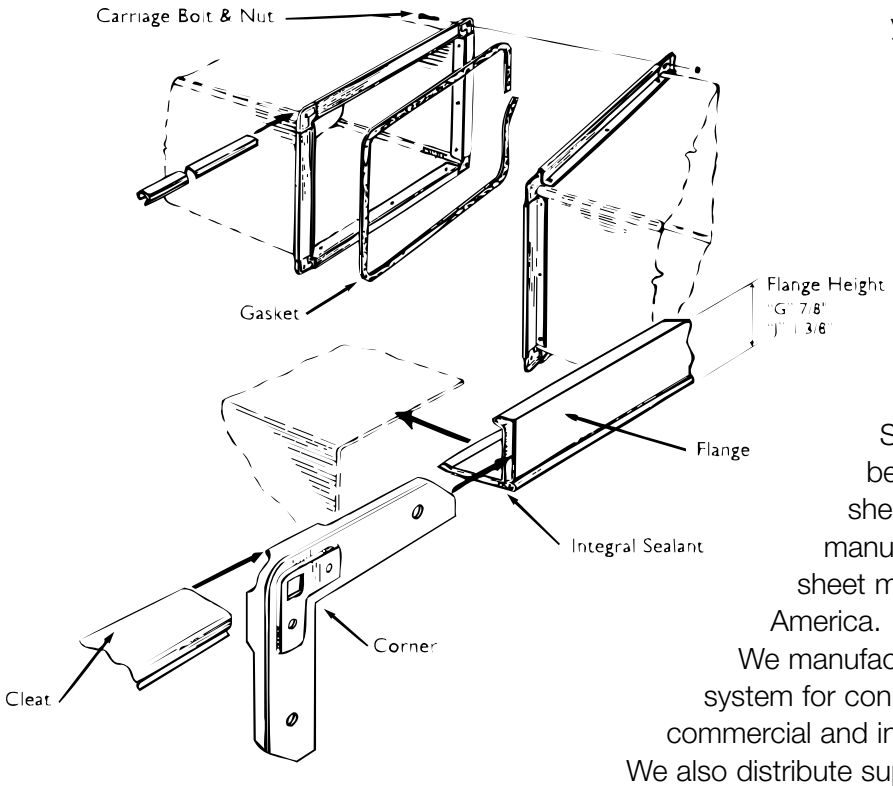
NEXUS FOUR BOLT FLANGE CONNECTION SYSTEM



Thank you for choosing NEXUS Four Bolt Flange Connection System for your HVAC product of choice. The NEXUS brand of HVAC products provides “Professional HVAC Performance” throughout the product line. NEXUS products are available to the contracting community through a network of wholesale distributors and OEM sheet metal manufacturers.

COMPANY HISTORY

Since 1978, NEXUS has been committed to serving the sheet metal industry. NEXUS manufactures and distributes quality sheet metal products throughout North America.

We manufacture a virtually leak-proof system for connecting rectangular duct in commercial and industrial applications.

We also distribute supplementary products such as doors, duct hangers and flange couplings.

Please feel free to contact us if you would like more information.

HOW TO ORDER NEXUS FOUR BOLT FLANGE CONNECTIONS YSTEM

Phone	(514) 639-1616
Toll free	1 (800) 544-5535
Fax	(514) 639-5252
Web site	www.nexuspdq.com
E-mail	dynair@ccw.carlisle.com
Mail	2100 Remembrance Lachine, QC H8S1X3

PRODUCT CATALOG

Note:
Pictures of products in this catalog are not to scale.

Auto Cad files, please contact:
email : fboudreau@ccw.carlisle.com
Tel. : 514-639-1616 ext: 205

Abbreviation	Product Description
SST	Stainless Steel

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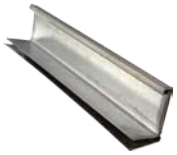
NEXUS FOUR BOLT FLANGE CONNECTION SYSTEM

	Part#	Product Description	Packaging	Weight	Page
	**J - FLANGE**				
	308255	J FLANGE	20 ft lengths, 3,000 ft/bundle	2,130 lbs	08
	308845	J FLANGE	20 ft lengths, 1,000 ft/bundle	710 lbs	08
	308846	J FLANGE	12 ft lengths, 600 ft/bundle	426 lbs	08
	J - FLANGE ALUMINUM				
	308847	J FLANGE ALUMINIUM	20 ft lengths, 1,000 ft/bundle	255 lbs	08
	308848	J FLANGE ALUMINIUM	12 ft lengths, 600 ft/bundle	153 lbs	08
	J - FLANGE STAINLESS STEEL				
	308885	J - FLANGE SST 316	20 ft lengths, 1,000 ft/bundle	710 lbs	08
	308884	J - FLANGE SST 304	20 ft lengths, 1,000 ft/bundle	710 lbs	08
	**G - FLANGE**				
	308257	G-FLANGE	20 ft lengths, 3,000 ft/bundle	1,530 lbs	09
	308849	G-FLANGE	20 ft lengths, 1,000 ft/bundle	510 lbs	09
	308850	G-FLANGE	12 ft lengths, 600 ft/bundle	306 lbs	09
	G - FLANGE ALUMINUM				
	308851	G FLANGE ALUMINIUM	20 ft lengths, 1,000 ft/bundle	170 lbs	09
	308852	G FLANGE ALUMINIUM	12 ft lengths, 600 ft/bundle	102 lbs	09
	**J - CORNERS**				
	308259	J CORNER	200 pcs / case	20 lbs	10
	308260	J CORNER ALUMINUM	200 pcs / case	13 lbs	10
	308887	J CORNER SST 316	50 pcs / case	5 lbs	10
	308886	J CORNER SST 304	50 pcs / case	20 lbs	10
	**G - CORNER**				
	308261	G CORNER	200 pcs / case	20 lbs	11
	308262	G CORNER ALUMINIUM	200 pcs / case	8 lbs	11
	**TDC - CORNERS**				
	308275	TDC CORNER	250 pcs/case	30 bls	12
	308277	TDC CORNER	4,000 pcs/drum	500 lbs	12

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PRODUCT SELECTION & IDENTIFICATION GUIDE

NEXUS FOUR BOLT FLANGE CONNECTION SYSTEM

	Part#	Product Description	Packaging	Weight	Page
	TDF - CORNNERS				
	308276	TDF CORNER	250 pcs/case	30 lbs	13
	308278	TDF CORNER	4,000 pcs/case	500 lbs	13
	CLEATS (FOR J,G, TDC & TDF FLANGE)				
	308323	CUT CLEAT PVC	500 pcs / case	11 lbs	14
	308263	CUT CLEATS	500 pcs/case	36 lbs	14
	308890	CUT CLEATS ALUMINUM	500 pcs/case	36 lbs	14
	308265	SNAP/DRIVE CLEATS	12.5 ft lengths, 500 ft/bundle	100 lbs	14
	308264	SNAP/DRIVE CLEATS ALUMINIUM	12.5 ft lengths, 500 ft/bundle	50 lbs	14
	308889	CLEATS - 316 STAINLESS STEEL	50 pcs/case	36 lbs	14
	308888	CLEATS - 304 STAINLESS STEEL	500 pcs/case	360 lbs	14
	GASKETS				
	308632	EPDM GASKET	1/4" x 5/8" x 50 ft - 20 rolls/case	15 lbs	15
	304607	NEOPRENE GASKET	1/4" x 3/4" x 25 ft - 16 rolls/case	6 lbs	15
	304271	BUTYL GASKET	3/16" x 5/8" x 25 ft - 20 rolls/case	25 lbs	15
	J NUTS & BOLTS				
	308267	J CARRIAGE BOLTS	500 pcs/case	23 lbs	16
	308268	J CARRIAGE BOLTS ALUMINUM	500 pcs/case	8 lbs	16
	308878	J CARRIAGE BOLTS PLASTIC	500 pcs/case	4 lbs	16
	308269	J NUTS	500 pcs/case	7 lbs	16
	308270	J NUTS ALUMINUM	500 pcs/case	3 lbs	16
	308877	J NUTS PLASTIC	500 pcs/case		16
	G NUTS & BOLTS				
	308271	G CARRIAGE BOLTS	1500 pcs/case	12 lbs	16
	308272	G CARRIAGE BOLTS	1500 pcs/case	4 lbs	16
	308879	G CARRIAGE BOLTS PLASTIC	1,500 pcs/case		16

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NEXUS FOUR BOLT FLANGE CONNECTION SYSTEM

	Part#	Product Description	Packaging	Weight	Page
	308273	G NUTS	1,500 pcs/case	5 lbs	16
	308274	G NUTS ALUMINUM	1,500 pcs/case	7 lbs	16
	308880	G NUTS PLASITC	1,500 pcs/case		16
	CIRCULAR DUCT HANGERS				
	308360	CIRCULAR DUCT HANGER BA 3 GALV	200 pcs / case	24 lbs	17
	308651	CIRCULAR DUCT HANGER BA 4 GALV	200 pcs / case	49 lbs	17
	CONDU-STUD 1/2"				18
	309803	CONDU-STUD 1/2”	250 EA		18
	NEXUS RECTANGULAR DUCT CONSTRUCTION MANUAL				19
	RECTANGULAR DUCT CONSTRUCTION				22
	FOUR BOLT DUCT CONNECTION SYSTEM INSTALLATION GUIDE				29

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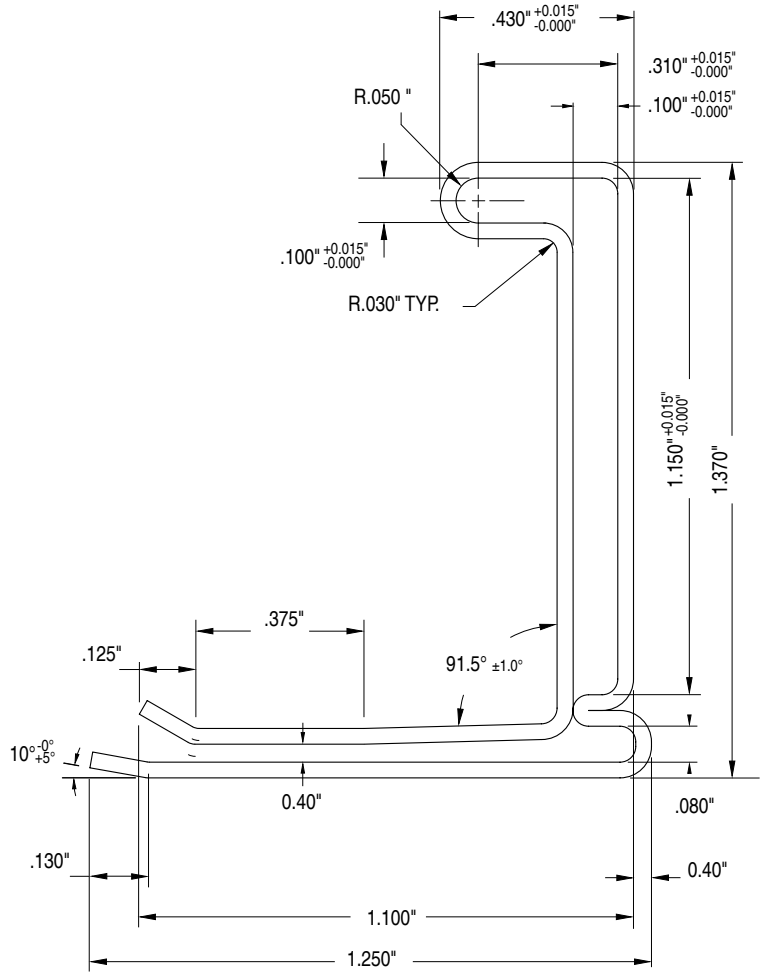
J FLANGE

Galvanized steel, hollow roll-formed section containing an integral sealant. The synthetic resin sealant has excellent adhesion to metal, is easy to work with, is non-flow to 180º F and retains its sealing properties indefinitely.

Part#	Product Description	Packaging	Weight
308255	J-FLANGE	20 ft lengths, 3,000 ft/bundle	2,130 lbs
308845	J-FLANGE	20 ft lengths, 1,000 ft/bundle	710 lbs
308846	J-FLANGE	12 ft lengths, 600ft/bundle	426 lbs
308847	J-FLANGE ALUMINIUM	20 ft lengths, 1,000 ft/bundle	255 lbs
308848	J-FLANGE ALUMINIUM	12 ft lengths, 600 ft/bundle	153 lbs
308885	J- FLANG SST 316	20 ft lengths, 1,000 ft/bundle	710 lbs
308884	J-FLANGE SST 304	20 ft lengths, 1,000 ft/bundle	170 lbs



- UNLESS OTHERWIESE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ARE:
  X+/- .030
  XX+/- 0.15 ANGLES+/- 5
- SCALE 3:2

NOTE: TOLERANCES IF NOT STATED ±.020"

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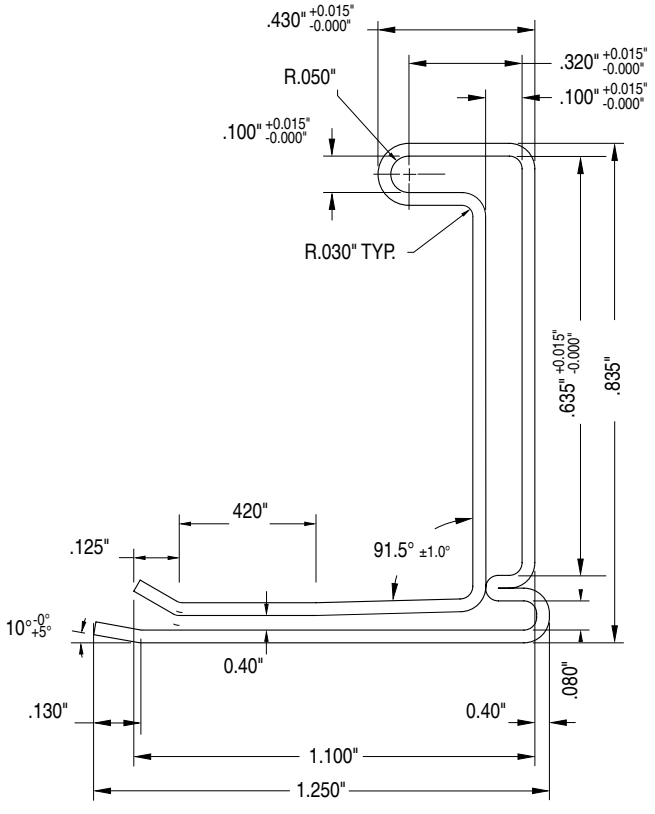
G FLANGE

Part#	Product Description	Packaging	Weight
308257	G-FLANGE	20 ft lengths, 3,000 ft/bundle	1,530 lbs
308849	G-FLANGE	20 ft lengths, 1,000 ft/bundle	510 lbs
308850	G-FLANGE	12 ft lengths, 600 ft/bundle	306 lbs
308851	G-FLANGE ALUMINIUM	20 ft lengths, 1,000 ft/bundle	170 lbs
308852	G-FLANGE ALUMINIUM	12 ft lengths, 600 ft/bundle	102 lbs



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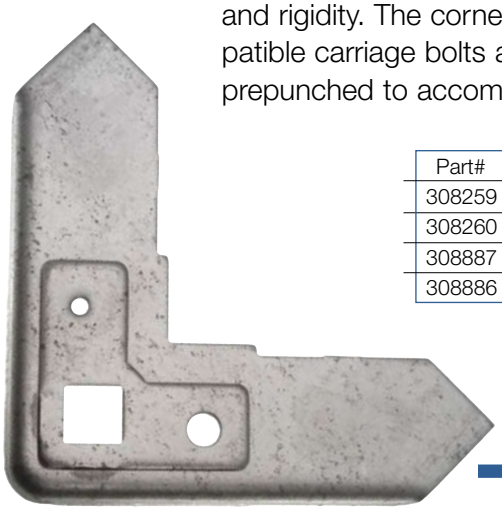
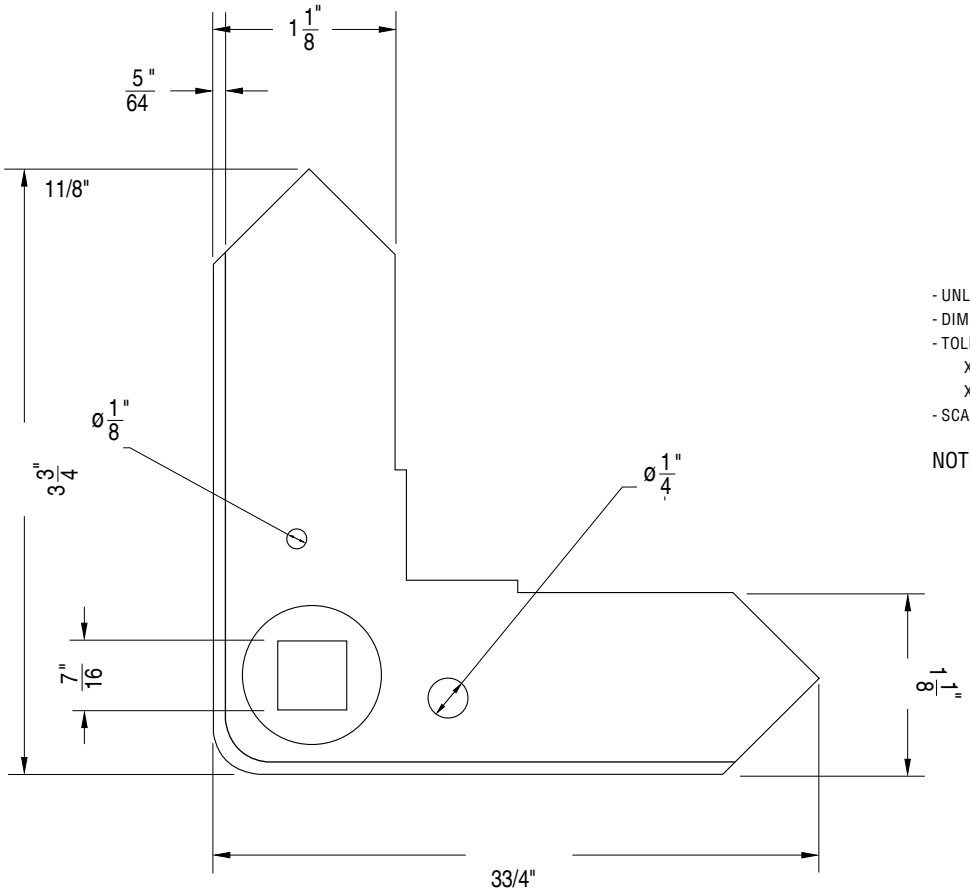
J CORNER

A galvanized steel CORNER that is flanged and embossed to provide strength and rigidity. The corner piece has a square bolt hole to accommodate compatible carriage bolts allowing field assembly with a single wrench. Corners are prepunched to accommodate #10 sheet metal screws.



Part#	Product Description	Packaging	Weight
308259	J CORNER	200 pcs / case	20 lbs
308260	J CORNER ALUMINUM	200 pcs / case	13 lbs
308887	J CORNER SST 316	50 pcs / case	5 lbs
308886	J CORNER SST 304	200 pcs / case	20 lbs



- UNLESS OTHERWIESE SPECIFIED
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- TOLERANCES ARE:
  X+/- .030
  XX+/- 0.15 ANGLES+/- 5
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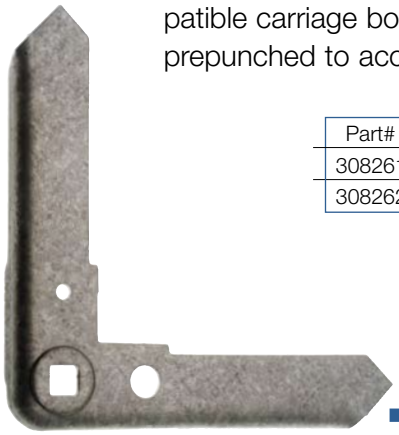
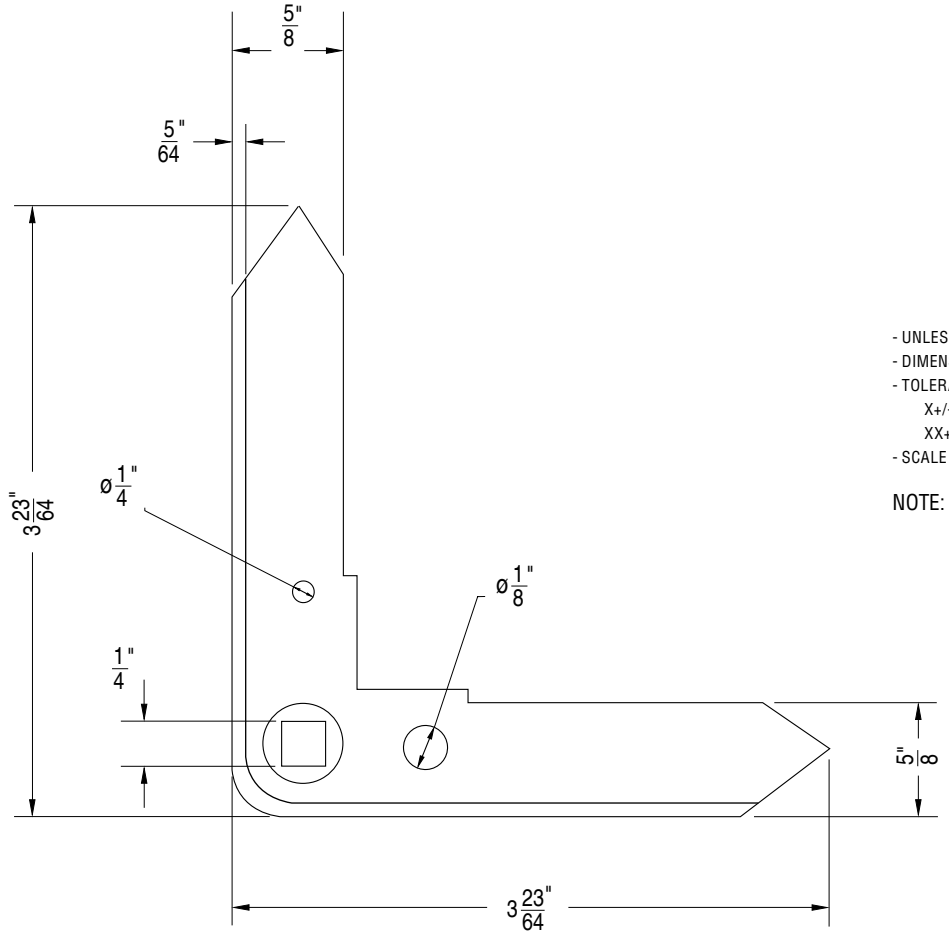
NOTE: TOLERANCES IF NOT STATED ±.020"

G CORNER

A galvanized steel CORNER that is flanged and embossed to provide strength and rigidity. The corner piece has a square bolt hole to accommodate compatible carriage bolts allowing field assembly with a single wrench. Corners are prepunched to accommodate #10 sheet metal screws.



Part#	Product Description	Packaging	Weight
308261	G CORNER	200 pcs / case	20 lbs
308262	G CORNER ALUMINUM	200 pcs / case	13 lbs



- UNLESS OTHERWIESE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ARE:
  X+/- .030
  XX+/- 0.15 ANGLES+/- 5
- SCALE 3:2

NOTE: TOLERANCES IF NOT STATED ±.020"

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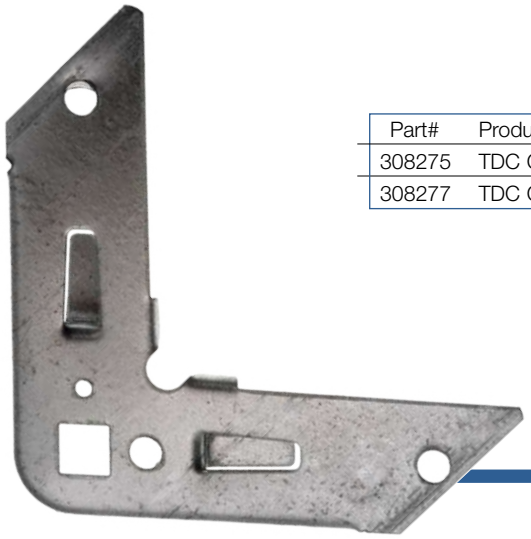
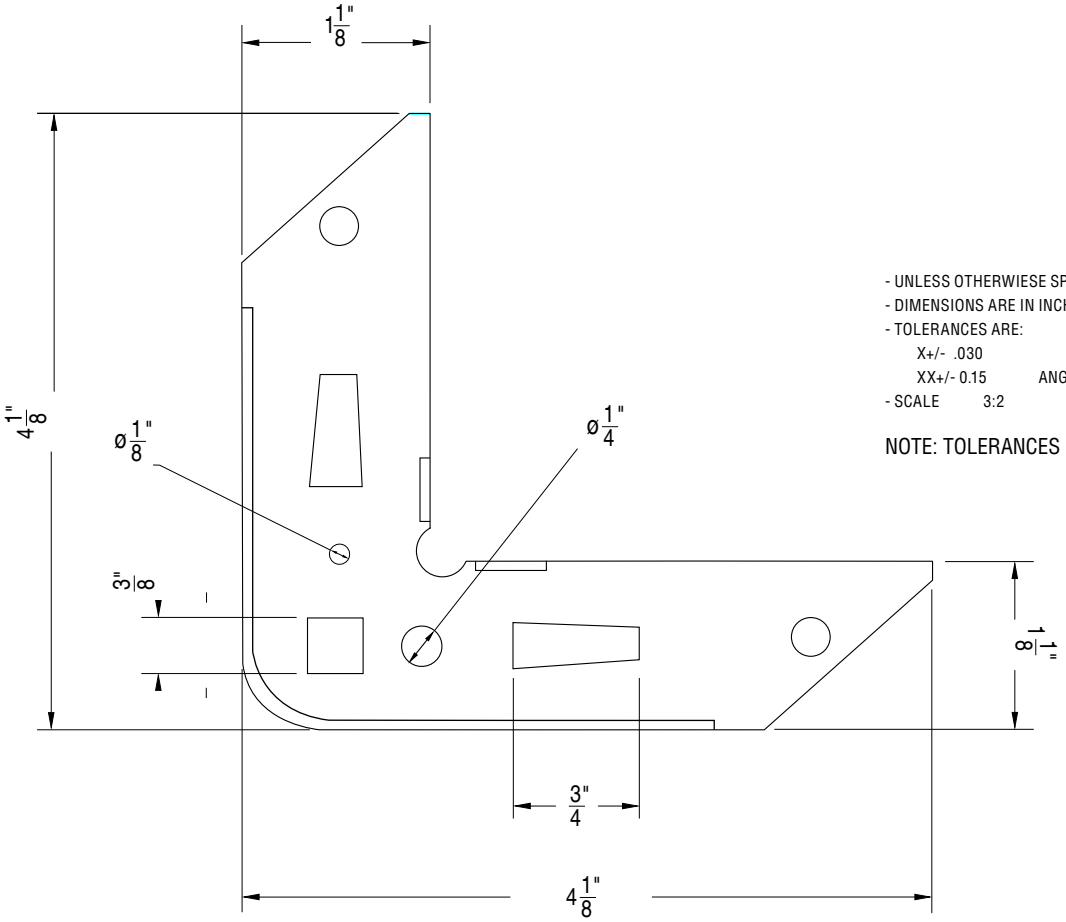
TDC CORNER



Part#	Product Description	Packaging	Weight
308275	TDC CORNER	250 pcs / case	31.25 lbs
308277	TDC CORNER	4,000 pcs / case	500 lbs



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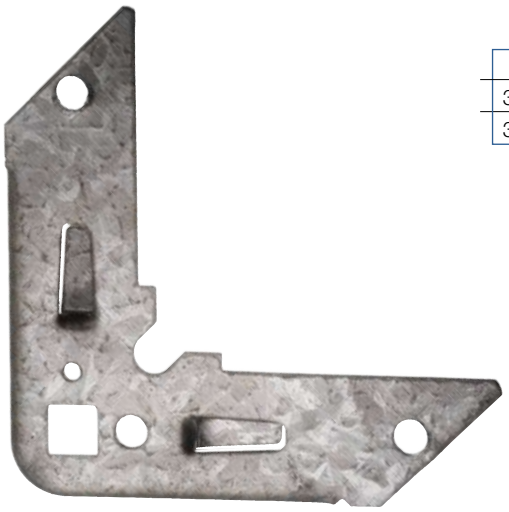
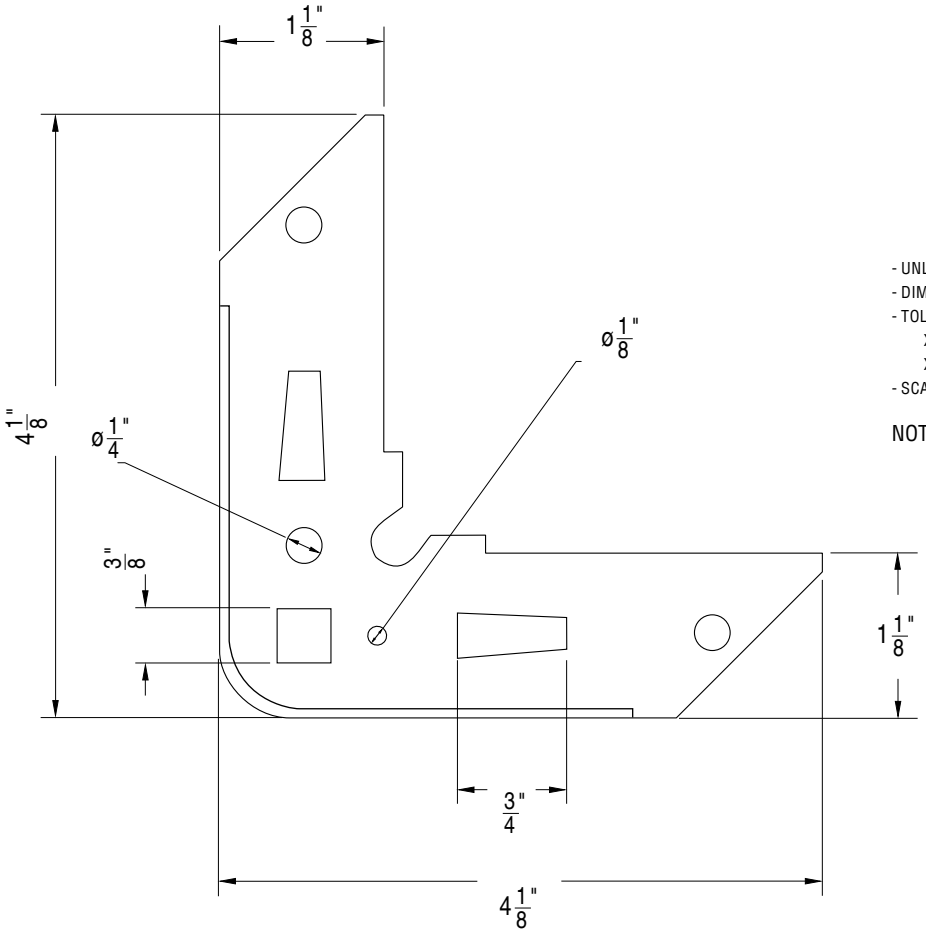
TDF CORNER



Part#	Product Description	Packaging	Weight
308276	TDF CORNER	250 pcs / case	30 lbs
308278	TDF CORNER	4,000 pcs / case	500lbs



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  XX+/- 0.15 ANGLES+/- 5
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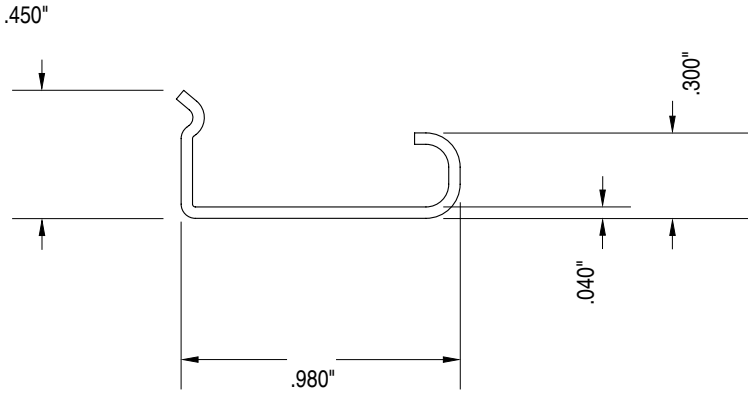
CLEATS

Part#	Product Description	Packaging	Weight
308323	CUT CLEATS PVC	500 pcs/case	36 lbs
308263	CUT CLEATS	500 pcs/case	36 lbs
308890	CUT CLEAT ALUMINUM	500 pcs/case	36 lbs
308265	SNAP/DRIVE CLEATS	12.5 ft lengths, 500 ft/bundle	100 lbs
308264	SNAP/DRIVE CLEATS ALUMINUM	12.5 ft lengths, 500 ft/bundle	50 lbs
308889	CLEATS - 316 STAINLESS STEEL	500 pcs/case	36 lbs
308888	CLEATS - 304 STAINLESS STEEL	500 pcs/case	360 lbs



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- TOLERANCES ARE:
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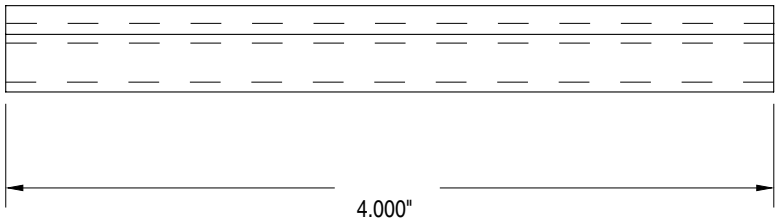

GASKETS

Part#	Product Description	Packaging	Weight
308632	EPDM Gasket	1/4" x 5/8" x 50 ft - 20 rolls.case	15 lbs

Part#	Product Description	Packaging	Weight
304607	NEOPRENE Gasket	1/4" x 3/4" x 25 ft - 16 rolls/case	6 lbs

Part#	Product Description	Packaging	Weight
304271	BUTYL Gasket	3/16" x 5/8" x 25 ft - 20 rolls/case	25 lbs

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J & G NUTS & BOLTS

Part#	Product Description	Packaging	Weight
308267	J CARRIAGE BOLTS	500 pcs/case	23 lbs
308268	J CARRIAGE BOLTS ALUMINUM	500 pcs/case	8 lbs
308878	J CARRIAGE BOLTS PLASTIC	500 pcs/case	

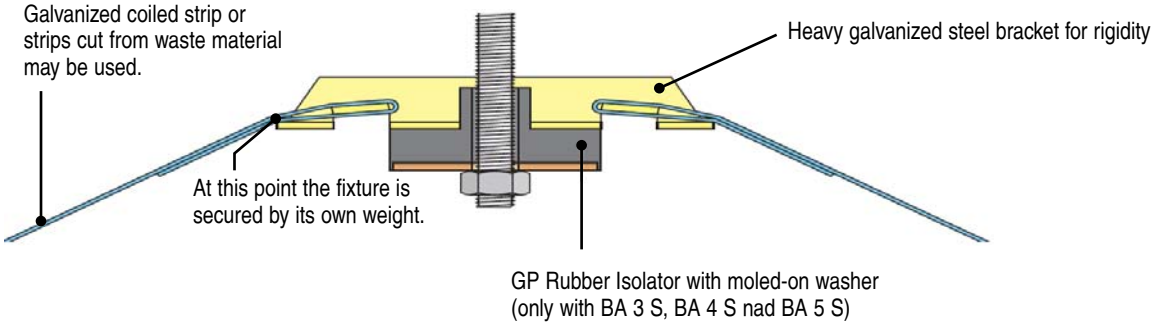
Part#	Product Description	Packaging	Weight
308269	J NUTS	500 pcs/case	7 lbs
308270	J NUTS ALUMINUM	500 pcs/case	3 lbs
308877	J NUTS PLASTIC	500 pcs/case	7 lbs

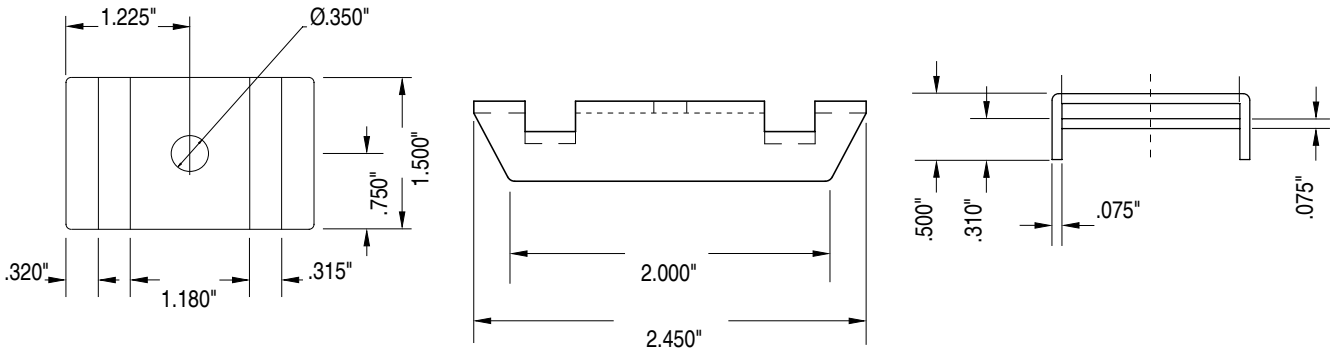
Part#	Product Description	Packaging	Weight
308271	G CARRIAGE BOLTS	1,500 pcs/case	12 lbs
308272	G CARRIAGE BOLTS	1,500 pcs/case	4 lbs
308279	G CARRIAGE BOLTS PLASTIC	1,500 pcs/case	7 lbs

Part#	Product Description	Packaging	Weight
308273	G NUTS	1,500 pcs/case	7 lbs
308274	G NUTS ALUMINUM	1,500 pcs/case	7 lbs
308880	G NUTS PLASTIC	1,500 pcs/case	7 lbs

CIRCULAR DUCT HANGERS

Part#	Product Description	Packaging	Weight
308360	CIRCULAR DUCT HANGER BA 3 GALV	20" x 16" x 43" - 1ea	0.25 lbs
308651	CIRCULAR DUCT HANGER BA 4 GALV	20" x 16" x 43" - 1ea	0.25 lbs

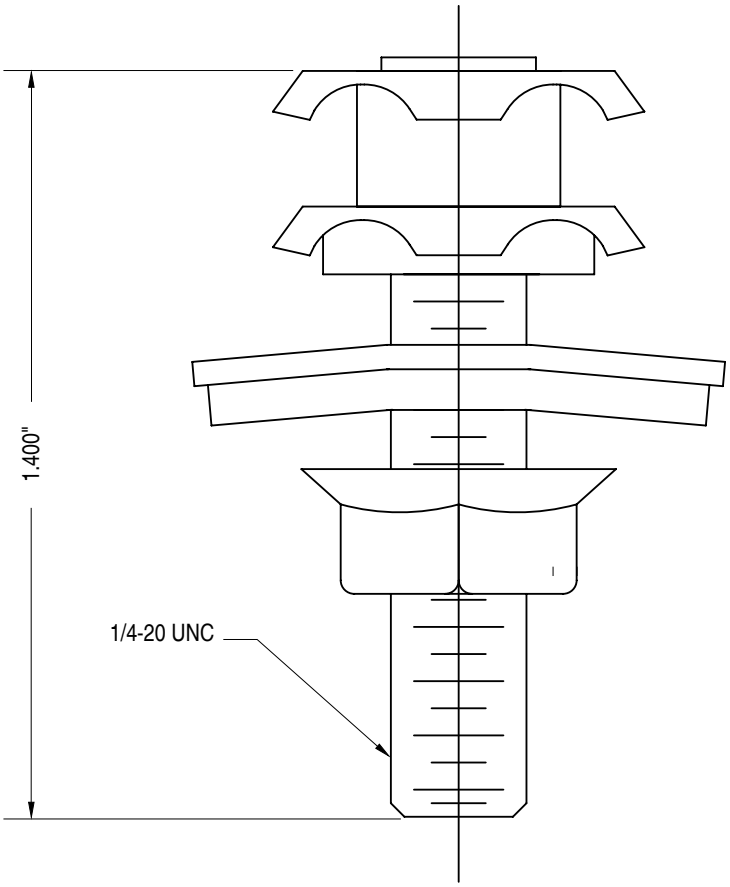




CONDU-STUD 1/2"

Part#	Product Description	Packaging	Weight
309803	CONDU-STUD 1/2"	250 ea	

- UNLESS OTHERWIESE SPECIFIED
- DIMENSIONS ARE IN INCHES
- TOLERANCES ARE:
  X+/- .030
  XX+/- 0.15 ANGLES+/- 5
  XXX+/-.005
- SCALE 2:1



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NEXUS RECTANGULAR DUCT CONSTRUCTION MANUAL

FOREWORD

The Duct Construction Standards Manual provided to the Sheet Metal Industry by SMACNA and ASHRAE is the most widely used construction guide for engineers and contractors. However, proprietary products such as the NEXUS 4 Bolt System represents advances in the construction of ductwork which are not included in the SMACNA/ASHRAE manuals. For that reason, this manual is prepared as a guideline to assist contractors and engineers in the construction of ductwork using the NEXUS products.

All construction details illustrated in this manual are prepared in accordance with the DuctConstruction Standards as required by SMACNA and ASHRAE.

RECTANGULAR DUCT CONSTRUCTION STANDARDS

Duct construction standards and limitations as specified in SMACNA's Low Medium and High Pressure Construction Standards Manuals are also published by ASHRAE. The construction tables shown in the SMACNA publications are construction guidelines, but are not limited to the techniques shown in that manual and they are not intended to limit new and improved construction.

However, all ductwork must conform to limitations in construction which forms the basis of the SMACNA manuals, and is also the basis on which the NEXUS Construction Manual is derived.

Some of the more important construction limitations are:

Maximum joint deflection .....0.250"
Maximum sheet de flection on duct over 24" wide .....0.750"
Maximum sheet deflection on duct 19" to 24" wide .....0.625"
Maximum sheet deflection on duct 13" to 18" wide.....0.500"
Maximum sheet deflection on duct up to 12" wide .....0.375"
Maximum duct stress ..... 24,000 psi

TEST DATA

Test data used to derive the construction tables in this manual were obtained in accordance to Chapter VII of the SMACNA HVAC Duct Construction Standards 1985 Edition, and includes all the necessary requirements during the testing procedures.

LIMITATIONS

The construction tables shown in this manual are based entirely on the NEXUS system and these tables should be limited to use of that system.

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NEXUS RECTANGULAR DUCT CONSTRUCTION MANUAL

HOW TO USE THIS MANUAL

hcG @ 5’	represents the NEXUS G flange installed at 5’ centers
hcJ @ 5’	represents the NEXUS J flange installed at 5’ centers
hcJ @ 5’ / H	represents the NEXUS J flange installed at 5’ centers with a SMACNA H stiffener equally spaced between joints
hcJ @ 5’ / 2H	represents the NEXUS J flange installed at 5’ centers with 2 SMACNA H stiffeners equally spaced
hcJ @ 4’*	represents the NEXUS J flange spaced at 4’ centers and supported with a tie rod at its mid-span
hcJ @ 4’ / H*	represents the NEXUS J flange spaced at 4’ centers with a tie rod at its mid-span and one SMACNA H stiffener located midway between the joints and supported by a tie rod at itsmidspan

When selecting the duct construction technique, we can refer to Table 4 as an example.

Given: 3" wg pressure class, 48" duct width
Construction alternatives are:

a)	hcJ @ 5’	when using 20 gauge duct metal
b)	hcJ @ 4’	4’ when using 22 gauge duct metal
c)	hcJ @ 5’ / E	5’ when using 24 gauge duct metal
d)	hcJ @ 4’ / E	4’ when using 26 gauge duct metal

As is clear, the lighter the duct metal thickness chosen, the shorter the joint spacing and the greater amount of stiffening required.

EQUIVALENTS

As a matter of practical consideration, some contractors who manufacture ductwork from 60" wide coils may prefer to construct all ductwork form one joint spacing (i.e. 5’). Therefore, it is necessary to show equivalent constructions where maximum joint spacings are limited to 4’. To this end the following equivalents may be used:

NEXUS RECTANGULAR DUCT CONSTRUCTION MANUAL

To this end the following equivalents may be used:

In situations where hcJ @ 4' is specified, $\frac{\text{hcJ @ 5'}}{\text{H}}$ is equivalent

In situations where $\frac{\text{hcJ @ 4'}}{\text{H}}$ is specified, $\frac{\text{hcJ @ 5'}}{\text{2H}}$ is equivalent

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RECTANGULAR DUCT CONSTRUCTION

1/2" W.G. STATIC POSITIVE	TABLE 1 RECTANGULAR DUCT CONSTRUCTION JOINT - nxG or nxJ / INTERMEDIATE REINF @ MAXIMUM SPACING					
DUCT SIZE	16 Ga (.0635")	18 Ga (.0516")	20 Ga (.0396")	22 Ga (.0336")	24 Ga (.0276")	26 Ga (.0217")
8" DN						
9" TO 10"						
11" TO 12"						
13" TO 14"						
15" TO 16"						
17" TO 18"						
19" TO 20"						
21" TO 22"						
23" TO 24"						
25" TO 26"						
27" TO 28"						
29" TO 30"						
31" TO 36"						nxG @ 10'
37" TO 42"						nxG @ 5'
43" TO 48"				nxG @ 10'	nxG @ 10'	nxG @ 5'
49" TO 54"				nxJ @ 10'	nxG @ 8'	nxG @ 5'
55" TO 60"			nxJ @ 10'	nxJ @ 10'	nxG @ 8'	nxG @ 5'
61" TO 72"			nxJ @ 5'	nxJ @ 5'	nxG @ 5'	nxG @ 4'
73" TO 84"			nxJ @ 5'	nxJ @ 5'	nxG @ 5'	
85" TO 96"		nxJ @ 5'	nxJ @ 5'	nxJ @ 4'	nxG @ 4'	
Over 96"		nxJ @ 5' *	nxJ @ 4' *			

RECTANGULAR DUCT CONSTRUCTION

1" W.G. STATIC POSITIVE	TABLE 2 RECTANGULAR DUCT CONSTRUCTION JOINT - nxG or nxJ / INTERMEDIATE REINF @ MAXIMUM SPACING					
DUCT SIZE	16 Ga (.0635")	18 Ga (.0516")	20 Ga (.0396")	22 Ga (.0336")	24 Ga (.0276")	26 Ga (.0217")
8" DN	↑	↑	↑	↑	↑	↑
9" TO 10"	↑	↑	↑	↑	↑	↑
11" TO 12"	↑	↑	↑	↑	↑	↑
13" TO 14"	↑	↑	↑	↑	↑	nxG @ 10'
15" TO 16"	↑	↑	↑	↑	↑	nxG @ 8'
17" TO 18"	↑	↑	↑	↑	↑	nxG @ 8'
19" TO 20"	↑	↑	↑	↑	↑	nxG @ 8'
21" TO 22"	↑	↑	↑	↑	↑	nxG @ 5'
23" TO 24"	↑	↑	↑	↑	nxG @ 10'	nxG @ 5'
25" TO 26"	↑	↑	↑	↑	nxG @ 8'	nxG @ 5'
27" TO 28"	↑	↑	↑	↑	nxG @ 8'	nxG @ 5'
29" TO 30"	↑	↑	↑	nxG @ 10'	nxG @ 8'	nxG @ 5'
31" TO 36"	↑	↑	nxG @ 10'	nxG @ 8'	nxG@ 5'	nxG @ 5'
37" TO 42"	↑	↑	nxG @ 8'	nxG @ 5'	nxG @ 5'	nxG @ 4'
43" TO 48"	nxJ @ 10'	nxJ @ 8'	nxG @ 5'	nxG @ 5'	nxJ @ 5'	nxJ @ 4'
49" TO 54"	nxJ @ 5'	nxJ @ 5'	nxJ @ 5'	nxJ @ 5'	nxJ @ 4'	nxJ @ 4'
55" TO 60"	nxJ @ 5'	nxJ @ 5'	nxJ @ 5'	nxJ @ 5'	nxJ @ 4'	nxJ @ 4'
61" TO 72"	nxJ @ 5'	nxJ @ 5'	nxJ @ 5'	nxJ @ 5'	nxJ @ 4'	nxJ @ 5' / 2 H
73" TO 84"	nxJ @ 5'	nxJ @ 5'	nxJ @ 4'	nxJ @ 5' / H	nxJ @ 5' / 2 H	nxJ @ 5' / 2 H
85" TO 96"	nxJ @ 5' *	nxJ @ 4' *	nxJ @ 5' / 2 H	nxJ @ 4' / 2H	nxJ @ 4' / 2 H	nxJ @ 4' / 2 H
Over 96"	nxJ @ 5' *	nxJ @ 4' *	nxJ @ 5' * / 2 H *			

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RECTANGULAR DUCT CONSTRUCTION

2" W.G.

STATIC

POSITIVE

TABLE 3

RECTANGULAR DUCT CONSTRUCTION

JOINT - nxG or nxJ / INTERMEDIATE REINF @ MAXIMUM SPACING

DUCT SIZE	16 Ga (.0635")	18 Ga (.0516")	20 Ga (.0396")	22 Ga (.0336")	24 Ga (.0276")	26 Ga (.0217")
8" DN						nxG @ 8'
9" TO 10"						nxG @ 8'
11" TO 12"						nxG @ 5'
13" TO 14"						nxG @ 5'
15" TO 16"						nxG @ 5'
17" TO 18"				nxG @ 10'	nxG @ 8'	nxG @ 5'
19" TO 20"				nxG @ 8'	nxG @ 5'	nxG @ 5'
21" TO 22"				nxG @ 8'	nxG @ 5'	nxG @ 5'
23" TO 24"				nxG @ 8'	nxG @ 5'	nxG @ 5'
25" TO 26"			nxG @ 10'	nxG @ 8'	nxG @ 5'	nxG @ 5'
27" TO 28"			nxG @ 8'	nxG @ 5'	nxG @ 5'	nxG @ 4'
29" TO 30"			nxG @ 8'	nxG @ 5'	nxG @ 5'	nxG @ 4'
31" TO 36"			nxG @ 5'	nxG @ 5'	nxG @ 4'	nxG @ 5' / C
37" TO 42"			nxG @ 5'	nxG @ 5'	nxG @ 4'	nxG @ 5' / E
43" TO 48"			nxG @ 4'	nxG @ 4'	nxJ @ 5'	nxG @ 5' / E
49" TO 54"			nxJ @ 5'	nxG @ 4'	nxJ @ 4'	nxJ @ 5' / F
55" TO 60"		nxJ @ 5' *	nxJ @ 5'	nxG @ 4'	nxJ @ 4'	nxJ @ 5' / G
61" TO 72"	nxJ @ 5'	nxJ @ 4' *	nxJ @ 5' * / H	nxJ @ 5' / H	nxG @ 5' / E	nxJ @ 4' / H
73" TO 84"	nxJ @ 5' *	nxJ @ 5' *	nxJ @ 4' *	nxJ @ 4' / H		
85" TO 96"	nxJ @ 5' * / G *	nxJ @ 5' * / G *	nxJ @ 5' * / G *	nxJ @ 4' * / 2 H *		
Over 96"	nxJ @ 5' * / H *	nxJ @ 5' * / H *	nxJ @ 5' * / 2 H *	nxJ @ 4' * / 2 H *		

RECTANGULAR DUCT CONSTRUCTION

3" W.G. STATIC POSITIVE	TABLE 4 RECTANGULAR DUCT CONSTRUCTION JOINT - nxG or nxJ / INTERMEDIATE REINF @ MAXIMUM SPACING					
DUCT SIZE	16 Ga (.0635")	18 Ga (.0516")	20 Ga (.0396")	22 Ga (.0336")	24 Ga (.0276")	26 Ga (.0217")
8" DN					nxG @ 5’	nxG @ 4’
9" TO 10"					nxG @ 5’	nxG @ 4’
11" TO 12"					nxG @ 5’	nxG @ 4’
13" TO 14"					nxG @ 5’	nxG @ 4’
15" TO 16"					nxG @ 5’	nxG @ 4’
17" TO 18"				nxG @ 8’	nxG @ 5’	nxG @ 4’
19" TO 20"				nxG @ 5’	nxG @ 5’	nxG @ 4’
21" TO 22"			nxG @ 8’	nxG @ 5’	nxG @ 5’	nxG @ 4’
23" TO 24"			nxG @ 5’	nxG @ 5’	nxG @ 5’	nxG @ 4’
25" TO 26"			nxG @ 5’	nxG @ 5’	nxG @ 5’	nxG @ 4’
27" TO 28"			nxG @ 5’	nxG @ 5’	nxG @ 4’	nxG @ 4’
29" TO 30"			nxG @ 5’	nxG @ 5’	nxG @ 4’	nxJ @ 4’ E
31" TO 36"			nxG @ 5’	nxG @ 5’	nxG @ 4’	nxJ @ 4’ E
37" TO 42"			nxG @ 5’	nxG @ 4’	nxG @ 5’ E	nxJ @ 4’ E
43" TO 48"			nxJ @ 5’	nxJ @ 4’	nxJ @ 5’ E	nxJ @ 4’ E
49" TO 54"			nxJ @ 4’	nxJ @ 4’	nxJ @ 5’ E	nxJ @ 4’ E
55" TO 60"	nxJ @ 5’	nxJ @ 5’	nxJ @ 4’	nxJ @ 5’ G	nxJ @ 5’ G	nxJ @ 4’ E
61" TO 72"	nxJ @ 4’	nxJ @ 5’ * H *	nxJ @ 5’ H	nxJ @ 5’ H	nxG @ 4’ H	
73" TO 84"	nxJ @ 5’ 2H	nxJ @ 5’ 2H	nxJ @ 5’ 2H	nxJ @ 4’ 2H		
85" TO 96"	nxJ @ 5’ * G *	nxJ @ 5’ * G *	nxJ @ 4’ * 2H *			
Over 96"	nxJ @ 5’ * H *	nxJ @ 5’ * H *	nxJ @ 4’ * 2H *			

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RECTANGULAR DUCT CONSTRUCTION

4" W.G. STATIC POSITIVE	TABLE 5 RECTANGULAR DUCT CONSTRUCTION JOINT - nxG or nxJ / INTERMEDIATE REINF @ MAXIMUM SPACING					
DUCT SIZE	16 Ga (.0635")	18 Ga (.0516")	20 Ga (.0396")	22 Ga (.0336")	24 Ga (.0276")	26 Ga (.0217")
8" DN	↑	↑	↑	↑	↑	↑
9" TO 10"	↑	↑	↑	↑	↑	↑
11" TO 12"	↑	↑	↑	↑	↑	↑
13" TO 14"	↑	↑	↑	nxG @ 8'	↑	↑
15" TO 16"	↑	↑	nxG @ 10'	nxG @ 5'	↑	nxG @ 4'
17" TO 18"	↑	↑	nxG @ 8'	nxG @ 5'	↑	nxG @ 4'
19" TO 20"	↑	↑	nxG @ 8'	nxG @ 5'	nxG @ 5'	nxG @ 4'
21" TO 22"	↑	↑	nxG @ 5'	nxG @ 5'	nxG @ 4'	nxG @ 4'
23" TO 24"	↑	↑	nxG @ 5'	nxG @ 5'	nxG @ 4'	nxG @ 4'
25" TO 26"	↑	↑	nxG @ 5'	nxG @ 5'	nxG @ 4'	nxG @ 4'
27" TO 28"	↑	↑	nxG @ 5'	nxG @ 5'	nxG @ 4'	nxG @ 5' / D
29" TO 30"	↑	↑	nxG @ 5'	nxG @ 5'	nxG @ 4'	nxG @ 5' / D
31" TO 36"	↑	↑	nxG @ 5'	nxG @ 5'	nxG @ 5' / D	nxG @ 5' / E
37" TO 42"	↑	↑	nxJ @ 5'	nxJ @ 4'	nxG @ 5' / D	nxG @ 5' / E
43" TO 48"	↑	nxJ @ 5'	nxJ @ 4'	nxJ @ 4'	nxJ @ 5' / F	hcG @ 4' / E
49" TO 54"	↑	nxJ @ 4'	nxJ @ 4'	nxJ @ 5' / G	nxJ @ 5' / G	nxJ @ 4' / F
55" TO 60"	nxJ @ 5'	nxJ @ 4'	nxJ @ 5' / G	nxJ @ 5' / G	nxJ @ 5' / G	nxJ @ 4' / G
61" TO 72"	nxJ @ 5' / H	nxJ @ 5' / H	nxJ @ 5' / H	nxJ @ 4' / H		
73" TO 84"	nxJ @ 5' / 2H	nxJ @ 5' / 2H	nxJ @ 4' / 2H			
85" TO 96"	nxJ @ 5' * / H *	nxJ @ 5' * / H *	nxJ @ 5' * / H *			
Over 96"	nxJ @ 5' * / 2H *	nxJ @ 5' * / 2H *	nxJ @ 5' * / 2H *			

RECTANGULAR DUCT CONSTRUCTION

6" W.G. STATIC POSITIVE	TABLE 6 RECTANGULAR DUCT CONSTRUCTION JOINT - hcG or hcJ / INTERMEDIATE REINF @ MAXIMUM SPACING					
DUCT SIZE	16 Ga (.0635")	18 Ga (.0516")	20 Ga (.0396")	22 Ga (.0336")	24 Ga (.0276")	26 Ga (.0217")
8" DN					nxG @ 5’	
9" TO 10"					nxG @ 5’	
11" TO 12"			nxG @ 10’		nxG @ 5’	
13" TO 14"			nxG @ 8’		nxG @ 4’	
15" TO 16"			nxG @ 5’		nxG @ 4’	
17" TO 18"			nxG @ 5’		nxG @ 4’	
19" TO 20"			nxG @ 5’		nxG @ 4’	
21" TO 22"			nxG @ 5’		nxG @ 4’	
23" TO 24"			nxG @ 5’		nxG @ 4’	
25" TO 26"			nxG @ 5’		nxG @ 4’	
27" TO 28"			nxG @ 5’		nxG @ 4’	
29" TO 30"			nxG @ 5’	nxG @ 5’	nxG @ 4’	
31" TO 36"			nxG @ 5’	nxJ @ 4’	nxG @ 5’ / G	
37" TO 42"		nxJ @ 5’	nxJ @ 4’	nxJ @ 4’	nxJ @ 5’ / G	
43" TO 48"		nxJ @ 5’	nxJ @ 4’	nxJ @ 4’	nxJ @ 5’ / H	
49" TO 54"	nxJ @ 5’	nxJ @ 4’	nxJ @ 5’ / H	nxJ @ 5’ / H	nxJ @ 4’ / H	
55" TO 60"	nxJ @ 4’	nxJ @ 5’ / H	nxJ @ 5’ / H	nxJ @ 5’ / H	nxJ @ 4’ / H	
61" TO 72"	nxJ @ 5’ / H	nxJ @ 5’ / H	nxJ @ 4’ * / 2H *			
73" TO 84"	nxJ @ 5’ *	nxJ @ 5’ *	nxJ @ 4’ *			
85" TO 96"	nxJ @ 5’ *	nxJ @ 4’ *	nxJ @ 4’ *			
Over 96"	nxJ @ 5’ * / 2H *	nxJ @ 5’ * / 2H *	nxJ @ 4’ * / 2H *			

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RECTANGULAR DUCT CONSTRUCTION

10" W.G.

STATIC

POSITIVE

TABLE 7

RECTANGULAR DUCT CONSTRUCTION

JOINT - hcG or hcJ / INTERMEDIATE REINF @ MAXIMUM SPACING

DUCT SIZE	16 Ga (.0635")	18 Ga (.0516")	20 Ga (.0396")	22 Ga (.0336")	24 Ga (.0276")	26 Ga (.0217")
8" DN					nxG @ 5'	
9" TO 10"					nxG @ 4'	
11" TO 12"				nxG @ 5'	nxG @ 4'	
13" TO 14"				nxG @ 4'	nxG @ 5' / A	
15" TO 16"				nxG @ 4'	nxG @ 5' / A	
17" TO 18"				nxG @ 4'	nxG @ 5' / B	
19" TO 20"				nxG @ 4'	nxG @ 5' / B	
21" TO 22"				nxG @ 4'	nxG @ 5' / C	
23" TO 24"				nxG @ 4'	nxG @ 5' / C	
25" TO 26"				nxG @ 4'	nxG @ 5' / C	
27" TO 28"				nxJ @ 4'	nxG @ 5' / D	
29" TO 30"			nxG @ 5'	nxJ @ 4'	nxG @ 5' / D	
31" TO 36"		nxJ @ 5'	nxJ @ 4'	nxJ @ 4'	nxJ @ 5' / E	
37" TO 42"	nxJ @ 5'	nxJ @ 4'	nxJ @ 4'	nxJ @ 5' / G	nxJ @ 4' / F	
43" TO 48"	nxJ @ 5'	nxJ @ 4'	nxJ @ 4'	nxJ @ 5' / H	nxJ @ 4' / G	
49" TO 54"	nxJ @ 5'	nxJ @ 5' / H	nxJ @ 4' / H	nxJ @ 4' * / 2H *		
55" TO 60"	nxJ @ 5' / 2H	nxJ @ 5' / 2H	nxJ @ 4' / 2H	nxJ @ 5' * / G		
61" TO 72"	nxJ @ 4' *	nxJ @ 4' *	nxJ @ 4' *	nxJ @ 5' * / G *		
73" TO 84"	nxJ @ 4' *	nxJ @ 4' *	nxJ @ 5' * / H *	nxJ @ 5' / H *		
85" TO 96"	nxJ @ 5' * / H *	nxJ @ 5' * / H *	nxJ @ 4' * / H *			
Over 96"	nxJ @ 5' * / 2H *	nxJ @ 5' * / 2H	nxJ @ 4' * / 2H *			

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FOUR BOLT DUCT CONNECTION SYSTEM INSTALLATION GUIDE

INSTALLATION INSTRUCTIONS

1. Prepare the duct – raw edge, no notches. On transitions etc. a 1 1/2" flatarea must be provided on the ends to attach the flange.

2. Cut the "J" flange 1 3/8" shorter than the duct measurement.Cut the "G" flange 1 1/4" shorter than the duct measurement.

3. Form a frame by inserting 4 corner pieces in hollow ends of the flange.

4. Place frame on the duct. Tap with mallet to ensure duct edge isembedded in integral sealant and duct edges protrude past the cornerpieces. (See Figure 1)

5. Use clamps to ensure that the frame remains in place.

6. Secure frame to duct. Spot welding or dimpling is recommended. If othermethods are used, e.g. screws, pop rivets, etc., apply sealant to thefastener on the inside of the duct. Secure as follows:
   Low Pressure 18" – 24" Centers
   Medium Pressure 9" – 12" Centers
   High Pressure 6" – 09" Centers
   The flanges must be secure to the duct within 3/4" of the end ofthe flange.

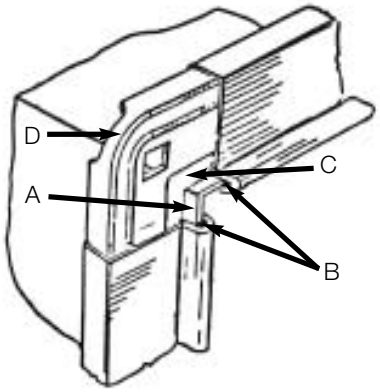
7. Apply gasket. (To reduce damage, apply gasket in the field.)(See Figure 2)

8. Bolt sections of duct together using the special carriage bolts supplied.Only 4 bolts are required regardless of duct size. Alternately, cornersmay be joined using two #10 sheet metal screws through holes provided.

9. Apply the snap/drive cleat as follows:
   Low Pressure 4" – 6" Clips – 18 – 24" Centers
   Medium Pressure 4" – 6" Clips – 12 – 18" Centers
   High Pressure 4" – 6" Clips – 12" Centers or Continuous

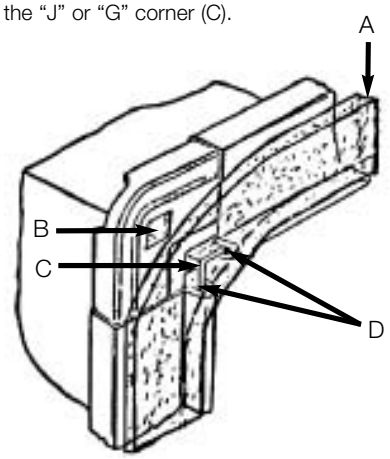
Note: The NEXUS Four Bolt Duct Connection System will provide avirtually leak-free joint when duct construction and sealing practices complywith either SMACNA or ASHRAE Standards.

Figure 1 INTERGRAL SEALANT



In order to obtain a seal along the length of the flange, the raw edge duct (A) must be imbedded in the integral sealant (B) and the duct edge (A) must project past the corner piece (D). This projection should be about 1/10". If for any reason this projection is less than 1/10", a bead of sealant should be applied in the pocket or recessed edge of the "J" or "G" corner (C).

Figure 2 GASKET



To ensure that the system is air-tight, a closed-cell gasket (A), with the exception of the corners, should be applied approximately in the center of the flange width. At the corners, the gasket (A) should be curved so as to avoid blocking the bolt hole (B) and it should cut across the flange ends (D) about 1/4" back from these ends. The gasket should completely cover the duct edge (C) allowing the edge to become imbedded in the gasket when

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