



AirTech® - Energy Efficient Air Handling Systems

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AirTech® Guide Specification

PVC (Polyvinyl Chloride) Fume Exhaust Systems

Scope: This Specification encompasses PVC (Polyvinyl chloride) thicknesses, and welding methods used for corrosive exhaust ventilation piping, 3" (90mm) thru 36" (900mm).

1.0 Material

Pipe and fittings shall be manufactured from virgin rigid PVC (Polyvinyl chloride) vinyl compounds with a Cell Class of 12454 as identified in ASTM D 1784. Pigmented to RAL 7011

1.1 Duct

Shall be seamless, extruded from the specified material and shall have uniform, consistent wall thickness and roundness. Wall thickness as detailed in paragraph 1.4.

1.2 Fittings

All directional fittings shall be molded from the specified material. Mitered and hot air welded fittings are not allowed except for assemblies which are not manufactured as a molded component. Fittings and coupling shall have socket ends which fit snugly around the entire periphery of the pipe. Joints are completed by back welding with hot air and welding rod, or solvent cement.

1.3 Joining

Installation shall comply with the latest installation instructions published by Simtech and shall conform to all local plumbing, building, and fire code requirements.

1.3.1 Welding rod

Welding rod shall be the same material as the pipe and fitting.

1.3.1a Hot Air Welding

Welding is to be performed using a hot air welder having a source of clean dry air. Compressed air shall not be used for welding.

1.3.2 Solvent Cement

Solvent cement joints shall be made in a two-step process with primer manufactured for thermoplastic piping systems and solvent cement conforming to ASTM D 2564. Systems shall be hydrostatically tested after installation.

1.4 Wall Thickness

Minimal Wall thicknesses will be as follows:

Diameter	Thickness	Diameter	Thickness
3" (90mm)	2.7mm	16" (400mm)	3.2mm
4" (110mm)	2.5mm	18" (450mm)	3.6mm
6" (160mm)	2.5mm	20" (500mm)	4.0mm
8" (200mm)	2.5mm	24" (600mm)	5.0mm
10" (250mm)	2.9mm	28" (700mm)	6.0mm
12" (315mm)	2.9mm	32" (800mm)	6.3mm
14" (355mm)	2.9mm	36" (900mm)	10.0mm

2.0 Velocity

Recommended velocity not to exceed 10 meters per second. (32.8 feet per second)

3.0 MANUFACTURER

SIMTECH
877-777-2467
www.Simtech.com

AirTech® Guide Specification

Polypropylene (PPd) Fume Exhaust Systems

Scope: This Specification encompasses Polypropylene (PPd) thickness's, and welding methods used for corrosive exhaust ventilation piping, 3" (90mm) thru 24" (630mm).

1.0 Material

Material of construction shall be from Group 1. Class 1, Grade 0 Polypropylene Homopolymer material per ASTM-D4101, Federal Specification L-P-39413 and Military Spec Mil P 461096. PP material to be heat stabilized, UV stabilized and pigmented to RAL 7032.

1.1 Duct

Shall be seamless, extruded from the specified material and shall have uniform, consistent wall thickness and roundness. Wall thickness as detailed in paragraph 1.4.

1.2 Fittings

All directional fittings shall be molded from the specified material. Mitered and hot air welded fittings are not allowed except for assemblies which are not manufactured as a molded component. Fittings and coupling shall have socket ends which fit snugly around the entire periphery of the pipe. Joints are completed by back welding with hot air and welding rod.

1.3 Welding rod

Welding rod shall be the same material as the pipe and fitting.

1.3.1 Use of Welder

Welding is to be performed using a hot air welder having a source of clean dry air. Compressed air shall not be used for welding.

1.4 Wall Thickness

Minimal Wall thicknesses will be as follows:

<u>Diameter</u>	<u>Thickness</u>	<u>Diameter</u>	<u>Thickness</u>
3" (90mm)	3.0mm	14" (355mm)	5.0mm
4" (110mm)	3.0mm	16" (400mm)	6.0mm
6" (160mm)	3.0mm	18" (450mm)	7.0mm
8" (200mm)	3.0mm	20" (500mm)	8.0mm
10" (250mm)	3.5mm	24" (630mm)	10.0mm
12" (315mm)	5.0mm		

2.0 Static Loading

Duct and fittings shall be capable of a maximum 1 bar (14.5psi) static pressure and a maximum of 0.5 bar negative static pressure.

3.0 MANUFACTURER

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AirTech® Guide Specification

Flame Retardant Polypropylene (PPs) Fume Exhaust Systems

Scope: This Specification encompasses Flame Retardant Polypropylene (PPs) thickness's, and welding methods used for corrosive exhaust ventilation piping, 2" (63mm) thru 39" (1000mm).

1.0 Material

Material shall be Group 1. Class 1, Grade 0 Polypropylene Homopolymer material per ASTM- D4101, Federal Specification L-P-39413 and Military Spec Mil P 461096. PP material to be heat stabilized, U.V. stabilized and will have a flame retardant additive, and pigmented to RAL 7037. Combustion behavior shall be as follows:

BI Flame Retardant per DIN 4102
28% Oxygen Index per ASTM2863
>380° C Ignition Temperature per ASTM 1929
Y=0 Class per U.L. 94

1.1 Duct

Shall be seamless, extruded from the specified material and shall have uniform, consistent wall thickness and roundness. Wall thickness as detailed in paragraph 1.4.

1.2 Fittings

All directional fittings shall be molded from the specified material. Mitered and hot air welded fittings are not allowed except for assemblies which are not manufactured as a molded component. Fittings and coupling shall have socket ends which fit snugly around the entire periphery of the pipe. Joints are completed by back welding with hot air and welding rod.

1.3 Welding rod

Welding rod shall be the same material as the pipe and fitting.

1.3.1 Use of Welder

Welding is to be performed using a hot air welder having a source of clean dry air. Compressed air shall not be used for welding.

1.4 Wall Thickness

Minimal Wall thicknesses will be as follows:

Diameter	Thickness	Diameter	Thickness
2" (63mm)	3.0mm	16" (400mm)	6.0mm
3" (90mm)	3.0mm	18" (450mm)	7.0mm
4" (110mm)	3.0mm	20" (500mm)	8.0mm
6" (160mm)	3.0mm	24" (600mm)	10.0mm
8" (200mm)	3.0mm	28" (700mm)	12.0mm
10" (250mm)	3.5mm	32" (800mm)	12.0mm
12" (315mm)	5.0mm	36" (900mm)	10.00mm
14" (355mm)	5.0mm	39" (1000mm)	12.00mm

2.0 Static Loading

Duct and fittings shall be capable of a maximum 1 bar (14.5psi) static pressure and a maximum of 0.5 bar negative static pressure.

3.0 MANUFACTURER

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AirTech® Guide Specification

Electrically Conductive Flame Retardant Polypropylene (PPs-EL)

Fume Exhaust Systems

Scope: This Specification encompasses Electrically Conductive Flame Retardant Polypropylene (PPs-EL) thickness's, and welding methods used for corrosive exhaust gas ventilation piping. 3" (90mm) thru 24" (630mm).

1.0 Material

Material shall be Group 1. Class 1, Grade 0 Polypropylene Homopolymer material per ASTM- D4101, Federal Specification L-P-39413 and Military Spec Mil P 461096. PP material to be heat stabilized, U.V. stabilized, will have a flame retardant additive fire class: V-O; US standard UL 94, and will feature an electrically conductive particles which discharge static per DIN 4102, surface resistant of 105 Ohms. Color shall be Black.

1.1 Duct

Shall be seamless, extruded from the specified material and shall have uniform, consistent wall thickness and roundness. Wall thickness as detailed in paragraph 1.4.

1.2 Fittings

All directional fittings shall be molded from the specified material. Mitered and hot air welded fittings are not allowed except for assemblies which are not manufactured as a molded component. Fittings and coupling shall have socket ends which fit snugly around the entire periphery of the pipe. Joints are completed by back welding with hot air and welding rod.

1.3 Welding rod

Welding rod shall be the same material as the pipe and fitting.

1.3.1 Use of Welder

Welding is to be performed using a hot air welder having a source of clean dry air. Compressed air shall not be used for welding.

1.4 Wall Thickness

Minimal Wall thicknesses will be as follows:

<u>Diameter</u>	<u>Thickness</u>	<u>Diameter</u>	<u>Thickness</u>
3" (90mm)	3.0mm	14" (355mm)	5.0mm
4" (110mm)	3.0mm	16" (400mm)	6.0mm
6" (160mm)	3.0mm	18" (450mm)	7.0mm
8" (200mm)	3.0mm	20" (500mm)	8.0mm
10" (250mm)	3.5mm	24" (630mm)	10.0mm
12" (315mm)	5.0mm		

2.0 Static Loading

Duct and fittings shall be capable of a maximum 1 bar (14.5psi) static pressure and a maximum of 0.5 bar negative static pressure.

3.0 MANUFACTURER

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AirTech® Guide Specification

Polyvinylidene Fluoride (PVDF) Fume Exhaust Systems

Scope: This Specification encompasses Polyvinylidene Fluoride (PVDF) thickness's, and welding methods used for corrosive exhaust ventilation piping, 2" (63mm) thru 24" (630mm).

1.0 Material

Pipe shall be extruded from virgin, pure, unpigmented homopolymer KYNAR 740® resin, as manufactured by ARKEMA Chemicals, Inc. Material shall meet or exceed requirements of Table 1 of ASTM D-3222. Pipe manufacturing shall not employ any stabilizers, antioxidants, fillers, pigmentation or additives of any kind. Kynar homopolymer resins may be safely used in articles for repeated contact with food per Title 21, Code of Federal Regulations, Chapter 1, part 177.2510. Kynar homopolymer resin grades have been listed with NSF under Standard 61, Standard 51 and Standard 14

1.1 Flammability

KYNAR homopolymer resins meet both the Factor Mutual 4910 (FM 4910) and corresponding UL 2360 burn test criteria. Specification test reports available upon request.

1.2 Duct

Shall be seamless, extruded from the specified material and shall have uniform, consistent wall thickness and roundness. Wall thickness as detailed in paragraph 1.5.

1.3 Fittings

All directional fittings shall be molded from the specified material. Mitered and hot air welded fittings are not allowed except for assemblies which are not manufactured as a molded component. Fittings and coupling shall have socket ends which fit snugly around the entire periphery of the pipe. Joints are completed by back welding with hot air and welding rod.

1.4 Welding rod

Welding rod shall be the same material as the pipe and fitting.

1.4.1 Use of Welder

Welding is to be performed using a hot air welder having a source of clean dry air or inert air. Compressed air shall not be used for welding.

1.5 Wall Thickness

Minimal Wall thicknesses will be as follows:

<u>Diameter</u>	<u>Thickness</u>	<u>Diameter</u>	<u>Thickness</u>
2" (63mm)	3.0mm	12" (315mm)	5.0mm
3" (90mm)	3.0mm	14" (355mm)	5.0mm
4" (110mm)	3.0mm	16" (400mm)	5.0mm
6" (160mm)	3.0mm	18" (450mm)	6.0mm
8" (200mm)	3.0mm	20" (500mm)	6.0mm
10" (250mm)	4.0mm	24" (630mm)	8.0mm

2.0 Static Loading

Duct and fittings shall be capable of a maximum 1 bar (14.5psi) static pressure and a maximum of 0.5 bar negative static pressure.

3.0 MANUFACTURER

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Material Properties

	Test Standard	Test Method Test Specimen	Dimension	PP			
				PP-H	PP-R	PPs	PP-EL-s
Mechanical Properties							
Density	DIN 53479	Method C	g/cm³	0.915	0.900	0.950	1.160
Melting Index Group	DIN 16776	MFI 190-5	Group	006	006	012	-
Tensile Test	DIN 53455	Test Bar 3	-	-	-	-	-
Yield Stress	-	Test Speed 50 mm/ min	N/mm²	33	24	32	25
Elongation At Yield Stress	-	-	%	8	10	8	7
Elongation At Rupture	-	-	%	80	>50	100	40
Bending Test	DIN 53457	Test Bar	-	-	-	-	-
Bending Modulus E	1 min.	120 x 10 x 4 mm	N/mm2	1700	800	1600	1400
Impact Bending Test	DIN 53453	Charpy	-	-	-	-	-
Impact Strength	-	Standard Miniature Bar	kJ/m²	No Break	No Break	No Break	No Break
Notched Bar Impact Strength	-	Standard Miniature Bar With U-Notch	kJ/m²	9	20	6	5

Surface Hardness

Ball Impression Hardness	DIN 53456	H 358/30	N/mm ²	70	45	70	66
Shore Hardness	DIN 53505	D	-	72	65	72	70

Thermal Properties

Crystallite Melting Range	-	Polarization Microscope	K (°C)	160-165	160-164	160-165	-
Mean Thermal Coefficient Of Linear Expansion	DIN 53752	-	K ⁻¹ (°C ⁻¹)	1.6x10 ⁻⁴	1.6x10 ⁻⁴	1.6x10 ⁻⁴	1.6x10 ⁻⁴
Thermal Conductivity	DIN 53752	Two-Plate Method	W/m x K	0.22	0.22	0.22	-

Electrical Properties

Dielectric Strength	DIN 53481	K 20/P 50	kV/mm	52	52	22	-
Impedance	DIN 53482	Annular Electrode	Ohm x cm	>10 ¹⁶	>10 ¹⁶	>10 ¹⁷	-
Surface Resistance	DIN 53482	Electrode A	Ohm x cm	10 ¹⁴	10 ¹⁴	10 ¹⁴	10 ⁶
Leakage Path Resistance	DIN 53480	Method KC	Step	> 600	> 600	> 600	-

Other Properties

Flammability	DIN 4012	-	Class	B2	B2	B1	Low Flammability*
Water Absorption	DIN 53495	Method C	%/24h	<0.01	<0.01	<0.01	-
Physiologically Harmless	Recommendation	BGA/KTW	-	Yes	Yes	No	No
Chemical Resistance	DIN 8078 Addendum	-	-	Complies	Complies	Complies	Complies

* UL 94-V-0

Polypropylene Combustion Behavior

DIN 4102 distinguishes between:

- non combustible material (Class A) and
- combustible material (Class B)

Plastics belong without exception to the latter class.

A further distinction is made within the classes:

- B 1 flame retardant
- B 2 normally combustible
- B 3 easily combustible

Table 2

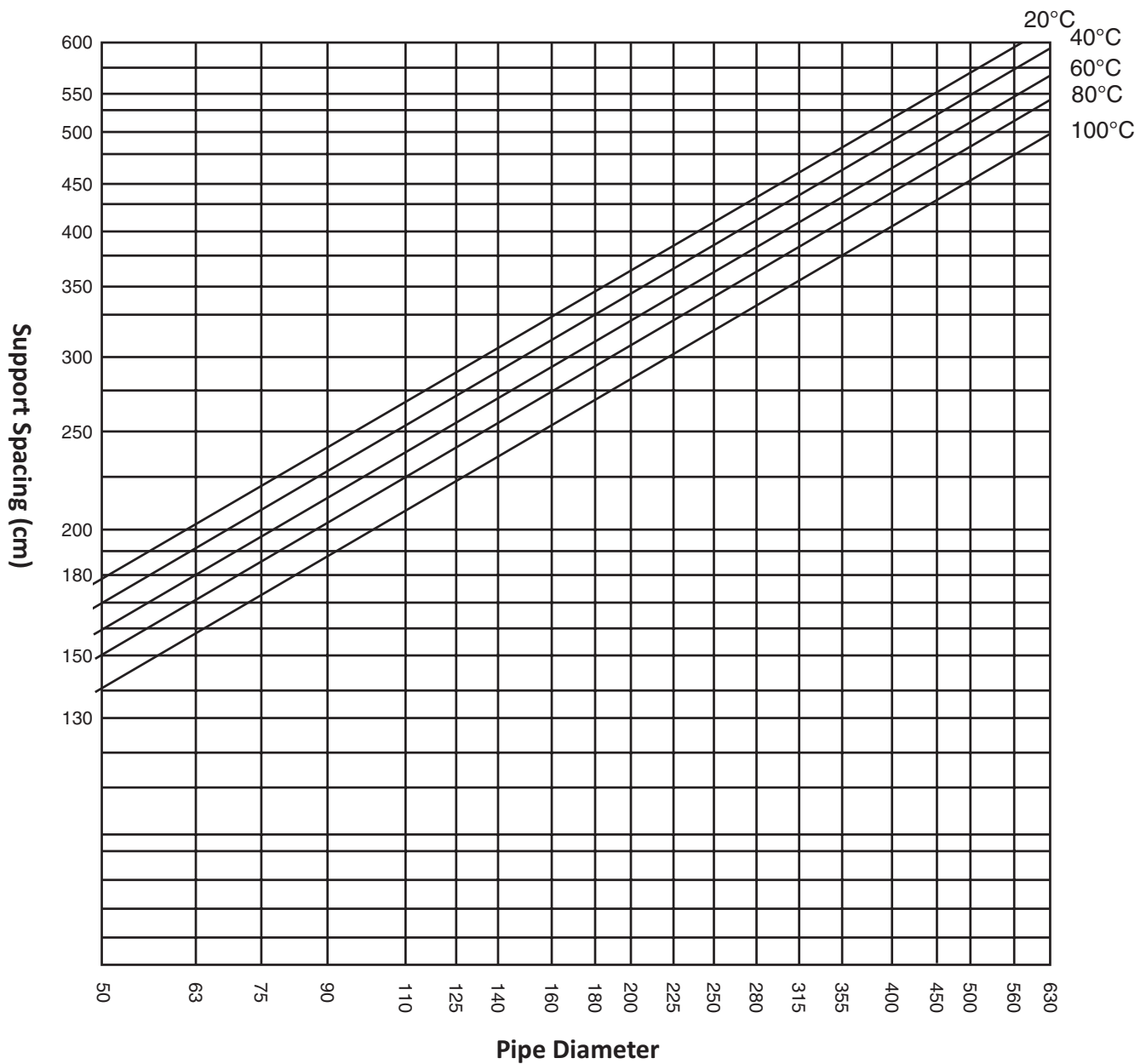
Assessment of combustion behavior

Material	Combustion behavior acc. to DIN 4102 Class	External ignition temperature acc. to ASTM 1929 °C	Oxygen Index According to ASTM 2863 %	Assessment* acc. to UL 94 Class	Assessment according to DIN 53438 Class	
PE-HD VPE PE-EL PB	B2	340	18		F2	K2
PP Type 1 PP Type 2 PP Type 3		345				
PVC PPs PVDF		> 390 > 380 > 600	40 28 78	V-0 V-2 V-0	F1	K1

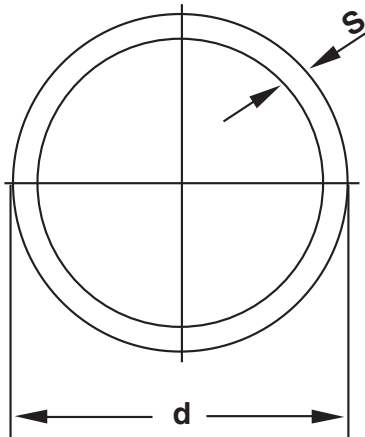
Further information about the combustion behavior is contained in the oxygen index (see table 2). This number indicates the minimum oxygen concentration in the combustion atmosphere which is necessary for sustained combustion. If the values are less than 20.8 % (oxygen content in the atmosphere), ignition and continuous combustion after removal of the source of ignition is possible.

PPs, PP, & PPs-EL DUCT SUPPORT SPACING

(Based on 1 cm deflection after 10 years)



Duct



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

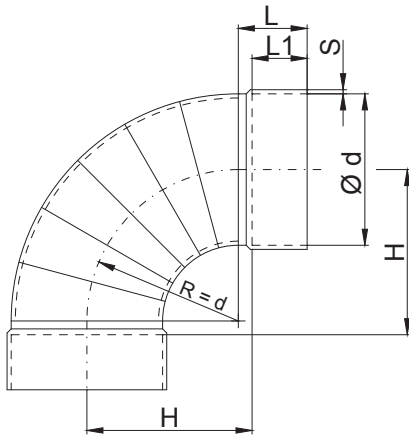
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	D in	S in	Weight lbs/m	Weight lbs/Ft
2"	2.480 (63mm)	2.48	0.12	1.28	0.39
2½"	2.953 (75mm)	2.95	0.12	1.53	0.47
3"	3.543 (90mm)	3.54	0.12	1.85	0.56
4"	4.331 (110mm)	4.33	0.12	2.29	0.70
4½"	4.921 (125mm)	4.92	0.12	2.60	0.79
5"	5.512 (140mm)	5.51	0.12	2.93	0.89
6"	6.299 (160mm)	6.30	0.12	3.34	1.02
7"	7.087 (180mm)	7.09	0.12	3.76	1.15
8"	7.874 (200mm)	7.87	0.12	4.20	1.28
9"	8.858 (225mm)	8.86	0.14	5.52	1.68
10"	9.843 (250mm)	9.84	0.14	6.14	1.87
11"	11.024 (280mm)	11.02	0.16	7.79	2.37
12"	12.402 (315mm)	12.40	0.20	10.87	3.31
14"	13.976 (355mm)	13.98	0.20	12.28	3.74
16"	15.748 (400mm)	15.75	0.24	16.54	5.04
18"	17.717 (450mm)	17.72	0.28	21.65	6.60
20"	19.685 (500mm)	19.69	0.31	27.50	8.38
22"	22.047 (560mm)	22.05	0.31	30.80	9.39
24"	24.803 (630mm)	24.80	0.39	43.12	13.15
28"	27.953 (710mm)	27.95	0.31	37.18	11.34
32"	31.496 (800mm)	31.50	0.39	52.58	16.03
36"	35.433 (900mm)	35.43	0.39	58.96	17.98
39"	39.370 (1000mm)	39.37	0.47	78.76	24.01

90° Elbow



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

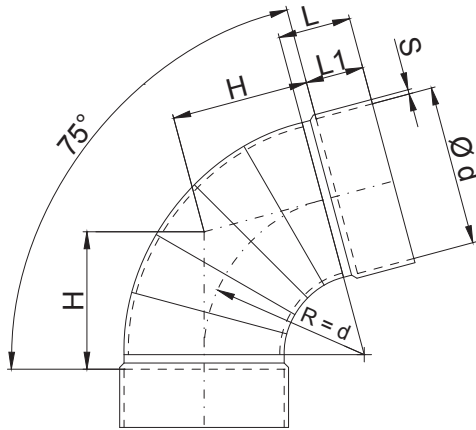
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	H in	L in	L1 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	2.76	1.18	0.98	0.12	0.22
2½"	2.953 (75mm)	2.95	3.15	1.57	1.38	0.12	0.44
3"	3.543 (90mm)	3.54	3.74	1.57	1.38	0.12	0.44
4"	4.331 (110mm)	4.33	4.72	1.97	1.57	0.14	0.66
4½"	4.921 (125mm)	4.92	5.31	1.97	1.57	0.12	0.88
5"	5.512 (140mm)	5.51	5.91	1.97	1.57	0.14	0.88
6"	6.299 (160mm)	6.30	6.69	1.97	1.57	0.12	1.10
7"	7.087 (180mm)	7.09	7.48	2.36	1.97	0.12	1.54
8"	7.874 (200mm)	7.87	8.27	2.36	1.97	0.12	1.98
9"	8.858 (225mm)	8.86	9.25	2.36	1.97	0.16	2.64
10"	9.843 (250mm)	9.84	10.24	2.36	1.97	0.14	3.30
11"	11.024 (280mm)	11.02	11.42	2.36	1.97	0.16	6.16
12"	12.402 (315mm)	12.40	12.80	2.36	1.97	0.20	7.04
14"	13.976 (355mm)	13.98	14.37	2.36	1.97	0.20	9.02
16"	15.748 (400mm)	15.75	16.14	2.76	2.36	0.24	11.22
18"	17.717 (450mm)	17.72	18.11	2.76	2.36	0.24	14.30
20"	19.685 (500mm)	19.69	20.08	2.76	2.36	0.24	15.40
22"	22.047 (560mm)	22.05	22.83	3.94	3.54	0.24	25.30
24"	24.803 (630mm)	24.80	25.59	4.53	3.94	0.31	30.80
28"	27.953 (710mm)	27.95	28.15	4.53	3.74	0.31	44.00
32"	31.496 (800mm)	31.50	31.69	4.53	3.94	0.39	88.00

75° Elbow



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

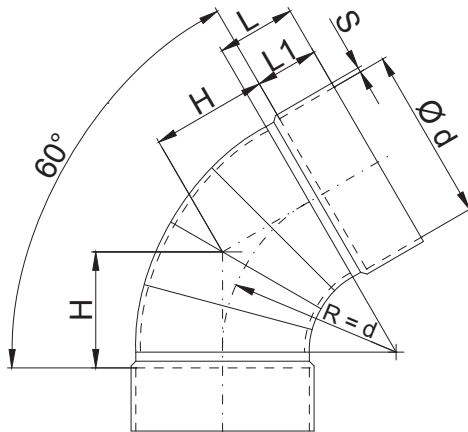
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	H in	L in	L1 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	2.17	1.18	0.98	0.12	0.22
2½"	2.953 (75mm)	2.95	2.56	1.57	1.38	0.12	0.22
3"	3.543 (90mm)	3.54	2.95	1.57	1.38	0.12	0.44
4"	4.331 (110mm)	4.33	3.74	1.97	1.57	0.12	0.66
4½"	4.921 (125mm)	4.92	4.13	1.97	1.57	0.12	0.66
5"	5.512 (140mm)	5.51	4.53	1.97	1.57	0.12	0.88
6"	6.299 (160mm)	6.30	5.31	1.97	1.57	0.12	1.10
7"	7.087 (180mm)	7.09	5.91	2.36	1.97	0.12	1.32
8"	7.874 (200mm)	7.87	6.50	2.36	1.97	0.12	1.76
9"	8.858 (225mm)	8.86	7.28	2.36	1.97	0.14	2.20
10"	9.843 (250mm)	9.84	7.87	2.36	1.97	0.16	2.86
11"	11.024 (280mm)	11.02	8.86	2.36	1.97	0.16	3.96
12"	12.402 (315mm)	12.40	9.84	2.36	1.97	0.20	5.94
14"	13.976 (355mm)	13.98	11.02	2.36	1.97	0.20	7.26
16"	15.748 (400mm)	15.75	12.60	2.76	2.36	0.24	11.00
18"	17.717 (450mm)	17.72	14.17	2.76	2.36	0.24	12.54
20"	19.685 (500mm)	19.69	15.94	2.76	2.36	0.24	16.50
22"	22.047 (560mm)	22.05	17.72	4.33	3.54	0.24	20.02
24"	24.803 (630mm)	24.80	19.09	4.33	3.54	0.31	25.52
28"	27.953 (710mm)	27.95	22.24	4.33	3.54	0.31	41.80
32"	31.496 (800mm)	31.50	24.80	4.72	3.94	0.39	72.60

60° Elbow



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

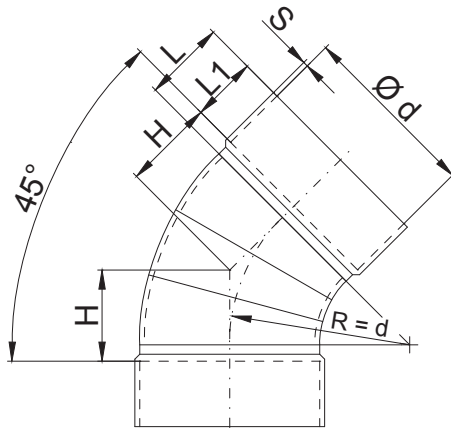
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	H in	L in	L1 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	1.57	1.18	0.98	0.12	0.22
2½"	2.953 (75mm)	2.95	1.97	1.57	1.38	0.12	0.22
3"	3.543 (90mm)	3.54	2.17	1.57	1.38	0.12	0.44
4"	4.331 (110mm)	4.33	2.95	1.97	1.57	0.12	0.44
4½"	4.921 (125mm)	4.92	3.15	1.97	1.57	0.12	0.66
5"	5.512 (140mm)	5.51	3.54	1.97	1.57	0.12	0.88
6"	6.299 (160mm)	6.30	3.94	1.97	1.57	0.12	0.88
7"	7.087 (180mm)	7.09	4.53	2.36	1.97	0.12	1.10
8"	7.874 (200mm)	7.87	4.92	2.36	1.97	0.12	1.54
9"	8.858 (225mm)	8.86	5.51	2.36	1.97	0.14	1.98
10"	9.843 (250mm)	9.84	6.10	2.36	1.97	0.16	2.20
11"	11.024 (280mm)	11.02	6.69	2.36	1.97	0.16	3.30
12"	12.402 (315mm)	12.40	7.48	2.36	1.97	0.20	5.06
14"	13.976 (355mm)	13.98	8.46	2.36	1.97	0.20	6.16
16"	15.748 (400mm)	15.75	9.65	2.76	2.36	0.24	9.46
18"	17.717 (450mm)	17.72	10.83	2.76	2.36	0.24	13.42
20"	19.685 (500mm)	19.69	12.20	2.76	2.36	0.24	14.96
22"	22.047 (560mm)	22.05	13.58	4.33	3.54	0.24	19.14
24"	24.803 (630mm)	24.80	15.16	4.33	3.54	0.31	20.24
28"	27.953 (710mm)	27.95	16.93	4.33	3.54	0.31	31.24
32"	31.496 (800mm)	31.50	18.90	4.72	4.33	0.39	62.26

45° Elbow



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

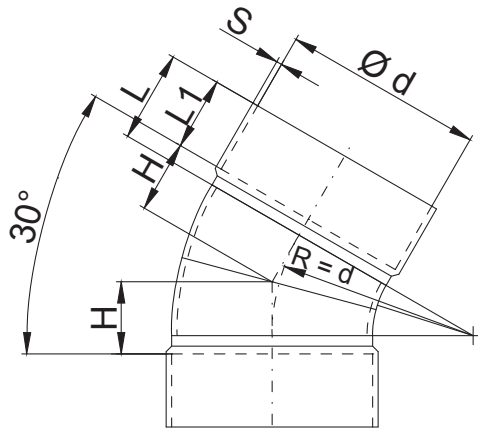
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	H in	L in	L1 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	1.26	1.18	0.98	0.12	0.22
2½"	2.953 (75mm)	2.95	1.38	1.57	1.38	0.12	0.22
3"	3.543 (90mm)	3.54	1.57	1.57	1.38	0.12	0.22
4"	4.331 (110mm)	4.33	2.17	1.97	1.57	0.12	0.44
4½"	4.921 (125mm)	4.92	2.36	1.97	1.57	0.12	0.66
5"	5.512 (140mm)	5.51	2.76	1.97	1.57	0.12	0.66
6"	6.299 (160mm)	6.30	2.95	1.97	1.57	0.12	0.88
7"	7.087 (180mm)	7.09	3.35	2.36	1.97	0.12	1.10
8"	7.874 (200mm)	7.87	3.74	2.36	1.97	0.12	1.32
9"	8.858 (225mm)	8.86	4.13	2.36	1.97	0.14	1.76
10"	9.843 (250mm)	9.84	4.53	2.36	1.97	0.16	1.98
11"	11.024 (280mm)	11.02	4.92	2.36	1.97	0.16	2.64
12"	12.402 (315mm)	12.40	5.51	2.36	1.97	0.20	4.18
14"	13.976 (355mm)	13.98	6.30	2.36	1.97	0.20	5.06
16"	15.748 (400mm)	15.75	6.89	2.76	2.36	0.24	7.70
18"	17.717 (450mm)	17.72	7.87	2.76	2.36	0.24	11.22
20"	19.685 (500mm)	19.69	8.46	2.76	2.36	0.24	11.88
22"	22.047 (560mm)	22.05	9.84	4.33	3.54	0.24	12.76
24"	24.803 (630mm)	24.80	11.02	4.33	3.54	0.31	18.04
28"	27.953 (710mm)	27.95	12.20	4.33	3.54	0.31	22.00
32"	31.496 (800mm)	31.50	13.78	4.72	4.33	0.39	44.00

30° Elbow



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

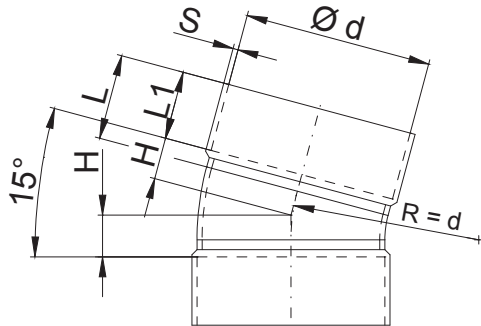
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	H in	L in	L1 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	0.79	1.18	0.98	0.12	0.22
2½"	2.953 (75mm)	2.95	0.98	1.57	1.38	0.12	0.22
3"	3.543 (90mm)	3.54	1.18	1.57	1.38	0.12	0.22
4"	4.331 (110mm)	4.33	1.57	1.57	1.57	0.12	0.44
4½"	4.921 (125mm)	4.92	1.77	1.97	1.57	0.12	0.44
5"	5.512 (140mm)	5.51	1.97	1.97	1.57	0.12	0.66
6"	6.299 (160mm)	6.30	2.17	1.97	1.57	0.12	0.66
7"	7.087 (180mm)	7.09	2.36	1.97	1.97	0.12	0.88
8"	7.874 (200mm)	7.87	2.56	2.36	1.97	0.12	1.10
9"	8.858 (225mm)	8.86	2.76	2.36	1.97	0.14	1.32
10"	9.843 (250mm)	9.84	2.95	2.36	1.97	0.16	1.54
11"	11.024 (280mm)	11.02	3.35	2.36	1.97	0.16	2.20
12"	12.402 (315mm)	12.40	3.74	2.36	1.97	0.20	3.08
14"	13.976 (355mm)	13.98	4.13	2.36	1.97	0.20	3.74
16"	15.748 (400mm)	15.75	4.72	2.36	2.36	0.24	5.94
18"	17.717 (450mm)	17.72	5.31	2.76	2.36	0.24	9.02
20"	19.685 (500mm)	19.69	6.10	2.76	2.36	0.24	10.56
22"	22.047 (560mm)	22.05	6.69	2.76	3.54	0.24	11.22
24"	24.803 (630mm)	24.80	7.48	4.33	3.54	0.31	16.50
28"	27.953 (710mm)	27.95	8.27	4.33	3.54	0.31	19.58
32"	31.496 (800mm)	31.50	9.25	4.72	4.33	0.39	40.70

15° Elbow



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

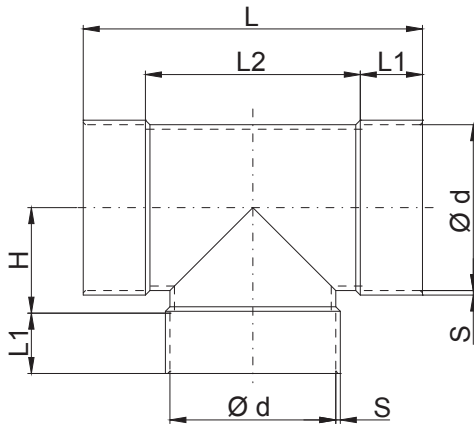
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	H in	L in	L1 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	0.59	1.18	0.98	0.12	0.22
2½"	2.953 (75mm)	2.95	0.59	1.57	1.38	0.12	0.22
3"	3.543 (90mm)	3.54	0.59	1.57	1.38	0.12	0.22
4"	4.331 (110mm)	4.33	0.59	1.97	1.57	0.12	0.44
4½"	4.921 (125mm)	4.92	0.98	1.97	1.57	0.12	0.44
5"	5.512 (140mm)	5.51	1.18	1.97	1.57	0.12	0.44
6"	6.299 (160mm)	6.30	0.98	1.97	1.57	0.12	0.44
7"	7.087 (180mm)	7.09	1.38	2.36	1.97	0.12	0.66
8"	7.874 (200mm)	7.87	0.98	2.36	1.97	0.12	0.88
9"	8.858 (225mm)	8.86	1.57	2.36	1.97	0.14	1.10
10"	9.843 (250mm)	9.84	1.38	2.36	1.97	0.16	1.10
11"	11.024 (280mm)	11.02	1.77	2.36	1.97	0.16	1.54
12"	12.402 (315mm)	12.40	1.97	2.36	1.97	0.20	2.20
14"	13.976 (355mm)	13.98	2.17	2.36	1.97	0.20	2.64
16"	15.748 (400mm)	15.75	2.76	2.76	2.36	0.24	4.18
18"	17.717 (450mm)	17.72	2.95	2.76	2.36	0.24	6.38
20"	19.685 (500mm)	19.69	3.35	2.76	2.36	0.24	7.92
22"	22.047 (560mm)	22.05	3.74	4.33	3.54	0.24	10.78
24"	24.803 (630mm)	24.80	3.94	4.33	3.54	0.31	12.76
28"	27.953 (710mm)	27.95	4.53	4.33	3.54	0.31	15.62
32"	31.496 (800mm)	31.50	4.92	4.72	3.94	0.39	26.84

Tee



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

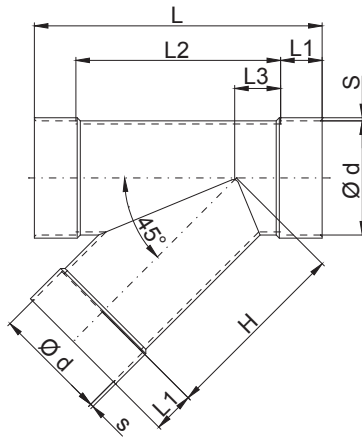
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	H in	L in	L1 in	L2 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	1.65	6.30	1.38	3.15	0.12	0.22
2½"	2.953 (75mm)	2.95	1.97	6.69	1.38	3.54	0.12	0.22
3"	3.543 (90mm)	3.54	2.56	7.87	1.38	4.13	0.12	0.44
4"	4.331 (110mm)	4.33	2.76	8.86	1.57	5.71	0.12	0.66
4½"	4.921 (125mm)	4.92	3.15	11.22	1.57	7.48	0.12	0.88
5"	5.512 (140mm)	5.51	3.35	11.61	1.57	7.48	0.12	0.88
6"	6.299 (160mm)	6.30	3.74	12.99	1.57	9.65	0.12	1.10
7"	7.087 (180mm)	7.09	4.13	14.96	1.97	10.83	0.12	1.54
8"	7.874 (200mm)	7.87	4.72	15.16	1.97	11.02	0.12	1.76
9"	8.858 (225mm)	8.86	5.31	17.91	1.97	12.60	0.14	2.64
10"	9.843 (250mm)	9.84	5.71	16.34	1.97	12.20	0.14	2.64
11"	11.024 (280mm)	11.02	6.30	18.31	1.97	14.17	0.16	3.96
12"	12.402 (315mm)	12.40	7.28	20.87	2.36	16.54	0.20	6.16
14"	13.976 (355mm)	13.98	7.68	23.62	1.77	20.08	0.20	7.26
16"	15.748 (400mm)	15.75	10.24	24.02	2.36	19.29	0.20	10.56
18"	17.717 (450mm)	17.72	11.61	27.56	2.76	23.23	0.24	13.20
20"	19.685 (500mm)	19.69	12.60	30.71	2.76	25.20	0.24	16.72
22"	22.047 (560mm)	22.05	13.78	33.07	2.76	27.56	0.24	20.24
24"	24.803 (630mm)	24.80	15.35	35.83	2.76	30.31	0.24	24.42
28"	27.953 (710mm)	27.95	19.29	37.40	4.72	37.40	0.31	44.88
32"	31.496 (800mm)	31.50	20.87	40.94	4.72	40.94	0.31	56.10
36"	35.433 (900mm)	35.43	22.83	44.88	4.72	44.88	0.31	92.40
39"	39.370 (1000mm)	39.37	24.80	53.54	4.72	48.82	0.39	129.80
48"	49.213 (1250mm)	49.21	29.53	68.11	4.72	58.66	0.39	150.26

45° Lateral



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

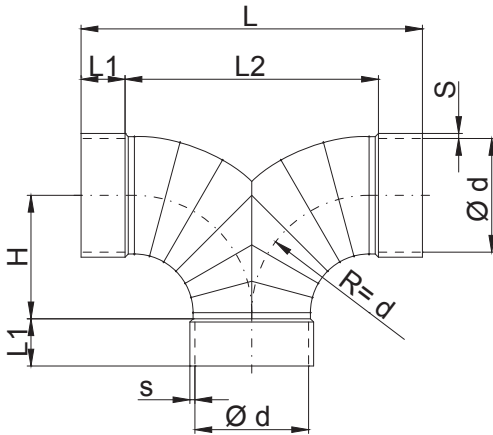
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	H in	L in	L1 in	L2 in	L3 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	3.54	7.09	1.38	4.33	0.79	0.12	0.44
2½"	2.953 (75mm)	2.95	4.13	7.87	1.38	5.12	0.98	0.12	0.66
3"	3.543 (90mm)	3.54	4.92	8.66	1.38	5.91	1.18	0.12	0.66
4"	4.331 (110mm)	4.33	5.91	10.43	1.57	7.28	1.38	0.12	1.10
4½"	4.921 (125mm)	4.92	6.89	11.42	1.57	8.27	1.57	0.12	1.32
5"	5.512 (140mm)	5.51	7.68	12.40	1.57	9.25	1.77	0.12	1.54
6"	6.299 (160mm)	6.30	8.66	13.58	1.57	10.43	1.97	0.12	1.98
7"	7.087 (180mm)	7.09	9.84	15.55	1.97	11.61	2.17	0.12	2.20
8"	7.874 (200mm)	7.87	10.83	16.93	1.97	12.99	2.36	0.12	2.64
9"	8.858 (225mm)	8.86	12.20	18.70	1.97	14.76	2.76	0.14	3.96
10"	9.843 (250mm)	9.84	13.58	20.28	1.97	16.34	3.15	0.14	4.84
11"	11.024 (280mm)	11.02	15.16	22.24	1.97	18.31	3.35	0.16	6.60
12"	12.402 (315mm)	12.40	17.13	24.41	1.97	20.47	3.74	0.20	9.68
14"	13.976 (355mm)	13.98	19.09	26.97	1.97	23.03	4.33	0.20	11.88
16"	15.748 (400mm)	15.75	21.65	30.71	2.36	25.98	4.92	0.24	17.60
18"	17.717 (450mm)	17.72	25.39	38.58	2.76	33.07	7.68	0.24	24.20
20"	19.685 (500mm)	19.69	27.56	41.34	2.76	35.83	8.07	0.24	28.60
22"	22.047 (560mm)	22.05	30.51	44.49	2.76	38.98	8.46	0.24	34.10
24"	24.803 (630mm)	24.80	34.25	49.21	2.76	43.70	9.45	0.24	42.90
28"	27.953 (710mm)	27.95	39.76	60.83	4.72	51.38	11.73	0.31	94.60
32"	31.496 (800mm)	31.50	43.90	65.75	4.72	56.30	12.40	0.31	112.20
36"	35.433 (900mm)	35.43	49.21	72.05	4.72	62.60	13.58	0.31	136.40
39"	39.370 (1000mm)	39.37	53.94	77.76	4.72	68.31	14.49	0.39	202.40
48"	49.213 (1250mm)	49.21	65.75	91.73	4.72	82.28	16.54	0.39	286.00

90° Double Wye



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

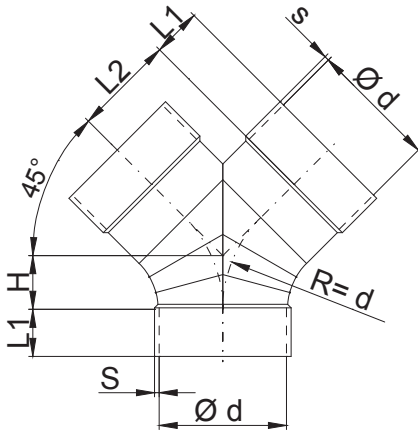
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom.	Actual OD	d	H	L	L1	L2	S	Weight
Size	Size	in	in	in	in	in	in	lbs
2"	2.480 (63mm)	2.48	2.76	7.87	1.18	5.51	0.12	0.44
2½"	2.953 (75mm)	2.95	3.15	9.06	1.38	6.30	0.12	0.44
3"	3.543 (90mm)	3.54	3.74	10.24	1.38	7.48	0.12	0.66
4"	4.331 (110mm)	4.33	4.72	12.60	1.57	9.45	0.12	0.88
4½"	4.921 (125mm)	4.92	5.31	13.78	1.57	10.63	0.12	1.32
5"	5.512 (140mm)	5.51	5.91	14.96	1.57	11.81	0.12	1.54
6"	6.299 (160mm)	6.30	6.69	16.54	1.57	13.39	0.12	1.76
7"	7.087 (180mm)	7.09	7.48	18.90	1.97	14.96	0.12	2.20
8"	7.874 (200mm)	7.87	8.27	20.47	1.97	16.54	0.12	3.08
9"	8.858 (225mm)	8.86	9.25	22.44	1.97	18.50	0.14	3.96
10"	9.843 (250mm)	9.84	10.24	24.41	1.97	20.47	0.16	5.06
11"	11.024 (280mm)	11.02	11.42	26.77	1.97	22.83	0.16	9.24
12"	12.402 (315mm)	12.40	12.80	29.53	1.97	25.59	0.20	10.56
14"	13.976 (355mm)	13.98	14.37	32.68	1.97	28.74	0.20	13.64
16"	15.748 (400mm)	15.75	16.14	36.22	1.97	32.28	0.24	16.94
18"	17.717 (450mm)	17.72	18.31	40.55	1.97	36.61	0.24	26.40
20"	19.685 (500mm)	19.69	20.47	44.88	1.97	40.94	0.24	33.00

45° Double Wye



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

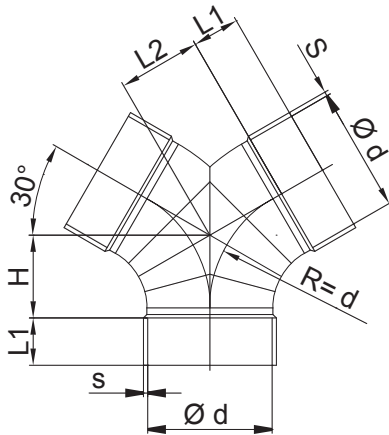
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	H in	L1 in	L2 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	1.18	1.18	2.17	0.12	0.22
2½"	2.953 (75mm)	2.95	1.38	1.38	2.56	0.12	0.44
3"	3.543 (90mm)	3.54	1.57	1.38	2.76	0.12	0.44
4"	4.331 (110mm)	4.33	1.77	1.57	3.35	0.12	0.88
4½"	4.921 (125mm)	4.92	2.36	1.57	3.94	0.12	0.88
5"	5.512 (140mm)	5.51	2.76	1.57	4.72	0.12	1.10
6"	6.299 (160mm)	6.30	2.56	1.57	5.51	0.12	1.54
7"	7.087 (180mm)	7.09	3.35	1.97	5.91	0.12	2.20
8"	7.874 (200mm)	7.87	3.35	1.97	6.89	0.12	2.42
9"	8.858 (225mm)	8.86	4.13	1.97	7.28	0.14	3.08
10"	9.843 (250mm)	9.84	4.13	1.97	8.46	0.14	3.30
11"	11.024 (280mm)	11.02	4.92	1.97	9.65	0.16	5.28
12"	12.402 (315mm)	12.40	5.51	1.97	10.83	0.20	6.60
14"	13.976 (355mm)	13.98	6.10	1.97	12.01	0.20	8.80
16"	15.748 (400mm)	15.75	7.09	1.97	13.98	0.24	13.86
18"	17.717 (450mm)	17.72	7.87	1.97	16.34	0.24	20.90
20"	19.685 (500mm)	19.69	8.86	1.97	18.11	0.24	23.10

30° Double Wye



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

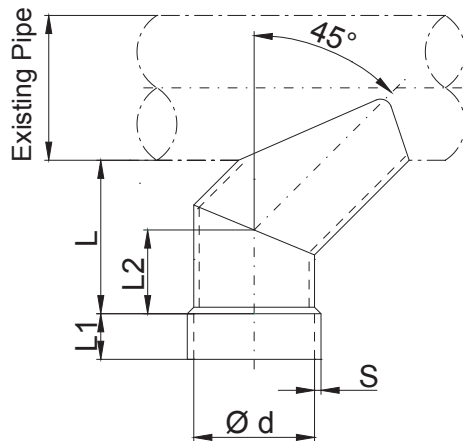
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	L1 in	L2 in	H in	s in	Weight lbs
2"	2.480 (63mm)	2.48	1.18	1.57	1.57	0.12	0.22
2½"	2.953 (75mm)	2.95	1.18	1.97	1.97	0.12	0.44
3"	3.543 (90mm)	3.54	1.38	2.17	2.17	0.12	0.44
4"	4.331 (110mm)	4.33	1.57	2.95	2.95	0.12	0.66
4½"	4.921 (125mm)	4.92	1.57	3.15	3.15	0.12	0.88
5"	5.512 (140mm)	5.51	1.57	3.54	3.54	0.12	1.10
6"	6.299 (160mm)	6.30	1.57	3.94	3.94	0.12	1.32
7"	7.087 (180mm)	7.09	1.97	4.53	4.53	0.12	1.98
8"	7.874 (200mm)	7.87	1.97	4.92	4.92	0.12	2.20
9"	8.858 (225mm)	8.86	1.97	5.51	5.51	0.14	2.86
10"	9.843 (250mm)	9.84	1.97	6.10	6.10	0.16	3.08
11"	11.024 (280mm)	11.02	1.97	6.69	6.69	0.16	4.84
12"	12.402 (315mm)	12.40	1.97	7.48	7.48	0.20	5.72
14"	13.976 (355mm)	13.98	1.97	8.46	8.46	0.20	7.92
16"	15.748 (400mm)	15.75	1.97	9.65	9.65	0.24	10.56
18"	17.717 (450mm)	17.72	1.97	10.83	10.83	0.24	18.70
20"	19.685 (500mm)	19.69	1.97	12.20	12.20	0.24	20.90
24"	24.803 (630mm)	24.80	3.54	15.16	15.16	0.31	30.80

90° Saddle Connection



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

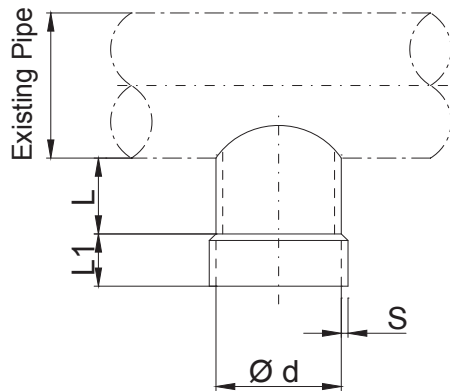
PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	L in	L1 in	L2 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	3.15	1.38	1.30	0.12	0.22
2½"	2.953 (75mm)	2.95	3.54	1.38	1.42	0.12	0.22
3"	3.543 (90mm)	3.54	3.94	1.38	1.54	0.12	0.44
4"	4.331 (110mm)	4.33	5.12	1.57	2.09	0.12	0.66
4½"	4.921 (125mm)	4.92	5.71	1.57	2.20	0.12	0.66
5"	5.512 (140mm)	5.51	6.30	1.57	2.32	0.12	0.88
6"	6.299 (160mm)	6.30	7.28	1.57	2.87	0.12	1.10
7"	7.087 (180mm)	7.09	8.07	1.97	3.03	0.13	1.32
8"	7.874 (200mm)	7.87	8.86	1.97	3.19	0.14	1.76
9"	8.858 (225mm)	8.86	10.04	1.97	3.82	0.14	2.42
10"	9.843 (250mm)	9.84	11.02	1.97	4.02	0.16	2.86
11"	11.024 (280mm)	11.02	12.01	1.97	4.25	0.20	4.18
12"	12.402 (315mm)	12.40	13.39	1.97	4.53	0.20	6.16
14"	13.976 (355mm)	13.98	14.76	1.97	4.88	0.24	7.70
16"	15.748 (400mm)	15.75	16.34	2.36	5.24	0.24	11.66
18"	17.717 (450mm)	17.72	18.50	2.76	6.02	0.24	15.40
20"	19.685 (500mm)	19.69	20.28	2.76	6.46	0.24	21.56
22"	22.047 (560mm)	22.05	22.44	2.76	6.93	0.24	30.14
24"	24.803 (630mm)	24.80	25.39	2.76	7.91	0.24	37.40
28"	27.953 (710mm)	27.95	28.35	4.72	10.51	0.31	53.90
32"	31.496 (800mm)	31.50	31.50	4.72	11.26	0.31	66.00

Saddle cut to match size as pipe. ie: 110mm cut for 110mm Pipe

Saddle can be cut to fit larger pipe upon request ie: 110mm cut for 400mm pipe

90° Short Saddle Connection



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

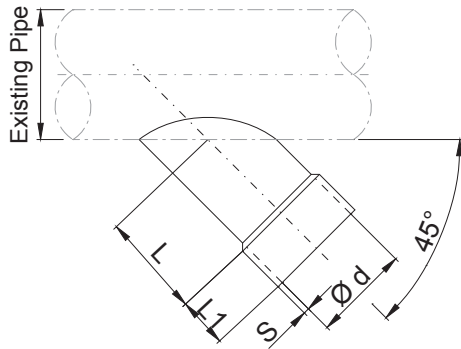
PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	L in	L1 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	0.79	1.38	0.12	0.22
2½"	2.953 (75mm)	2.95	0.79	1.38	0.12	0.22
3"	3.543 (90mm)	3.54	0.79	1.38	0.12	0.22
4"	4.331 (110mm)	4.33	0.79	1.57	0.12	0.22
4½"	4.921 (125mm)	4.92	0.79	1.57	0.12	0.44
5"	5.512 (140mm)	5.51	0.98	1.57	0.12	0.44
6"	6.299 (160mm)	6.30	0.98	1.57	0.12	0.66
7"	7.087 (180mm)	7.09	0.98	1.97	0.12	0.66
8"	7.874 (200mm)	7.87	0.98	1.97	0.12	0.88
9"	8.858 (225mm)	8.86	0.98	1.97	0.14	1.32
10"	9.843 (250mm)	9.84	1.38	1.97	0.14	1.54
11"	11.024 (280mm)	11.02	1.38	1.97	0.16	2.20
12"	12.402 (315mm)	12.40	1.38	1.97	0.20	3.08
14"	13.976 (355mm)	13.98	1.77	1.97	0.20	3.96
16"	15.748 (400mm)	15.75	1.77	2.36	0.24	5.94
18"	17.717 (450mm)	17.72	1.77	2.36	0.24	7.70
20"	19.685 (500mm)	19.69	1.77	2.36	0.24	10.78

Saddle cut to match size as pipe. ie: 110mm cut for 110mm Pipe

Saddle can be cut to fit larger pipe upon request ie: 110mm cut for 400mm pipe

45° Saddle Connection



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

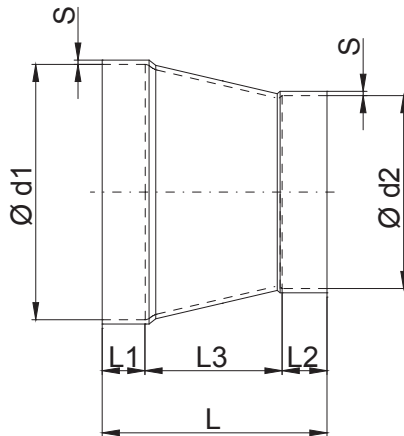
PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	L in	L1 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	1.77	1.38	0.12	0.22
2½"	2.953 (75mm)	2.95	1.97	1.38	0.12	0.22
3"	3.543 (90mm)	3.54	2.36	1.38	0.12	0.44
4"	4.331 (110mm)	4.33	2.76	1.57	0.12	0.66
4½"	4.921 (125mm)	4.92	3.35	1.57	0.12	0.66
5"	5.512 (140mm)	5.51	3.74	1.57	0.12	0.88
6"	6.299 (160mm)	6.30	4.13	1.57	0.12	1.10
7"	7.087 (180mm)	7.09	4.92	1.97	0.12	1.32
8"	7.874 (200mm)	7.87	5.31	1.97	0.12	1.76
9"	8.858 (225mm)	8.86	5.91	1.97	0.14	2.42
10"	9.843 (250mm)	9.84	6.69	1.97	0.14	2.99
11"	11.024 (280mm)	11.02	7.28	1.97	0.16	4.18
12"	12.402 (315mm)	12.40	8.27	1.97	0.20	6.16
14"	13.976 (355mm)	13.98	9.25	1.97	0.20	7.70
16"	15.748 (400mm)	15.75	10.43	2.36	0.24	11.66
18"	17.717 (450mm)	17.72	11.81	2.36	0.24	15.40
20"	19.685 (500mm)	19.69	12.80	2.36	0.24	21.56
24"	24.803 (630mm)	24.80	16.54	3.54	0.31	32.34

Saddle cut to match size as pipe. ie: 110mm cut for 110mm Pipe

Saddle can be cut to fit larger pipe upon request ie: 110mm cut for 400mm pipe

Concentric Reducer



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

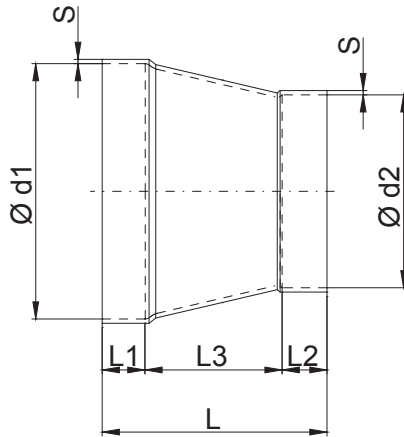
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d1 in	d2 in	L in	L1 in	L2 in	L3 in	s in	Weight Lbs
2½" x 2"	2.953 (75mm) x 2.480 (63mm)	2.95	2.48	3.74	1.38	1.38	1.38	0.12	0.22
3" x 2"	3.543 (90mm) x 2.480 (63mm)	3.54	2.48	4.92	1.38	1.38	2.56	0.12	0.22
3" x 2½"	3.543 (90mm) x 2.953 (75mm)	3.54	2.95	4.33	1.38	1.38	1.57	0.12	0.22
4" x 2"	4.331 (110mm) x 2.480 (63mm)	4.33	2.48	6.50	1.57	1.38	3.94	0.12	0.22
4" x 2½"	4.331 (110mm) x 2.953 (75mm)	4.33	2.95	6.69	1.57	1.38	3.74	0.12	0.44
4" x 3"	4.331 (110mm) x 3.543 (90mm)	4.33	3.54	4.92	1.57	1.38	1.97	0.12	0.44
4½" x 2"	4.921 (125mm) x 2.480 (63mm))	4.92	2.48	7.68	1.57	1.38	5.12	0.12	0.44
4½" x 2½"	4.921 (125mm) x 2.953 (75mm)	4.92	2.95	7.28	1.57	1.38	4.33	0.12	0.44
4½" x 3"	4.921 (125mm) x 3.543 (90mm)	4.92	3.54	6.10	1.57	1.38	3.15	0.12	0.44
4½" x 4"	4.921 (125mm) x 4.331 (110mm)	4.92	4.33	4.53	1.57	1.57	1.57	0.12	0.22
5" x 2"	5.512 (140mm) x 2.480 (63mm)	5.51	2.48	9.25	1.57	1.38	6.30	0.12	0.44
5" x 2½"	5.512 (140mm) x 2.953 (75mm)	5.51	2.95	8.27	1.57	1.38	5.31	0.12	0.44
5" x 3"	5.512 (140mm) x 3.543 (90mm)	5.51	3.54	7.28	1.57	1.38	4.33	0.12	0.44
5" x 4"	5.512 (140mm) x 4.331 (110mm)	5.51	4.33	5.91	1.57	1.57	2.76	0.12	0.44
5" x 4"	5.512 (140mm) x 4.921 (125mm)	5.51	4.92	4.72	1.57	1.57	1.57	0.12	0.44
6" x 2"	6.299 (160mm) x 2.480 (63mm))	6.30	2.48	10.24	1.57	1.38	7.68	0.14	0.66
6" x 2½"	6.299 (160mm) x 2.953 (75mm)	6.30	2.95	9.84	1.57	1.38	6.69	0.14	0.66
6" x 3"	6.299 (160mm) x 3.543 (90mm)	6.30	3.54	8.66	1.57	1.38	5.71	0.14	0.66
6" x 4"	6.299 (160mm) x 4.331 (110mm)	6.30	4.33	7.28	1.57	1.38	4.33	0.14	0.66
6" x 4½"	6.299 (160mm) x 4.921 (125mm)	6.30	4.92	6.30	1.57	1.57	3.15	0.14	0.44
6" x 5"	6.299 (160mm) x 5.512 (140mm)	6.30	5.51	5.12	1.57	1.57	1.97	0.14	0.44
7" x 2"	7.087 (180mm) x 2.480 (63mm))	7.09	2.48	12.20	1.97	1.38	9.06	0.14	0.88
7" x 2½"	7.087 (180mm) x 2.953 (75mm)	7.09	2.95	11.61	1.97	1.38	8.27	0.14	0.88
7" x 3"	7.087 (180mm) x 3.543 (90mm)	7.09	3.54	10.63	1.97	1.38	7.09	0.14	0.66
7" x 4"	7.087 (180mm) x 4.331 (110mm)	7.09	4.33	9.25	1.97	1.57	5.71	0.14	0.66
7" x 4½"	7.087 (180mm) x 4.921 (125mm)	7.09	4.92	8.27	1.97	1.57	4.53	0.14	0.66
7" x 5"	7.087 (180mm) x 5.512 (140mm)	7.09	5.51	7.09	1.97	1.57	3.54	0.14	0.66
7" x 6"	7.087 (180mm) x 6.299 (160mm)	7.09	6.30	5.51	1.97	1.57	1.97	0.14	0.44

Concentric Reducer



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

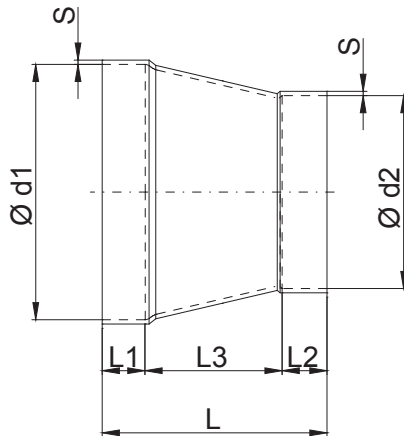
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d1 in	d2 in	L in	L1 in	L2 in	L3 in	S in	Weight Lbs
8" x 2"	7.874 (200mm) x 2.480 (63mm)	7.87	2.48	13.58	1.97	0.98	10.63	0.12	0.88
8" x 2½"	7.874 (200mm) x 2.953 (75mm)	7.87	2.95	12.99	1.97	1.38	9.84	0.12	0.88
8" x 3"	7.874 (200mm) x 3.543 (90mm)	7.87	3.54	12.01	1.97	1.38	8.66	0.12	0.88
8" x 4"	7.874 (200mm) x 4.331 (110mm)	7.87	4.33	11.81	1.97	1.57	8.27	0.12	0.88
8" x 4½"	7.874 (200mm) x 4.921 (125mm)	7.87	4.92	9.65	1.97	1.57	6.10	0.12	0.88
8" x 5"	7.874 (200mm) x 5.512 (140mm)	7.87	5.51	8.46	1.97	1.57	4.92	0.12	0.66
8" x 6"	7.874 (200mm) x 6.299 (160mm)	7.87	6.30	7.68	1.97	1.97	3.74	0.12	0.88
8" x 7"	7.874 (200mm) x 7.087 (180mm)	7.87	7.09	6.10	1.97	1.97	1.97	0.12	0.66
9" x 2"	8.858 (225mm) x 2.480 (63mm)	8.86	2.48	15.35	1.97	0.98	12.40	0.12	1.10
9" x 2½"	8.858 (225mm) x 2.953 (75mm)	8.86	2.95	14.96	1.97	1.38	11.61	0.12	1.10
9" x 3"	8.858 (225mm) x 3.543 (90mm)	8.86	3.54	13.78	1.97	1.38	10.43	0.12	1.10
9" x 4"	8.858 (225mm) x 4.331 (110mm)	8.86	4.33	12.60	1.97	1.57	9.06	0.12	1.10
9" x 4½"	8.858 (225mm) x 4.921 (125mm)	8.86	4.92	11.42	1.97	1.57	7.87	0.12	1.10
9" x 5"	8.858 (225mm) x 5.512 (140mm)	8.86	5.51	10.24	1.97	1.57	6.69	0.12	0.88
9" x 6"	8.858 (225mm) x 6.299 (160mm)	8.86	6.30	8.86	1.97	1.57	5.31	0.12	0.88
9" x 7"	8.858 (225mm) x 7.087 (180mm)	8.86	7.09	7.87	1.97	1.97	3.94	0.12	0.88
9" x 8"	8.858 (225mm) x 7.874 (200mm)	8.86	7.87	6.30	1.97	1.97	2.36	0.12	0.66
10" x 2"	9.843 (250mm) x 2.480 (63mm)	9.84	2.48	17.32	1.97	0.98	14.37	0.14	1.76
10" x 2½"	9.843 (250mm) x 2.953 (75mm)	9.84	2.95	16.73	1.97	1.38	13.39	0.14	1.76
10" x 3"	9.843 (250mm) x 3.543 (90mm)	9.84	3.54	15.75	1.97	1.38	12.40	0.14	1.54
10" x 4"	9.843 (250mm) x 4.331 (110mm)	9.84	4.33	14.37	1.97	1.57	10.83	0.14	1.54
10" x 4½"	9.843 (250mm) x 4.921 (125mm)	9.84	4.92	13.19	1.97	1.57	9.84	0.14	1.54
10" x 5"	9.843 (250mm) x 5.512 (140mm)	9.84	5.51	12.20	1.97	1.57	8.66	0.14	1.54
10" x 6"	9.843 (250mm) x 6.299 (160mm)	9.84	6.30	11.22	1.97	1.57	7.68	0.14	1.32
10" x 7"	9.843 (250mm) x 7.087 (180mm)	9.84	7.09	10.04	1.97	1.97	5.71	0.14	1.32
10" x 8"	9.843 (250mm) x 7.874 (200mm)	9.84	7.87	8.46	1.97	1.97	4.53	0.14	1.32
10" x 9"	9.843 (250mm) x 8.858 (225mm)	9.84	8.86	6.50	1.97	1.97	2.56	0.14	0.88

Concentric Reducer



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

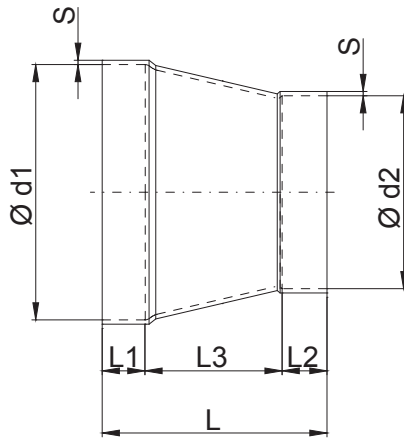
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d1 in	d2 in	L in	L1 in	L2 in	L3 in	S in	Weight Lbs
11" x 4"	11.024 (280mm) x 4.331 (110mm)	11.02	4.33	16.73	1.97	1.57	13.19	0.14	1.98
11" x 4½"	11.024 (280mm) x 4.921 (125mm)	11.02	4.92	15.55	1.97	1.57	12.01	0.14	1.98
11" x 5"	11.024 (280mm) x 5.512 (140mm)	11.02	5.51	14.37	1.97	1.57	10.83	0.14	1.76
11" x 6"	11.024 (280mm) x 6.299 (160mm)	11.02	6.30	13.39	1.97	1.97	9.45	0.14	1.76
11" x 7"	11.024 (280mm) x 7.087 (180mm)	11.02	7.09	12.01	1.97	1.97	8.07	0.14	1.76
11" x 8"	11.024 (280mm) x 7.874 (200mm)	11.02	7.87	10.43	1.97	1.97	6.50	0.14	1.54
11" x 9"	11.024 (280mm) x 8.858 (225mm)	11.02	8.86	8.66	1.97	1.97	4.72	0.14	1.54
11" x 10"	11.024 (280mm) x 9.843 (250mm)	11.02	9.84	6.69	1.97	1.97	2.76	0.14	1.10
12" x 4"	12.402 (315mm) x 4.331 (110mm)	12.40	4.33	18.50	1.97	1.57	14.96	0.16	2.20
12" x 4½"	12.402 (315mm) x 4.921 (125mm)	12.40	4.92	18.11	1.97	1.57	14.57	0.16	2.86
12" x 5"	12.402 (315mm) x 5.512 (140mm)	12.40	5.51	17.13	1.97	1.57	13.58	0.16	2.64
12" x 6"	12.402 (315mm) x 6.299 (160mm)	12.40	6.30	15.55	1.97	1.57	12.01	0.16	2.64
12" x 7"	12.402 (315mm) x 7.087 (180mm)	12.40	7.09	14.17	1.97	1.57	10.63	0.16	2.42
12" x 8"	12.402 (315mm) x 7.874 (200mm)	12.40	7.87	13.19	1.97	1.97	9.25	0.16	2.42
12" x 9"	12.402 (315mm) x 8.858 (225mm)	12.40	8.86	11.22	1.97	1.97	7.28	0.18	2.42
12" x 10"	12.402 (315mm) x 9.843 (250mm)	12.40	9.84	9.45	1.97	1.97	5.51	0.18	1.98
12" x 11"	12.402 (315mm) x 11.024 (280mm)	12.40	11.02	7.28	1.97	1.97	3.35	0.18	1.76
14" x 6"	13.976 (355mm) x 6.299 (160mm)	13.98	6.30	19.09	1.97	1.97	15.16	0.20	4.18
14" x 7"	13.976 (355mm) x 7.087 (180mm)	13.98	7.09	17.52	1.97	1.97	13.58	0.20	3.96
14" x 8"	13.976 (355mm) x 7.874 (200mm)	13.98	7.87	16.14	1.97	1.97	12.20	0.20	3.74
14" x 9"	13.976 (355mm) x 8.858 (225mm)	13.98	8.86	14.17	1.97	1.97	10.24	0.20	3.52
14" x 10"	13.976 (355mm) x 9.843 (250mm)	13.98	9.84	12.40	1.97	1.97	8.46	0.18	2.86
14" x 11"	13.976 (355mm) x 11.024 (280mm)	13.98	11.02	10.24	1.97	1.97	6.30	0.20	2.86
14" x 12"	13.976 (355mm) x 12.402 (315mm)	13.98	12.40	8.07	2.36	1.97	3.74	0.20	2.20
16" x 6"	15.748 (400mm) x 6.299 (160mm)	15.75	6.30	22.83	2.36	1.97	18.50	0.20	5.50
16" x 7"	15.748 (400mm) x 7.087 (180mm)	15.75	7.09	21.26	2.36	1.97	16.93	0.20	5.28

Concentric Reducer



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

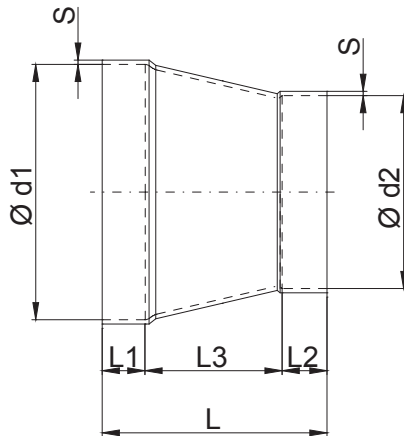
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d1 in	d2 in	L in	L1 in	L2 in	L3 in	S in	Weight Lbs
16" x 8"	15.748 (400mm) x 7.874 (200mm)	15.75	7.87	19.69	2.36	1.97	15.35	0.20	5.06
16" x 9"	15.748 (400mm) x 8.858 (225mm)	15.75	8.86	17.91	2.36	1.97	13.58	0.20	4.84
16" x 10"	15.748 (400mm) x 9.843 (250mm)	15.75	9.84	16.14	2.36	1.97	11.81	0.20	4.62
16" x 11"	15.748 (400mm) x 11.024 (280mm)	15.75	11.02	13.98	2.36	1.97	9.65	0.20	4.18
16" x 12"	15.748 (400mm) x 12.402 (315mm)	15.75	12.40	11.42	2.36	1.97	7.09	0.20	3.52
16" x 14"	15.748 (400mm) x 13.976 (355mm)	15.75	13.98	8.46	2.36	1.97	4.13	0.20	2.86
18" x 8"	17.717 (450mm) x 7.874 (200mm)	17.72	7.87	23.62	2.36	1.97	19.29	0.24	7.92
18" x 9"	17.717 (450mm) x 8.858 (225mm)	17.72	8.86	21.65	2.36	1.97	17.32	0.24	7.48
18" x 10"	17.717 (450mm) x 9.843 (250mm)	17.72	9.84	19.88	2.36	1.97	15.55	0.24	7.26
18" x 11"	17.717 (450mm) x 11.024 (280mm)	17.72	11.02	17.72	2.36	1.97	13.39	0.24	6.60
18" x 12"	17.717 (450mm) x 12.402 (315mm)	17.72	12.40	15.16	2.36	1.97	10.83	0.24	5.94
18" x 14"	17.717 (450mm) x 13.976 (355mm)	17.72	13.98	12.20	2.36	1.97	7.87	0.24	5.06
18" x 16"	17.717 (450mm) x 15.748 (400mm)	17.72	15.75	9.25	2.36	2.36	4.53	0.24	4.18
20" x 8"	19.685 (500mm) x 7.874 (200mm)	19.69	7.87	26.77	1.97	1.97	22.83	0.24	9.68
20" x 9"	19.685 (500mm) x 8.858 (225mm)	19.69	8.86	25.00	1.97	1.97	21.06	0.24	9.24
20" x 10"	19.685 (500mm) x 9.843 (250mm)	19.69	9.84	24.02	2.76	1.97	19.29	0.24	9.24
20" x 11"	19.685 (500mm) x 11.024 (280mm)	19.69	11.02	21.85	2.76	1.97	17.13	0.24	8.80
20" x 12"	19.685 (500mm) x 12.402 (315mm)	19.69	12.40	19.69	2.56	2.56	14.57	0.24	8.14
20" x 14"	19.685 (500mm) x 13.976 (355mm)	19.69	13.98	16.14	2.56	1.97	11.61	0.24	7.04
20" x 16"	19.685 (500mm) x 15.748 (400mm)	19.69	15.75	13.19	2.76	2.17	8.27	0.24	6.16
20" x 16"	19.685 (500mm) x 17.717 (450mm)	19.69	17.72	9.65	2.76	2.36	4.53	0.24	4.84
22" x 10"	22.047 (560mm) x 9.843 (250mm)	22.05	9.84	28.35	2.76	1.97	23.62	0.24	11.88
22" x 11"	22.047 (560mm) x 11.024 (280mm)	22.05	11.02	26.18	2.76	1.97	21.46	0.24	11.44
22" x 12"	22.047 (560mm) x 12.402 (315mm)	22.05	12.40	23.62	2.76	1.97	18.90	0.24	10.56
22" x 14"	22.047 (560mm) x 13.976 (355mm)	22.05	13.98	20.67	2.76	1.97	15.94	0.24	9.68
22" x 16"	22.047 (560mm) x 15.748 (400mm)	22.05	15.75	18.31	3.54	2.17	12.60	0.24	9.24
22" x 18"	22.047 (560mm) x 17.717 (450mm)	22.05	17.72	14.96	3.54	2.36	9.06	0.24	7.92
22" x 20"	22.047 (560mm) x 19.685 (500mm)	22.05	19.69	11.22	3.54	2.36	5.31	0.24	6.16

Concentric Reducer



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

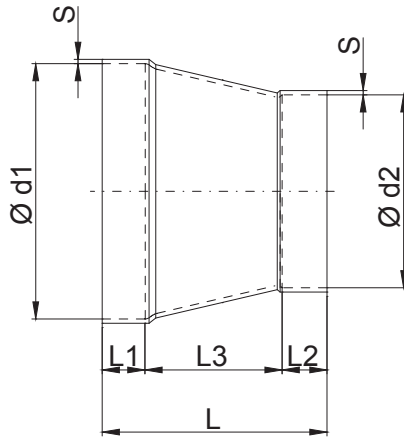
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d1 in	d2 in	L in	L1 in	L2 in	L3 in	S in	Weight Lbs
24" x 11"	24.803 (630mm) x 11.024 (280mm)	24.80	11.02	31.30	2.76	1.97	26.57	0.24	14.74
24" x 12"	24.803 (630mm) x 12.402 (315mm)	24.80	12.40	28.74	2.76	1.97	24.02	0.24	14.08
24" x 14"	24.803 (630mm) x 13.976 (355mm)	24.80	13.98	25.79	2.76	1.97	21.06	0.24	13.20
24" x 16"	24.803 (630mm) x 15.748 (400mm)	24.80	15.75	23.82	3.94	2.17	17.72	0.24	12.76
24" x 18"	24.803 (630mm) x 17.717 (450mm)	24.80	17.72	20.47	3.94	2.36	14.17	0.24	11.44
24" x 20"	24.803 (630mm) x 19.685 (500mm)	24.80	19.69	16.73	3.94	2.36	10.43	0.24	9.90
24" x 22"	24.803 (630mm) x 22.047 (560mm)	24.80	22.05	12.80	3.94	2.76	6.10	0.24	7.92
28" x 12"	27.953 (710mm) x 12.402 (315mm)	27.95	12.40	36.81	4.72	1.97	30.12	0.31	26.62
28" x 14"	27.953 (710mm) x 13.976 (355mm)	27.95	13.98	33.86	4.72	1.97	27.17	0.31	25.30
28" x 16"	27.953 (710mm) x 15.748 (400mm)	27.95	15.75	30.91	4.72	2.36	23.82	0.31	23.98
28" x 18"	27.953 (710mm) x 17.717 (450mm)	27.95	17.72	27.76	4.72	2.76	20.28	0.31	22.44
28" x 20"	27.953 (710mm) x 19.685 (500mm)	27.95	19.69	22.44	3.54	2.36	16.54	0.31	18.92
28" x 22"	27.953 (710mm) x 22.047 (560mm)	27.95	22.05	19.29	3.54	3.54	12.20	0.31	16.72
28" x 24"	27.953 (710mm) x 24.803 (630mm)	27.95	24.80	14.17	3.54	3.54	7.09	0.31	12.98
32" x 14"	31.496 (800mm) x 13.976 (355mm)	31.50	13.98	40.55	4.72	1.97	33.86	0.31	32.78
32" x 16"	31.496 (800mm) x 15.748 (400mm)	31.50	15.75	37.60	4.72	2.36	30.51	0.31	31.46
32" x 18"	31.496 (800mm) x 17.717 (450mm)	31.50	17.72	34.25	4.72	2.76	26.77	0.31	29.92
32" x 20"	31.496 (800mm) x 19.685 (500mm)	31.50	19.69	29.53	3.94	2.36	23.23	0.31	26.62
32" x 22"	31.496 (800mm) x 22.047 (560mm)	31.50	22.05	26.18	3.94	3.54	18.70	0.31	24.64
32" x 24"	31.496 (800mm) x 24.803 (630mm)	31.50	24.80	21.06	3.94	3.54	13.58	0.31	20.68
32" x 28"	31.496 (800mm) x 27.953 (710mm)	31.50	27.95	15.16	3.94	3.54	7.68	0.31	15.84
36" x 16"	35.433 (900mm) x 15.748 (400mm)	35.43	15.75	45.28	4.72	2.76	37.80	0.31	40.92
36" x 18"	35.433 (900mm) x 17.717 (450mm)	35.43	17.72	41.73	4.72	2.76	34.25	0.31	39.16
36" x 20"	35.433 (900mm) x 19.685 (500mm)	35.43	19.69	37.99	4.72	2.76	30.51	0.31	36.96
36" x 22"	35.433 (900mm) x 22.047 (560mm)	35.43	22.05	33.66	4.72	2.76	26.18	0.31	34.10
36" x 24"	35.433 (900mm) x 24.803 (630mm)	35.43	24.80	28.74	4.72	2.76	21.26	0.39	38.06
36" x 28"	35.433 (900mm) x 27.953 (710mm)	35.43	27.95	24.80	4.72	4.72	15.35	0.39	34.32
36" x 32"	35.433 (900mm) x 31.496 (800mm)	35.43	31.50	18.11	4.72	4.72	8.66	0.39	26.62

Concentric Reducer



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

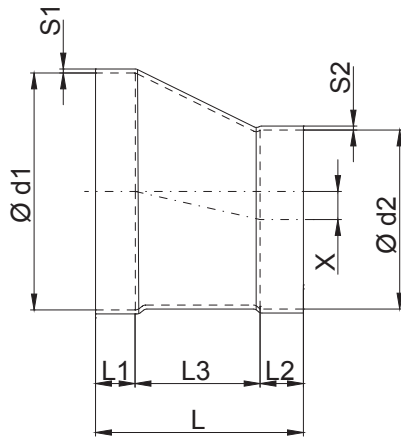
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d1 in	d2 in	L in	L1 in	L2 in	L3 in	S in	Weight Lbs
39" x 20"	39.370 (1000mm) x 19.685 (500mm)	39.37	19.69	45.47	4.72	2.76	37.99	0.39	59.40
39" x 22"	39.370 (1000mm) x 22.047 (560mm)	39.37	22.05	41.14	4.72	2.76	33.66	0.39	55.66
39" x 24"	39.370 (1000mm) x 24.803 (630mm)	39.37	24.80	36.02	4.72	2.76	28.54	0.39	51.04
39" x 28"	39.370 (1000mm) x 27.953 (710mm)	39.37	27.95	32.09	4.72	4.72	22.64	0.39	47.08
39" x 32"	39.370 (1000mm) x 31.496 (800mm)	39.37	31.50	25.39	4.72	4.72	15.94	0.39	39.38
39" x 36"	39.370 (1000mm) x 35.433 (900mm)	39.37	35.43	18.11	4.72	4.72	8.66	0.39	29.70
49" x 24"	49.213 (1250mm) x 24.803 (630mm)	49.21	24.80	53.15	4.72	2.76	45.67	0.39	87.78
49" x 28"	49.213 (1250mm) x 27.953 (710mm)	49.21	27.95	49.21	4.72	4.72	39.76	0.39	84.70
49" x 32"	49.213 (1250mm) x 31.496 (800mm)	49.21	31.50	42.91	4.72	4.72	33.46	0.39	77.00
49" x 36"	49.213 (1250mm) x 35.433 (900mm)	49.21	35.43	35.83	4.72	4.72	26.38	0.39	67.54
49" x 39"	49.213 (1250mm) x 39.370 (1000mm)	49.21	39.37	28.15	4.72	4.72	18.70	0.39	55.66
55" x 28"	55.118 (1400mm) x 27.953 (710mm)	55.12	27.95	60.24	4.72	4.72	50.79	0.47	134.20
55" x 32"	55.118 (1400mm) x 31.496 (800mm)	55.12	31.50	53.54	4.72	4.72	44.09	0.47	124.08
55" x 36"	55.118 (1400mm) x 35.433 (900mm)	55.12	35.43	46.06	4.72	4.72	36.61	0.47	111.54
55" x 39"	55.118 (1400mm) x 39.370 (1000mm)	55.12	39.37	38.78	4.72	4.72	29.33	0.47	97.90
55" x 49"	55.118 (1400mm) x 49.213 (1250mm)	55.12	49.21	20.47	4.72	4.72	11.02	0.47	57.20

Eccentric Reducer



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

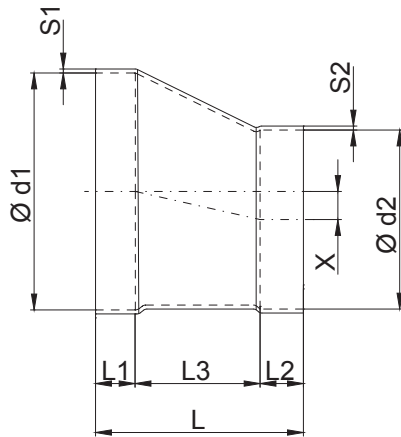
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	D1 in	D2 in	L in	L1 in	L2 in	L3 in	X in	S in	S1 in
4" x 3"	4.331 (110mm) x 3.543 (90mm)	4.33	3.54	4.72	1.57	1.38	1.77	0.39	0.12	0.12
6" x 3"	6.299 (160mm) x 3.543 (90mm)	6.30	3.54	8.07	1.57	1.38	5.12	1.38	0.12	0.12
6" x 4"	6.299 (160mm) x 4.331 (110mm)	6.30	4.33	6.89	1.57	1.57	3.74	0.98	0.12	0.12
6" x 4½"	6.299 (160mm) x 4.921 (125mm)	6.30	4.92	5.91	1.57	1.57	2.76	0.69	0.12	0.12
6" x 5"	6.299 (160mm) x 5.512 (140mm)	6.30	5.51	4.92	1.57	1.57	1.77	0.39	0.12	0.12
8" x 3"	7.874 (200mm) x 3.543 (90mm)	7.87	3.54	11.22	1.97	1.38	7.87	2.17	0.12	0.12
8" x 4"	7.874 (200mm) x 4.331 (110mm)	7.87	4.33	10.04	1.97	1.57	6.50	1.77	0.12	0.12
8" x 6"	7.874 (200mm) x 6.299 (160mm)	7.87	6.30	6.69	1.97	1.57	3.15	0.79	0.12	0.12
10" x 3"	9.843 (250mm) x 3.543 (90mm)	9.84	3.54	14.57	1.97	1.38	11.22	3.15	0.14	0.12
10" x 4"	9.843 (250mm) x 4.331 (110mm)	9.84	4.33	13.39	1.97	1.57	9.84	2.76	0.14	0.12
10" x 6"	9.843 (250mm) x 6.299 (160mm)	9.84	6.30	10.04	1.97	1.57	6.50	1.77	0.14	0.12
10" x 8"	9.843 (250mm) x 7.874 (200mm)	9.84	7.87	7.68	1.97	1.97	3.74	0.98	0.14	0.12
12" x 4"	12.402 (315mm) x 4.331 (110mm)	12.40	4.33	17.91	1.97	1.57	14.37	4.04	0.20	0.12
12" x 6"	12.402 (315mm) x 6.299 (160mm)	12.40	6.30	14.57	1.97	1.57	11.02	3.05	0.20	0.12
12" x 8"	12.402 (315mm) x 7.874 (200mm)	12.40	7.87	12.20	1.97	1.97	8.27	2.26	0.20	0.12
12" x 10"	12.402 (315mm) x 9.843 (250mm)	12.40	9.84	8.86	1.97	1.97	4.92	1.28	0.20	0.14
14" x 6"	13.976 (355mm) x 6.299 (160mm)	13.98	6.30	17.32	1.97	1.57	13.78	3.84	0.20	0.12
14" x 8"	13.976 (355mm) x 7.874 (200mm)	13.98	7.87	14.96	1.97	1.97	11.02	3.05	0.20	0.12
14" x 10"	13.976 (355mm) x 9.843 (250mm)	13.98	9.84	11.42	1.97	1.97	7.48	2.07	0.20	0.14
14" x 12"	13.976 (355mm) x 12.402 (315mm)	13.98	12.40	7.09	1.97	1.97	3.15	0.79	0.20	0.20
16" x 6"	15.748 (400mm) x 6.299 (160mm)	15.75	6.30	20.67	2.36	1.57	16.73	4.72	0.24	0.12
16" x 8"	15.748 (400mm) x 7.874 (200mm)	15.75	7.87	18.31	2.36	1.97	13.98	3.94	0.24	0.12
16" x 10"	15.748 (400mm) x 9.843 (250mm)	15.75	9.84	14.96	2.36	1.97	10.63	2.95	0.24	0.14
16" x 12"	15.748 (400mm) x 12.402 (315mm)	15.75	12.40	10.63	2.36	1.97	6.30	1.67	0.24	0.20
16" x 14"	15.748 (400mm) x 13.976 (355mm)	15.75	13.98	7.87	2.36	1.97	3.54	0.89	0.24	0.20
18" x 8"	17.717 (450mm) x 7.874 (200mm)	17.72	7.87	21.85	2.36	1.97	17.52	4.92	0.24	0.12
18" x 10"	17.717 (450mm) x 9.843 (250mm)	17.72	9.84	18.31	2.36	1.97	13.98	3.94	0.24	0.14
18" x 12"	17.717 (450mm) x 12.402 (315mm)	17.72	12.40	13.98	2.36	1.97	9.65	2.66	0.24	0.20
18" x 14"	17.717 (450mm) x 13.976 (355mm)	17.72	13.98	15.16	2.36	1.97	6.89	1.87	0.24	0.20

Eccentric Reducer



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

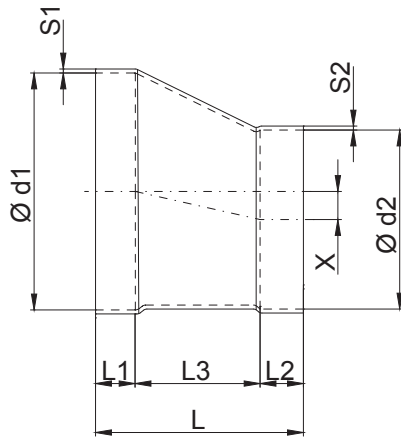
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

18" x 16"	17.717 (450mm) x 15.748 (400mm)	17.72	15.75	8.07	2.36	1.97	3.74	0.98	0.24	0.24
Nom. Size	Actual OD Size	d1 in	d2 in	L in	L1 in	L2 in	L3 in	X in	s in	s in
20" x 8"	19.685 (500mm) x 7.874 (200mm)	19.69	7.87	25.20	2.36	1.97	20.87	5.91	0.24	0.12
20" x 10"	19.685 (500mm) x 9.843 (250mm)	19.69	9.84	21.85	2.36	1.97	17.52	4.92	0.24	0.14
20" x 11"	19.685 (500mm) x 11.024 (280mm)	19.69	11.02	19.69	2.36	1.97	15.35	4.33	0.24	0.16
20" x 12"	19.685 (500mm) x 12.402 (315mm)	19.69	12.40	17.32	2.36	1.97	12.99	3.64	0.24	0.20
20" x 14"	19.685 (500mm) x 13.976 (355mm)	19.69	13.98	14.57	2.36	1.97	10.24	2.85	0.24	0.20
20" x 16"	19.685 (500mm) x 15.748 (400mm)	19.69	15.75	12.01	2.36	2.36	7.28	1.97	0.24	0.24
22" x 10"	22.047 (560mm) x 9.843 (250mm)	22.05	9.84	26.97	3.54	1.97	21.46	6.10	0.24	0.14
22" x 11"	22.047 (560mm) x 8.858 (225mm)	22.05	11.02	24.80	3.54	1.97	19.29	5.51	0.24	0.16
22" x 12"	22.047 (560mm) x 12.402 (315mm)	22.05	12.40	22.44	3.54	1.97	16.93	4.82	0.24	0.20
22" x 14"	22.047 (560mm) x 13.976 (355mm)	22.05	13.98	19.69	3.54	1.97	14.17	4.04	0.24	0.20
22" x 16"	22.047 (560mm) x 15.748 (400mm)	22.05	15.75	17.13	3.54	2.36	11.22	3.15	0.24	0.24
22" x 18"	22.047 (560mm) x 17.717 (450mm)	22.05	17.72	13.58	3.54	2.36	7.68	2.17	0.24	0.24
22" x 20"	22.047 (560mm) x 19.685 (500mm)	22.05	19.69	10.24	3.54	2.36	4.33	1.18	0.24	0.24
24" x 11"	24.803 (630mm) x 11.024 (280mm)	24.80	11.02	29.53	3.54	1.97	24.02	6.89	0.24	0.16
24" x 12"	24.803 (630mm) x 12.402 (315mm)	24.80	12.40	27.17	3.54	1.97	21.65	6.20	0.24	0.20
24" x 14"	24.803 (630mm) x 13.976 (355mm)	24.80	13.98	24.41	3.54	1.97	18.90	5.41	0.24	0.20
24" x 16"	24.803 (630mm) x 15.748 (400mm)	24.80	15.75	21.85	3.54	2.36	15.94	4.53	0.24	0.24
24" x 18"	24.803 (630mm) x 17.717 (450mm)	24.80	17.72	18.31	3.54	2.36	12.40	3.54	0.24	0.24
24" x 20"	24.803 (630mm) x 19.685 (500mm)	24.80	19.69	14.96	3.54	2.36	9.06	2.56	0.24	0.24
24" x 22"	24.803 (630mm) x 22.047 (560mm)	24.80	22.05	11.81	3.54	3.54	4.72	1.38	0.24	0.24
28" x 12"	27.953 (710mm) x 12.402 (315mm)	27.95	12.40	32.68	3.54	1.97	27.17	7.78	0.31	0.20
28" x 14"	27.953 (710mm) x 13.976 (355mm)	27.95	13.98	29.92	3.54	1.97	24.41	6.99	0.31	0.20
28" x 16"	27.953 (710mm) x 15.748 (400mm)	27.95	15.75	27.36	3.54	2.36	21.46	6.10	0.31	0.24
28" x 18"	27.953 (710mm) x 17.717 (450mm)	27.95	17.72	23.82	3.54	2.36	17.91	5.12	0.31	0.24
28" x 20"	27.953 (710mm) x 19.685 (500mm)	27.95	19.69	20.08	3.54	1.97	14.57	4.13	0.31	0.24
28" x 22"	27.953 (710mm) x 22.047 (560mm)	27.95	22.05	17.32	3.54	3.54	10.24	2.95	0.31	0.24
28" x 24"	27.953 (710mm) x 24.803 (630mm)	27.95	24.80	12.60	3.54	3.54	5.51	1.57	0.31	0.24

Eccentric Reducer



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

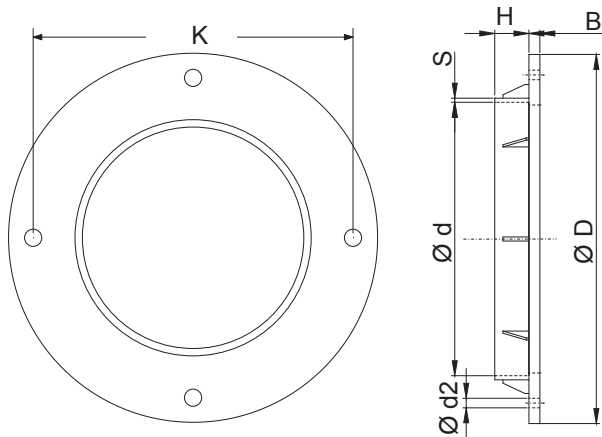
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d1 in	d2 in	L in	L1 in	L2 in	L3 in	X in	s in	s in
30" x 14"	31.496 (800mm) x 13.976 (355mm)	31.50	13.98	36.02	3.54	1.97	30.51	8.88	0.31	0.20
30" x 16"	31.496 (800mm) x 15.748 (400mm)	31.50	15.75	33.46	3.54	2.36	27.56	7.87	0.31	0.24
30" x 18"	31.496 (800mm) x 17.717 (450mm)	31.50	17.72	29.92	3.54	2.36	24.02	6.89	0.31	0.24
30" x 20"	31.496 (800mm) x 19.685 (500mm)	31.50	19.69	26.57	3.54	2.36	20.67	5.91	0.31	0.24
30" x 22"	31.496 (800mm) x 22.047 (560mm)	31.50	22.05	23.43	3.54	3.54	16.34	4.72	0.31	0.24
30" x 24"	31.496 (800mm) x 24.803 (630mm)	31.50	24.80	18.70	3.54	3.54	11.61	3.35	0.31	0.24
30" x 28"	31.496 (800mm) x 27.953 (710mm)	31.50	27.95	13.19	3.54	3.54	6.10	1.77	0.31	0.31
36" x 16"	35.433 (900mm) x 15.748 (400mm)	35.43	15.75	41.38	4.92	2.36	34.09	9.84	0.31	0.31
36" x 18"	35.433 (900mm) x 17.717 (450mm)	35.43	17.72	38.19	4.92	2.36	30.91	8.86	0.31	0.24
36" x 20"	35.433 (900mm) x 19.685 (500mm)	35.43	19.69	34.84	4.92	2.36	27.56	8.66	0.31	0.24
36" x 22"	35.433 (900mm) x 22.047 (560mm)	35.43	22.05	32.09	4.92	3.54	23.62	6.69	0.31	0.24
36" x 24"	35.433 (900mm) x 24.803 (630mm)	35.43	24.80	26.97	4.92	3.54	18.50	5.31	0.31	0.24
36" x 28"	35.433 (900mm) x 27.953 (710mm)	35.43	27.95	21.46	4.92	3.54	12.99	3.74	0.31	0.31
36" x 30"	35.433 (900mm) x 31.496 (800mm)	35.43	31.50	15.35	4.92	3.54	6.89	1.97	0.31	0.31
39" x 20"	39.370 (1000mm) x 19.685 (500mm)	39.37	19.69	41.14	4.92	1.97	34.25	9.84	0.39	0.24
39" x 22"	39.370 (1000mm) x 22.047 (560mm)	39.37	22.05	38.78	4.92	3.94	29.92	8.66	0.39	0.24
39" x 24"	39.370 (1000mm) x 24.803 (630mm)	39.37	24.80	34.06	4.92	3.94	25.20	7.28	0.39	0.24
39" x 28"	39.370 (1000mm) x 27.953 (710mm)	39.37	27.95	28.54	4.92	3.94	19.69	5.71	0.39	0.31
39" x 30"	39.370 (1000mm) x 31.496 (800mm)	39.37	31.50	23.43	4.92	4.92	13.58	3.94	0.39	0.31
39" x 36"	39.370 (1000mm) x 35.433 (900mm)	39.37	35.43	16.73	4.92	4.92	6.89	1.97	0.39	0.31
48" x 24"	49.213 (1250mm) x 24.803 (630mm)	49.21	24.80	51.18	4.92	3.94	42.32	12.20	0.39	0.24
48" x 28"	49.213 (1250mm) x 27.953 (710mm)	49.21	27.95	45.67	4.92	3.94	36.81	10.63	0.39	0.31
48" x 30"	49.213 (1250mm) x 31.496 (800mm)	49.21	31.50	40.55	4.92	4.92	30.71	8.86	0.39	0.31
48" x 36"	49.213 (1250mm) x 35.433 (900mm)	49.21	35.43	33.66	4.92	4.92	23.82	6.89	0.39	0.31
48" x 39"	49.213 (1250mm) x 39.370 (1000mm)	49.21	39.37	26.97	4.92	4.92	17.13	4.92	0.39	0.39
54" x 28"	55.118 (1400mm) x 27.953 (710mm)	55.12	27.95	57.87	6.89	3.94	47.05	13.58	0.47	0.31
54" x 30"	55.118 (1400mm) x 31.496 (800mm)	55.12	31.50	52.76	6.89	4.92	40.94	11.81	0.47	0.31
54" x 36"	55.118 (1400mm) x 35.433 (900mm)	55.12	35.43	45.87	6.89	4.92	34.06	9.84	0.47	0.31
54" x 39"	55.118 (1400mm) x 39.370 (1000mm)	55.12	39.37	39.17	6.89	4.92	27.36	7.87	0.47	0.39
54" x 48"	55.118 (1400mm) x 49.213 (1250mm)	55.12	49.21	22.05	6.89	4.92	10.24	2.95	0.47	0.39

Flange



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

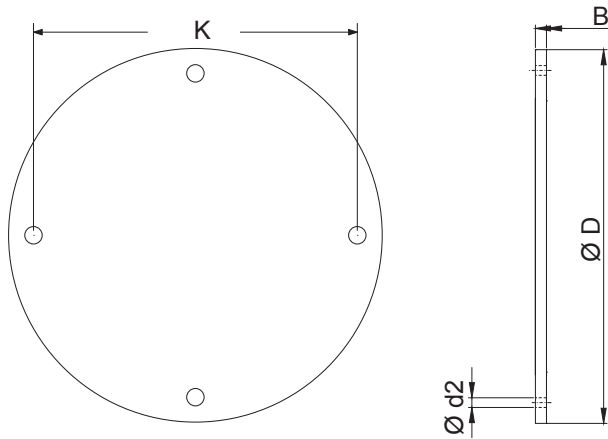
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	D in	B in	s in	K in	H in	d2 in	# Holes	Weight lbs
2"	2.480 (63mm)	2.48	4.72	0.31	0.12	3.94	0.98	0.28	4	0.22
2½"	2.953 (75mm)	2.95	5.31	0.31	0.12	4.53	0.98	0.28	4	0.22
3"	3.543 (90mm)	3.54	5.91	0.31	0.12	5.12	0.98	0.28	4	0.22
4"	4.331 (110mm)	4.33	6.69	0.31	0.16	5.91	0.98	0.28	4	0.44
4½"	4.921 (125mm)	4.92	7.28	0.31	0.16	6.50	0.98	0.28	8	0.44
5"	5.512 (140mm)	5.51	7.87	0.31	0.16	6.89	0.98	0.28	8	0.44
6"	6.299 (160mm)	6.30	9.06	0.31	0.16	7.87	0.98	0.28	8	0.44
7"	7.087 (180mm)	7.09	9.84	0.31	0.16	8.86	0.98	0.28	8	0.66
8"	7.874 (200mm)	7.87	10.63	0.31	0.16	9.45	0.98	0.28	8	0.66
9"	8.858 (225mm)	8.86	11.61	0.31	0.16	10.43	0.98	0.28	8	0.66
10"	9.843 (250mm)	9.84	12.60	0.39	0.16	11.42	0.98	0.28	12	0.66
11"	11.024 (280mm)	11.02	14.17	0.39	0.16	12.80	0.98	0.35	12	0.88
12"	12.402 (315mm)	12.40	15.55	0.39	0.18	13.78	0.98	0.35	12	1.10
14"	13.976 (355mm)	13.98	17.13	0.39	0.24	15.75	0.98	0.35	12	1.32
16"	15.748 (400mm)	15.75	18.90	0.39	0.26	17.52	0.98	0.35	16	1.76
18"	17.717 (450mm)	17.72	20.87	0.39	0.24	19.49	3.94	0.35	16	3.30
20"	19.685 (500mm)	19.69	22.83	0.47	0.24	21.46	3.94	0.35	20	3.52
22"	22.047 (560mm)	22.05	27.56	0.47	0.24	25.98	3.94	0.43	24	5.72
24"	24.803 (630mm)	24.80	28.74	0.47	0.24	27.56	3.94	0.43	24	5.94
28"	27.953 (710mm)	27.95	31.89	0.47	0.31	30.31	3.94	0.43	24	7.04
32"	31.496 (800mm)	31.50	35.43	0.47	0.31	33.86	3.94	0.43	32	8.14
36"	35.433 (900mm)	35.43	39.37	0.47	0.31	37.80	3.94	0.43	32	9.24
39"	39.370 (1000mm)	39.37	43.31	0.47	0.39	41.73	3.94	0.43	32	12.32
48"	49.213 (1250mm)	49.21	53.15	0.59	0.39	51.57	3.94	0.43	32	16.28

Blind Flange



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

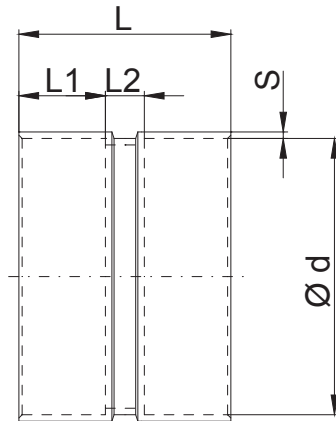
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	B in	D in	K in	# Holes	d2 in
2"	2.480 (63mm)	0.31	4.72	3.94	4	0.28
2½"	2.953 (75mm)	0.31	5.31	4.53	4	0.28
3"	3.543 (90mm)	0.31	5.91	5.12	4	0.28
4"	4.331 (110mm)	0.31	6.69	5.91	4	0.28
4½"	4.921 (125mm)	0.31	7.28	6.50	8	0.28
5"	5.512 (140mm)	0.31	7.87	6.89	8	0.28
6"	6.299 (160mm)	0.31	9.06	7.87	8	0.28
7"	7.087 (180mm)	0.31	9.84	8.86	8	0.28
8"	7.874 (200mm)	0.31	10.63	9.45	8	0.28
9"	8.858 (225mm)	0.31	11.61	10.43	8	0.28
10"	9.843 (250mm)	0.39	12.60	11.42	12	0.28
11"	11.024 (280mm)	0.39	14.17	12.80	12	0.35
12"	12.402 (315mm)	0.39	15.55	13.78	12	0.35
14"	13.976 (355mm)	0.39	17.13	15.75	12	0.35
16"	15.748 (400mm)	0.39	18.90	17.52	16	0.35
18"	17.717 (450mm)	0.39	20.87	19.49	16	0.35
20"	19.685 (500mm)	0.47	22.83	21.46	20	0.35
22"	22.047 (560mm)	0.47	27.56	25.98	24	0.43
24"	24.803 (630mm)	0.47	28.74	27.56	24	0.43
28"	27.953 (710mm)	0.47	31.89	30.31	24	0.43
30"	31.496 (800mm)	0.47	35.43	33.86	32	0.43
36"	35.433 (900mm)	0.47	39.37	37.80	32	0.43
39"	39.370 (1000mm)	0.47	43.31	41.73	32	0.43
48"	49.213 (1250mm)	0.59	53.15	51.57	32	0.43

Coupling



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

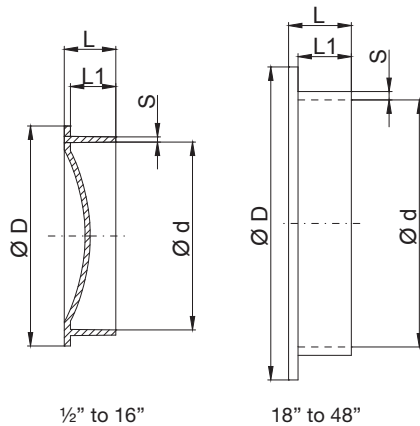
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	L in	L1 in	L2 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	3.15	0.98	1.18	0.12	0.22
2½"	2.953 (75mm)	2.95	3.94	1.38	1.18	0.12	0.22
3"	3.543 (90mm)	3.54	3.94	1.38	1.18	0.12	0.22
4"	4.331 (110mm)	4.33	3.94	1.57	0.79	0.12	0.22
4½"	4.921 (125mm)	4.92	3.94	1.57	0.79	0.12	0.22
5"	5.512 (140mm)	5.51	3.94	1.57	0.79	0.12	0.44
6"	6.299 (160mm)	6.30	3.94	1.57	0.79	0.12	0.44
7"	7.087 (180mm)	7.09	3.94	1.57	0.79	0.12	0.44
8"	7.874 (200mm)	7.87	3.94	1.97	0.79	0.12	0.44
9"	8.858 (225mm)	8.86	4.72	1.97	0.79	0.14	0.66
10"	9.843 (250mm)	9.84	4.72	1.97	0.79	0.14	0.88
11"	11.024 (280mm)	11.02	4.72	1.97	0.79	0.16	0.88
12"	12.402 (315mm)	12.40	4.72	1.97	0.79	0.20	1.76
14"	13.976 (355mm)	13.98	5.31	1.97	0.98	0.20	1.98
16"	15.748 (400mm)	15.75	6.10	2.36	1.57	0.24	2.20
18"	17.717 (450mm)	17.72	6.30	2.36	1.57	0.24	2.64
20"	19.685 (500mm)	19.69	6.30	2.36	0.79	0.24	2.20
22"	22.047 (560mm)	22.05	6.69	3.54	1.18	0.24	4.40
24"	24.803 (630mm)	24.80	6.69	3.54	1.18	0.31	4.84
28"	27.953 (710mm)	27.95	8.46	3.54	1.38	0.31	7.26
32"	31.496 (800mm)	31.50	9.06	3.94	1.18	0.31	9.24
36"	35.433 (900mm)	35.43	7.87	3.94	0.00	0.31	11.44
39"	39.370 (1000mm)	39.37	7.87	3.94	0.00	0.31	15.84
48"	49.213 (1250mm)	49.21	9.84	4.92	0.00	0.39	19.80
54"	55.118 (1400mm)	55.12	13.78	6.89	0.00	0.47	31.24

End Cap



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

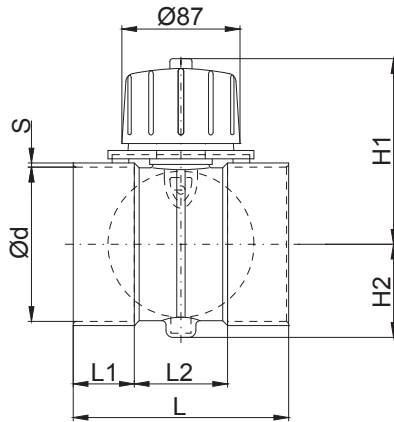
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	D in	L in	L1 in	S in
2"	2.480 (63mm)	2.480	3.150	0.984	0.866	0.118
2½"	2.953 (75mm)	2.953	3.543	0.984	0.866	0.118
3"	3.543 (90mm)	3.543	4.134	0.984	0.866	0.118
4"	4.331 (110mm)	4.331	5.512	1.063	0.945	0.138
4½"	4.921 (125mm)	4.921	6.102	1.102	0.906	0.138
5"	5.512 (140mm)	5.512	6.693	1.102	0.984	0.138
6"	6.299 (160mm)	6.299	7.480	1.102	0.984	0.138
7"	7.087 (180mm)	7.087	8.268	1.102	0.945	0.138
8"	7.874 (200mm)	7.874	9.055	1.102	0.945	0.138
9"	8.858 (225mm)	8.858	10.039	1.102	0.984	0.157
10"	9.843 (250mm)	9.843	11.024	1.102	0.984	0.157
11"	11.024 (280mm)	11.024	1.260	1.102	0.984	0.157
12"	12.402 (315mm)	12.402	13.858	1.102	0.945	0.157
14"	13.976 (355mm)	13.976	15.354	1.102	0.906	0.157
16"	15.748 (400mm)	15.748	17.008	1.142	0.984	0.236
18"	17.717 (450mm)	17.717	18.898	2.992	2.756	0.236
20"	19.685 (500mm)	19.685	20.866	2.992	2.756	0.236
22"	22.047 (560mm)	22.047	23.228	2.992	2.756	0.236
24"	24.803 (630mm)	24.803	25.984	2.992	2.756	0.236
28"	27.953 (710mm)	27.953	29.134	5.039	4.724	0.315
32"	31.496 (800mm)	31.496	33.465	5.039	4.724	0.315
36"	35.433 (900mm)	35.433	37.402	5.118	4.724	0.315
39"	39.370 (1000mm)	39.370	41.339	5.118	4.724	0.394
48"	49.213 (1250mm)	49.213	51.181	5.118	4.724	0.394

Volume Control Damper w/ Continuous Adjustment Lock - 3" Through 16"



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

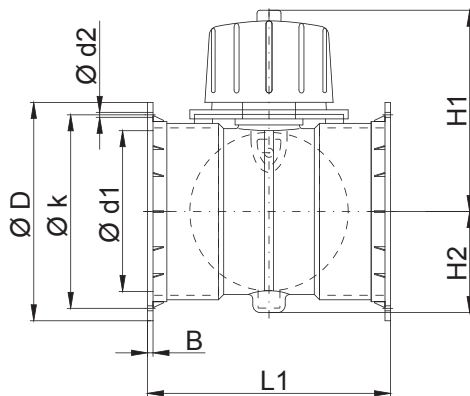
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	L in	L1 in	L2 in	H1 in	H2 in	s in	Weight Lbs.
2"	2.480 (63mm)	2.48	5.12	1.38	2.36	4.21	1.73	0.12	0.44
2½"	2.953 (75mm)	2.95	5.12	1.38	2.36	4.45	1.97	0.12	0.44
3"	3.543 (90mm)	3.54	5.12	1.38	2.36	4.72	2.24	0.12	0.44
4"	4.331 (110mm)	4.33	6.10	1.57	2.95	5.12	2.64	0.12	0.66
4½"	4.921 (125mm)	4.92	5.91	1.57	2.76	5.43	3.19	0.12	0.66
5"	5.512 (140mm)	5.51	5.91	1.57	2.76	5.71	3.46	0.12	0.88
6"	6.299 (160mm)	6.30	5.98	1.57	2.83	6.10	3.86	0.16	0.88
7"	7.087 (180mm)	7.09	6.69	1.97	2.76	6.50	4.29	0.16	1.10
8"	7.874 (200mm)	7.87	6.69	1.97	2.76	6.89	4.65	0.16	1.32
9"	8.858 (225mm)	8.86	6.69	1.97	2.76	7.40	5.16	0.16	1.32
10"	9.843 (250mm)	9.84	6.69	1.97	2.76	7.87	5.71	0.16	1.76
11"	11.024 (280mm)	11.02	6.69	1.97	2.76	8.46	6.30	0.16	1.98
12"	12.402 (315mm)	12.40	6.69	1.97	2.76	9.17	7.01	0.16	2.42
14"	13.976 (355mm)	13.98	6.89	1.97	2.95	9.96	8.39	0.16	3.30
16"	15.748 (400mm)	15.75	7.87	1.97	3.15	10.83	9.25	0.16	4.18

Volume Control Damper - Flanged



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

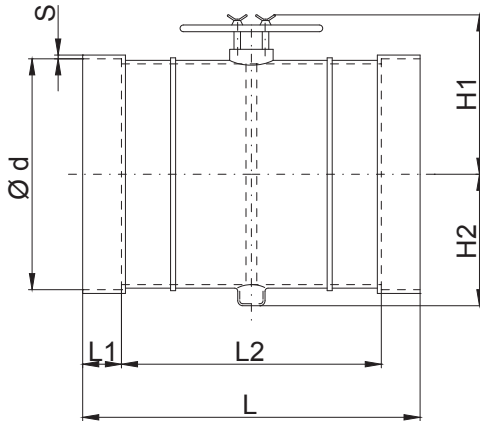
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	B in	d in	d1 in	d2 in	D in	L1 in	H1 in	H2 in	k in	Holes #	Weight Lbs
4"	4.331 (110mm)	0.31	4.33	4.17	0.28	6.69	8.46	5.12	2.64	5.91	4.0	1.54
4½"	4.921 (125mm)	0.31	4.92	4.76	0.28	7.28	8.27	5.43	3.19	6.50	8.0	1.76
5"	5.512 (140mm)	0.31	5.51	5.35	0.28	7.87	8.27	5.71	3.46	6.89	8.0	1.98
6"	6.299 (160mm)	0.31	6.30	6.14	0.28	9.06	8.27	6.10	3.86	7.87	8.0	2.20
7"	7.087 (180mm)	0.31	7.09	6.93	0.28	9.84	9.06	6.50	4.25	8.86	8.0	2.42
8"	7.874 (200mm)	0.31	7.87	7.72	0.28	10.63	9.06	6.89	4.65	9.45	8.0	2.64
9"	8.858 (225mm)	0.31	8.86	8.70	0.28	11.61	9.06	7.40	5.16	10.43	8.0	3.08
10"	9.843 (250mm)	0.39	9.84	9.69	0.28	12.60	9.25	7.87	5.71	11.42	12.0	3.96
11"	11.024 (280mm)	0.39	11.02	10.79	0.35	14.17	9.45	8.46	6.30	12.80	12.0	4.40
12"	12.402 (315mm)	0.39	12.40	12.17	0.35	15.55	9.45	9.17	7.01	13.78	12.0	5.94

Volume Control Damper w/ Continuous Adjustment Lock - 18" Through 48"



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

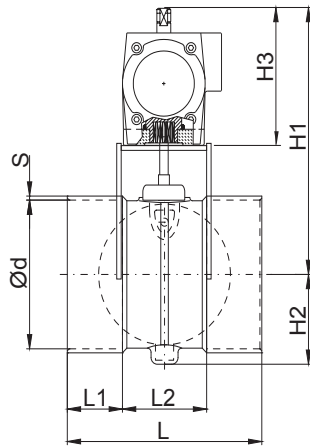
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	H1 in	H2 in	L in	L1 in	L2 in	S in	Weight lbs
18"	17.717 (450mm)	17.72	12.40	10.24	17.72	1.97	13.78	0.24	16.50
20"	19.685 (500mm)	19.69	13.39	11.22	19.69	1.97	15.75	0.24	20.90
22"	22.047 (560mm)	22.05	14.57	12.40	22.05	1.97	18.11	0.24	24.20
24"	24.803 (630mm)	24.80	15.94	13.78	24.80	1.97	20.87	0.24	29.70
28"	27.953 (710mm)	27.95	17.52	15.75	27.95	2.76	22.44	0.31	41.80
32"	31.496 (800mm)	31.50	19.29	17.52	31.50	4.72	22.05	0.31	53.90
36"	35.433 (900mm)	35.43	21.26	19.49	35.43	4.72	25.98	0.31	70.40
39"	39.370 (1000mm)	39.37	23.23	21.46	39.37	4.72	29.92	0.39	99.00
48"	49.213 (1250mm)	49.21	28.15	26.38	49.21	4.72	39.76	0.39	176.00

Pneumatically Actuated Volume Control Damper



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

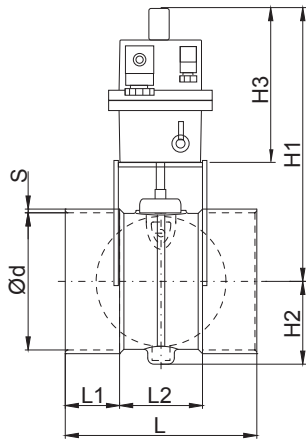
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	H1 in	H2 in	H3 in	L in	L1 in	L2 in	S in	Weight lbs
3"	3.543 (90mm)	3.54	8.07	2.24	3.58	5.12	1.38	2.36	0.12	0.44
4"	4.331 (110mm)	4.33	8.86	2.64	3.58	6.10	1.57	2.36	0.12	0.66
6"	6.299 (160mm)	6.30	11.38	3.90	3.58	5.98	1.57	2.36	0.16	0.88
8"	7.874 (200mm)	7.87	12.95	4.69	3.58	6.69	1.97	2.36	0.16	1.32
10"	9.843 (250mm)	9.84	14.92	5.67	3.58	6.69	1.97	2.36	0.16	1.76
12"	12.402 (315mm)	12.40	18.23	6.93	4.37	6.69	1.97	2.36	0.16	2.42
14"	13.976 (355mm)	13.98	19.96	7.80	4.37	6.89	1.97	2.36	0.16	3.30
16"	15.748 (400mm)	15.75	21.69	8.66	4.37	7.87	1.97	2.36	0.16	4.18

Electrically Actuated Volume Control Damper



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

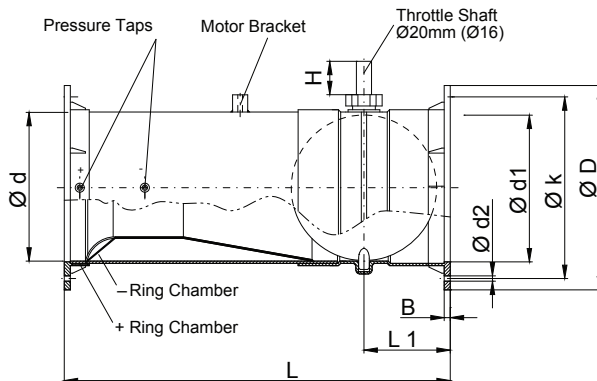
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	H1 in	H2 in	H3 in	L in	L1 in	L2 in	S in	Weight lbs.
3"	3.543 (90mm)	3.54	10.28	2.24	5.79	5.12	1.38	2.36	0.12	6.44
4"	4.331 (110mm)	4.33	11.07	2.64	5.79	6.10	1.57	2.36	0.12	6.44
6"	6.299 (160mm)	6.30	13.59	3.90	5.79	5.98	1.57	2.36	0.16	6.44
8"	7.874 (200mm)	7.87	15.16	4.69	5.79	6.69	1.97	2.36	0.16	6.44
10"	9.843 (250mm)	9.84	17.13	5.67	5.79	6.69	1.97	2.36	0.16	6.66
12"	12.402 (315mm)	12.40	19.65	6.93	5.79	6.69	1.97	2.36	0.16	6.66
14"	13.976 (355mm)	13.98	21.38	7.80	5.79	6.89	1.97	2.36	0.16	6.88
16"	15.748 (400mm)	15.75	23.11	8.66	5.79	7.87	1.97	2.36	0.16	6.88
18"	17.717 (450mm)	17.72	14.76	10.24	7.72	20.67	2.36	15.94	0.24	10.10
20"	19.685 (500mm)	19.69	15.74	11.22	7.72	20.67	2.36	15.94	0.24	10.32
22"	22.047 (560mm)	22.05	17.32	12.40	7.72	22.05	1.97	18.11	0.24	10.32
24"	24.803 (630mm)	24.80	18.69	13.78	7.72	24.80	1.97	20.87	0.24	10.76
28"	27.953 (710mm)	27.95	20.27	15.35	7.72	27.95	2.76	22.44	0.31	10.98
30"	31.496 (800mm)	31.50	22.04	17.13	7.72	31.50	4.72	22.05	0.31	11.42
34"	35.433 (900mm)	35.43	24.01	19.09	7.72	35.43	4.72	25.98	0.31	12.30
39"	39.370 (1000mm)	39.37	25.98	21.06	7.72	39.37	4.72	29.92	0.39	13.18
48"	49.213 (1250mm)	49.21	30.90	25.98	7.72	49.21	4.72	39.76	0.39	25.50

Volume Flow Controller - Flanged



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

PPs - Flame Retardant Polypropylene

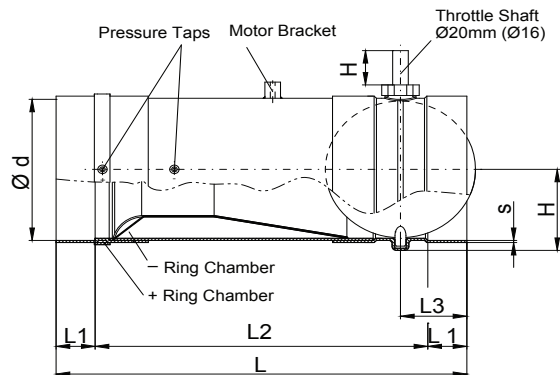
PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	D in	B in	L in	L1 in	d2 in	k in	d in	d1 in	# Holes
4"	4.331 (110mm)	6.69	0.31	15.75	4.21	0.28	5.91	4.33	4.37	4
4½"	4.921 (125mm)	7.28	0.31	15.75	4.21	0.28	6.50	4.92	4.96	8
5"	5.512 (140mm)	7.87	0.31	15.75	4.21	0.28	6.89	5.51	5.55	8
6"	6.299 (160mm)	9.06	0.31	17.72	4.21	0.28	7.87	6.30	6.34	8
7"	7.087 (180mm)	9.84	0.31	19.29	4.49	0.28	8.66	7.09	7.13	8
8"	7.874 (200mm)	10.63	0.31	20.08	4.49	0.28	9.45	7.87	7.91	8
9"	8.858 (225mm)	11.61	0.31	27.56	4.49	0.28	10.43	8.86	8.90	8
10"	9.843 (250mm)	12.60	0.39	27.56	4.49	0.28	11.42	9.84	9.88	12
11"	11.024 (280mm)	14.17	0.39	29.92	4.57	0.35	12.80	11.02	11.06	12
12"	12.402 (315mm)	15.55	0.39	29.92	4.57	0.35	13.78	12.40	12.44	12
14"	13.976 (355mm)	17.13	0.39	41.34	7.87	0.35	15.75	13.98	14.02	12
16"	15.748 (400mm)	18.90	0.39	43.31	7.87	0.35	17.52	15.75	15.79	16
18"	17.717 (450mm)	20.87	0.39	49.21	10.24	0.35	19.49	17.72	17.24	16
20"	19.685 (500mm)	22.83	0.39	55.12	10.24	0.35	21.46	19.69	19.21	20

Also Available in Compact Version - Consult Factory For Details

Volume Flow Controller - Socket



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

PPs - Flame Retardant Polypropylene

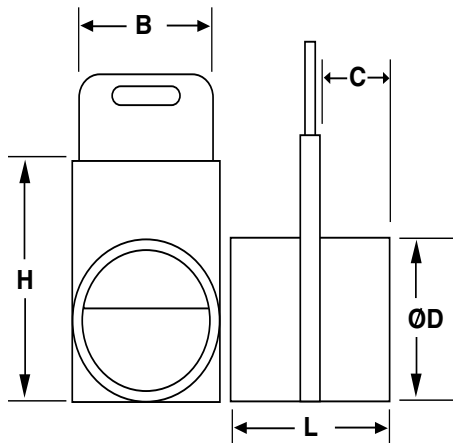
PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	H in	L in	L1 in	L2 in	L3 in	S in
4"	4.331 (110mm)	4.33	2.80	15.75	1.57	12.60	2.87	0.12
4½"	4.921 (125mm)	4.92	3.11	15.75	1.57	12.60	2.87	0.12
5"	5.512 (140mm)	5.51	3.39	15.75	1.57	12.60	2.87	0.12
6"	6.299 (160mm)	6.30	3.78	20.87	1.57	17.72	2.87	0.16
7"	7.087 (180mm)	7.09	4.17	23.23	1.97	19.29	3.35	0.16
8"	7.874 (200mm)	7.87	4.57	24.02	1.97	20.08	3.35	0.16
9"	8.858 (225mm)	8.86	5.08	31.50	1.97	27.56	3.35	0.16
10"	9.843 (250mm)	9.84	5.55	31.50	1.97	27.56	3.35	0.16
11"	11.024 (280mm)	11.02	6.14	33.86	1.97	18.11	3.35	0.16
12"	12.402 (315mm)	12.40	6.85	33.86	1.97	29.92	3.35	0.16
14"	13.976 (355mm)	13.98	7.99	45.28	1.97	41.34	7.87	0.16
16"	15.748 (400mm)	15.75	8.86	47.24	1.97	43.31	7.87	0.16
18"	17.717 (450mm)	17.72	10.20	54.72	2.76	49.21	9.84	0.20
20"	19.685 (500mm)	19.69	11.18	60.63	2.76	55.12	11.02	0.20

Also Available in Compact Version - Consult Factory For Details

Blastgates



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

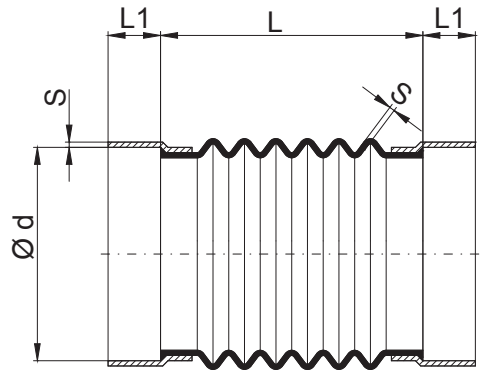
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	C in	D in	B in	H in	L in	Weight lbs
4"	4.331 (110mm)	3.00	4.33	7.50	9.00	6.75	2.65
6"	6.299 (160mm)	3.00	6.30	9.63	11.13	6.75	3.53
8"	7.874 (200mm)	3.00	7.87	11.63	13.13	6.75	5.29
10"	9.843 (250mm)	3.00	9.84	13.75	15.25	6.75	7.06
12"	12.402 (315mm)	3.00	12.40	15.75	17.25	6.75	9.70
14"	13.976 (355mm)	3.00	13.98	17.00	18.50	6.75	14.11
16"	15.748 (400mm)	3.00	15.75	19.00	20.50	6.75	17.64

Expansion Joint - Socket - 6 Fold



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

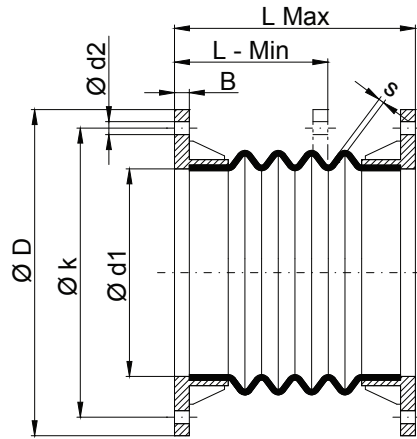
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	L Min in	L Max in	L1 in	S in
3"	3.543 (90mm)	3.54	4.33	5.91	1.38	0.12
4"	4.331 (110mm)	4.33	4.33	5.91	1.57	0.12
4½"	4.921 (125mm)	4.92	4.33	5.91	1.57	0.12
5"	5.512 (140mm)	5.51	4.33	5.91	1.57	0.12
6"	6.299 (160mm)	6.30	4.33	5.91	1.57	0.12
7"	7.087 (180mm)	7.09	4.33	5.91	1.57	0.12
8"	7.874 (200mm)	7.87	4.33	5.91	1.97	0.12
9"	8.858 (225mm)	8.86	4.33	5.91	1.97	0.12
10"	9.843 (250mm)	9.84	4.33	5.91	1.97	0.12
11"	11.024 (280mm)	11.02	4.33	5.91	1.97	0.12
12"	12.402 (315mm)	12.40	4.33	5.91	1.97	0.12
14"	13.976 (355mm)	13.98	4.33	5.91	1.57	0.12
16"	15.748 (400mm)	15.75	4.33	5.91	1.77	0.12
18"	17.717 (450mm)	17.72	4.33	5.91	1.77	0.12
20"	19.685 (500mm)	19.69	4.33	5.91	1.97	0.12
22"	22.047 (560mm)	22.05	4.33	5.91	3.94	0.12
24"	24.803 (630mm)	24.80	4.33	5.91	3.94	0.12
28"	27.953 (710mm)	27.95	4.33	5.91	3.94	0.12
32"	31.496 (800mm)	31.50	4.33	5.91	4.92	0.12
34"	35.433 (900mm)	35.43	4.33	5.91	4.92	0.12
39"	39.370 (1000mm)	39.37	4.33	5.91	4.92	0.12
48"	49.213 (1250mm)	49.21	4.33	5.91	4.92	0.12

Expansion Joint - Flanged - 4 Fold



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

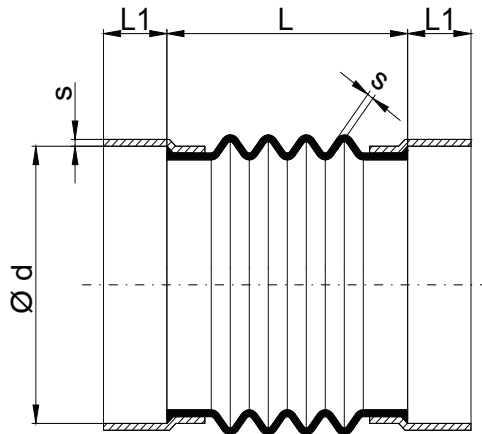
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	B in	d in	d1 in	d2 in	D in	K in	L-Min in	L-Max in	S in	# Holes	Weight lbs
18"	17.717 (450mm)	0.4	17.7	17.2	0.4	20.9	19.5	4.7	7.1	0.2	16	7.3
20"	19.685 (500mm)	0.4	19.7	19.2	0.4	22.8	21.5	4.7	7.1	0.2	20	8.1
22"	22.047 (560mm)	0.5	22.0	21.6	0.4	27.6	26.0	4.7	7.1	0.2	24	9.2
24"	24.803 (630mm)	0.5	24.8	23.1	0.4	28.7	27.6	4.7	7.1	0.2	24	9.7
28"	27.953 (710mm)	0.5	28.0	24.7	0.4	31.9	30.3	4.7	7.1	0.2	24	9.5
32"	31.496 (800mm)	0.5	31.5	27.0	0.4	35.4	33.9	4.7	7.1	0.2	28	11.2
36"	35.433 (900mm)	0.5	35.4	27.4	0.4	39.4	37.8	4.7	7.1	0.2	32	11.0
39"	39.370 (1000mm)	0.5	39.4	30.9	0.4	43.3	41.7	4.7	7.1	0.2	32	12.8
48"	49.213 (1250mm)	0.5	49.2	34.8	0.4	53.1	51.6	4.7	7.1	0.2	32	14.3

Expansion Joint - Socket - 4 Fold



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

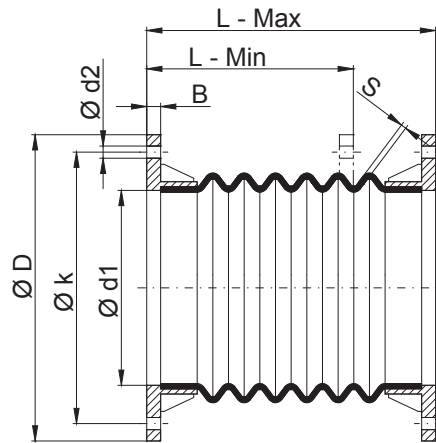
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	L Min in	L Max in	L1 in	S in
18"	17.717 (450mm)	17.72	3.54	5.91	1.77	0.24
20"	19.685 (500mm)	19.69	3.54	5.91	1.97	0.24
22"	22.047 (560mm)	22.05	3.54	5.91	3.94	0.24
24"	24.803 (630mm)	24.80	3.54	5.91	3.94	0.24
28"	27.953 (710mm)	27.95	3.54	5.91	3.94	0.24
32"	31.496 (800mm)	31.50	3.54	5.91	4.92	0.24
34"	35.433 (900mm)	35.43	3.54	5.91	4.92	0.24
39"	39.370 (1000mm)	39.37	3.54	5.91	4.92	0.24
48"	49.213 (1250mm)	49.21	3.54	5.91	4.92	0.24

Expansion Joint - Flanged - 6 Fold



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

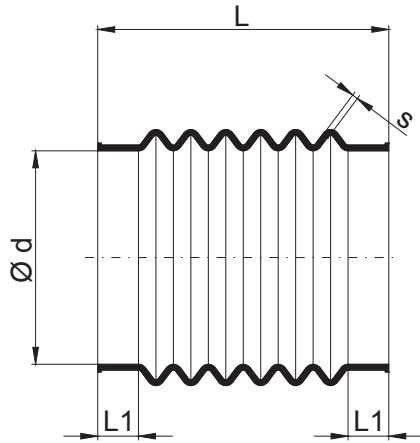
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	B in	d in	d1 in	d2 in	D in	K in	L-Min in	L-Max in	S in	# Holes	Weight lbs
3"	3.543 (90mm)	0.31	3.54	3.54	0.28	4.72	3.94	5.12	6.69	0.12	4	1.10
4"	4.331 (110mm)	0.31	4.33	4.13	0.28	5.31	4.53	5.12	6.69	0.12	4	1.32
4½"	4.921 (125mm)	0.31	4.92	4.72	0.28	5.91	5.12	5.12	6.69	0.12	4	1.54
5"	5.512 (140mm)	0.31	5.51	5.51	0.28	6.69	5.91	5.12	6.69	0.12	4	1.98
6"	6.299 (160mm)	0.31	6.30	6.10	0.28	7.28	6.50	5.12	6.69	0.12	8	2.42
7"	7.087 (180mm)	0.31	7.09	6.50	0.28	7.87	6.89	5.12	6.69	0.12	8	2.64
8"	7.874 (200mm)	0.31	7.87	7.09	0.28	9.06	7.87	5.12	6.69	0.12	8	2.86
9"	8.858 (225mm)	0.31	8.86	8.86	0.28	9.84	8.66	5.12	6.69	0.12	8	3.08
10"	9.843 (250mm)	0.31	9.84	9.06	0.28	10.63	9.45	5.12	6.69	0.12	8	3.30
11"	11.024 (280mm)	0.31	11.02	9.65	0.28	11.61	10.43	5.12	6.69	0.12	8	4.62
12"	12.402 (315mm)	0.31	12.40	11.02	0.28	12.60	11.42	5.12	6.69	0.12	12	5.28
14"	13.976 (355mm)	0.39	13.98	12.20	0.35	14.17	12.80	5.12	6.69	0.12	12	5.72
16"	15.748 (400mm)	0.39	15.75	13.39	0.35	15.55	13.78	5.12	6.69	0.12	12	6.38
18"	17.717 (450mm)	0.39	17.72	17.24	0.35	20.87	19.49	5.12	6.69	0.12	16	7.26
20"	19.685 (500mm)	0.39	19.69	19.21	0.35	22.83	21.46	5.12	6.69	0.12	20	8.14
22"	22.047 (560mm)	0.47	22.05	21.57	0.43	27.56	25.98	5.12	6.69	0.12	24	9.24
24"	24.803 (630mm)	0.47	24.80	23.15	0.43	28.74	27.56	5.12	6.69	0.12	24	9.68
28"	27.953 (710mm)	0.47	27.95	24.72	0.43	31.89	30.31	5.12	6.69	0.12	24	9.46
32"	31.496 (800mm)	0.47	31.50	26.97	0.43	35.43	33.86	5.12	6.69	0.12	28	11.22
36"	35.433 (900mm)	0.47	35.43	27.36	0.43	39.37	37.80	5.12	6.69	0.12	32	11.00
39"	39.370 (1000mm)	0.47	39.37	30.91	0.43	43.31	41.73	5.12	6.69	0.12	32	12.76
48"	49.213 (1250mm)	0.47	49.21	34.84	0.43	53.15	51.57	5.12	6.69	0.12	32	14.30

Expansion Joint - Clip Band



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

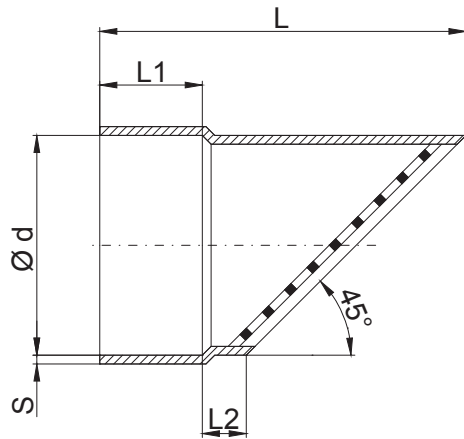
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	L min in	L Max in	L1 in	S in
4"	4.331 (110mm)	4.33	4.33	5.91	0.83	0.12
4½"	4.921 (125mm)	4.92	4.33	5.91	0.83	0.12
5"	5.512 (140mm)	5.51	4.33	5.91	0.83	0.12
6"	6.299 (160mm)	6.30	4.33	5.91	0.83	0.12
7"	7.087 (180mm)	7.09	4.33	5.91	0.83	0.12
8"	7.874 (200mm)	7.87	4.33	5.91	0.83	0.12
9"	8.858 (225mm)	8.86	4.33	5.91	0.83	0.12
10"	9.843 (250mm)	9.84	4.33	5.91	0.83	0.12
11"	11.024 (280mm)	11.02	4.33	5.91	0.83	0.12
12"	12.402 (315mm)	12.40	4.33	5.91	0.83	0.12
14"	13.976 (355mm)	13.98	4.33	5.91	0.83	0.12
16"	15.748 (400mm)	15.75	4.33	5.91	0.83	0.12
18"	17.717 (450mm)	17.72	4.33	5.91	0.83	0.12
20"	19.685 (500mm)	19.69	4.33	5.91	0.83	0.12
22"	22.047 (560mm)	22.05	4.33	5.91	0.83	0.12
24"	24.803 (630mm)	24.80	4.33	5.91	0.83	0.12
28"	27.953 (710mm)	27.95	4.33	5.91	0.83	0.12
32"	31.496 (800mm)	31.50	4.33	5.91	0.83	0.12
36"	35.433 (900mm)	35.43	4.33	5.91	0.83	0.12
39"	39.370 (1000mm)	39.37	4.33	5.91	0.83	0.12
48"	49.213 (1250mm)	49.21	4.33	5.91	0.83	0.12
54"	55.118 (1400mm)	55.12	4.33	5.91	0.83	0.12

Bird Mesh Grille w/ Plastic Screen



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

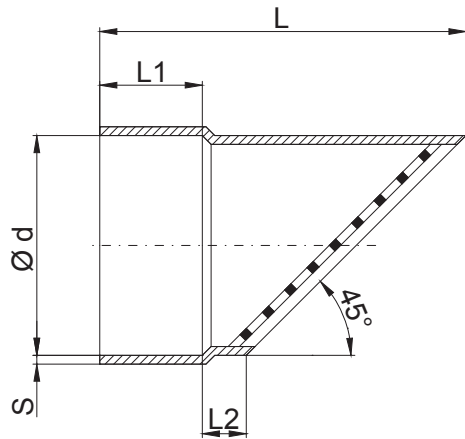
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	L in	L1 in	L2 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	4.25	1.38	0.39	0.12	0.44
2½"	2.953 (75mm)	2.95	5.12	1.38	0.79	0.12	0.44
3"	3.543 (90mm)	3.54	5.91	1.38	0.98	0.12	0.44
4"	4.331 (110mm)	4.33	6.89	1.57	0.98	0.12	0.66
4½"	4.921 (125mm)	4.92	7.87	1.57	1.38	0.12	0.66
5"	5.512 (140mm)	5.51	8.46	1.57	1.38	0.12	0.66
6"	6.299 (160mm)	6.30	9.25	1.57	1.38	0.12	0.44
7"	7.087 (180mm)	7.09	10.43	1.97	1.38	0.12	0.66
8"	7.874 (200mm)	7.87	11.22	1.97	1.38	0.12	0.88
9"	8.858 (225mm)	8.86	12.40	1.97	1.57	0.14	1.10
10"	9.843 (250mm)	9.84	13.39	1.97	1.57	0.14	1.32
11"	11.024 (280mm)	11.02	14.57	1.97	1.57	0.16	1.76
12"	12.402 (315mm)	12.40	16.34	1.97	1.97	0.20	2.86
14"	13.976 (355mm)	13.98	17.91	1.97	1.97	0.20	3.52
16"	15.748 (400mm)	15.75	20.08	2.36	1.97	0.24	5.28
18"	17.717 (450mm)	17.72	22.83	2.76	2.36	0.24	6.60
20"	19.685 (500mm)	19.69	24.80	2.76	2.36	0.20	10.34
24"	24.803 (630mm)	24.80	29.92	2.76	2.36	0.39	18.92

Bird Mesh Grille w/ Stainless Steel Screen



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

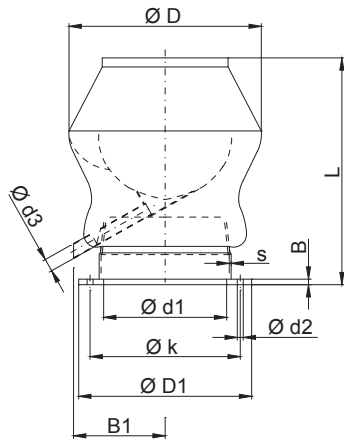
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	L in	L1 in	L2 in	S in	Weight lbs
2"	2.480 (63mm)	2.48	4.25	1.38	0.39	0.12	0.44
2½"	2.953 (75mm)	2.95	5.12	1.38	0.79	0.12	0.44
3"	3.543 (90mm)	3.54	5.91	1.38	0.98	0.12	0.44
4"	4.331 (110mm)	4.33	6.89	1.57	0.98	0.12	0.66
4½"	4.921 (125mm)	4.92	7.87	1.57	1.38	0.12	0.66
5"	5.512 (140mm)	5.51	8.46	1.57	1.38	0.12	0.66
6"	6.299 (160mm)	6.30	9.25	1.57	1.38	0.12	0.44
7"	7.087 (180mm)	7.09	10.43	1.97	1.38	0.12	0.66
8"	7.874 (200mm)	7.87	11.22	1.97	1.38	0.12	0.88
9"	8.858 (225mm)	8.86	12.40	1.97	1.57	0.14	1.10
10"	9.843 (250mm)	9.84	13.39	1.97	1.57	0.14	1.32
11"	11.024 (280mm)	11.02	14.57	1.97	1.57	0.16	1.76
12"	12.402 (315mm)	12.40	16.34	1.97	1.97	0.20	2.86
14"	13.976 (355mm)	13.98	17.91	1.97	1.97	0.20	3.52
16"	15.748 (400mm)	15.75	20.08	2.36	1.97	0.24	5.28
18"	17.717 (450mm)	17.72	22.83	2.76	2.36	0.24	6.60
20"	19.685 (500mm)	19.69	24.80	2.76	2.36	0.20	10.34
24"	24.803 (630mm)	24.80	29.92	2.76	2.36	0.39	18.92

Deflector Cowl - Flanged



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

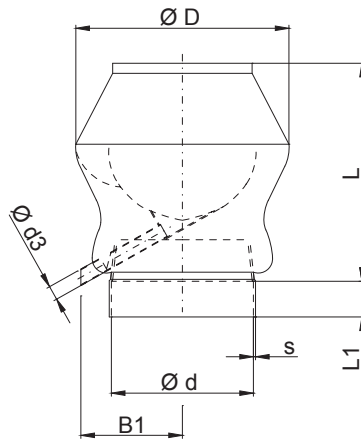
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	D in	L in	S in	B1 in	d3 in	D1 in	B in	k in	d1 in	d2 in	# Holes	Weight lbs
4"	4.331 (110mm)	4.33	6.69	8.46	0.12	3.15	0.63	6.69	0.31	5.91	4.37	0.28	4	1.32
4½"	4.921 (125mm)	4.92	7.28	9.45	0.12	3.54	0.79	7.28	0.31	6.50	4.96	0.28	8	1.54
5"	5.512 (140mm)	5.51	7.87	10.24	0.12	3.94	0.79	7.87	0.31	6.89	5.55	0.28	8	1.76
6"	6.299 (160mm)	6.30	9.06	11.42	0.12	4.53	0.98	9.06	0.31	7.87	6.34	0.28	8	2.20
7"	7.087 (180mm)	7.09	9.84	12.20	0.12	5.12	0.98	9.84	0.31	8.66	7.13	0.28	8	3.74
8"	7.874 (200mm)	7.87	10.63	13.39	0.12	5.91	0.98	10.63	0.31	9.45	7.91	0.28	8	3.96
9"	8.858 (225mm)	8.86	11.61	15.16	0.12	6.14	0.98	11.61	0.31	10.43	8.90	0.28	8	5.72
10"	9.843 (250mm)	9.84	12.60	16.54	0.12	7.28	1.26	12.60	0.39	11.42	9.88	0.28	12	6.16
11"	11.024 (280mm)	11.02	14.17	18.31	0.12	8.07	1.26	14.17	0.39	12.80	11.06	0.35	12	7.48
12"	12.402 (315mm)	12.40	15.55	20.28	0.12	9.25	1.57	15.55	0.39	13.78	12.44	0.35	12	10.56
14"	13.976 (355mm)	13.98	17.01	22.64	0.16	10.24	1.57	17.01	0.39	15.75	14.02	0.35	12	14.52
16"	15.748 (400mm)	15.75	18.90	25.00	0.16	11.42	1.97	18.90	0.39	17.52	15.79	0.35	16	16.28
32"	31.496 (800mm)	31.50	50.98	62.40	0.31	17.72	2.95	35.43	0.47	33.86	31.50	0.43	28	0.00
36"	35.433 (900mm)	35.43	55.12	68.90	0.31	19.69	2.95	39.37	0.47	37.80	35.43	0.43	32	0.00
39"	39.370 (1000mm)	39.37	68.90	90.55	0.39	21.65	2.95	43.31	0.47	41.73	39.37	0.43	32	0.00
48"	49.213 (1250mm)	49.21	81.69	98.43	0.39	26.57	2.95	53.15	0.59	51.57	49.21	0.43	32	0.00
54"	55.118 (1400mm)	55.12	91.93	110.24	0.47	29.53	2.95	59.06	0.59	54.33	55.12	0.43	32	0.00

Deflector Cowl - Socket



Material Options:

PVC - Polyvinyl Chloride

HDPE - Polyethylene

PP - Polypropylene

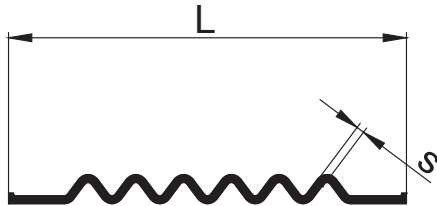
PPs - Flame Retardant Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

PVDF - Polyvinylidene Fluoride

Nom. Size	Actual OD Size	d in	D in	L in	L1 in	S in	B1 in	d3 in	Weight lbs
4"	4.331 (110mm)	4.33	6.69	8.46	1.57	0.12	3.15	0.63	1.10
4½"	4.921 (125mm)	4.92	7.28	9.45	1.57	0.12	3.54	0.79	1.32
5"	5.512 (140mm)	5.51	7.87	10.24	1.57	0.12	3.94	0.79	1.32
6"	6.299 (160mm)	6.30	9.06	11.42	1.57	0.12	4.53	0.98	1.76
7"	7.087 (180mm)	7.09	9.84	12.20	1.97	0.12	5.12	0.98	3.30
8"	7.874 (200mm)	7.87	10.63	13.39	1.97	0.12	5.91	0.98	3.74
9"	8.858 (225mm)	8.86	11.61	15.16	1.97	0.16	6.14	0.98	5.50
10"	9.843 (250mm)	9.84	12.60	16.54	1.97	0.16	7.28	1.26	5.94
11"	11.024 (280mm)	11.02	14.17	18.31	1.97	0.16	8.07	1.26	6.60
12"	12.402 (315mm)	12.40	15.55	20.28	1.97	0.20	9.25	1.57	10.12
14"	13.976 (355mm)	13.98	17.13	22.64	1.97	0.20	10.24	1.57	13.86
16"	15.748 (400mm)	15.75	18.90	25.00	2.36	0.24	11.42	1.97	16.06
32"	31.496 (800mm)	31.50	50.98	62.40	3.15	0.24	17.72	2.95	0.00
36"	35.433 (900mm)	35.43	55.12	68.90	3.94	0.28	19.69	2.95	0.00
39"	39.370 (1000mm)	39.37	68.90	90.55	3.94	0.31	21.65	2.95	0.00
48"	49.213 (1250mm)	49.21	81.69	98.43	4.72	0.39	26.57	2.95	0.00
54"	55.118 (1400mm)	55.12	91.93	110.24	4.72	0.39	29.53	2.95	0.00

Expanded WellFlex Roll



Material Options:

PVC - Polyvinyl Chloride

PP - Polypropylene

PPs-EL - Electrically Conductive Flame Retardant Polypropylene

S in	L in	Length of Roll feet	Corrugations folds	Contraction in - min	Expansion in - max
0.12	5.91	98	6	5.12	6.69
0.24	5.91	49	4	4.72	7.09



Notes:

Notes:

Simtech Process Systems

47-A Runway Road, Levittown, PA 19057

Phone: 800-800-1908 Fax: 215-547-3410

E-mail: info@Simtech.comWeb site: www.Simtech.com**WARRANTY**

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WTP / WWTP

- Chemical Feed Systems
- Chlorination & Fluoridation
- Pressure Regulation



Chlor-Alkali

- Chlorine Processing
- Brine Preparation
- Caustic Sodas



Mining

- Sulfuric Acid
- Hydrochloric Acid
- Slurry Piping



Aquatics

- Natatoriums
- Corrosion-Free Valves
- Valve Automation



Food and Beverage

- Dairy
- Brewing
- Chemical Sterilization



O.E.M. Supplier

- Valves and Automation
- Controls and Instrumentation
- Custom Fabrication



Automotive

- Fume Exhaust
- Washdown Systems
- Process Waste Drainage



High Purity Water

- RODI Systems
- pH Control
- Semiconductor Cleaning



Power / Utilities

- Demineralization
- Flue Gas Desulphurization
- Nuclear Process Drainage



Biotech / Pharma

- RODI High Purity Water
- WFI Systems
- Environmental Containment



Laboratory Exhaust

- Corrosive Fume Extraction
- Wet Bench Hoods
- Chemical Box Exhaust



Pulp and Paper

- Bleach and Liquor Lines
- Spent Acid and Caustic Lines
- Wet Scrubber Systems



Chemical Processing

- Chemical Transfer & Storage
- Metering and Mixing
- Process Fume Extraction



Life Sciences

- High Purity RODI Water
- Laboratory Fume Exhaust
- University Facilities



Steel / Metal Finishing

- Piping Lines
- Electroplating
- Fume Exhaust