

# Jay R. Smith Mfg. Co.<sup>®</sup> a better way

## Full-Bore Siphonic Roof Drains from Jay R. Smith Mfg. Co.<sup>®</sup>



full-bore flow

### The Benefits of Using a Siphonic Roof Drain System

- The air baffle on the roof drain promotes full-bore flow.
- Full-bore flow within the piping reduces pipe diameter as compared to open channel, traditional gravity flow, which operates at 1/2 the capacity.
- Siphonic action is independent of pipe pitch or gradient. Horizontal piping is not pitched. The invert leaving the building is eliminated.
- Smaller pipe diameters allows maximum use of open space without intrusion of drainage piping. This also reduces material costs.
- The point of discharge for the roof can be concentrated to one corner, typically, rather than out of the building in several points.
- Slab installation costs are minimized, reducing excavation, backfill costs, and exterior underground piping.



The horizontal manifolds in a siphonic roof drain system installation.

- Siphonic systems promote self cleaning of debris from the piping system.

To contact your local representative or for more information, visit [www.jrsmith.com](http://www.jrsmith.com).

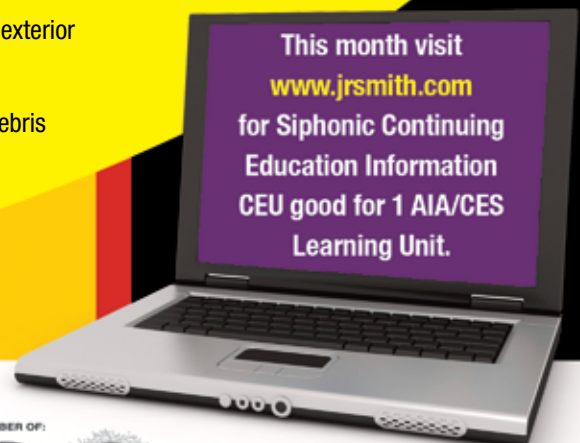
**"The level approach to roof drainage"**



Fig. # 1005



Fig. # 1605



**JAY R. SMITH MFG. CO.<sup>®</sup>**  
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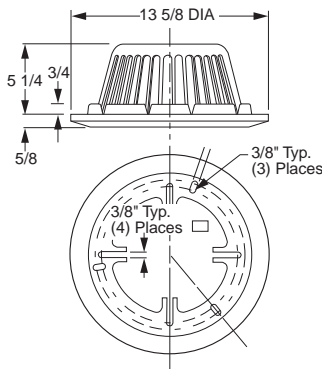
<b>C</b>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: left;"> <b>SMITH® JAY R. SMITH MFG. CO.®</b>              DIVISION OF SMITH INDUSTRIES, INC.              POST OFFICE BOX 3237              MONTGOMERY, ALABAMA 36109-0237 (USA)              TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com           </div> <div style="text-align: center;">   <b>ASPE</b>  <small>AMERICAN SOCIETY OF PROFESSIONAL ENGINEERS</small> </div> <div style="text-align: center;">   <b>PDH INSTITUTE</b>  <small>PROFESSIONAL DEVELOPMENT HOURS</small> </div> <div style="text-align: center;">   <b>ASSE</b>  <small>AMERICAN SOCIETY OF SANITARY ENGINEERS</small> </div> </div>				<b>LOCATION</b>  																	
	<h1 style="margin: 0;">SIPHONIC ROOF DRAIN</h1>																					
<b>S1005</b>	<b>15 1/4"(390) DIAMETER - LOW PROFILE DOME</b>																					
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<b>SCALE:</b>	<b>NONE</b>																					
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<b>CHECKED BY:</b>	<b>CR</b>																					
<b>DRAWN BY:</b>	<b>RN</b>																					
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<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th colspan="3">**Performance Data</th> </tr> <tr> <th>A(Pipe Size) in. (mm)</th> <th>Max. Capacity cfs (lps)</th> <th>Resistance Value, K</th> </tr> </thead> <tbody> <tr> <td>02 (50)</td> <td>0.50 (41.2)</td> <td>0.13</td> </tr> <tr> <td>0250 (64)</td> <td>0.60 (17.0)</td> <td>0.13</td> </tr> <tr> <td>03 (75)</td> <td>1.40 (39.5)</td> <td>0.16</td> </tr> <tr> <td>04 (100)</td> <td>1.70 (48.1)</td> <td>0.23</td> </tr> </tbody> </table> <p style="font-size: x-small;">**As tested and certified by ANSI/ASME A112.6.9 "Siphonic Roof Drains" Procedures and test apparatus. IAPMO Listed File No. 5138</p> </div> <div style="width: 40%; text-align: center;"> </div> <div style="width: 25%;"> <p style="font-weight: bold; font-size: small;">Free Area 102.5 Sq. In. (661) Sq. Cm.</p> <p style="font-size: x-small;">▲ Optional domes' free area are as follows:            Aluminum 98 (632)            Cast Iron 80 (516)            Bronze 95 (613)</p> </div> </div>					**Performance Data			A(Pipe Size) in. (mm)	Max. Capacity cfs (lps)	Resistance Value, K	02 (50)	0.50 (41.2)	0.13	0250 (64)	0.60 (17.0)	0.13	03 (75)	1.40 (39.5)	0.16	04 (100)	1.70 (48.1)	0.23
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ROOF DRAINS

FIG. 1001 UNIVERSAL REPLACEMENT DOME AND COLLAR ASSEMBLY



**FUNCTION:** Universal cast iron membrane clamping collar and dome are designed for retrofit roof applications where the existing main roof drain body is to remain in place and continue to be operative. The bolting lugs of this collar match the bolt pattern of the majority of the common roof drain bodies and generally conform to the surface angles of the flange. This allows easy replacement along with adequate pressure on the membrane to insure water tightness. The collar is designed to accompany most 15" and 16" diameter roof drain bodies with bolt circles ranging 7 1/4" to 10 3/4" in diameter. It is recommended to extend roof membrane into the sump of existing roof drain body.



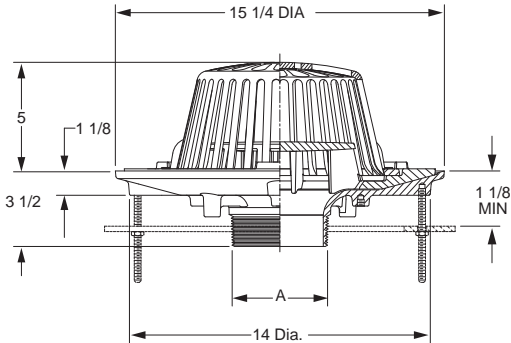
OPTIONS:		ADD
-AD	Aluminum Dome .....	POA
-CID	Cast Iron Dome .....	POA
-CID8	8" High Cast Iron Dome.....	POA
-CIDG	Galvanized Cast Iron Dome (add to -CID) .....	POA
-G	Galvanized Collar .....	POA
-LD	Less Dome .....	(Specify Fig. 1002)
	Perforated Stainless Steel Gravel Guard (Specify Height) .....	POA
-RBD	Rough Bronze Dome .....	POA
-SSM	Stainless Steel Mesh Covered Dome (Specify Dome) .....	POA
	Solid Water Dam Collar (Specify Height) .....	POA
-U	Vandal Proof .....	POA

COLLAR DIA.	FREE AREA SQ IN	†DUCO CI COLLAR POLY DOME	APPROX. WEIGHT LBS
13 5/8"	102.5	POA	14.72

**REGULARLY FURNISHED:**  
Polyethylene "Twist Lock" Dome and Duco Coated Universal Cast Iron Membrane Clamping Collar with Mounting Hardware.

FIG. 1005 SIPHONIC ROOF DRAIN 15 1/4" DIAMETER - LOW PROFILE DOME

**FUNCTION:** For use in engineered siphonic roof drainage system. May be used in flat roof of any construction. Large low profile dome provides sufficient free area for quick drainage of rain water and protects the drain sump, baffle and connected piping from the intrusion of debris. Internal air baffle creates siphonic drainage action producing more efficient drainage than traditional roof drains.



A OUTLET SIZE	FLANGE DIA.	FREE AREA SQ IN	†DUCO CI POLY DOME	APPROX. WEIGHT LBS
02, *0250"	15 1/4"	102.5	POA	39
03, 04"	15 1/4"	102.5	POA	39

**REGULARLY FURNISHED:** Duco Cast Iron Body, Flashing Clamp, Air Baffle and Polyethylene Dome.

OUTLET VARIATIONS (Specify type of outlet and pipe size in inches.)

	Outlet		Body HT.	
Outlet Type	Designation	Outlet Type/Pipe Size	DIM.	ADD
Male Threaded Outlet .....	T02, *T0250, T03, T04 .....		3 1/2" .....	POA
No-Hub .....	Y02, Y03, Y04 .....		3 1/2" .....	POA

\*2 1/2" pipe size only available with male threaded outlet

OPTIONS:		ADD
-AD	Aluminum Dome .....	POA
-C	Underdeck Clamp .....	POA
-C10	Underdeck Clamp for 10" Deck Opening .....	POA
-CID	CI Dome.....	POA
-CIDG	Galv. Cast Iron Dome (add to -CID) .....	POA
-CL	"L" Shaped Underdeck Clamp .....	POA
-G	Galvanized CI .....	POA
-R	Sump Receiver .....	POA
-RBD	Rough Bronze Dome .....	POA
-U	Vandal Proof Screws .....	POA