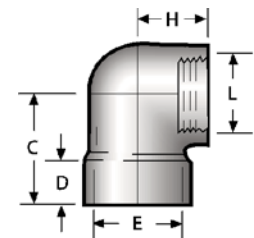
Male Adapter Expanded

90° Adapter Elbow

- 2-1/8" to 2"

Size (In)	C (In)	D (In)	E (ID) (In)	H (In)	L-FNPT (In)	Part No.
2-1/8 to 2	2-9/16	1-3/8	2-1/8	1-5/8	2	SFAE211*

* Available only in Cast Gray Iron, Zinc, Nickel Plated or Cast Aluminum



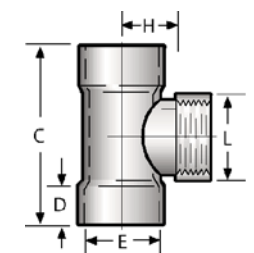
90° Adapter Elbow

Adapter Tees

- 2-1/8" to 4"
- 11 Gauge Adapters Available

Size (In)	C (In)	D (In)	E (ID) (In)	H (In)	L-FNPT (In)	Part No.
2-1/8 to 2	4-13/16	1-3/8	2-1/8	1-9/16	2	SFAT-212*
2-1/2 to 2	6-1/2	1-3/8	2-1/2	2-1/8	2	SFAT-250
3 to 2	6-1/2	1-3/8	3	2-3/4	2	SFAT-302
3-1/2 to 2	6-7/8	1-3/8	3-1/2	3-7/16	2	SFAT-352
4 to 2	6-7/8	1-3/8	4	3-7/16	2	SFAT-402

* Available only in Cast Gray Iron, Zinc, Nickel Plated or Cast Aluminum & noT 11 gauge



Adapter Tee

When Ordering, Please Specify Type of Material:

- Carbon
- Aluminum
- Stainless
- Galvanized Steel

Key

FNPT = Female National Pipe Thread

OD = Outside Diameter

MNPT = Male National Pipe Thread

All reference dimensions are nominal.

Fittings

STANDARD ADAPTERS (CONT.)

Male Adapter Nipple

- 2-1/8"
- Materials: Carbon, Stainless, Aluminum, Galvanized Steel

Size (In)	A-MNPT (In)	C (In)	E (ID) (In)	Part No.
2-1/8	2	2	2-1/8	SFMA-20

Female Reducing Adapter

- 2" to 2-1/2"
- Wall Thickness: 16 Gauge
- Materials: Carbon, Stainless, Aluminum, Galvanized Steel

Size (In)	Gauge	A-FNPT (In)	C (In)	F (OD) (In)	Part No.
2 to 2-1/2	16	2	4-1/4	2-1/2	SFFA-205

Female Reducing Adapter Expanded

- 2" to 2-1/2"
- Wall Thickness: 16 Gauge

Size (In)	Gauge	A-FNPT (In)	C (In)	D (In)	E (ID)	Part No.
2" to 2-1/2	16	2	4-1/4	1-3/8	2-1/2	SFFA-206

45° Female Adapter Elbow

- 2-1/8" to 2-1/2" OD
- Wall Thickness: 16, (11 Gauge Available in Straight Ends Only)
- Materials: Carbon, Stainless, Aluminum, Galvanized Steel

Size (In)	A (OD) (In)	Gauge	B (In)	C (In)	D (In)	E (ID) (In)	L-FNPT (In)	Part No.
2-1/8" to 2	2-1/8	16	5	4-1/16	1-3/8	2-1/8	2	SFAE-2111
2-1/2" to 2	2-1/2	16	6	4-1/2	1-3/8	2-1/2	2	SFAE-2511
2-1/2" to 2-1/2	2-1/2	16	6	4-1/2	1-3/8	2-1/2	2-1/2	SFAE-2512

Expanded Fittings

This type of connection enables a straight section of tubing to slip inside the expanded end of the fitting. The two pieces can then be "locked" together by any one of several techniques - brazing, welding, industrial adhesive or shrink sleeve. Not available in 11 gauge material. Joining methods are for use in low pressure (under 15 PSIG) and low vacuum (under 14 "Hg) systems.

Key

FNPT = Female National Pipe Thread

OD = Outside Diameter

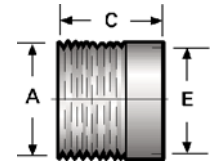
MNPT = Male National Pipe Thread

ID = Inside Diameter

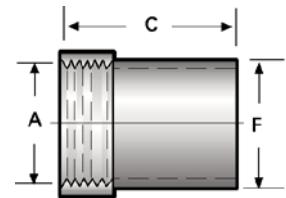
All reference dimensions are nominal.

When Ordering, Please Specify Type of Material:

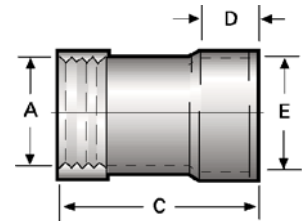
- Carbon
- Aluminum
- Stainless
- Galvanized Steel



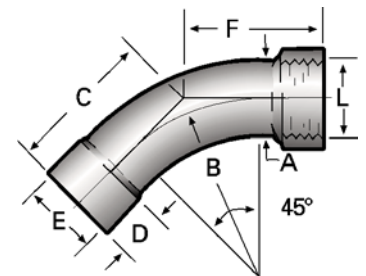
Male Adapter Nipple



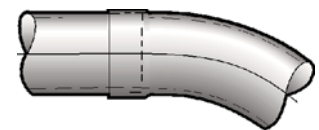
Female Reducing Adapter



Female Reducing Adapter Expanded



45° Female Adapter Elbow



Expanded Fitting

Fittings

STANDARD REDUCING COUPLINGS

- 2-1/8" through 14" OD
- Wall Thickness: 16, 14, 12, (11 Gauge Available in Straight Ends Only)
- Materials: Carbon, Stainless, Aluminum, Galvanized Steel
- 11 Gauge Available (straight ends only)
- Expanded ends standard through 6" size (on small end of reducer)
- Straight ends available on all sizes by request (add "s" to the end of part no.)
- 8" Size and larger only available with straight ends

Size (In)	Gauge	A (OD) (In)	C	D	E (ID)	F (OD)	G	K	Part No.
-1/2" x 2-1/8"	16	2-1/2"	4-1/2"	1-3/4"	2-1/8" ID		1-3/8"	1-1/2"	SFRC-254
3" x 2-1/8"	16	3"	8-3/4"	2-1/4"	2-1/8" ID		1-3/8"	2"	SFRC-3041
3" x 2-1/2"	16	3"	5"	2"	2-1/2" ID		1-3/8"	1-1/2"	SFRC-304
3-1/2" X 2-1/8"	16	3-1/2"	11"	2-1/4"	2-1/8" ID		1-3/8"	2"	SFRC-3541
3-1/2" X 2-1/2"	16	3-1/2"	9-1/4"	2-7/8"	2-1/2" ID		1-3/8"	2-7/8"	SFRC-3542
3-1/2" X 3"	16	3-1/2"	5-1/2"	2-1/8"	3" ID		1-3/8"	2-1/8"	SFRC-354
4" X 2-1/8"	16	4"	13-1/2"	1-5/8"	2-1/8" ID		1-3/8"	2"	SFRC-4041
4" X 2-1/2"	16	4"	10-1/2"	2-1/4"	2-1/2" ID		1-3/8"	2"	SFRC-4042
4" X 3"	16	4"	9-1/4"	2-1/4"	3" ID		1-3/8"	2"	SFRC-4043
4" X 3-1/2"	16	4"	6"	2"	3-1/2" ID		1-3/8"	1-1/2"	SFRC-404
5" X 2-1/8"	14	5"	19-1/4"	2-1/4"	2-1/8" ID		1-3/8"	2-3/4"	SFRC-5041
5" X 2-1/2"	14	5"	17-1/2"	2-1/4"	2-1/2" ID		1-3/8"	2-3/4"	SFRC-5042
5" X 3"	14	5"	15"	2-1/4"	3" ID		1-3/8"	2-3/4"	SFRC-5043
5" X 3-1/2"	14	5"	12-1/2"	2-1/4"	3-1/2" ID		1-3/8"	2-3/4"	SFRC-5044
5" X 4"	14	5"	8"	2-1/4"	4" ID		1-3/8"	1-3/4"	SFRC-504
6" X 2-1/8"	14	6"	24-3/4"	2-1/4"	2-1/8" ID		1-3/8"	3-1/4"	SFRC-6041
6" X 2-1/2"	14	6"	23"	2-1/4"	2-1/2" ID		1-3/8"	3-1/4"	SFRC-6042
6" X 3-1/2"	14	6"	20-1/2"	2-1/4"	3" ID		1-3/8"	3-1/4"	SFRC-6043
6" X 3-1/2"	14	6"	18"	2-1/4"	3-1/2" ID		1-3/8"	3-1/4"	SFRC-6044
6" X 4"	14	6"	15-3/4"	2-1/4"	4" ID		1-3/8"	3-1/4"	SFRC-6045
6" X 5"	14	6"	10"	2-5/8"	5" ID		1-3/8"	1-3/4"	SFRC-604
8" X 4"	14	8"	26-1/4"	2"	4" ID		1-3/8"	4-1/4"	SFRC-8044
8" X 5"	14	8"	21-7/8"	2-5/8"	5" ID		1-5/8"	4-1/4"	SFRC-8045
8" X 6"	14	8"	17-1/2"	3-1/4"	6" ID		1-5/8"	3-5/8"	SFRC-804
10" X 6"	12	10"	28-1/2"	3-1/4"	6" ID		1-5/8"	5-1/4"	SFRC-10046
10" X 8"	12	10"	18-1/4"	2-1/2"		8" OD	N/A	5-1/4"	SFRC-1004
12" X 8"	12	12"	29-1/4"	2-1/2"		8" OD	N/A	5-1/4"	SFRC-1004
12" X 10"	12	12"	19-3/4"	3-1/4"		10" OD	N/A	6"	SFRC-1204
14" X 10"	12	14"	30"	3"		10" OD	N/A	7-1/4"	SFRC-1404
14" X 12"	12	14"	20"	4"		12" OD	N/A	7-1/4"	SFRC-1405

Key

OD = Outside Diameter

ID = Inside Diameter

All reference dimensions are nominal.

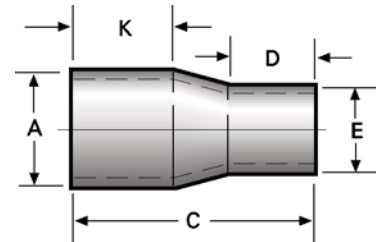
G = Expansion Depth

When Ordering, Please Specify Type of Material:

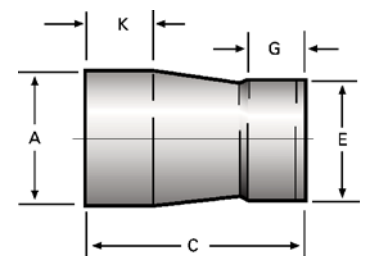
- Carbon
- Aluminum
- Stainless
- Galvanized Steel

NOTE:

Add -C, -S, -A or -Z to the end of Part No. to indicate material (e.g., SFEL-211-Z = Zinc, SFEL-211-ZS = Zinc/Straight end)



Standard Reducing Coupling (straight end)



Standard Reducing Coupling (expanded end)

Methods of Joining

INSTALOK™ COUPLINGS

- Couplings are made of galvanized steel
- Standard O-ring is black nitrile
- Viton O-rings are also available
- Replacement O-rings, nuts, bolts and clamps also available

OD	NPS	O-RING	LENGTH (in.)	PART NO.
2-1/8"		Black	4	SFCP21242B-16Z
2-1/8"		White	4	SFCP21242W-16Z
2-1/8"		Black	6	SFCP21262B-16Z
2-1/8"		White	6	SFCP21262W-16Z
2-1/2"		Black	4	SFCP25042B-16Z
2-1/2"		White	4	SFCP25042W-16Z
2-1/2"		Black	6	SFCP25062B-16Z
2-1/2"		White	6	SFCP25062W-16Z
2-1/2"		Black	8	SFCP25082B-16Z
2-1/2"		White	8	SFCP25082W-16Z
3"		Black	4	SFCP30042B-16Z
3"		White	4	SFCP30042W-16Z
3"		Black	6	SFCP30062B-16Z
3"		White	6	SFCP30062W-16Z
3"		Black	8	SFCP30082B-16Z
3"		White	8	SFCP30082W-16Z
3-1/2"	3"	Black	4	SFCP35042B-16Z
3-1/2"	3"	White	4	SFCP35042W-16Z
3-1/2"	3"	Black	6	SFCP35062B-16Z
3-1/2"	3"	White	6	SFCP35062W-16Z
3-1/2"	3"	Black	8	SFCP35082B-16Z
3-1/2"	3"	White	8	SFCP35082W-16Z
4"	3-1/2"	Black	4	SFCP40042B-16Z
4"	3-1/2"	White	4	SFCP40042W-16Z
4"	3-1/2"	Black	6	SFCP40062B-16Z
4"	3-1/2"	White	6	SFCP40062W-16Z
4"	3-1/2"	Black	8	SFCP40082B-16Z
4"	3-1/2"	White	8	SFCP40082W-16Z

When Ordering, Please Specify Type of Material:

- Zinc-Coated (Galvanized)



Instalok™ Coupling



Specifications

- 1-1/2" OD to 4" OD
- 20% Lower cost than traditional couplings
- 30% Quicker installation
- Couplings have a unique clamping design that offers unparalleled strength and grip
- Made with Grade 5 stress relieved bolts to ensure a trouble-free installation

Methods of Joining

SLIP COUPLINGS

Size (In)	Gauge	A (OD) (In)	C	D
2-1/8"	3"	2-1/8"	16	SFSC-213
2-1/2"	3-1/2"	2-1/2"	16	SFSC-253
3"	4"	3"	16	SFSC-303
3-1/2"	4-1/2"	3-1/2"	16	SFSC-353
4"	5"	4"	16	SFSC-403
5"	6"	5"	14	SFSC-503
6"	7"	6"	14	SFSC-603*
8"	8"	8"	14	SFSC-803
10"	10"	10"	12	SFSC-1003
12"	12"	12"	12	SFSC-1203
14"	14"	14"	12	SFSC-1403

• Joining methods are for use in low pressure (under 15 PSIG) and low vacuum (under 14" HG) systems
 * 6" galvanized slip coupling is 16 gauge. All other materials are 14 gauge

Shrink Sleeves

A heat shrinkable polyolefin band that literally shrinks and encircles the connection giving it mechanical strength and a positive seal. It can be used in conjunction with a slip coupling or when using expanded fittings. Gluing, brazing and welding operations are eliminated.

For Tube OD Size	Sleeve Length	Part No.
2" -2-1/8"	4"	SFSS-212
2-1/2" - 3"	4"	SFSS-300
3-1/2"	4"	SFSS-400
5"	4"	SFSS-500
6"	4"	SFSS-600
8"	9"	SFSS-800
10"	9"	SFSS-1000
12"	9"	SFSS-1200

Joining Methods are for use in low pressure (under 15 PSIG) and low vacuum (under 14" HG) systems

Wrapped Sleeve

For Tube OD Size	Sleeve Length	Part No.
2" -2-1/8"	4"	SFSS-212
2-1/2" - 3"	4"	SFSS-300
3-1/2"	4"	SFSS-400
5"	4"	SFSS-500
6"	4"	SFSS-600
8"	9"	SFSS-800
10"	9"	SFSS-1000
12"	9"	SFSS-1200

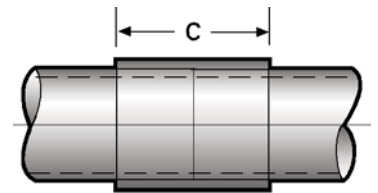
Joining Methods are for use in low pressure (under 15 PSIG) and low vacuum (under 14" HG) systems

When Ordering, Please Specify Type of Material:

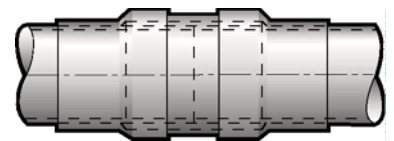
- Carbon
- Aluminum
- Stainless
- Galvanized Steel

NOTE:

Add -C, -S, -A or -Z to the end of Part No. to indicate material (e.g., SFEL-211-Z = Zinc, SFEL-211-ZS = Zinc/Straight end)



Slip Coupling



Shrink Sleeve

Key

OD = Outside Diameter

ID = Inside Diameter

PSIG = Pounds per Square Inch Gravity

All reference dimensions are nominal.

Methods of Joining

COMPRESSION COUPLINGS

- Offers easy "tear down" function
- Straight end tubing or fittings butt together within the ID of the coupling, and the joint is mechanically locked simply by tightening the bolts which are attached.
- 2-1/8" to 14" OD
- Standard Material is Galvanized Steel
- Stainless available on special order basis
- Standard Coupling includes Black Neoprene Liner & Stainless Steel Grounding Strip

OD	No. Bolt	Gasket	Coupling Length	Part No.
2-1/8"	2	BLACK	4	SF21252B10
2-1/8"	2	WHITE	4	SF21252W10
2-1/8"	3	BLACK	6	SF21253B10
2-1/8"	3	WHITE	6	SF21253W10
2-1/2"	2	BLACK	4	SF25002B10
2-1/2"	2	WHITE	4	SF25002W10
2-1/2"	3	BLACK	6	SF25003B10
2-1/2"	3	WHITE	6	SF25003W10
2-1/2"	4	BLACK	8	SF25004B10
2-1/2"	4	WHITE	8	SF25004W10
3"	2	BLACK	4	SF30002B10
3"	2	WHITE	4	SF30002W10
3"	3	BLACK	6	SF30003B10
3"	3	WHITE	6	SF30003W10
3"	4	BLACK	8	SF30004B10
3"	4	WHITE	8	SF30004W10
3-1/2"	2	BLACK	4	SF35002B10
3-1/2"	2	WHITE	4	SF35002W10
3-1/2"	3	BLACK	6	SF35003B10
3-1/2"	3	WHITE	6	SF35003W10
3-1/2"	4	BLACK	8	SF35004B10
3-1/2"	4	WHITE	8	SF35004W10
4"	2	BLACK	4	SF40002B10
4"	2	WHITE	4	SF40002W10
4"	3	BLACK	4	SF40003B10
4"	3	WHITE	4	SF40003W10
4"	4	BLACK	8	SF40004B10
4"	4	WHITE	8	SF40004W10
5"	2	BLACK	4	SF50002B10
5"	2	WHITE	4	SF50002W10
5"	3	BLACK	6	SF50003B10
5"	3	WHITE	6	SF50003W10
5"	4	BLACK	8	SF50004B10

- For couplings 1-1/4" through 2-7/8" OD the bolt size is 1/2" x 2"
- For couplings 3" through 7-1/2" OD the bolt size is 5/8" x 2-1/4"
- For couplings 8" through 14" OD the bolt size is 3/4" x 3"
- Joining methods are for use in low pressure (under 15 PSIG) and low vacuum (unDer 14 "HG) systems



Compression Coupling

Gasket Materials

Black Neoprene:

Temp: 180°- 200°, excellent abrasion and ozone properties. Most commonly used - standard.

White Nitrile:

Temp: 200°-225°, excellent abrasion properties. Used in food applications.

Red Rubber:

Temp: 180°-210°, used in some processing applications that must not contain any silicone.

Red Silicone:

Temp: 400°-500°, excellent heat properties. This is used for a higher level of chemical and temperature resistance.

EPDM:

Temp: 250°-275°, excellent heat and weather properties.

Viton:

Temp: 450°-500°, excellent heat, ozone, gas, oil and acid properties.

Gasket part numbers shown are **B10** -Black Neoprene and **W10** - White Nitrite. Consult factory for other gasket materials.

Key

ID = Inside Diameter

OD = Outside Diameter

PSIG = Pounds per Square Inch Gravity

All reference dimensions are nominal.

Methods of Joining

COMPRESSION COUPLINGS

- Offers easy "tear down" function
- Straight end tubing or fittings butt together within the ID of the coupling, and the joint is mechanically locked simply by tightening the bolts which are attached.
- 2-1/8" to 14" OD
- Standard Material is Galvanized Steel
- Stainless available on special order basis
- Standard Coupling includes Black Neoprene Liner & Stainless Steel
- Grounding Strip

OD	No. Bolt	Gasket	Coupling Length	Part No.
5"	4	WHITE	8	SF50004W10
6"	2	BLACK	4	SF60002B10
6"	2	WHITE	4	SF60002W10
6"	3	BLACK	6	SF60003B10
6"	3	WHITE	6	SF60003W10
6"	4	BLACK	8	SF60004B10
6"	4	WHITE	8	SF60004W10
6"	5	BLACK	10	SF60005B10
6"	5	WHITE	10	SF60005W10
8"	2	BLACK	6	SF80002B10
8"	2	WHITE	6	SF80002W10
8"	3	BLACK	8	SF80003B10
8"	3	WHITE	8	SF80003W10
8"	4	BLACK	10	SF80004B10
8"	4	WHITE	10	SF80004W10
8"	5	BLACK	12	SF80005B10
8"	5	WHITE	12	SF80005W10
10"	3	BLACK	8	SF100003B10
10"	3	WHITE	8	SF100003W10
10"	4	BLACK	10	SF100004B10
10"	4	WHITE	10	SF100004W10
10"	5	BLACK	12	SF100005B10
10"	5	WHITE	12	SF100005W10
12"	3	BLACK	8	SF120003B10
12"	3	WHITE	8	SF120003W10
12"	4	BLACK	10	SF120004B10
12"	4	WHITE	10	SF120004W10
12"	5	BLACK	12	SF120005B10
12"	5	WHITE	12	SF120005W10
14"	4	BLACK	10	SF140004B10
14"	4	WHITE	10	SF140004W10
14"	5	BLACK	12	SF140005B10
14"	5	WHITE	12	SF140005W10

- For couplings 1-1/4" through 2-7/8" OD the bolt size is 1/2" x 2"
- For couplings 3" through 7-1/2" OD the bolt size is 5/8" x 2-1/4"
- For couplings 8" through 14" OD the bolt size is 3/4" x 3"
- Joining methods are for use in low pressure (under 15 PSIG) and low vacuum (unDer 14 "HG) systems

When Ordering, Please Specify Type of Material:

- Stainless
- Galvanized Steel



Compression Coupling

Key

OD = Outside Diameter

PSIG = Pounds per Square Inch Gravity

All reference dimensions are nominal.

Methods of Joining

COMPRESSION COUPLINGS

Slip Welding Rings

- 8" to 14" OD
- Materials: Carbon, Stainless

Size	C	E (ID)	Gauge	Part No.
8"	3"	8"	14	SFWR-8035
10"	3"	10"	12	SFWR-10035
12"	3"	12"	12	SFWR-12035
14"	3"	14"	12	SFWR-14035

Tube Hangers

- 2-1/8" to 14" ID
- Wall Thickness: 16 gauge
- Available only in Galvanized Steel

Size	E (ID)	Gauge	Part No.
2-1/8"	2-1/8"	16	SFTH-212
2-1/2"	2-1/2"	16	SFTH-250
3"	3"	16	SFTH-300
3-1/2"	3-1/2"	16	SFTH-350
4"	4"	16	SFTH-400
5"	5"	16	SFTH-500
6"	6"	16	SFTH-600
8"	8"	16	SFTH-800
10"	10"	16	SFTH-1000
12"	12"	16	SFTH-1200
14"	14"	16	SFTH-1400

Tube Plugs

- 2-1/8" to 14" OD/ID
- Wall Thickness: 16, 14, 12 Gauge

Size	A (OD)/(ID)	Gauge	C	Part No.
2-1/8"	2-1/8" OD	16	1-3/8"	SFTP-210
2-1/2"	2-1/2" OD	16	1-3/8"	SFTP-260
3"	3" OD	16	1-3/8"	SFTP-310
3-1/2"	3-1/2" OD	16	1-3/8"	SFTP-360
4"	4" OD	16	1-3/8"	SFTP-410
5"	5" OD	14	1-5/8"	SFTP-510
6"	6" OD	14	1-5/8"	SFTP-610
8"	8" ID	14	1-3/4"	SFTP-810
10"	10" ID	12	2"	SFTP-1010
12"	12" ID	12	2"	SFTP-1210
14"	14" ID	12	2"	SFTP-1410

Tube Nipples

- 2-1/8" to 14" OD
- Wall Thickness: 16, 14, 12 Gauge

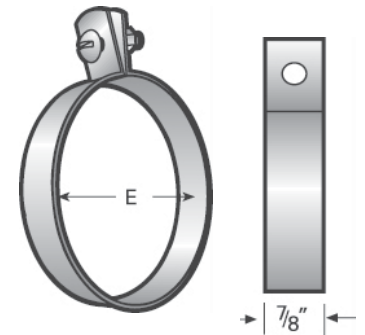
Size	A (OD)/(ID)	Gauge	C	Part No.
2-1/8"	2-1/8"	16	2-1/2"	SFTN-211
2-1/2"	2-1/2"	16	2-1/2"	SFTN-261
3"	3"	16	2-1/2"	SFTN-311
3-1/2"	3-1/2"	16	2-1/2"	SFTN-361
4"	4"	16	2-1/2"	SFTN-411
5"	5"	14	3"	SFTN-511
6"	6"	14	3"	SFTN-611
8"	8"	14	4"	SFTN-811
10"	10"	12	5"	SFTN-1011
12"	12"	12	6"	SFTN-1211
14"	14"	12	7"	SFTN-1411

Miscellaneous

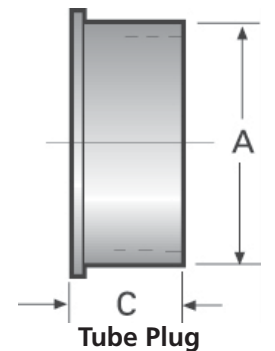
Amount	Part No.	Description
Quart	SF2868	Cleaner
Quart	SF2084-QT	Metal Sealant
3" x 165'	HF00053907	Shrink Tape Roll
2" x 3"	HF00053921	Closure Tape Roll

When Ordering, Please Specify Type of Material:

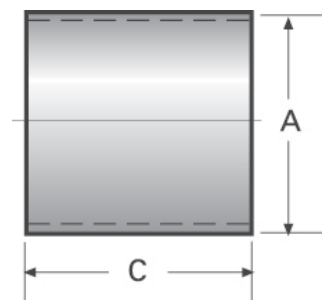
- Carbon
- Aluminum
- Stainless
- Galvanized Steel



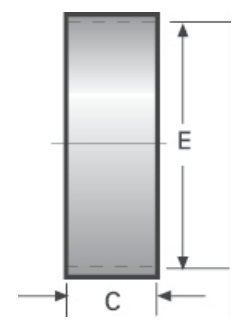
Tube Hanger



Tube Plug



Tube Nipple



Welding Ring

Key

OD = Outside Diameter

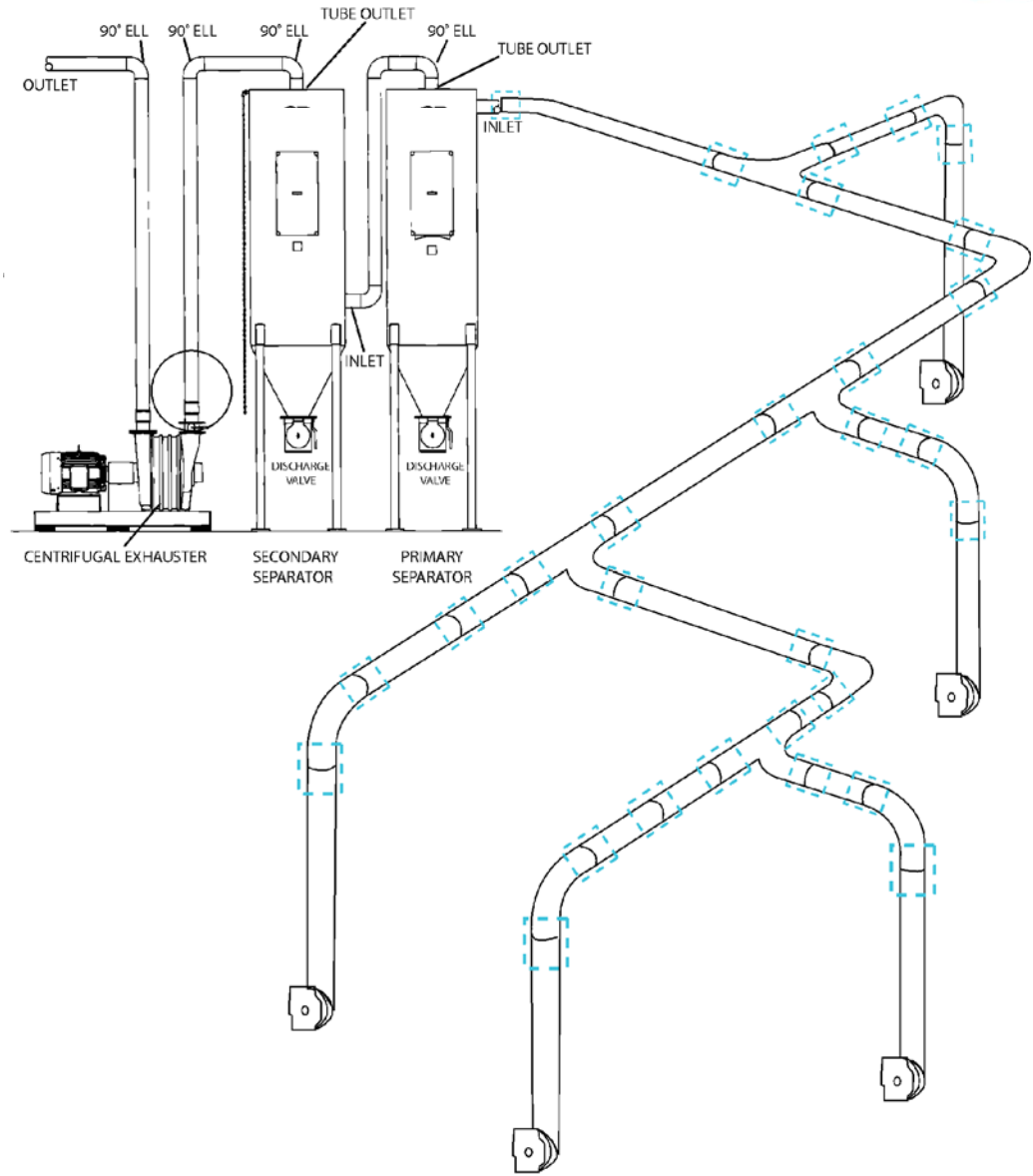
ID = Inside Diameter

All reference dimensions are nominal.

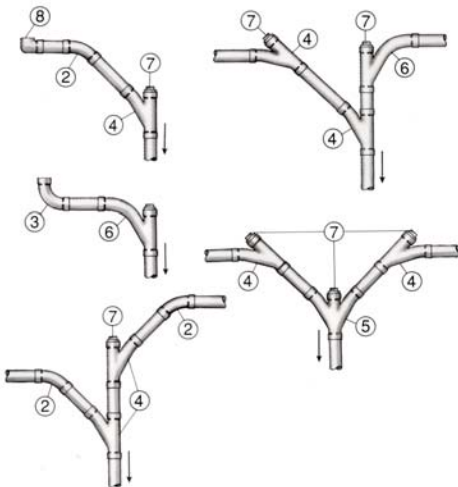
Design Guide

TYPICAL SYSTEM LAYOUT

Note: Indicates joint assembly. Shrink sleeve (when using belled ends or slip couplings) or Instalok or compression coupling (when using straight ends) suggested for fastening joint.

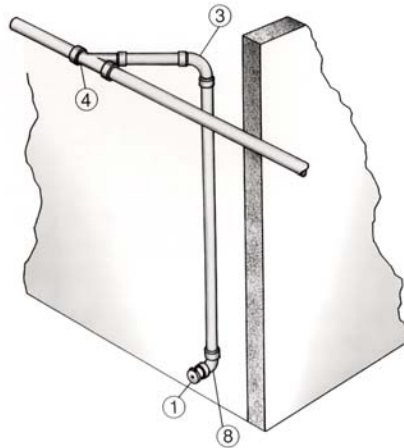


Typical Plan Views



- ① Inlet Valve
- ② 45° Elbow
- ③ 90° Elbow
- ④ 45° Y
- ⑤ Double 45° Y
- ⑥ 90° TY
- ⑦ Cleanout Plug
- ⑧ 90° Adapter Elbow

Typical Drop Showing Side Pipe Take-off





Hoffman and Lamson Monitoring and Control Systems

Whether you're responsible for a wastewater treatment plant, the smelting operation at a foundry or the precise material handling needs of a manufacturing facility, Hoffman and Lamson offers control systems to properly operate your blowers and exhausters and protect them from conditions that may lead to catastrophic mechanical failure, costly downtime or voiding your manufacturer's warranty. At Hoffman and Lamson we

engineer a variety of control systems and monitors capable of providing you with the protection and information you need to keep your operation running at peak efficiency.

Our control systems can monitor a variety of conditions that include motor current, motor temperature, blower vibration, bearing temperature, bearing oil level, discharge air temperature, inlet vacuum and outlet pressure.

Genuine Hoffman and Lamson Factory Service and Parts

- Factory Trained Service Professionals
- On-site, On-Demand Service
- System Optimization
- Blower Remanufacturing
- Training, Troubleshooting and Consulting
- Warranty Renewal Programs
- Genuine GD Quality Replacement Parts
- Highest Quality Lubricants
 - AEON® Centrifugal Lubricating Grease
 - AEON CF-46 Centrifugal Blower Oil



Accessories


- Engines
- Motors
- Turbines
- Variable Frequency Drives
- Butterfly Valves
- Check Valves
- Filters
- Silencers
- Expansion Joints
- Gauges
- SmartMeter
- Blower Control Panels



Gardner Denver

www.HoffmanandLamson.com
info.hoffmanlamson@gardnerdenver.com

Gardner Denver Nash PO Box 130 Bentleyville, PA 15314 USA
New Equipment Sales: (800) 543-7736 Aftermarket Parts Sales: (800) 982-3009
Phone: +1 724-239-1500 Fax: +1 724-239-1502

Specifications subject to change without notice.  Please recycle after use.



©2013 Gardner Denver Nash
CF-V-TUBE-C-0714
Supersedes GD CF-6-100