

# ENGINEERING COMMUNIQUÉ

JAY R. SMITH MFG. CO.® ♦ JUNE, 2014 ♦ VOLUME 4-ISSUE 4



From: **THE SMITH ENGINEERING GROUP**

**SUBJECT: Americans with Disabilities Act**

Some questions have recently surfaced regarding the ADA and requirements for floor drain grates.

Gratings can pose a hazard by catching or entrapping the tips of crutches and walkers or the narrow wheels of a wheelchair. The spacing between grate openings and orientation of travel can reduce these risks.

The definition of an ADA compliant grate is shown on page 105, Section 3 (Paragraph 302.3) and Section 4.5.4 of 2010 ADA Standards for Accessible Design. Drains that are located in walking surfaces or along accessible routes must have grate openings no greater than 1/2" (13 mm) in one direction. If the grate openings are elongated, then the openings must be oriented so that the long dimension is perpendicular to the dominant direction of travel.

The size of the square hole grate openings is not addressed. Consequently, locating the long dimension of slotted grates perpendicular is the only specified requirement. A heel proof grate (a grate that has openings of 1/4" to 5/16") can be considered an ADA compliant grate as the size of the opening is less than one half inch. These requirements apply to gratings located in any walking surface, including courtyards and plazas, not just those on accessible routes. Care must be exercised by the design engineer to actually indicate the direction of the grate and the installing contractor to install in the correct direction. Some of the round grates can be rotated to be perpendicular to the traffic flow but many cannot because of the positioning of the grate in the frame. Square slotted grates must be installed correctly the first time.

Many of these drains are available with a square hole grate pattern, which is an advantage since our competitors do not offer as many.

Attached you will find a list of Jay R. Smith grates indicating hole opening size in grate. This list shows those that are in compliance with the ADA guidelines.



## **FISH SCALE INTERCEPTOR SQ-8-1164:**

Recently, we received an inquiry regarding a fish scale interceptor. We have offered this unit for a while and supplied many times for a food store chain on the East Coast. It is still available

It is 15" high and the body is 11-7/8" square. The top assembly is 13-3/8" square and is intended for floor mount or semi-recessed installations only.

It is furnished in White Duco Coated fabricated steel with a stainless steel removable perforated bucket. The bucket will hold approximately five gallons of scales and other debris.

A clearance of a minimum of 15" must be allowed above the unit for bucket removal.

Please see the submittal attached.

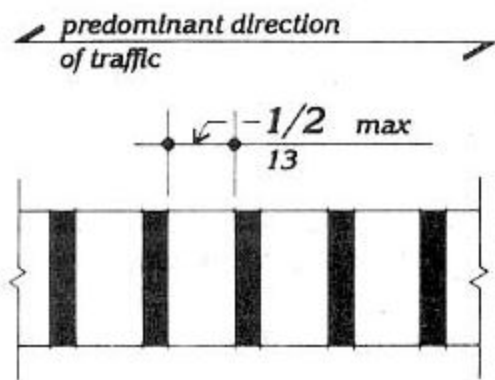
Hopefully, this will assist you in dealing with any questions presented by the ADA inspectors.

Beth Willis, SSE



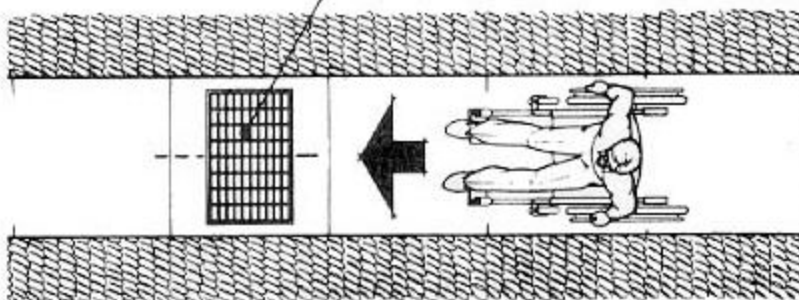
#### 4.5.4 Gratings

If gratings are located in walking surfaces, then they shall have spaces no greater than  $1/2$  in (13 mm) wide in one direction).

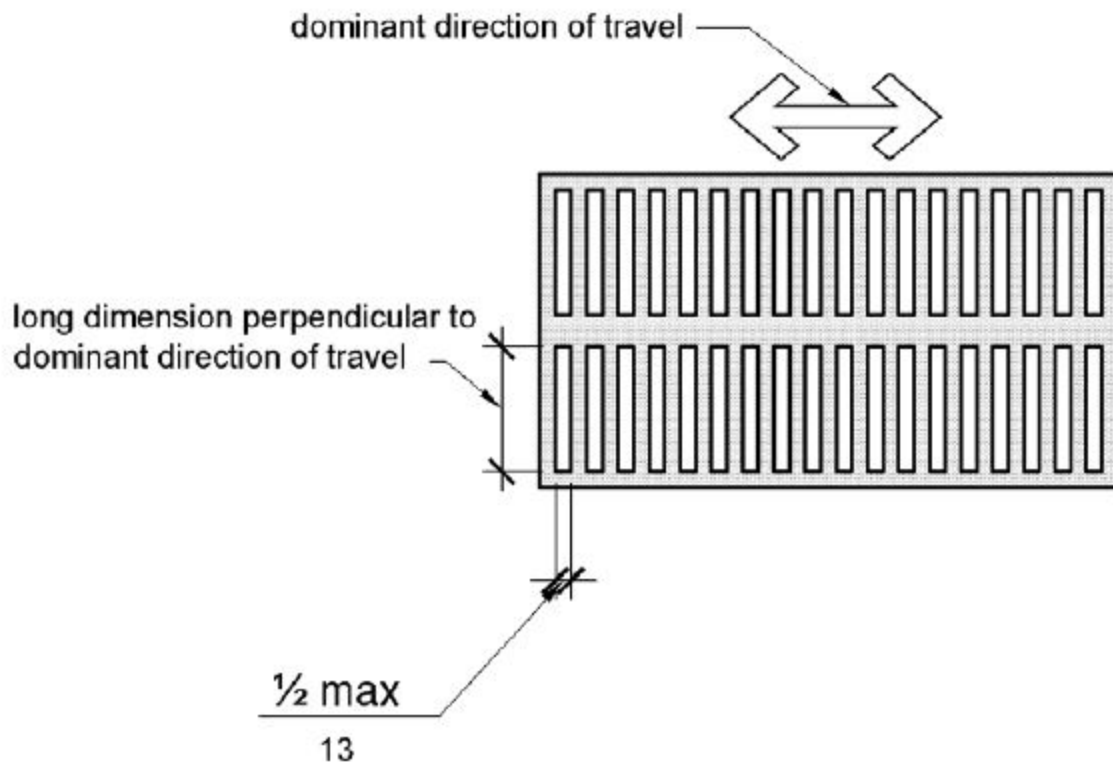


If gratings have elongated openings, then they shall be placed so that the long dimension is perpendicular to the dominant direction of travel).

*long dimension  
perpendicular to  
route of travel*



**302.3 Openings.** Openings in floor or ground surfaces shall not allow passage of a sphere more than  $\frac{1}{2}$  inch (13 mm) diameter except as allowed in 407.4.3, 409.4.3, 410.4, 810.5.3 and 810.10. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel.



**Figure 302.3**  
Elongated Openings in Floor or Ground Surfaces

### Floor Drain Grate Sizes and ADA Compliance

Compiled Revised 5/14

Figure #	Grate Part #	Hole/Slot Size	Grate Shape	Material	ADA Y/N
2005/2010	Varies				Y- ALL
2110	3131	.437 Slot	Round	CI	Y
2110	4901	.31 Holes	Round	CI/DI	Y
2110	5259	.427 Slot	Round	DI	Y
2110	8150	.50 Slot	Round	DI	Y
2110	8170	.50 Slot	Round	CI	Y
2110	8300	.50 Slot	Round	SS	Y
2115	SEE 2110				
2120	3080	.407 Slot	Round	CI	Y
2120	4239	.50 Slot	Round	DI	Y
2120	4901	.31 Holes	Round	CI/DI	Y
2125	SEE 2120				
2130	492	.44 Slot	Round	CI	Y
2130	3917	.25 Slot	Round	CI/DI	Y
2130	4969				
2130	8241	.63 Slot	Round	CI/DI	NO
2130	8976	.31 Holes	Round	CI/DI	Y
2140	3121	.66 Slots	Round	CI	NO
2140	4949	.66 Slots	Round	DI	NO
2140	5949	.66 Slots	Round	BR	NO
2140	8241	.63 Slot	Round	CI/DI	NO
2140	8976	.31 Holes	Round	CI	Y
2140	8986	.31 Holes	Round	DI	Y
2141	SEE 2140				
2142	SEE 2140				
2143	5203	.50 Slots	Round	CI	Y
2143	5203	.50 Slots	Round	DI	Y
2145	SEE 2140				
2147	SEE 2140				
2210	8158	.50 Slots	Round	CI	Y
2210	3297	.44 SQ Holes	Round	CI	Y
2210	8159	.50 Slots	Round	DI	Y
2215	SEE 2210				
2220	SEE 2210				
2225	SEE 2210				
2230	8155	.50 Slots	Round	CI	Y
2230	8156	.50 Slots	Round	DI	Y
2230	8986	.31 Holes	Round	DI	Y
2230	5821	.50 Slots	Round	CI/DI	Y
2235	SEE 2230				
2233	3121	.66 Slots	Round	CI	NO
2233	4949	.66 Slots	Round	DI	NO
2233	8241	.63 Slots	Round	CI/DI	NO
2233	8976	.31 Holes	Round	CI	Y
2233	8986	.31 Holes	Round	DI	Y
2238	SEE 2233				

2240		8155	.50 Slots	Round	CI/DI	Y
2245	SEE 2240					
2242		3121	.66 Slots	Round	CI	NO
2242		4949	.66 Slots	Round	DI	NO
2242		5949	.66 Slots	Round	BR	NO
2242		8241	.63 Slot	Round	CI/DI	NO
2242		8976	.31 Holes	Round	CI	Y
2242		8986	.31 Holes	Round	DI	Y
2242		9880	.75 Slots	Round	SS/CS	NO
2243	SEE 2242					
2247	SEE 2242					
2248	SEE 2242					
2250		5203	.50 Slots	Round	CI	Y
2250		5203	.50 Slots	Round	DI	Y
2253	SEE 2250					
2255	SEE 2250					
2270		3131	.437 Slot	Round	CI	Y
2270		5828	.375 Slot	Round	BR	Y
2270		5259	.437 Slot	Round	DI	Y
2275	SEE 2270					
2280		151	Radial Varied Slots	Round	CI	Y
2285	See 2280					
2310		3131	.437 Slot	Round	CI	Y
2310		5828	.375 Slot	Round	BR	Y
2310		5829	.437 Slot	Round	DI	Y
2310		8150	.50 Slot	Round	DI	Y
2310		8170	.50 Slot	Round	CI	Y
2310		8300	.50 Slot	Round	SS	Y
2315	SEE 2310					
DX2312		3131	.437 Slot	Round	CI	Y
DX2312B		8158	.50 Slots	Round	CI	Y
DX2312B		4337	.34 Square	Round	NB	Y
2320		3080	.407 Slot	Round	CI	Y
2320		4326	.407 Slot	Round	BR	Y
2320		4239	.50 Slot	Round	DI	Y
2320		4901	.31 Holes	Round	CI/DI	Y
2325	SEE 2320					
2330		492	.44 Slot	Round	CI	Y
2330		4969				
2330		8241	.63 Slots	Round	CI/DI	NO
2331	SEE 2330					
2335	SEE 2330					
2340		3121	.66 Slots	Round	CI	NO
2340		4949	.66 Slots	Round	DI	NO
2340		8241	.63 Slots	Round	CI/DI	Y
2340		8976	.31 Holes	Round	CI	Y
2340		8986	.31 Holes	Round	DI	Y
2341	SEE 2340					
2345	SEE 2340					

2350		8158	.50 Slots	Round	CI	Y
2350		8159	.50 Slots	Round	DI	Y
2350		4337	.34 Square	Round	BR	Y
2355	SEE 2350					
2360		8155	.50 Slots	Round	CI	Y
2360		8156	.50 Slots	Round	DI	Y
2360		5821	.50 Slots	Round	CI/DI	Y
2360		1883	.34 Square	Round	BR	Y
2365	SEE 2360					
2410		35358	.50 Slots	Rectangle	CI/DI	Y
2410		35357	.50 Slots	Rectangle	CI/DI	Y
2415	SEE 2410					
2420	SEE 2410					
2425	SEE 2410					
2450		3897	.63 Slots	Rectangle	CI	Y
2450		3627	.50 Slots	Rectangle	DI	Y
2455	SEE 2450					
2470		35258	.63 Slots	Rectangle	CI/DI	NO
2473	SEE 2470					
2475	SEE 2470					
2478	SEE 2470					
2484		3897	.63 Slots	Rectangle	CI	NO
2484		3627	.50 Slots	Rectangle	DI	Y
2488		5739	.50 Slots	Square	DI	Y
2488		35148	.75 Square	Square	DI	NO
2488		75772	.25 Square	Square	Fab Stl	Y
2490		3080	.407 Slot	Round	CI	Y
2490		4239	.50 Slot	Round	DI	Y
2490		4010	.44 Slot	Round	CI	Y
2495	SEE 2490					
2500		3753	.375 Holes	Round	NB/PB	Y
2501		3755	.937 Slot	Round	NB/PB	NO
2501		5826	1.00 Slot	Round	NB/PB	NO
2502		3758	.94 Slot	Round	NB/PB	NO
2505	SEE 2500					
2506	SEE 2501					
2507	SEE 2502					
2508		5960	1.87 Square	Round	NB/PB	NO
2510		3131	.437 Slot	Round	CI	Y
2510		5259	.437 Slot	Round	DI	Y
2510		4010	.44 Slot	Round	CI	Y
2510		8158	.50 Slot	Round	CI	Y
2510		8159	.50 Slot	Round	DI	Y
2515	SEE 2510					
2530		9515	.31 Slot/.50 Hole	Round	CI	Y
2530		6577	.47 SQ	Round	NB/PB	Y

DX2565	8158	.50 Slot	Round	CI	Y
DX2565	8159	.50 Slot	Round	DI	Y
DX2565	4337	.34 Square	Round	NB/PB	Y
DX2566	8155	.50 Slots	Round	CI	Y
DX2566	8166	.50 Slots	Round	DI	Y
DX2566	1883	.34 Square	Round	NB/PB	Y
DX2568	5634	.47 SQ	Round	NB/PB	Y
2570	64	.50 Slots	Rectangle	CI	Y
2570	5401	.50 Slots	Rectangle	DI	Y
2585	3936	.38 Slots	Rectangle	CI/DI	Y
2589	5521	.50 Slots	Rectangle	CI/DI	Y
2614	3080	.407 Slot	Round	CI	Y
2614	4239	.50 Slot	Round	DI	Y
2624	5203	.50 Slot	Round	CI	Y
2624	5203	.50 Slot	Round	DI	Y
2630	3649	.46 Slot	Square	CI	Y
2630	5460	.46 Slot	Square	DI	Y
2630	6487	.50 Square	Square	NB/PB	Y
2632	SEE 2630				
2640	4101	.34 Slot	Round	CI/DI/NB	Y
2650	5739	.50 Square	Square	DI	Y
<b>Promenade Deck Drains</b>					
1409	3895	.25 Square	Square	CI/DI	Y
1409	3302	.47 Square	Square	CI/DI	Y
1419	SEE 1409				
1410	3302	.47 Square	Square	CI/DI	Y
1410	3895	.25 Square	Square	CI/DI	Y
1420	SEE 1410				
1415	3895	.25 Square	Square	CI/DI	Y
1415	3302	.47 Square	Square	CI/DI	Y
1416	5203	.50 Slots	Round	CI	Y
1416	5203	.50 Slots	Round	DI	Y
1450	4286	.47 Square	Square	CI	Y
1450	4286	.47 Square	Square	DI	Y
1460	4286				
1470	1882	.50 Square	Square	CI	Y
1470	8081	.50 Square	Square	DI	Y
1470	4258	.37 Square	Square	NB/PB	Y
1480	1882	.50 Square	Square	CI	Y
1480	8081	.50 Square	Square	DI	Y
1480	4258	.37 Square	Square	NB/PB	Y



DRAWING NUMBER  
SSQ-8-1164

SIZE  
A

SCALE:  
NONE

DATE:  
6-8-98

APPROVED BY:  
SJM

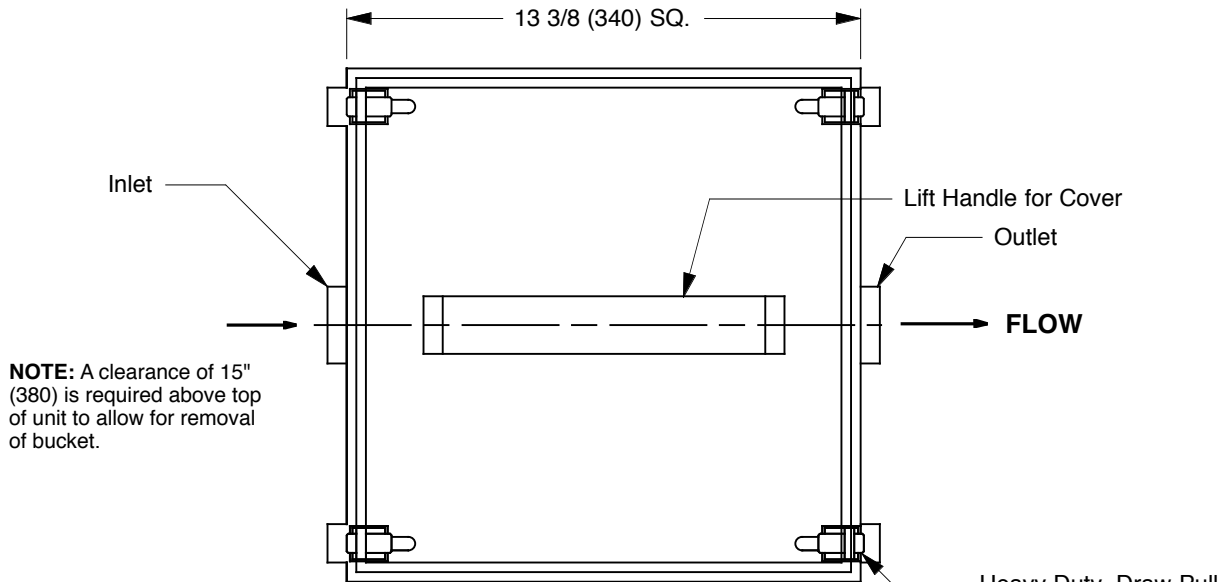
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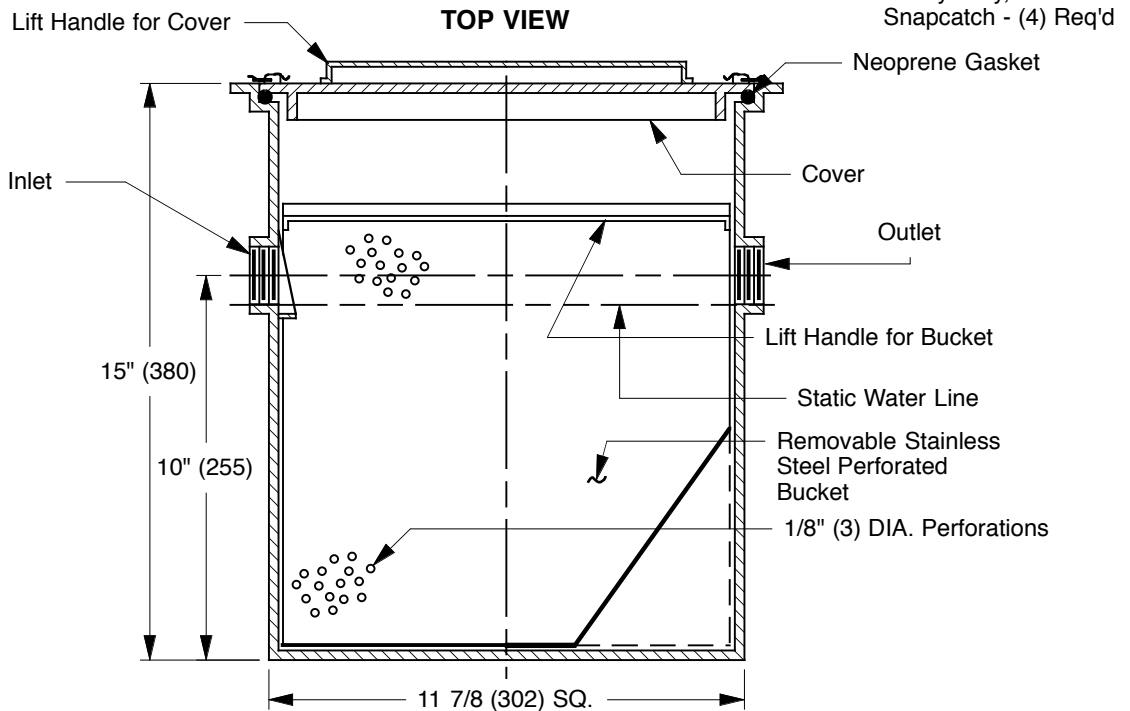
**SQ-8-1164**

DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE. WE CAN ASSUME NO RESPONSIBILITY FOR USE OF SUPERSEDED OF VOID DATA.

# FISH SCALE INTERCEPTOR



**NOTE:** A clearance of 15" (380) is required above top of unit to allow for removal of bucket.



SECTION VIEW

**REGULARLY FURNISHED:**

White Duco Coated Fabricated Steel Body, Stainless Steel Perforated Removable Bucket, Gasketed Cover Complete with Lift Handle and Four Heavy Duty, Draw Pull Snap Catches and 2" (50) Threaded Inlet and Outlet.

NOTE: Dimensions shown in parentheses are in millimeters.

REV.	DATE	DESCRIPTION	BY	CKD. BY
B	8-25-98	Added Note	CMD	BS
A	6-8-98	Redrawn	CMD	BS

WEIGHT POUNDS	VOLUME CUBIC FEET

<b>FIGURE NUMBER</b>
<b>SQ-8-1164</b>