













SNAP-LOCK PIPE CALCULATOR

The GreenSeam+ Pipe Savings
Calculator below computes the installed COST and TIME
SAVINGS of using GreenSeam+ pipe compared to unsealed competitor products. It is a user-friendly and convenient tool to differentiate the innovative benefits of GSI. To calculate your savings please follow the

TRY OUR PIPE SAVINGS CALCULATOR!

A POWERFUL ONLINE TOOL VISUALIZING YOUR SAVINGS

greenseamind.com/calculator



Scan the Code to Try Our Savings Calculator



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Green indicates that product has been factory sealed.

Damper Hardware24-27



This symbol denotes a GSI Sealed Fitting

Product Families



Yellow label pipe and fittings are available standard.

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ICC-ES Certified in Compliance with the following codes:

- 2018, 2015, 2012 and 2009 International Mechanical Code[®] (IMC)
 2018, 2015, 2012 and 2009 International Residential Code[®] (IRC)
 2018, 2015, 2012 and 2009 International
- Energy Conservation Code® (IEEC)

 2018, 2015, 2012 and 2009 Uniform Mechanical Code® (UMC)

GreenSeam® Plus

Factory Sealed Snap-Lock Pipe



Technical Data

- · GreenSeam Plus Pipe is designed and tested to surpass SMACNA Class 3 Leakage Standards
- · Meets the requirements for SMACNA Seal Class A
- Transverse & Longitudinal seam is pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM Á480 2B Finish)
- Pressure Rating: -1" wg +2" wg
- Button Lock Pipe meets SMACNA RL-8
- Exclusive technology:
 - Patent # 7,478,467

 - Patent # 7,708,034
 - Patent # 7,992,904
- Patent # 8,505,185
- Patent # 9,074,709
- Patent # 10,190,796
- Patent # 8,151,430





Product Availability

			24" Leng	ths		60" Lengths				
Size		Gauge		Qı	uantity	Gauge		Qı	Quantity	
(Ød)	28 Ga.	26 Ga.	24 Ga.	Bundle	Skid/Rack	28 Ga.	26 Ga.	24 Ga.	Bundle	Skid/Rack
4"	Yes	‡	•	-	-	Yes	‡	-	-	-
5"	Yes	‡	-	-	ı	Yes	‡	-	-	•
6"	Yes	Yes	Yes	10	360	Yes	Yes	Yes	5	150
7"	Yes	Yes	Yes	10	220	Yes	Yes	Yes	5	100
8"	Yes	Yes	Yes	10	160	Yes	Yes	Yes	5	100
9"	Yes	Yes	Yes	10	140	Yes	Yes	Yes	5	80
10"	Yes	Yes	Yes	10	120	Yes	Yes	Yes	5	60
12"	Yes	Yes	Yes	10	90	Yes	Yes	Yes	5	45
14"	Yes	Yes	Yes	10	70	Yes	Yes	Yes	5	30

[‡] Consult factory for availability.

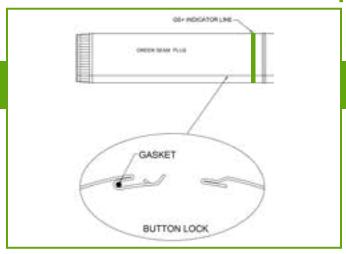
	Part Number Schematic								
Exam	Example: 60SPBGP10GA26** = 60" long, 10" round GreenSeam®+ Snap Pipe in 26Ga. Galvanized Steel								
60 Pipe Length 24 - 2' 0" 60 - 5' 0" 48 - 4' 0" AL, S4 Only	SP Snap Pipe	B Lock Type B - Button	GP GreenSeam Plus	,	GA Material GA-Galvanized (Std.) AL - Aluminum S4 - 304 S.S	26 Gauge GA: 28, 26, 24 AL: 25 S4: 26			

Scan the Code to Try **Our Savings Calculator**

Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

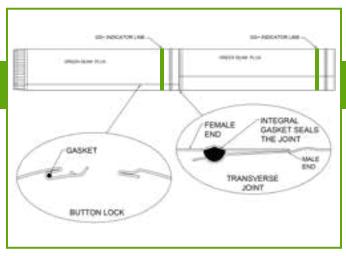
^{**} Add 90 for G90 Galvanized Coating Items in green denote available options

Gasket Specifications



Longitudinal Gasket Composition

This material is made of butyl and E.P.D.M. rubbers, and proprietary co-polymer. It contains some process aids, antioxidants, tackifying resins, and is fungi resistant.



Transverse Gasket Composition

This material is a two-component polyurethane foamed gasket. The gasket is liquid applied directly onto the pipe by using FIPFG (formed-in-place foam gasket) technology. This produces a flexible tack-free foam gasket.

Test Data

Color: Black Odor: None

Melt Point: Ball & Ring, 300° F

Slump: %" Bd @ 250° F — no slump or sag. **Solids Content (% by weight):** 100% **Elongation (0° F, 77° F):** 450%, 900%

Tensile Strength: ASTM D412 Die C — 65 psi

Plasticizer Migration: ASTM C772-74; no bleed or stain. **Cold Temperature Flexibility:** ASTM C765-73 — passes.

Water Resistance: ASTM D1056 — 0.01% Shelf and Service Life: 20 years min.

Force to Compress: As measured when one cubic inch of %" thick material is compressed to %6" thick material at 2" per min.

 $0^{\circ} F - 60 \text{ psi}$ $77^{\circ} F - 30 \text{ psi}$ $120^{\circ} F - 15 \text{psi}$

Aging Characteristics: ASTM D750-68 (1000 hrs.) on

surface — slight haze

VOCs: 0

Surface Burning Characteristics: ASTM E-84 Test GreenSeam Plus Longitudinal Gasket applied to

Galvanized Steel.

Test Results: Flame Spread Index - 0 Smoke Developed Index - 30

Test applied in two 3/8" wide strips 8" on center (coverage

of 3% of the exposed test sample area)

Full test report available upon request

Test Data

Color: Black Odor: None

Service Temperature: -40°F to 212°F

Rebound (% after compression to z"): 80% +/- 20%

Long Term Flexibility: Indefinitely Flexible

VOCs: 0

Surface Burning Characteristics: ASTM E-84 Test GreenSeam Plus Transverse Gasket applied to

Galvanized Steel.

Test Results: Flame Spread Index - 0

Smoke Developed Index - 30

Test applied in two 3/8" wide strips 8" on center (coverage of 3% of the exposed test sample area)

Full test report available upon request

Time Study/Labor Savings

Material Costs - Unsealed Pipe Sealant Cost: \$12.00 per Gallon Sealant applied: 1/16" 2" wide band Pipe Size: 8" diameter 5' Length

Material Cost: \$0.56

Labor Costs - Sealing Pipe

In time studies, it took 2 and a 1/2 minutes to seal a single 8" 5' piece of pipe.



Round Reeves Lock

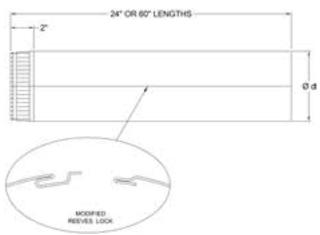
Snap-Lock Pipe



Technical Data

- Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM) A653 and ASTM A90)
- Available in Specialty Metals:
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: -1 w.g. to +2 w.g.
- SPR Reeves Lock Pipe meets SMACNA RL-6A&B
- Dimensional Tolerance: ± 1/4"





Product Availability

Size	24" Lengths	Quantity		60" Lengths	Q	uantity	
(Ød)	24 (R)*	Bundle	Skid/Rack	24 (R)*	Bundle	Skid/Rack	
16"	Yes	10	60	Yes	5	25	
18"	Yes	10	50	Yes	5	20	
20"	Yes	10	50	Yes	5	20	
22"	‡	‡	‡	‡	‡	‡	
24"	‡	‡	‡	‡	‡	‡	

^{* (}R) - Reeves Lock unsealed pipe ONLY (GreenSeam® is not available over 14").

	Part Number Schematic							
	Example: 60SPR16GA24** = 60" long, 16" round Reeves Lock Snap Pipe in 24Ga. Galvanized Steel							
60 Pipe Length 24 - 2' 0" 60 - 5' 0" 48 - 4' 0" AL, S4 Only	SP Snap Pipe	R Lock Type R - Reeves	16 Pipe Diameter (Ød)	GA Material GA-Galvanized AL - Aluminum S4 - 304 S.S	24 Gauge GA: 24 AL: 25 S4: 26			

** Add 90 for G90 Galvanized Coating Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

[#] Consult factory for availability.

Straight-Sided High Efficiency Takeoff

Patent # 10,898,920





Technical Data

- GSI HETOs are designed and tested to surpass SMACNA Class 3 Leakage Standards.*
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- · Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"
- * Test performed on standard fittings without dampers







.ow Leakage

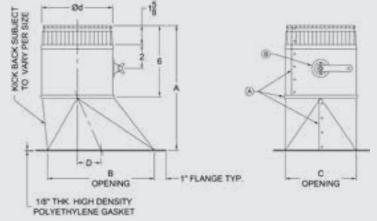
ge Low Leakage w/Stand-Off

Rossi w/Solid 3/8" Rod

Windgate w/Solid 3/8" Rod

Product Availability

Sizo (Ød)	Gauge A	vailability	Quantity]	Dimen	sion	
Size (Ød)	26 Ga. 24 Ga. Carton Yes - 8 Yes Yes 8 Yes Yes 12 Yes Yes 8 Yes Yes 8 Yes Yes 8 Yes Yes 6 Yes Yes 6	Α	В	С	D		
4"	Yes	•	8	10 ½"	7"	4"	1½"
5"	Yes	Yes	8	10 ½"	8"	5"	2½"
6"	Yes	Yes	12	10 ½"	9"	6"	2"
7"	Yes	Yes	8	10 ½"	10"	7"	2"
8"	Yes	Yes	8	11 ½"	11"	8"	2½"
9"	Yes	Yes	6	11 ½"	12"	9"	2½"
10"	Yes	Yes	6	11 ½"	12"	10"	2½"
12"	Yes	Yes	4	11 ½"	14"	12"	3"
14"	Yes	Yes	2	12"	16"	14"	3"
16"	Yes	Yes	1	13"	18"	16"	3"
18"	Yes	Yes	1	13"	20"	18"	3"
20"	Yes	Yes	1	14"	22"	20"	3"



- A. HETOs now come standard with sealed joints! The riveted seam on the collar and boot, as well as the co-latch seam between the collar and boot are sealed with the GreenSeam integral gasket. Unsealed fittings are available upon request.
- B. Non-dampered HETOs are supplied with a 3/8" knock-out. Dampered HETOs are supplied with 24GA. damper blades and GSI's proprietary low-leakage hardware. See Page 27.

Part Number Schematic								
Example: SHTS1510G/	Example: SHTS1510GA26**D38 = Straight HETO for 10" Pipe in 26Ga. Galvanized Steel, with a Solid Rod Damper and 1½" Stand-Off							
SHT Straight-Sided High Efficiency Take-Off	S2 Stand-Off S2 - 2" (Opt. on Dampers Only)	10 Straight-Sided HETO Diameter (Ød)	GA Material GA-Galvanized (Std.) AL - Aluminum S4 - 304 S.S	26 Gauge GA - 26, 24 AL - 32 S4 - 26	D Damper (Opt.)	C Windgate hardware 38 Rossi hardware (Opt. on Dampers Only) See Damper Hardware options on pages 27-30		

^{**} Add 90 for G90 Galvanized Coating Items in green denote other available features Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

Tapered
High Efficiency Takeoff

Patent # 10,898,920





Technical Data

- GSI HETOs are designed and tested to surpass SMACNA Class 3 Leakage Standards.*
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- · Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"
- * Test performed on standard fittings without dampers





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Low Leakage

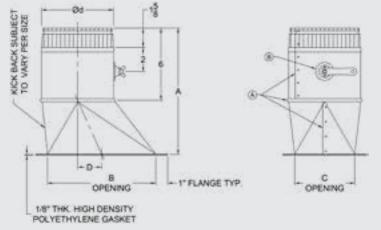
w/Stand-Off

Rossi w/Solic 3/8" Rod

3/8" Rod

Product Availability

Size	Gauge Av	vailability	Quantity	Dimension			
(Ød)	26 Ga.	24 Ga.	Carton	Α	В	С	D
4"	Yes	-	8	10 ½"	7"	4"	1 ½"
5"	Yes	Yes	8	10 ½"	9"	5"	2 ½"
6"	Yes	Yes	12	10 ½"	9"	5"	2"
7"	Yes	Yes	8	10 ½"	11	5	2 ½"
8"	Yes	Yes	8	11 ½"	12"	6"	2 ½"
9"	Yes	Yes	6	11 ½"	13"	7"	2 ½"
10"	Yes	Yes	6	11 ½"	14"	8"	2 ½"
12"	Yes	Yes	4	11 ½"	16"	10"	3"
14"	Yes	Yes	2	12"	18"	12"	3"
16"	Yes	Yes	1	13"	20"	14"	3"
18"	Yes	Yes	1	13"	22"	16"	3"
20"	Yes	Yes	1	13"	24	18	3"



- A. HETOs now come standard with sealed joints! The riveted seam on the collar and boot, as well as the co-latch seam between the collar and boot are sealed with the GreenSeam integral gasket. Unsealed fittings are available upon request.
- B. Non-dampered HETOs are supplied with a 3/8" knock-out. Dampered HETOs are supplied with 24GA. damper blades and GSI's proprietary low-leakage hardware. See Page 27.

	Part Number Schematic							
Example: H	Example: HTS1510GA26**D38 = Tapered HETO for 10" Pipe in 26Ga. Galvanized Steel, with a Solid Rod Damper and 1½" Stand-Off							
HT Tapered High Efficiency Take-Off	S2 Stand-Off S2 - 2"	10 Tapered HETO Diameter (Ød)	GA Material GA-Galvanized (Std.)	26 Gauge GA - 26, 24	D Damper (Opt.)	C Windgate hardware 38		
	(Opt. on Dampers Only)		AL - Aluminum	AL - 32		Rossi hardware		
			S4 - 304 S.S	S4 - 26		(Opt. on Dampers Only)		
						See Damper Hardware options on pages 27-30		

^{**} Add 90 for G90 Galvanized Coating Items in green denote other available features Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

Center
High Efficiency Takeoff

Patent # 10,898,920





Technical Data

- GSI HETOs are designed and tested to surpass SMACNA Class 3 Leakage Standards.*
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- · Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"
- * Test performed on standard fittings without dampers





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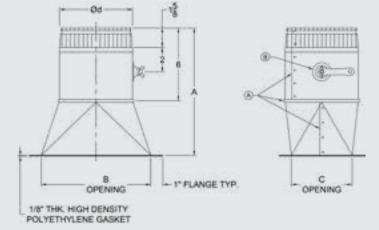


ow Leakage Lov

Windgate w/Solid 3/8" Rod

Product Availability

Size	Gauge A	Availability Quantity Dir		Dim	mension		
(Ød)	26 Ga.	24 Ga.	Carton	Α	В	С	
5"	Yes	Yes	8	10 ½"	9"	5"	
6"	Yes	Yes	12	11 ½"	9"	5"	
7"	Yes	Yes	8	11 ½"	11"	5"	
8"	Yes	Yes	8	11 ½"	12"	6"	
9"	Yes	Yes	6	11 ½"	13"	7"	
10"	Yes	Yes	6	11 ½"	14"	8"	
12"	Yes	Yes	4	11 ½"	16"	10"	
14"	Yes	Yes	2	12"	18"	12"	
16"	Yes	Yes	1	13"	20"	14"	
18"	Yes	Yes	1	13"	22"	16"	
20"	Yes	Yes	1	13"	24"	18"	



- A. HETOs now come standard with sealed joints! The riveted seam on the collar and boot, as well as the co-latch seam between the collar and boot are sealed with the GreenSeam integral gasket. Unsealed fittings are available upon request.
- B. Non-dampered HETOs are supplied with a 3/8" knock-out. Dampered HETOs are supplied with 24GA. damper blades and GSI's proprietary low-leakage hardware. See Page 27.

Part Number Schematic									
Example: HTCS1510GA26**D38 = Center HETO for 10" Pipe in 26Ga. Galvanized Steel, with a Solid Rod Damper and 1½" Stand-Off									
HTC Center High Efficiency Take-Off	S2 Stand-Off S2 - 2"	10 Center HETO Diameter (Ød)	GA Material GA-Galvanized (Std.)	26 Gauge GA - 26, 24	D Damper (Opt.)	C Windgate hardware			
	(Opt. on Dampers Only)		AL - Aluminum	AL - 32		Rossi hardware			
			S4 - 304 S.S	S4 - 26		(Opt. on Dampers Only)			
						See Damper Hardware options on pages 27-30			

^{**} Add 90 for G90 Galvanized Coating
Items in green denote other available features
Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

Spun **Press-On Conical**

Patent # 10,898,920





Technical Data

- · GSI Conicals are designed and tested to surpass SMACNA Class 3 Leakage Standards.*
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- · Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- Available in Specialty Metals**:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"
- Test performed on standard fittings without dampers
- ** 3 piece conical provided on Aluminum and Stainless Steel.











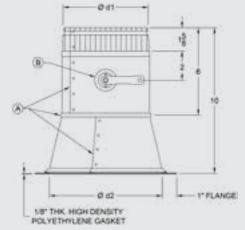
w/Stand-Off

3/8" Rod

Windgate w/Solid

Product Availability

Size	Gauge Av	vailability		Quantity	Dimension
(Ød1)	26 Ga.	24 Ga.	Carton	Skid	Ød2
4"	Yes	-	16	200 - 45x45	5 ¾"
5"	Yes	Yes	16	200 - 45x45	6 ¾"
6"	Yes	Yes	16	160 - 45x45	7 3/4"
7"	Yes	Yes	6	72 - 45x45	8 3/4"
8"	Yes	Yes	6	72 - 45x45	9 3/4"
9"	Yes	Yes	6	72 - 48x48	10 ¾"
10"	Yes	Yes	6	72 - 48x48	11 ¾"
12"	Yes	Yes	4	40 - 45x45	13 ¾"
14"	Yes	Yes	4	40 - 45x45	15 ¾"
16"	Yes	Yes	4	40 - 45x45	17 ¾"
18"	Yes	Yes	2	24 - 45x45	19 ¾"
20"	Yes	Yes	1	12 - 48x48	21 ¾"



- A. Conicals now come standard with sealed joints! The riveted seam on the collar and cone, as well as the co-latch seam between the collar and cone are sealed with the GreenSeam integral gasket. Unsealed fittings are available upon request.
- B. Non-dampered Conicals are supplied with a 3/8" knock-out. Dampered Conicals are supplied with 24GA. damper blades and GSI's proprietary low-leakage hardware. See Page 27.

	Part Number Schematic									
	Example: CNS15PR10GA26**D38 = Press-on Conical for 10" Pipe in 26Ga. Galvanized Steel, with a Solid Rod Damper and 1½" Stand-Off									
S Scoop (Opt.)	CN Conical	S2 Stand-Off S2 - 2" (Opt. on Dampers Only)	P Press-On	R Riveted	Conical Diameter (Ød1)	GA Material GA-Galvanized (Std.) AL - Aluminum S4 - 304 S.S	26 Gauge GA - 26, 24 AL - 32 S4 - 26	D Damper (Opt.)	C Windgate hardware 38 Rossi hardware (Opt. on Dampers Only) See Damper Hardware options on pages 27-30	

^{**} Add 90 for G90 Galvanized Coating Items in green denote other available features Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

Spin-In Conical

Patent # 10,898,920









Technical Data

- · GSI Conicals are designed and tested to surpass SMACNA Class 3 Leakage Standards.*
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- · Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"
- Test performed on standard fittings without dampers



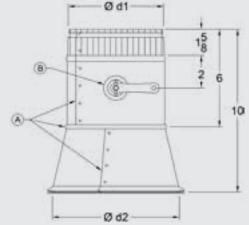
Available Damper Types



Windgate w/Solid w/Stand-Off 3/8" Rod

Product Availability

Size	Gauge Av	/ailability		Quantity	Dimension
(Ød1)	26 Ga.	24 Ga.	Carton	Skid	Ød2
4"	Yes	-	16	200 - 45x45	5 ¾"
5"	Yes	Yes	16	200 - 45x45	6 ¾"
6"	Yes	Yes	16	160 - 45x45	7 3/4"
7"	Yes	Yes	6	72 - 45x45	8 3/4"
8"	Yes	Yes	6	72 - 45x45	9 3/4"
9"	Yes	Yes	6	72 - 48x48	10 ¾"
10"	Yes	Yes	6	72 - 48x48	11 ¾"
12"	Yes	Yes	4	40 - 45x45	13 ¾"
14"	Yes	Yes	4	40 - 45x45	15 ¾"
16"	Yes	Yes	4	40 - 45x45	17 ¾"
18"	Yes	Yes	2	24 - 45x45	19 ¾"
20"	Yes	Yes	1	12 - 48x48	21 ¾"
	1 61441				



- A. Conicals now come standard with sealed joints! The riveted seam on the collar and cone, as well as the co-latch seam between the collar and cone are sealed with the GreenSeam integral gasket. Unsealed fittings are available upon request.
- B. Non-dampered Conicals are supplied with a 3/8" knock-out. Dampered Conicals are supplied with 24GA. damper blades and GSI's proprietary low-leakage hardware. See Page 27.

	Part Number Schematic									
	Example: CNS15R10GA26**D38 = Spin-in Conical for 10" Pipe in 26Ga. Galvanized Steel, with a Solid Rod Damper and 1½" Stand-Off									
S Scoop (Opt.)	CN Spin-In Conical	Stand-Off S2 - 2"	R Riveted	10 Conical Diameter (Ød1)	GA Material GA-Galvanized (Std.)	26 Gauge GA - 26, 24	D Damper (Opt.)	C Windgate hardware		
		(Opt. on Dampers Only)			AL - Aluminum S4 - 304 S.S	AL - 32 S4 - 26		Rossi hardware (Opt. on Dampers Only)		
								See Damper Hardware options on pages 27-30		

^{**} Add 90 for G90 Galvanized Coating Items in green denote other available features Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

Spun Press-On Collar







Technical Data

- GSI Collars are designed and tested to surpass SMACNA Class 3 Leakage Standards.*
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- · Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals**:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"
- * Test performed on standard fittings without dampers
- ** 2 piece collar provided on Aluminum and Stainless Steel.







Availe



Low Leakage

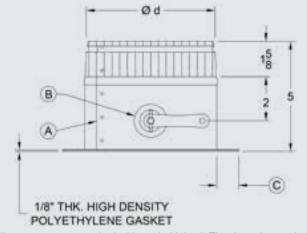
.ow Leakage w/Stand-Off

ossi w/Solid - W 3/8" Rod

Windgate w/Solid 3/8" Rod

Product Availability

Size (Ød)*	Gauge Av	/ailability	Quantity		
Size (Øu)	26 Ga.	24 Ga.	Carton	Skid	
4"	Yes	•	25	300 - 45x45	
5"	Yes	Yes	25	300 - 45x45	
6"	Yes	Yes	20	240 - 45x45	
7"	Yes	Yes	20	240 - 45x45	
8"	Yes	Yes	20	240 - 45x45	
9"	Yes	Yes	10	120 - 45x45	
10"	Yes	Yes	10	120 - 45x45	
12"	Yes	Yes	10	120 - 48x48	
14"	Yes	Yes	5	60 - 45x45	
16"	Yes	Yes	5	60 - 45x45	
18"	Yes	Yes	5	60 - 45x45	
20"	Yes	Yes	2	24 - 45x45	



- A. Collars now come standard with sealed joints! The riveted seam is sealed with the GreenSeam integral gasket. Unsealed fittings are available upon request.
- B. Non-dampered Collars are supplied with a 3/8" knock-out. Dampered Collars are supplied with 24GA. damper blades and GSI's proprietary low-leakage hardware. See Page 27.
- $\text{C.}\,\%\text{"}$ flange for 4" and 5" collars. 1" flange for 6" and larger collars.

	Part Number Schematic									
	Example: 6POS15CR10GA26**D38 = Spun Press-on Collar for 10" Pipe in 26Ga. Galv. Steel, with a Solid Rod Damper and 1½" Stand-Off									
S Scoop (Opt.)	6 Collar Length	PO Press-On Start Collar	S2 Stand-Off S2 - 2" (Opt. on Dampers Only)	C End C - Crimped (Std.)	R Riveted	10 Collar Diameter (Ød)	GA Material GA-Galvanized (Std.) AL - Aluminum S4 - 304 S.S	26 Gauge GA - 26, 24 AL - 32 S4 - 26		C Windgate hardware 38 Rossi hardware (Opt. on Dampers Only) See Damper Hardware options on pages 27-30

^{**} Add 90 for G90 Galvanized Coating
Items in green denote other available features
Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

Press-On Saddle Tap







Technical Data

- · GSI Press-on Saddle Taps are designed and tested to surpass SMACNA Class 3 Leakage Standards.*
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM) A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 304 Stainless Steel (ASTM A480 2B Finish)
- Dimensional Tolerance: `± 1/4"
- Test performed on standard fittings without dampers



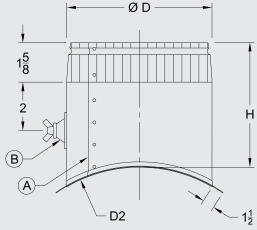


Rossi w/Solid 3/8" Rod

Product Availability

Collar Dia	Pipe Dia (D2)	н	Collar Dia	Pipe Dia (D2)	Н
4"	6"	5¾"	10"	16" - 18"	53/4"
4"	8" - 10"	5¾"	10"	20" - 22"	53/4"
5"	7" - 9"	5¾"	12"	12"	73/4"
5"	10" - 12"	5¾"	12"	14" - 16"	73/4"
6"	6"	5¾"	12"	18" - 20"	73/4"
6"	7"	5¾"	12"	22" - 24"	73/4"
6"	8" - 10"	5¾"	14"	14"	73/4"
6"	12" - 14"	5¾"	14"	16" - 18"	73/4"
6"	16" - 18"	5¾"	14"	20" - 22"	73/4"
6"	20" - 22"	5¾"	14"	24" - 26"	73/4"
7"	10" - 12"	5¾"	16"	16"	73/4"
7"	14" - 16"	5¾"	16"	18" - 20"	73/4"
8"	8"	53/4"	16"	22" - 24"	73/4"
8"	10" - 12"	5¾"	18"	18"	73/4"
8"	14" - 16"	5¾"	18"	20" - 22"	73/4"
8"	18" - 20"	5¾"	18"	24"	73/4"
8"	22" - 24"	53/4"	20"	20"	73/4"
10"	10"	53/4"	20"	22" - 24"	73/4"
10"	12" - 14"	5¾"			

All Saddle Taps Available in 26 and 24 Gauge - 4" x 6" Only Available in 26 Ga.



- A. Saddle Taps now come standard with sealed joints! The riveted seam is sealed with the GreenSeam integral gasket. Unsealed fittings are available upon request.
- B. Non-dampered Saddle Taps are supplied with a 3/8" knock-out. Dampered Collars are supplied with 24GA. damper blades and GSI's proprietary low-leakage hardware. See Page 27.

	Part Number Schematic								
Example: STS	Example: STS268GA26**D38 = Press-On Saddle Tap with 6" takeoff designed to fit 8-10" range pipe in galvanized material with damper and 3/8" Rossi hardware								
ST Press-On Saddle Tap	Stand-Off S2 - 2" (Opt. on Dampers Only)	6 Collar Diameter (Ød)	8* Pipe Diameter (D2) * Use Smallest Size In Range	GA Material GA-Galvanized (Std.)	26 Gauge GA - 26	D Damper (Opt.)	Rossi hardware (Opt. on Dampers Only) See Damper Hardware options on pages 27-30		

Add 90 for G90 Galvanized Coating Items in green denote other available features Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

3" Long Tabbed Start Collar





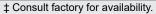
Technical Data

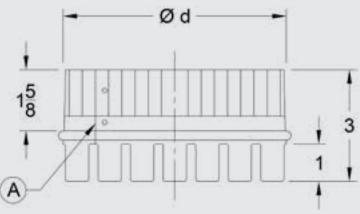
- GSI Collars are designed and tested to surpass SMACNA Class 3 Leakage Standards.
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"





Sino (Old)	Gauge A	vailability	Quanti	ty
Size (Ød)	26 Ga.	24 Ga.	Carton	Skid
4"	Yes	-	60	780
5"	Yes	Yes	60	780
6"	Yes	Yes	50	600
7"	Yes	Yes	40	480
8"	Yes	Yes	40	480
9"	Yes	Yes	40	480
10"	Yes	Yes	40	480
12"	Yes	Yes	20	240
14"	Yes	Yes	10	120
16"	Yes	Yes	10	120
18"	Yes	Yes	10	120
20"	Yes	Yes	10	120
22"	‡	‡	‡	‡
24"	‡	‡	‡	‡





A. Collars now come standard with sealed joints! The riveted seam is sealed with the GreenSeam integral gasket. Unsealed fittings are available upon request.

	Part Number Schematic									
Example: 3SCCR10GA26** = 3" Long Tabbed Collar for 10" Pipe in 26Ga. Galvanized Steel										
3	sc	С	R	10	GA	26				
Collar Length	Tabbed Start Collar	End	Riveted	Collar Diameter (Ød)	Material	Gauge				
		C - Crimped (Std.)			GA-Galvanized (Std.)	GA - 26, 24				
					AL - Aluminum	AL - 32				
					S4 - 304 S.S	S4 - 26				

^{**} Add 90 for G90 Galvanized Coating
Items in green denote other available features
Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

6" Long Tabbed Start Collar





Technical Data

- GSI Collars are designed and tested to surpass SMACNA Class 3 Leakage Standards.*
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- · Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"
- * Test performed on standard fittings without dampers











Low Leakage

Low Leakage w/Stand-Off

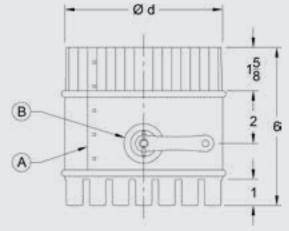
Rossi w/Soli 3/8" Rod

Windgate w/Solid 3/8" Rod

Product Availability

Sizo (Ød)	Gauge A	vailability	Quantity			
Size (Ød)	26 Ga.	24 Ga.	Carton	Skid		
4"	Yes	•	30	360		
5"	Yes	Yes	30	360		
6"	Yes	Yes	20	240		
7"	Yes	Yes	20	240		
8"	Yes	Yes	20	240		
9"	Yes	Yes	20	240		
10"	Yes	Yes	20	240		
12"	Yes	Yes	10	120		
14"	Yes	Yes	10	120		
16"	Yes	Yes	5	60		
18"	Yes	Yes	5	60		
20"	Yes	Yes	5	60		
22"	‡	‡	5	‡		
24"	‡	‡	5	‡		

‡ Consult factory for availability.
Dampered fittings are available with 2" Stand-Off.
See Damper Hardware options on pages 27-30.



- A. Collars now come standard with sealed joints! The riveted seam is sealed with the GreenSeam integral gasket. Unsealed fittings are available upon request.
- B. Non-dampered Collars are supplied with a 3/8" knock-out. Dampered Collars are supplied with 24GA. damper blades and GSI's proprietary low-leakage hardware. See Page 27.

	Part Number Schematic									
Exa	Example: 6SCS15CR10GA26**D38 = 6" Long Tabbed Collar for 10" Pipe in 26Ga. Galv. Steel, with a Solid Rod Damper and 1½" Stand-Off									
6 Collar Length	SC Tabbed Start Collar	S2 Stand-Off S2 - 2" (Opt. on Dampers Only)	C End C - Crimped (Std.)	R Riveted	Collar Diameter (Ød)	GA Material GA-Galvanized (Std.) AL - Aluminum S4 - 304 S.S	26 Gauge GA - 26, 24 AL - 32 S4 - 26	D Damper (Opt.)	C Windgate hardware 38 Rossi hardware (Opt. on Dampers Only) See Damper Hardware options on pages 27-30	

^{*} Add 90 for G90 Galvanized Coating Items in green denote other available features Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

3" Long Spin-In Collar





Technical Data

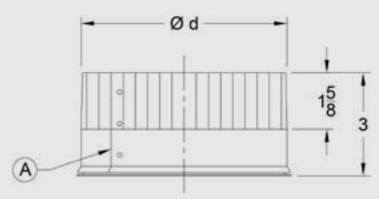
- GSI Collars are designed and tested to surpass SMACNA Class 3 Leakage Standards.
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"





Sino (Old)	Gauge A	vailability	Quanti	ty
Size (Ød)	26 Ga. 24 Ga.		Carton	Skid
4"	Yes	-	60	780
5"	Yes	Yes	60	780
6"	Yes	Yes	50	600
7"	Yes	Yes	40	480
8"	Yes	Yes	40	480
9"	Yes	Yes	40	480
10"	Yes	Yes	40	480
12"	Yes	Yes	20	240
14"	Yes	Yes	10	120
16"	Yes	Yes	10	120
18"	Yes	Yes	10	120
20"	Yes	Yes	10	120
22"	‡	‡	‡	‡
24"	‡	‡	‡	‡

[‡] Consult factory for availability.



A. Collars now come standard with sealed joints! The riveted seam is sealed with the GreenSeam integral gasket. Unsealed fittings are available upon request.

	Part Number Schematic									
	Example: 3SICR10GA26** = 3" Long Spin-in Collar for 10" Pipe in 26Ga. Galvanized Steel with a Crimped End									
3 SI C R 10 GA 26										
Collar Length	Spin-in Start Collar	End	Riveted	Collar Diameter (Ød)	Material	Gauge				
		C - Crimped (Std.)			GA-Galvanized (Std.)	GA - 26, 24				
					AL - Aluminum	AL - 32				
					S4 - 304 S.S	S4 - 26				

^{**} Add 90 for G90 Galvanized Coating Items in green denote other available features Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

6" Long Spin-In Collar





Technical Data

- GSI Collars are designed and tested to surpass SMACNA Class 3 Leakage Standards.*
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- · Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"
- * Test performed on standard fittings without dampers











Low Leakage

Low Leakage w/Stand-Off

3/8" Rod

Windgate w/Solid 3/8" Rod

Product Availability

Size (Ød)	Gauge A	vailability	Quantity		
Size (Øu)	26 Ga.	24 Ga.	Carton	Skid	
4"	Yes	•	30	360	
5"	Yes	Yes	30	360	
6"	Yes	Yes	20	240	
7"	Yes	Yes	20	240	
8"	Yes	Yes	20	240	
9"	Yes	Yes	20	240	
10"	Yes	Yes	20	240	
12"	Yes	Yes	10	120	
14"	Yes	Yes	10	120	
16"	Yes	Yes	5	60	
18"	Yes	Yes	5	60	
20"	Yes	Yes	5	60	
22"	‡	‡	5	‡	
24"	‡	‡	5	‡	

‡ Consult factory for availability.
Dampered Fittings are available with 2" Stand-Off.
See Damper Hardware options on pages 27-30.

- B 2 6
- A. Collars now come standard with sealed joints! The riveted seam is sealed with the GreenSeam integral gasket. Unsealed fittings are available upon request.
- B. Non-dampered Collars are supplied with a 3/8" knock-out. Dampered Collars are supplied with 24GA. damper blades and GSI's proprietary low-leakage hardware. See Page 27.

	Part Number Schematic										
Examp	Example: S6SIS15CR10GA26**D38 = 6" Long Spin-in Collar for 10" Pipe in 26Ga. Galv. Steel, with a Solid Rod Damper, 1½" Stand-Off, Crimped End, and a Scoop.										
S Scoop (Opt.)	6 Collar Length	SI Spin-in Start Collar	S2 Stand-Off S2 - 2" (Opt. on Dampers Only)	C End C - Crimped (Std.)	R Riveted	Collar Diameter (Ød)	GA Material GA-Galvanized (Std.) AL - Aluminum S4 - 304 S.S	26 Gauge GA - 26, 24 AL - 32 S4 - 26	D Damper (Opt.)	C Windgate hardware 38 Rossi hardware (Opt. on Dampers Only) See Damper Hardware options on pages 27-30	

^{**} Add 90 for G90 Galvanized Coating
Items in green denote other available features
Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

6" Long Coupler





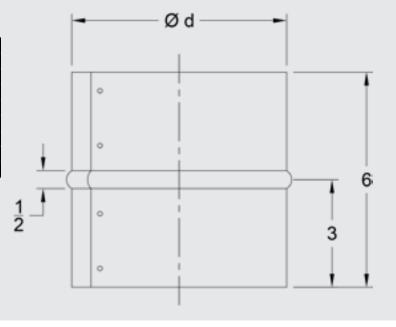
Technical Data

- GSI Couplers are designed and tested to surpass SMACNA Class 3 Leakage Standards.
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"





Size (Ød)	Gauge Av	/ailability	Quantity		
Size (Øu)	26 Ga.	24 Ga.	Carton	Skid	
6"	Yes	Yes	20	240	
7"	Yes	Yes	20	240	
8"	Yes	Yes	20	240	
9"	Yes	Yes	20	240	
10"	Yes	Yes	20	240	
12"	Yes	Yes	10	120	
14"	Yes	Yes	10	120	



	Part Number Schematic										
	Example: 6COPR10GA26** = 6" Long Coupler for 10" Pipe in 26Ga. Galvanized Steel with Plain Ends.										
6 Coupler Length	CO Coupler	P Plain End (Crimping Unavailable)	R Riveted	10 Coupler Diameter (Ød)	GA Material GA-Galvanized (Std.)	26 Gauge GA - 26, 24					
					AL - Aluminum	AL - 32					
					S4 - 304 S.S	S4 - 26					

^{**} Add 90 for G90 Galvanized Coating Items in green denote other available features Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

8" Long Coupler





Technical Data

- · GSI Couplers are designed and tested to surpass SMACNA Class 3 Leakage Standards.*
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- · Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"
- Test performed on standard fittings without dampers











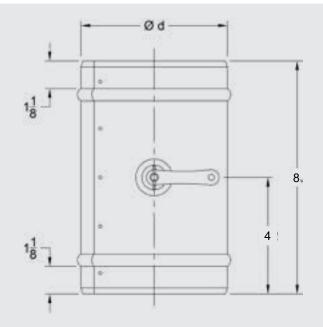
w/Stand-Off

3/8" Rod

Product Availability

Size (Ød)	Gauge A	vailability	Quantity		
Size (Ød)	26 Ga.	24 Ga.	Carton	Skid	
6"	Yes	Yes	12	144	
7"	Yes	Yes	12	144	
8"	Yes	Yes	12	144	
9"	Yes	Yes	12	144	
10"	Yes	Yes	12	144	
12"	Yes	Yes	6	72	
14"	Yes	Yes	6	72	

- A. Coupler now come standard with sealed joints! The riveted seam is sealed with the GreenSeam integral gasket. Unsealed fittings are available upon request.
- B. Non-dampered Coupler are supplied with a 3/8" knock-out. Dampered Coupler are supplied with 24GA. damper blades and GSI's proprietary low-leakage hardware. See Page 27.



	Part Number Schematic								
	Example: 8COPR10GA26**D = 8" Long Coupler for 10" pipe in 26Ga. Galvanized Steel with a Damper.								
8 Coupler Length	CO Coupler	S2 Stand-Off S2 - 2" (Opt. on Dampers Only)	P Plain End (Crimping Unavailable)	R Riveted	Coupler Diameter (Ød)	GA Material GA-Galvanized (Std.) AL - Aluminum S4 - 304 S.S	26 Gauge GA - 26, 24 AL - 32 S4 - 26	D Damper (Opt.)	C Windgate hardware 38 Rossi hardware (Opt. on Dampers Only) See Damper Hardware options on pages 27-30

^{**} Add 90 for G90 Galvanized Coating Items in green denote other available features Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

6" In-Line Sleeved Damper





Technical Data

- GSI Sleeved Dampers are designed and tested to surpass SMACNA Class 3 Leakage Standards.*
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- · Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Dimensional Tolerance: ± 1/4"
- * Test performed on standard fittings without dampers











Low Leakage

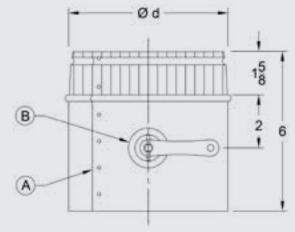
w/Stand-Off

3/8" Rod

3/8" Rod

Product Availability

Size (Ød)	Gauge Availability					
Size (Ød)	26 Ga.	24 Ga.				
4"	Yes	Yes				
5"	Yes	Yes				
6"	Yes	Yes				
7"	Yes	Yes				
8"	Yes	Yes				
9"	Yes	Yes				
10"	Yes	Yes				
12"	Yes	Yes				
14"	Yes	Yes				



- A. In-Line Sleeved Dampers now come standard with sealed joints and a sealed riveted seam on the damper! Unsealed fittings are available upon request.
- B. In-Line Sleeved Dampers are supplied with a 2" Stand-Off and 3/8" Solid Rod Damper. In-Line Sleeved Dampers are also available with Windgate hardware or GSI standard low leakage hardware.

	Part Number Schematic								
E	Example: NF6S2C4GA26**D38 = In-Line Damper for 4" Pipe in 26Ga. Galvanized Steel, with a %" Solid Rod Damper and 2" Stand-Off								
NF6 Damper Sleeve	Stand-Off S2 - 2"	C Crimped	4 In-Line Damper Diameter (Ød)	GA Material GA-Galvanized (Std.) AL S4	26 Gauge GA - 26, 24 AL S4		C Windgate hardware 38 Rossi hardware See Damper Hardware options on pages 27-30		

^{**} Add 90 for G90 Galvanized Coating
Items in green denote other available features
Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

Free Flow Tee Joint





Technical Data

- GSI Free Flow Tees are designed and tested to surpass SMACNA Class 3 Leakage Standards.
- Pre-sealed with gasket made of EPDM rubber and proprietary co-polymer
- Zero VOCs
- Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"



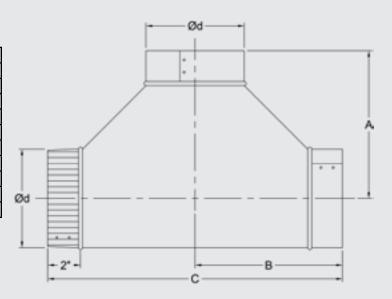


Product Availability

Size	Gauge Av	vailability	Quantity	Dimension			
(Ød)*	26 Ga. 24 Ga.		Carton	Α	В	С	
4"	Yes	-	20	6"	51/4"	10½"	
5"	Yes	Yes	15	6½"	121/8"	141⁄8"	
6"	Yes	Yes	15	6½"	6½"	13"	
7"	Yes	Yes	4	7½"	71/4"	14½"	
8"	Yes	Yes	8	8¾"	8 1/16"	15¾"	
9"	Yes	Yes	1	9"	8¾"	16¾"	
10"	Yes	Yes	1	9¾"	10"	20"	
12"	Yes	Yes	1	10¾"	10¾"	21½"	
14"	Yes	Yes	1	11½"	12"	24"	

^{*} Standard 90° Tee Joint Sizes 3" and 14"-20" are available upon request.

A. Free Flow Tee Joints now come standard with sealed joints and a sealed riveted seam. Unsealed fittings are available upon request.



Part Number Schematic								
Example: FTJ10GA26** = Free-Flow Tee Joint for 10" Pipe in 26Ga. Galvanized Steel								
FTJ Free-Flow Tee Joint	10 Tee Diameter (Ød)	GA Material GA - Galvanized (Std.)	26 Gauge GA - 26, 24					
		AL - Aluminum S4 - 304 S.S	AL - 32 S4 - 26					

^{**} Add 90 for G90 Galvanized Coating
Items in green denote other available features
Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

45 Degree Adjustable Elbow

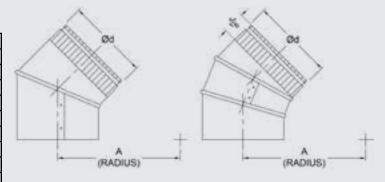
Technical Data

- Galvanized Steel (ASTM A653 and A924)
 Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
- 304 Stainless Steel (ASTM A480 2B Finish)
 Pressure Rating: -1" WG to +2" WG
- Dimensional Tolerance: ± 1/4"





	Size	Gauge Av	ailability	Quant	itv	Dimension
	(Ød)	26 Ga.	24 Ga.	Carton	Skid	A
	4"	Yes	Yes	24	384	61/8"
l s s	5"	Yes	Yes	24	384	71/8"
3 Piece Elbows	6"	Yes	Yes	24	384	81/8"
	7"	Yes	Yes	24	288	10½"
	8"	Yes	Yes	24	288	12"
	9"	Yes	Yes	24	288	9"
	10"	Yes	Yes	24	192	10"
MS	12"	Yes	Yes	24	48	12"
oq	14"	Yes	Yes	16	48	14"
2 Piece Elbows	16"	Yes	Yes	16	40	16"
lec	18"	Yes	Yes	8	24	171/8"
2 P	20"	Yes	Yes	8	24	20"
	22"	‡	‡	8	24	22"
	24"	‡	‡	8	24	24"



[‡] Consult factory for availability.

	Part Number Schematic								
Exa	Example: AEC845GA26** = 45° Adjustable Elbow for 8" Pipe in 26Ga. Galvanized Steel with Both Ends Crimped								
AE Adjustable Elbow	C Crimp Both Ends (Opt. Special Order)	8 Elbow Diameter (Ød)	45 45° Elbow	GA Material GA-Galvanized (Std.)	26 Gauge GA - 26, 24				
				AL - Aluminum S4 - 304 S.S	AL - 32 S4 - 26				

^{**} Add 90 for G90 Galvanized Coating Items in green denote other available features Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

90 Degree Adjustable Elbow

Technical Data

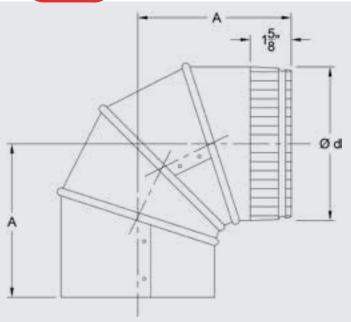
- Galvanized Steel (ASTM A653 and A924)
 Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
- 304 Stainless Steel (ASTM A480 2B Finish)
 Pressure Rating: -1" WG to +2" WG
- Dimensional Tolerance: ± 1/4"





Size	Gau	ge Availat	oility	Quantity	Dimension
(Ød)	28 Ga.	26 Ga.	24 Ga.	Per Skid	Α
3"	Yes	Yes	Yes	960 - 36x48	4 ½"
4"	Yes	Yes	Yes	576 - 36x48	5"
5"	Yes	Yes	Yes	324 - 36x48	5 ½"
6"	Yes	Yes	Yes	216 - 36x48	6"
7"	Yes	Yes	Yes	144 - 42x42	6 ½"
8"	Yes	Yes	Yes	144 - 42x42	7"
9"	Yes	Yes	Yes	96 - 44x44	8 ½"
10"	Yes	Yes	Yes	96 - 48x48	9"
12"	Yes	Yes	Yes	96 - 65x65	10"
14"	Yes	Yes	Yes	80 - 65x65	10 ½"
16"	Yes	Yes	Yes	64 - 65x65	12"
18"	Yes	Yes	Yes	16 - 48x48	14"
20"	Yes	Yes	Yes	12 - 48x48	15"
22"	‡	‡	‡	1 - 48x48	‡
24"	‡	‡	‡	1 - 48x48	‡

[‡] Consult factory for availability.



Part Number Schematic									
Exa	Example: AEC890GA26** = 90° Adjustable Elbow for 8" Pipe in 26Ga. Galvanized Steel with Both Ends Crimped								
AE Adjustable Elbow	C Crimp Both Ends (Opt. Special Order)	8 Elbow Diameter (Ød)	90 90° Elbow	GA Material GA-Galvanized (Std.) AL - Aluminum	26 Gauge GA - 28, 26, 24				
				S4 - 304 S.S	AL - 32 S4 - 26				

^{**} Add 90 for G90 Galvanized Coating Items in green denote other available features Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

Reducers

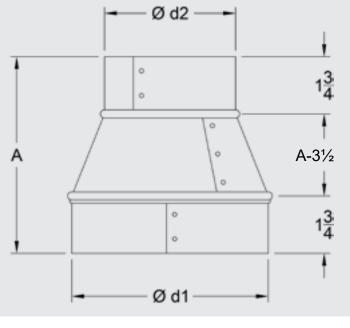
Technical Data

- Galvanized Steel (ASTM A653 and A924)
 Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
- 304 Stainless Steel (ASTM A480 2B Finish)
 Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"





Size	Ga. Ava	ailability	Qty.	Dim.	Size	Ga. Availability		Qty.	Dim.
Ød1 x Ød2	26 Ga.	24 Ga.	Carton	Α	Ød1 x Ød2	26 Ga.	24 Ga.	Carton	Α
4" x 3"	Yes	Yes	25	6"	10" x 7"	Yes	Yes	20	8"
5" x 3"	Yes	Yes	25	6"	10" x 8"	Yes	Yes	40	6"
5" x 4"	Yes	Yes	20	6"	10" x 9"	Yes	Yes	40	8"
6" x 3"	Yes	Yes	20	8"	12" x 6"	Yes	Yes	20	10"
6" x 4"	Yes	Yes	20	6"	12" x 7"	Yes	Yes	20	10"
6" x 5"	Yes	Yes	20	6"	12" x 8"	Yes	Yes	20	8"
7" x 3"	Yes	Yes	20	8"	12" x 9"	Yes	Yes	20	8"
7" x 4"	Yes	Yes	20	8"	12" x 10"	Yes	Yes	20	6"
7" x 5"	Yes	Yes	40	6"	14" x 8"	Yes	No	20	8"
7" x 6"	Yes	Yes	40	6"	14" x 10"	Yes	Yes	20	8"
8" x 4"	Yes	Yes	20	8"	14" x 12"	Yes	Yes	20	6"
8" x 5"	Yes	Yes	20	8"	16" x 10"	Yes	Yes	10	10"
8" x 6"	Yes	Yes	40	6"	16" x 12"	Yes	Yes	10	8"
8" x 7"	Yes	Yes	40	6"	16" x 14"	Yes	Yes	10	6"
9" x 5"	Yes	Yes	20	8"	18" x 14"	Yes	Yes	10	8"
9" x 6"	Yes	Yes	40	8"	18" x 16"	Yes	Yes	10	6"
9" x 7"	Yes	Yes	40	6"	20" x 14"	‡	‡	8	10"
9" x 8"	Yes	Yes	40	6"	20" x 16"	‡	‡	10	8"
10" x 6"	Yes	Yes	40	8"	20" x 18"	‡	‡	10	6"
‡ Consult factor	ory for avai	lability.							



	Part Number Schematic										
	Example: R4P3PGA26** = Reducer with a 4" Plain large end and a 3" Plain small end in 26 Ga. Galvanized Steel										
R Reducer	4 Large End Diameter (Ød1)	P Large End P - Plain (Std.)			GA Material GA-Galvanized (Std.)	26 Gauge GA - 26, 24					
		C - Crimped (Opt.)		C - Crimped (Opt.)	AL - Aluminum S4 - 304 S.S	AL - 32 S4 - 26					

^{**} Add 90 for G90 Galvanized Coating Items in green denote other available features Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

End Caps

Technical Data

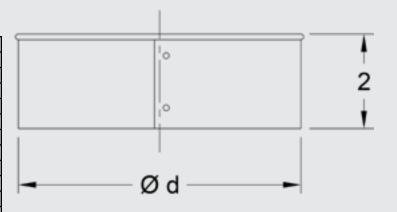
- Galvanized Steel (ASTM A653 and A924)
- Standard product is supplied in 26 GA, G-60 coating (ASTM A653 and ASTM A90)
- · Available in Specialty Metals:
 - G-90 Galvanized Steel
 - Aluminum (ASTM B209 Alloy 3003 Temper H14)
 - 304 Stainless Steel (ASTM A480 2B Finish)
- Pressure Rating: Designed per SMACNA Third Edition 2005 Section 4.8 Figure 4-6 Branch Connections
- Dimensional Tolerance: ± 1/4"





Size (Ød)	Gauge A	vailability	Quantity
Size (Ød)	26 Ga.	24 Ga.	Carton
3"	Yes	-	30
4"	Yes	Yes	25
5"	Yes	Yes	40
6"	Yes	Yes	40
7"	Yes	Yes	20
8"	Yes	Yes	20
9"	Yes	Yes	10
10"	Yes	Yes	10
12"	Yes	Yes	5
14"	Yes	Yes	5
16"	Yes	Yes	10
18"	Yes	Yes	10
20"	Yes	Yes	10
22"	‡	‡	‡
24"	‡	‡	‡

[‡] Consult factory for availability.



	Part Number Schematic									
	Example: ECC10GA26** = End Cap with a Crimped End in 26 Ga. Galvanized Steel with Crimped Ends.									
EC End Cap	P - Plain (Std.) C - Crimped (Opt.)	10 End Cap Diameter (Ød)	GA Material GA-Galvanized (Std.) AL - Aluminum S4 - 304 S.S	26 Gauge GA - 26, 24 AL - 32 S4 - 26						

^{**} Add 90 for G90 Galvanized Coating
Items in green denote other available features
Check with your sales representative for availability of any size, gauge, or specialty metal item not shown here.

Damper Hardware



GSI Low Leakage Damper Hardware Components

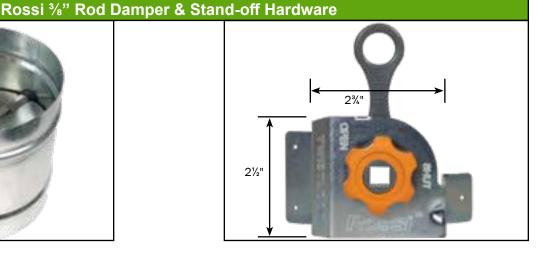
- GSI Die Cast Insert (Dead End) Zinc-Aluminum Cast Alloy. 11/32" Diameter shaft x %6" Diameter Cap to Seal 3/6" Diameter Hole in Fitting Body
- GSI Damper Clip (2 Req'd.) 18 Gauge G-60 Galvanized Steel
- Damper Blade 24 Gauge G-60 Galvanized Steel. Damper Blades that are 12" Diameter and Larger are Stiffened with (2) 3/8" Crimps 2 1/4" Apart Straddling the Damper Clips
- GSI Die Cast Insert (Threaded End) Zinc-Aluminum Cast Alloy. 11/2" Diameter Shaft with 5/16"-18 UNC-1A Threads GSI Die Cast Insert (Threaded End for Stand-Off) Zinc-Aluminum Cast Alloy. 11/32" Diameter with 5/16"-18 UNC-1A Threads. Supplied with Dampered Fittings with a 11/2" or 2" Stand-Off (page 28)
- Cup Washer 18 Gauge G-60 Galvanized Steel

 Lock Washer 5%6" Internal Tooth Zinc Coated Lock Washer

 Damper Handle 18 Gauge G-60 Galvanized Steel 7.
- Wing Nut 5/16" Zinc Coated Wing Nut 9.

Notes:

- All Galvanized Steel Components Meet ASTM A653 and A924
- All G-60 Galvanized Coating Meets ASTM A653 and A90



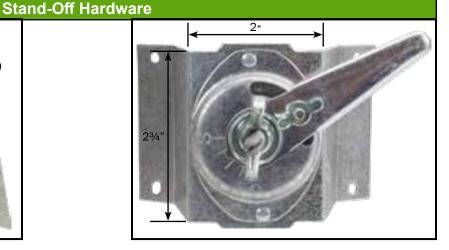
Rossi %" Rod Damper Hardware Components

- 3/8" Bushing Cast resin
- Standoff 18 gauge G90 galvanized steel (available in 1½" or 2" heights)
- Handle Super-tough engineered 6/6 nylon resin
- Locking Knob
- 5. Stamped Regulator

- Galvanized steel standoff bracket meets ASTM A527 LFQ G90
- Non-metallic materials are UL listed, SMACNA approved & plenum rated

1/2" or 2" Stand-Offs

(Opt. W/ Kit)



Stand-Off Hardware Components

- **Stand-Off Bracket** Available in 1 $\frac{1}{2}$ " and 2". 26 Gauge G-60 Galvanized Steel $\frac{1}{4}$ **Turn Dial Regulator** 20 Gauge G-60 Galvanized Steel
- 2.
- Damper Handle 20 Gauge G-60 Galvanized Steel. Wing Nut 5/16" Zinc Coated Wing Nut 3.
- Handle Lock Wing Nut Galvanized (used to lock handle in desired position)
- Shaft Extension (Optional w/Kit) Zinc-Aluminum Cast Alloy with 5/16"-18 UNC-1A Threads and a 1/8" Set Screw. Supplied with Stand-Off Kits listed below.

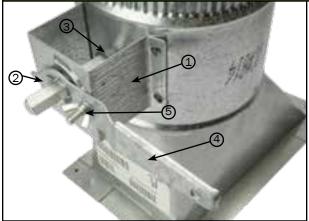
- All Galvanized Steel Components Meet ASTM A653 and A924.
- All G-60 Galvanized Coating Meets ASTM A653 and A90

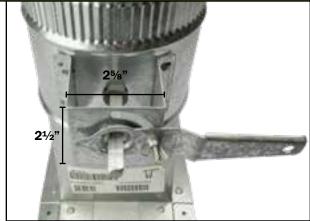
Part Numbers

Stand-Off Kits (Available for Retrofit. 50/Carton):

SDRKIT15 1 1/2" Stand-Off Kit (Include's Items 1-6 Listed Above) SDRKIT2 2" Stand-Off Kit (Includes Items 1-6 Listed Above)

Windgate 3/4" Rod Damper & Stand-off Hardware Specs





Windgate 3/8" Rod Damper & Stand-off Hardware Components

- Standoff Available in 2" Galvanized Steel 3/8" Dial Regulator 18 Gauge Galvanized Steel 2.

- 3/8" Bushing Cast resin
 Handle 16 Gauge Galvanized Steel
 Handle Lock Wing Nut Forged Steel Wing Nut

Damper Hardware

BANGIT™ Damper Hardware From

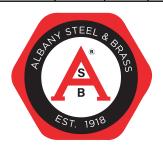




Description	Ordering Info	rmation	
Description	Part Number	Box Quantity	Box Weight
Spring Clip			
Precision stamped galvanized damper clip. Superior spring loaded design for labor saving installation. Engineered with an oversized point for increased strength.	BDHBSC	1,250	77 Lbs.
Blank Clip			
Precision stamped galvanized damper clip, with threaded post for easy installation. Engineered with an oversized point for increased strength.	BDHBC	2,000	71 Lbs.
<u>Washer</u>			
Stamped from galvanized steel for increased strength and corrosion resistance.	BDHBW	10,000	43 Lbs.
Damper Handle			
Stamped from galvanized steel for increased strength and corrosion resistance. Allows for fast and easy adjustment of the dampers. (BDHBH is used on Spring Clip)	BDHBH	5,000	82 Lbs.
Wing Nut			
This galvanized steel wing nut is die cast for superior strength and reliability.	BDHBWN	5,000	54 Lbs.
BANGIT Hardware			
Comes completely assembled with 2-Springs Clips, Handle, washer and wingnut	DBLR_GASDH	N/A	N/A
BANGIT Hardware			
Comes completely assembled with 1- Spring Clip, 1-Blank Clip, handle, washer and wingnut	DBLR_GABDH	N/A	N/A

Damper Materials

		damper blade	standoff	handle	rod	bushing	screws, nuts, and other hardware	other comments
	Galvanized steel fitting with low leakage damper and no standoff	ga	n/a	ga	n/a	n/a	ga	
nper	Galvanized steel fitting with low leakage damper 2" standoff	ga	ga	ga	n/a	n/a	ga	
Low leakage damper	Aluminum fitting with low leakage damper and no standoff	al	n/a	ga	n/a	n/a	ga	
leaka	Aluminum fitting with low leakage damper and 2" standoff	al	ga	ga	n/a	n/a	ga	
Low	Stainless Steel fitting with low leakage damper and no standoff	ss	n/a	ga	n/a	n/a	ga	
	Stainless Steel fitting with low leakage damper and 2" standoff	ss	ga	ga	n/a	n/a	ga	
lware	Galvanized steel fitting with damper and no standoff	n/a	n/a	n/a	n/a	n/a	n/a	Fittings are not available with damper and no standoff.
r Harc	Galvanized steel fitting with damper and 2" standoff	22 Gauge	ga	nylon	steel	nylon	ga	
od Damper Hardware	Aluminum fitting with damper and no standoff	n/a	n/a	n/a	n/a	n/a	n/a	Fittings are not available with aluminum damper and no standoff.
Steel 3/8" Rod	Aluminum fitting with damper and 2" standoff	n/a	n/a	n/a	n/a	n/a	n/a	
Nylon & Stee	Stainless Steel fitting with damper and no standoff	n/a	n/a	n/a	n/a	n/a	n/a	Fittings are not available with stainless damper and no standoff.
ž 	Stainless Steel fitting with damper and 2" standoff	n/a	n/a	n/a	n/a	n/a	n/a	
re	Galvanized steel fitting with steel damper and no standoff	n/a	n/a	n/a	n/a	n/a	n/a	Fittings are not available with steel damper and no standoff.
ardwa	Galvanized steel fitting with steel damper and 2" standoff	22 Gauge	ga	ga	steel	nylon	ga	
Rod Damper Hardware	Aluminum fitting with steel damper and no standoff	n/a	n/a	n/a	n/a	n/a	n/a	Fittings are not available with steel damper and no standoff.
	Aluminum fitting with aluminum damper and 2" standoff	al	al	al	al	nylon	al	Additional lead time required.
Metal %"	Stainless Steel fitting with stainless damper and no standoff	n/a	n/a	n/a	n/a	n/a	n/a	Fittings are not available with stainless damper and no standoff.
	Stainless Steel fitting with damper and 2" standoff	SS	ss	ss	ss	nylon	SS	Additional lead time required.



Galvanized Sheet Thickness Tolerances

	Thick	ness In I	nches		We	ight		Thickn	ess In Mill	imeters
Gage	Min.	Max.	Nom.	Min Lb/Ft ²	Nom. Lb/Ft ²	Max. Lb/Ft²	Nom. Kg/M²	Min.	Max.	Nom.
33	.0060	.0120	.0090	.2409	.376	.486		.1524	.3048	.2286
32	.0104	.0164	.0134	.4204	.563	.665		.2642	.4166	.3404
31	.0112	.0172	.0142	.4531	.594	.698		.2845	.4369	.3607
30	.0127	.0187	.0157	.5143	.656	.759	.3.20	.3188	.4783	.3988
29	.0142	.020	.0172	.5755	.719	.820		.3569	.5169	.4369
28	.0157	.0217	.0187	.6367	.781	.881	3.81	.3950	.5550	.4750
27	.0172	.0232	.0202	.6879	.884	.943		.4331	.5931	.5131
26	.0187	.0247	.0217	.7591	.906	1.004	4.42	4.712	.6312	.5512
25	.0217	.0287	.0247	.8407		1.167		.5274	.7274	.6274
24	.0236	.0316	.0276	.9590	1.156	1.285	5.64	.6010	.8010	.7010
23	.0266	.0346	.0306	1.0814		1.408		6772	.8772	.7772
22	.0296	.0376	.0336	1.2038	1.406	1.530	6.86	.7534	.9534	.8534
21	.0326	.0406	.0336	1.3263		1.653		.8296	1.0296	.9296
20	.0356	.0436	.0396	1.4486	1.656	1.775	8.08	.906	1.106	1.006
19	.0406	.0506	.0456	1.6526		2.061		1.028	1.288	1.158
18	.0466	.0566	.0516	1.8974	2.156	2.305	10.52	1.181	1.441	1.311
17	.0525	.0625	.0575	2.1381		2.546		1.331	1.591	1.461
16	.0575	.0695	.0635	2.342	2.656	2.832	12.96	1.463	1.763	1.613
15	.0650	.0770	.0710	2.6481		3.138		1.653	1.953	1.803
14	.0705	.0865	.0785	2.8725	3.281	3.525	16.01	1.784	2.204	1.994
13	.0854	.1014	.0934	3.4804		4.133		2.162	2.5823	2.372
12	.0994	.1174	.1084	4.0516	4.531	4.786	22.11	2.523	2.983	2.753
11	.1143	.1323	.1233	4.6505		5.394		2.902	3.362	3.132
10	.1292	.1472	.1382	5.2675	5.781	6.002	28.21	3.280	3.740	3.510
9	.1442	.1622	.1532	5.8795		6.614		3.661	4.121	3.891
8	.1591	.1771	.1681	6.4874	6.875	7.222		4.040	4.500	4.270

NOTES:

These measurements are based on ASTM A924/924M-94, Standard Specification for General Requirements for Sheet Steel, Metallic Coated by the Hot-Dip Process (formerly ASTMA525); and ASTMA653/A653M-94, Standard Specification for Sheet Steel, Zinc-Coat (Galvanized) or Zinc-Iron Alloy Coated (Galvanized) by the Hot-Dip Process.

Continuous Sheet Galvanized Coating Specifications

English Measurement Total Both Sides		Metric Measurement Total Both Sides		Zinc Coating Thickness	
Designation	Oz/Ft²	Designation	G/M²	Thickness (mils)	Thickness (microns)
G30	0.30	Z90	90	0.27	6.90
G40	0.40	Z120	120	0.36	9.10
G60	0.60	Z180	180	0.54	13.7
G90	0.90	Z275	275	0.81	20.6
G100	1.00	Z300	300	0.90	23.0
G115	1.15	Z350	350	1.04	26.3
G140	1.40	Z450	450	1.26	32.0
G165	1.65	Z500	500	1.49	37.7
G185	1.85	Z550	550	1.67	42.3
G210	2.10	Z600	600	1.89	48.0
G235	2.35	Z700	700	2.12	53.7
G300	3.00	Z900	900	2.70	68.6
G360	3.60	Z1100	1100	3.24	82.3

