

ENGINEERING COMMUNIQUÉ

JAY R. SMITH MFG. CO.® ♦ MAY, 2012 ♦ VOLUME 2- ISSUE 4



THE SMITH ENGINEERING GROUP

PRODUCT ALERT: Downspout Nozzles, Figure Numbers 1770, 1771, 1775 & 1775-H5.

Smith has offered downspout nozzles for many years. There are several types from which to select. The original nozzle was designed to accomplish two objectives. One was to provide an aesthetic termination to the rainleader downspout piping and the other was to provide a flow channel (tongue) to divert the rainwater a sufficient distance from the wall to prevent it from splashing down the face of the wall and staining the finish. The profile from the wall face to the tip of the tongue was held as tight as possible for applications where it terminates above a sidewalk in order to be less obtrusive.

Figure Number 1770 is regularly furnished in cast bronze and available in nickel bronze and polished bronze. A bird screen insert (-BS) is an option to prevent nest building and the entry of vermin. The 1770 nozzle is available in a threaded (2"-12") and no-hub (2"-6") connection. A wall flange is provided to cover the rough opening and is secured to the wall.



DOWNSPOUT NOZZLE LOCATION:

The architect or engineer determines the location of the downspout nozzle. We are asked for a height recommendation frequently and our recommendation is 12" to 24" from the bottom of the nozzle to the finished area whether it is a sidewalk or a grassy/soil area. If it is installed too high, the rainwater may splash against the wall. This dimension should be added to the spec or detail. We have seen two installations where the contractor installed the nozzle on the exterior of the parapet wall several stories high. While this created a nice waterfall and conversation, there were other problems created. Attached is a typical downspout nozzle detail from an architect's drawing. It is referred to as a lamb's tongue detail.

You will notice the roughing height dimension was not

Figure number 1771 is regularly furnished in cast bronze and available in nickel bronze and polished bronze. A bird screen insert (-BS) is an option to prevent nest building and the entry of vermin. The rainleader downspout piping extends beyond the face of the wall and flange allowing the nozzle to slide over the piping and is secured with set screws. It is available in 2" – 12" connections. A wall flange is provided to cover the rough opening.

shown on the detail. Most likely, without a specific dimension, the nozzle will be installed at 24' which seems to be the default dimension for nozzles. Also, this architect required sealant behind the flange. This really is not necessary and is not Smith's responsibility.

Several years ago Smith introduced a special purpose stainless steel rainleader downspout cover that features a hinged stainless steel perforated cover. The cover remains closed during no flow preventing entry of unwanted vermin. During minimal flows, the cover allows discharge through the perforations. It is available in 1½" – 15" sizes can be optionally provided in polished bronze and chrome plated brass. Please refer to figure number 1775. This unit projects a minimal dimension from the face of the wall of 2½".

The 1775-H5 is the same as described for the 1775 except it projects 5" from the face of the wall. This dimension can be increased upon request with the Sales Engineering group.

Please refer to the attached four submittal drawings.

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MORRIS GROUP
INTERNATIONAL

G



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 TEL: 334-277-8520 FAX: 334-272-7396 www.jrsmith.com



MEMBER OF:

LOCATION

ROOF ACCESSORY

DOWNSPOUT NOZZLE

FUNCTION: Used as a parapet overflow or at the base of a wall where a concealed leader discharges rainwater to ground. Nozzle design diverts water away from building, eliminating wall stains. Wall flange covers rough opening and serves as anchor.

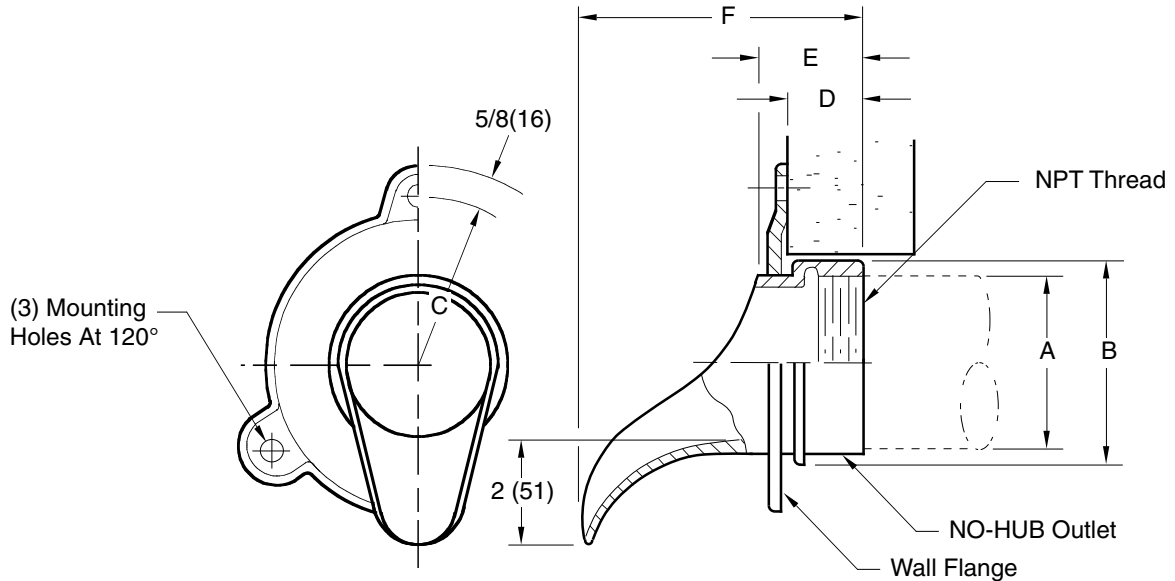


Fig. 1770T.....Threaded Outlet
 Fig. 1770Y.....NO-HUB Outlet (02(50), 03(75), 04(100) and 06(150))

	*				*				*		
A=PIPE	02(50)	03(75)	04(100)	05(125)	06T(150)	06Y(150)	08(200)	10(255)	12(305)		
B=DIA	2 3/4 (70)	4 (100)	5 (125)	6 (150)	7 1/4 (185)	7 1/4 (185)	9 1/4 (235)	11 1/8 (283)	13 1/4 (335)		
C=RAD	2 3/4 (70)	3 1/2 (89)	3 7/8 (98)	4 3/8 (111)	5 (125)	5 (125)	5 7/8 (149)	7 1/4 (185)	8 (205)		
D	1 3/8 (35)	1 3/8 (35)	1 3/8 (35)	1 3/8 (35)	1 3/8 (35)	1 13/16 (46)	1 5/8 (41)	1 3/4 (44)	2 (51)		
E	2 1/16 (52)	2 1/16 (52)	2 1/16 (52)	2 1/16 (52)	2 1/16 (52)	2 1/2 (64)	2 3/8 (60)	2 3/4 (70)	2 15/16 (75)		
F	5 5/8 (143)	5 5/8 (143)	5 5/8 (143)	5 5/8 (143)	5 5/8 (143)	6 1/4 (160)	5 15/16 (149)	5 3/8 (138)	7 9/16 (192)		

REGULARLY FURNISHED:
 Cast Bronze Nozzle and Flange.

VARIATIONS:

Bird Screen -BS
 * NO-HUB Adaptor (specify Fig. 2646Y)
 (5"(125), 8"(200), 10"(255)
 and 12"(305) only)

OPTIONAL MATERIALS:

Nickel Bronze -NB
 Polished Bronze -PB

NOTE: Dimensions shown in parentheses are in millimeters.

DRAWING NUMBER
S1770SIZE
ASCALE:
NONEDATE:
2-25-85APPROVED BY:
JDCHECKED BY:
JDDRAWN BY:
CR

1770

FIGURE NUMBER

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

REV.	DATE	DESCRIPTION	BY	CKD. BY
G	01/14/11	Added NO HUB Outlet	JJ	TK
F	6-16-05	Revised Table	RN	CL
E	04/05/04	Added Bird Screen Variation	JJ	CL
D	6-16-99	Revised Millimeters	CMD	BS

WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER
		1770

ROOF ACCESSORY

DOWNSPOUT NOZZLE

FUNCTION: Used as a parapet overflow or at the base of a wall where a concealed leader discharges rainwater to ground. Nozzle design diverts water away from building, eliminating wall stains. Wall flange covers rough opening.

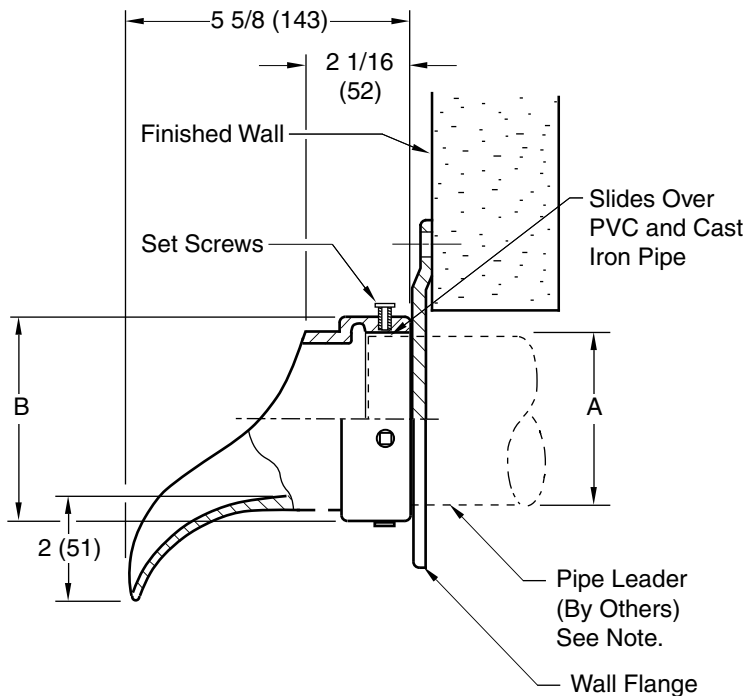
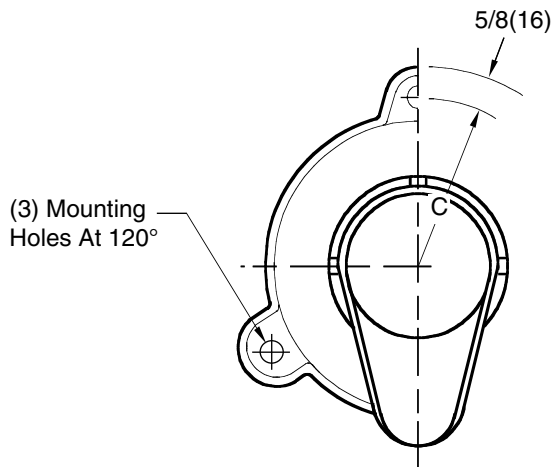


Fig. 1771

NOTE: Pipe (Leader) must extend past the face of the finished wall in order to install the wall flange and attach the downspout nozzle. Dimension shall be field determined by installer.

NOTE: Dimensions shown in parentheses are in millimeters.

A = Pipe Size	02 (50)	03 (75)	04 (100)	05 (125)	06 (150)	08 (200)	10 (250)	12 (305)
B = DIA	2 3/4 (70)	4 (100)	5 (125)	6 (150)	7 1/4 (185)	9 1/4 (235)	11 1/8 (283)	13 1/4 (335)
C = RAD	2 3/4 (70)	3 1/2 (89)	3 7/8 (98)	4 3/8 (111)	5 (125)	5 7/8 (149)	7 1/4 (185)	8 (205)

REGULARLY FURNISHED:
 Cast Bronze Nozzle and Flange,
 Machined Nozzle Slides Over
 PVC and Cast Iron Pipe.

VARIATIONS:
 Bird Screen-BS

OPTIONAL MATERIALS:
 Nickel Bronze -NB
 Polished Bronze -PB

DRAWING NUMBER
S1771

SIZE
A

SCALE:
NONE

DATE:
09/01/09

APPROVED BY:
CL

CHECKED BY:
CL

DRAWN BY:
JJ

1771

FIGURE NUMBER

WE CAN ASSUME NO RESPONSIBILITY FOR USE OF SUPERSEDED OR VOID DATA

DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE

REV.	DATE	DESCRIPTION	BY	CKD. BY

WEIGHT
POUNDS

VOLUME
CUBIC FEET

FIGURE NUMBER

1771



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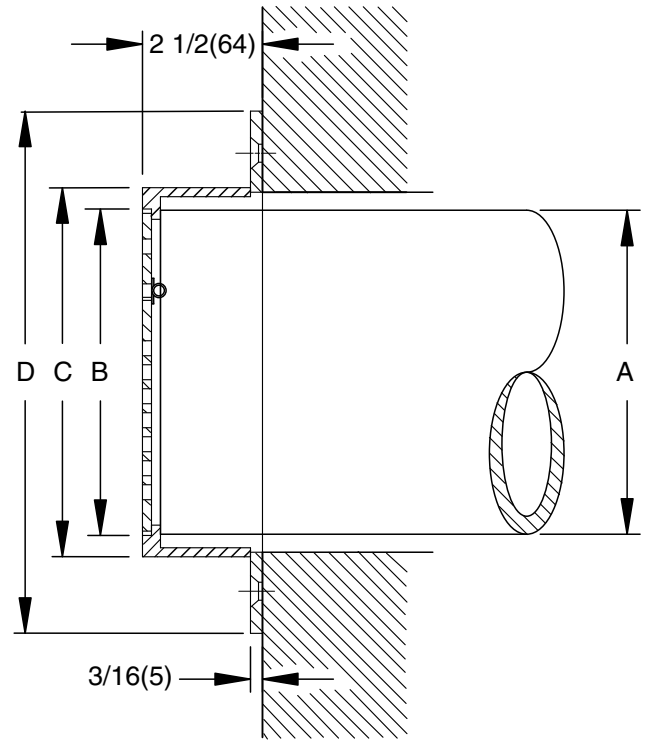
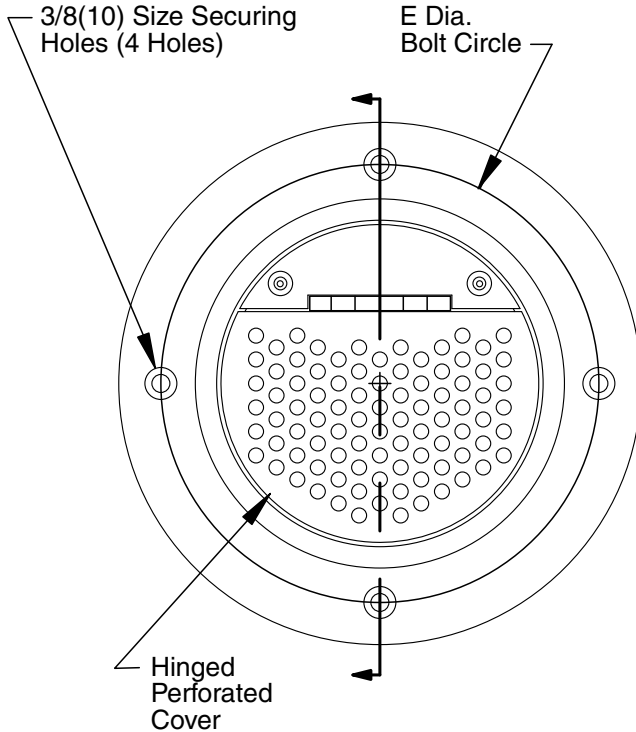


MEMBER OF:

LOCATION

SPECIAL PURPOSE DOWNSPOUT COVER

FUNCTION: Used as a downspout cover on a wall where an overflow roof drain concealed leader discharges rainwater to the ground.



FRONT VIEW

RIGHT SIDE SECTION VIEW

A (Pipe Size)	B DIA.	C DIA.	D DIA.	E DIA.
0150(38)	3 1/2(89)	4 1/2(115)	7 11/16(194)	6(150)
02(50)	3 1/2(89)	4 1/2(115)	7 11/16(194)	6(150)
03(75)	3 1/2(89)	4 1/2(115)	7 11/16(194)	6(150)
04(100)	4 9/16(116)	5 9/16(142)	8 3/4(220)	7 1/8(181)
05(125)	5 5/8(143)	6 5/8(168)	9 13/16(251)	8 1/4(210)
06(150)	6 11/16(169)	7 11/16(194)	10 7/8(278)	9(230)
08(200)	8 11/16(219)	9 11/16(249)	12 7/8(328)	11 1/4(285)
10(250)	10 13/16(276)	11 13/16(301)	15(380)	13 1/2(345)
12(305)	12 13/16(326)	13 13/16(351)	17(430)	15 1/2(395)
15(380)	16(405)	16 15/16(429)	20 1/8(513)	18 1/2(470)

Fig. 1775.....DOWNSPOUT COVER

REGULARLY FURNISHED:
 Fabricated Type 304 Stainless Steel
 Downspout Cover with Hinged Perforated Cover.

VARIATIONS:
 Vandal Proof -U

OPTIONAL MATERIALS:
 Fabricated Polished Brass -PB
 Fabricated Chrome Plated Brass -CP

NOTE: Dimensions shown in parentheses are in millimeters.

DRAWING NUMBER
s1775

SIZE
A

SCALE:
NONE

DATE:
03-07-05

APPROVED BY:
JM

CHECKED BY:
JM

DRAWN BY:
JJ

1775

FIGURE NUMBER

REV.	DATE	DESCRIPTION	BY	CKD. BY
D C B	04/27/09 6-16-08 9-13-07	Added Function Revised Cover Revised Table	JJ TBW RN	CL CL CL

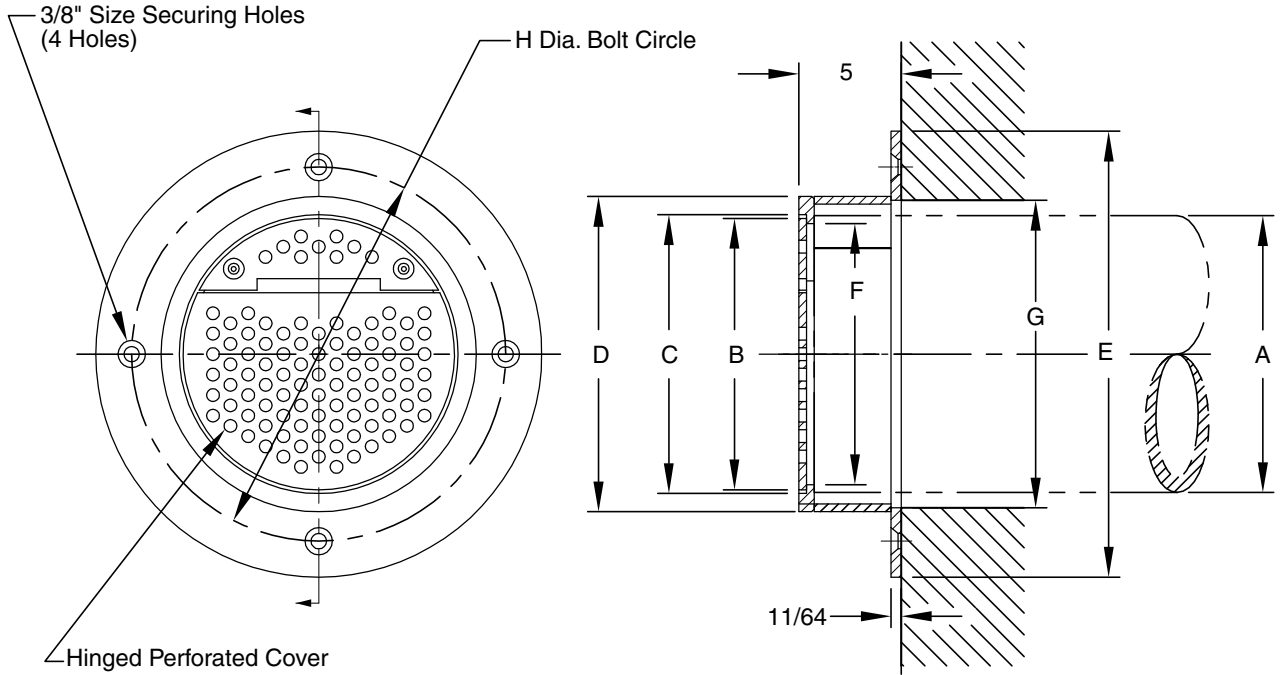
WEIGHT POUNDS	VOLUME CUBIC FEET	FIGURE NUMBER
		1775

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DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE

SPECIAL PURPOSE DOWNSPOUT COVER

WITH SECURED HINGED PERFORATED COVER



FRONT VIEW

RIGHT SIDE SECTION VIEW

A (Pipe Size)	B DIA.	C DIA.	D DIA.	E DIA.	F DIA.	G DIA.	H DIA.
0150	3 7/16	3 1/2	4 1/2	7 11/16	3 3/16	2 1/4	6
02	3 7/16	3 1/2	4 1/2	7 11/16	3 3/16	2 1/4	6
03	3 7/16	3 1/2	4 1/2	7 11/16	3 3/16	2 1/4	6
04	4 1/2	4 9/16	5 9/16	8 3/4	4 1/4	5 5/16	7 1/8
05	5 9/16	5 5/8	6 5/8	9 13/16	5 5/16	6 7/16	8 1/4
06	6 5/8	6 11/16	7 11/16	10 7/8	6 3/8	7 1/2	9
08	8 5/8	8 11/16	9 11/16	12 7/8	8 3/8	9 1/2	11 1/4
10	10 3/4	10 13/16	11 13/16	15	10 1/2	11 5/8	13 1/2
12	12 3/4	12 13/16	13 13/16	17	12 1/2	13 5/8	15 1/2
15	15 7/8	15 15/16	16 15/16	20 1/8	15 5/8	16 3/4	18 1/2

REGULARLY FURNISHED:
 Fabricated Stainless Steel Downspout Cover with Fabricated Stainless Steel Hinged Perforated Cover.

VARIATIONS:
 Vandal Proof Screws -U

OPTIONAL MATERIALS:
 Fabricated Polished Brass -PB
 Fabricated Chrome Plated Brass -CP

DRAWING NUMBER
s1775-H5

SIZE
A

SCALE:
NONE

DATE:
10-06-1997

APPROVED BY:
CR

CHECKED BY:
CR

DRAWN BY:
CR

FIGURE NUMBER
1775-H5

WE CAN ASSUME NO RESPONSIBILITY FOR USE OF SUPERSEDED OR VOID DATA

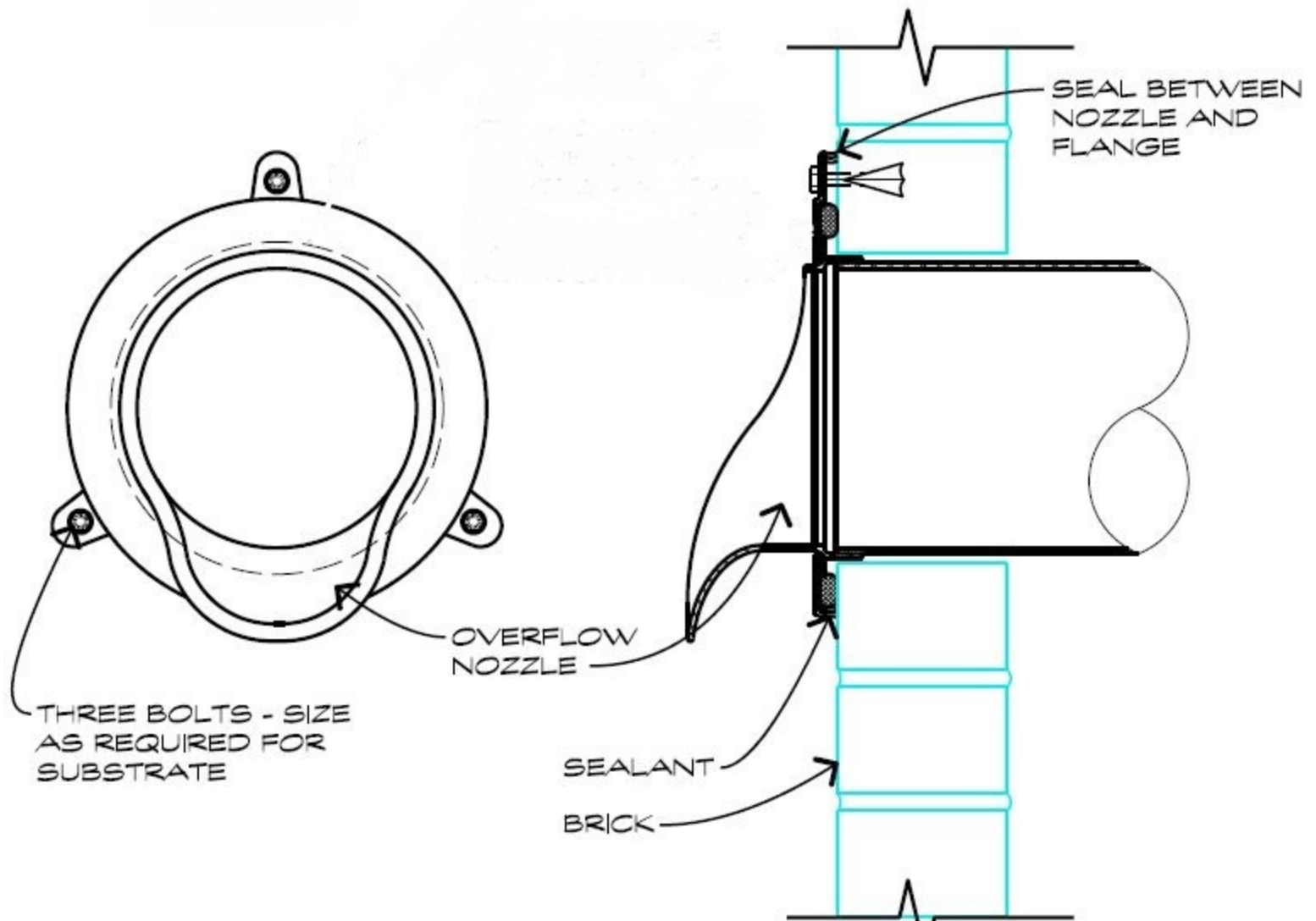
DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCE AND CHANGE WITHOUT NOTICE

REV.	DATE	DESCRIPTION	BY	CKD. BY
A	5-14-12	Assigned New Fig. No.	TBW	JM

WEIGHT POUNDS

VOLUME CUBIC FEET

FIGURE NUMBER
1775-H5



OVERFLOW NOZZLE DRAIN DESCRIPTION: LAMBS TONGUE DOWNSPOUT NOZZLE WITH BRONZE BODY AND INTEGRAL ANCHORING FLANGE.

BIRD

SCREEN. OUTLET SIZE AS LISTED ON THE DRAWINGS.
 MANUFACTURER + CATALOG NO.: SMITH 1770

LAMBS TONGUE DETAIL

A5.1

3" = 1'-0"

