

SHEET METAL SCREWS REQUIRED FOR DUCT RESTRAINT

Table A3.4-1; Horizontal Seismic Force Class System Designations

Horizontal Force Class	Horizontal Seismic Force Range per Force Class (lbs)
I	$0 \leq F_P \leq 250$
II	$250 < F_P \leq 500$
III	$500 < F_P \leq 1,000$
IV	$1,000 < F_P \leq 2,000$
V	$2,000 < F_P \leq 5,000$
VI	$5,000 < F_P \leq 10,000$

Table A3.4-2; Sheet Metal Screws Required for Seismic Attachment for 28 Gage Steel Ducts

Screw Size (Nom. Dia.)	#6 (0.138")		#8 (0.164")		#10 (0.190")		#12 (0.216")	
	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd
I	112	4	123	4	133	4	140	4
II		5		5		4		4
III		9		9		8		8
IV		18		17		16		15
V		45		41		38		36
VI		90		82		76		72

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Toll Free (USA Only): 800-959-1229
 International: 614-889-0480
 FAX: 614-889-0540
 World Wide Web: www.kineticsnoise.com
 E-mail: sales@kineticsnoise.com



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Table A3.4-3; Sheet Metal Screws Required for Seismic Attachment for 22 Gage Steel Ducts

Screw Size (Nom. Dia.)	#6 (0.138")		#8 (0.164")		#10 (0.190")		#12 (0.216")	
Horizontal Force Class	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd
I	207	4	225	4	245	4	259	4
II		4		4		4		
III		5		5		5		
IV		10		9		9		
V		25		23		21		
VI		49		45		41		

Table A3.4-4; Sheet Metal Screws Required for Seismic Attachment for 20 Gage Steel Ducts

Screw Size (Nom. Dia.)	#6 (0.138")		#8 (0.164")		#10 (0.190")		#12 (0.216")	
Horizontal Force Class	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd
I	281	4	307	4	330	4	351	4
II		4		4		4		
III		4		4		4		
IV		8		7		7		
V		18		17		16		
VI		36		33		31		

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Table A3.4-5; Sheet Metal Screws Required for Seismic Attachment for 18 Gage Steel Ducts

Screw Size (Nom. Dia.)	#6 (0.138")		#8 (0.164")		#10 (0.190")		#12 (0.216")	
Horizontal Force Class	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd
I	419	4	455	4	491	4	522	4
II		4		4		4		
III		4		4		4		
IV		5		5		5		
V		12		11		11		
VI		24		22		21		

Table A3.4-6; Sheet Metal Screws Required for Seismic Attachment for 16 Gage Steel Ducts

Screw Size (Nom. Dia.)	#6 (0.138")		#8 (0.164")		#10 (0.190")		#12 (0.216")	
Horizontal Force Class	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd	Allow. Shear (LRFD) (lbs)	Min. Screws Req'd
I	588	4	643	4	690	4	735	4
II		4		4		4		
III		4		4		4		
IV		4		4		4		
V		9		8		8		
VI		18		16		15		

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