

Copies: Ray Smith, DHQ 2S
D. W. French
C. G. Stelchek
A. M. Curry
File: 40-1-6

JOHNS-MANVILLE

Quality Control Department

Pipe

DIVISION

Denison

PLANT

PLAINTIFF'S
EXHIBIT

JM 694

Report No. D-Perm-421

Page 1 of 2

Date 2-15-74

Subject: Permastran Dry Glass Weights and Weights per foot.

Requested by: Alan Curry

Identification: Data was taken from Weekly Permastran Dry Glass Weights and from Daily Quick Burst Test run on 4" and 8" Pipe.

PURPOSE: This report was written on request of Ray Smith to compare the dry glass weights to the finished pipe weight per foot. Quick burst Data is also summarized for further comparisons.

CONCLUSIONS: The amount of dry glass does not vary as much from section to section as does the amount of resin being applied. The variations of weights per foot from section to section can be attributed to the weight of resin applied.

TEST DATA:

PERMASTRAN DRY GLASS WEIGHTS (LB/LENGTH) 20 FT.

Date	Size	Length Of Overlap	Weight of Glass On Barrel (Spec 4" 5.15 lb)	Weight Of Bell (Spec 4" .30 lb)	Total (Spec 4" 5.45 lb)	Weight Per Foot
12-24-73	4"	1/4"	5.5 lbs.	.30 lb.	5.80 lb.	.29 lb.
12-31-73	4"	1/4"	5.25 lbs.	.25 lb.	5.50 lb.	.28 lb.
1- 8-74	4"	1/8"	5.50 lbs.	.31 lb.	5.81 lb.	.29 lb.
1-15-74	4"	1/16"	5.60 lbs.	.31 lb.	5.91 lb.	.30 lb.
			(Spec 8" 16.0 lb)	(Spec 8" .40 lb)	(Spec 8" 16.80 lb)	
1-28-74	8"	1/8"	14.0 lbs.	.82 lbs	14.82 lbs.	.74 lbs.
2- 4-74	8"	1/8"	14.0 lbs.	.77 lbs	14.77 lbs.	.74 lbs.
2-11-74	8"	1/8"	15.5 lbs.	.82 lbs.	16.32 lbs.	.82 lbs.

Date	Size	Length	WEIGHT PER FOOT		Weight Per Foot	Burst Pressure (Spec 4" 1655 P.S.I.)
			Type Of Sample (Bell x Spigot (BxS) Spigot x Spigot (SxS)	Weight Of Sample		
1- 4-74	4"	29"	SxS	2.75 lbs.	1.14 lbs.	2150
1- 4-74	4"	29"	SxS	2.75 lbs.	1.14 lbs.	2375
1- 5-74	4"	29"	SxS	2.75 lbs.	1.14 lbs.	2200
1- 5-74	4"	29"	SxS	2.75 lbs.	1.14 lbs.	2175
1- 8-74	4"	29"	SxS	2.75 lbs.	1.14 lbs.	2225
1- 8-74	4"	29"	SxS	2.75 lbs.	1.14 lbs.	2250
1-15-74	4"	29"	SxS	2.75 lbs.	1.02 lbs.	2350
1-15-74	4"	29"	BxS	3.25 lbs.	1.95 lbs.	1950

TRADE SECRET
J-M 83

MTC 010503

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JOHNS-MANVILLE

Quality Control Department

Report No. D-Perm-421

Pipe _____ DIVISION

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Denison _____ PLANT

Date 2-15-74

Subject: Permastran Dry Glass Weight and Weight Per Foot

Requested by: A. M. Curry

Identification:

Date	Size	Length	Type Of Sample	Weight Of Sample	Weight Per Foot	Burst Pressure
			(BellxSpigot (BxS) SpigotxSpigot (SxS)			(Spec 8" 1500 P.S.I.)
1-21-74	8"	27-1/2"	BxS	10.00 lbs.	4.37 lbs.	1600
1-21-74	8"	27-1/2"	SxS	6.75 lbs.	2.95 lbs.	1850
1-23-74	8"	27-1/2"	BxS	10.25 lbs.	4.48 lbs.	1525
1-23-74	8"	27-1/2"	SxS	8.25 lbs.	3.60 lbs.	1800
1-28-74	8"	27-1/2"	SxS	7.75 lbs.	3.38 lbs.	1510
1-29-74	8"	27-1/2"	SxS	-	-	1500
2- 1-74	8"	27-1/2"	SxS	6.75 lbs.	2.95 lbs.	1600
2- 2-74	8"	27-1/2"	SxS	7.00 lbs.	3.06 lbs.	1600
2- 4-74	8"	27-1/2"	SxS	-	-	1750
2-4-74	8"	27-1/2"	BxS	10.50 lbs.	4.59 lbs.	1450*
2- 5-74	8"	27-1/2"	SxS	7.50 lbs.	3.28 lbs.	1700
2- 5-74	8"	27-1/2"	SxS	7.00 lbs.	3.06 lbs.	1605
2- 6-74	8"	27-1/2"	SxS	7.00 lbs.	3.06 lbs.	1650
2- 6-74	8"	27-1/2"	SxS	7.25 lbs.	3.17 lbs.	1625

* Blew Ring

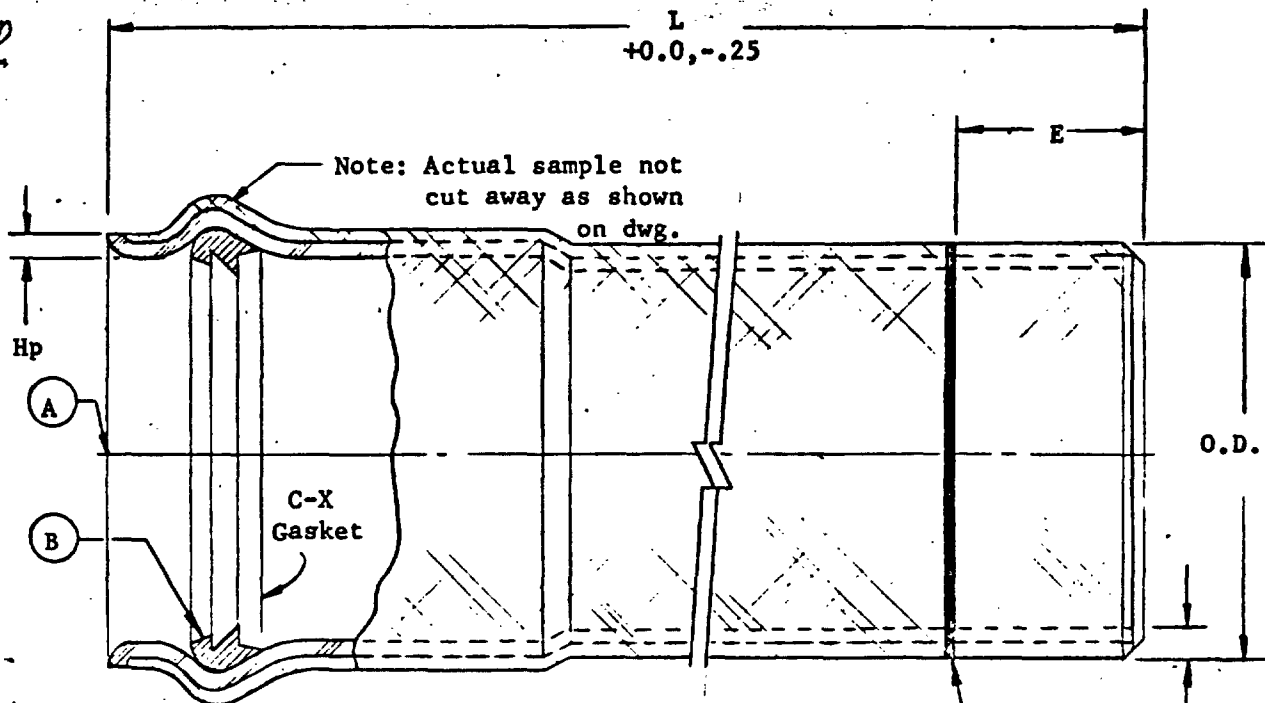
TRADE SECRET
J-M 83

MTC 010504

APPROVED: Alan M. Curry *ame*

REPORT BY: Bob Lea *B.L.*

MTC 010505



(A) Pipe Bell Section : PL16-100

(B) Rubber Sealing Ring : PL16-211

NOTE: For Spigot bevel details see dwg. PL16-100-A

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J-M 83

PIPE SIZE	O.D.	T	Hp	E	PERM No.	L	Wt. Lbs.
6	6.625	.128 - .153	.260 - .330	4.4	1	36.0	6.3

MTC 010506

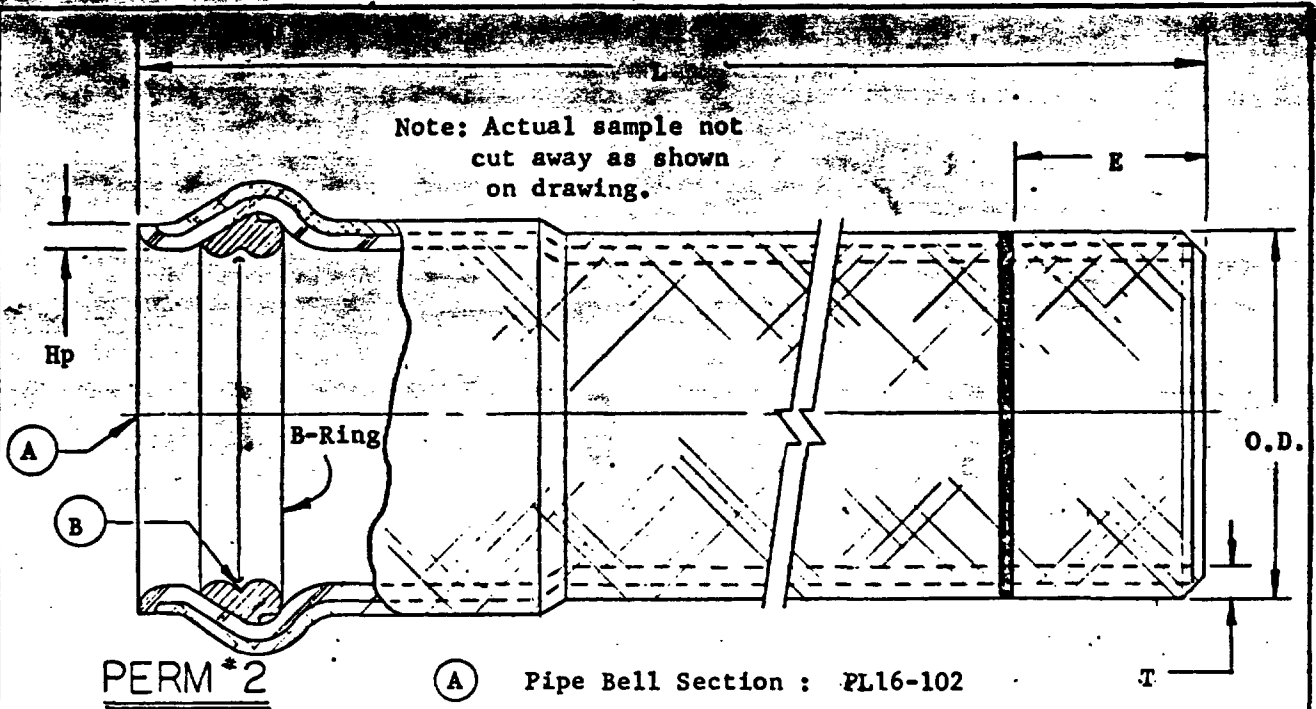
PROPOSED

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED

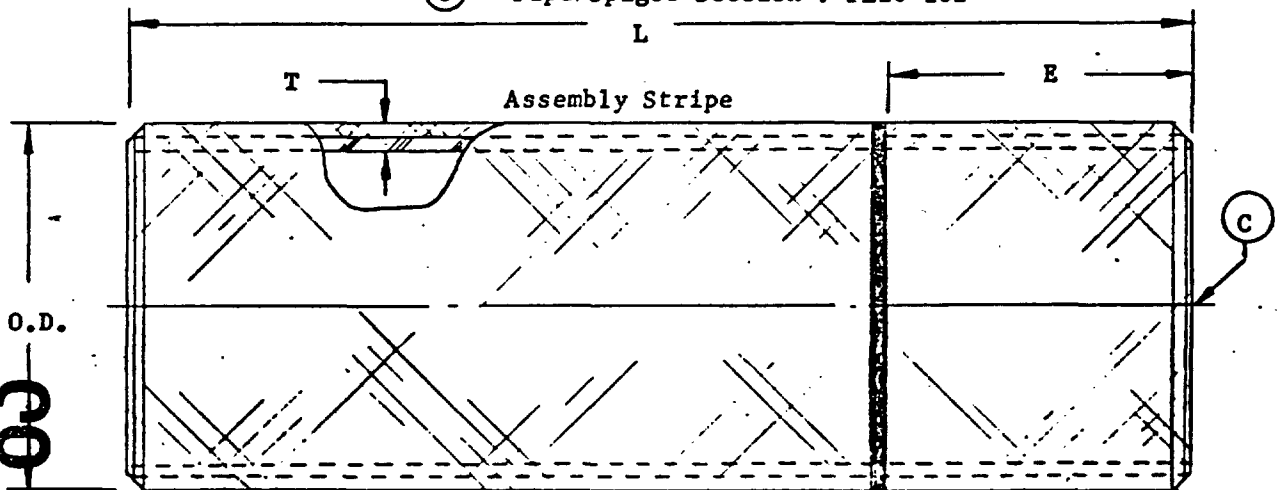
Johns-Manville SALES CORPORATION PIPE DIVISION JM DIVISION DATA DENVER, COLO. 80202	REV'D	DFTN	CHKD	DATE: 2-6-74	DRWN: GORMAN	CHKD: K	APVD:
				PERMASTRAN PIPE RUBBER RING BELL, SAMPLE PERM #1			
				NOT TO SCALE		DWG. PL16-900 SUPERSEDES DWG	

TRADE SECRET

J-M 83



- (A) Pipe Bell Section : PL16-102
- (B) Rubber Sealing Ring (insert for shipment) PL16-212
- (C) Pipe Spigot Section : PL16-102



Note: For Spigot bevel details see dwg: PL16-100-A

PIPE SIZE	O.D.	T	Hp	E	PERM No.	L	Wt. Lbs..
12	12.750	.273 - .313	.350 - .420	6.7	2	36.0	23.2
12	12.750	.273 - .313	-----	6.7	3	18.0	11.5

48" per letter to Cloness 2-8-74

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED

PROPOSED B.P.

Johns-Manville SALAS CORPORATION PIPE DIVISION JOHNS-MANVILLE PL 676 DENVER, COLORADO 80202	REV'D	DFTM'N	CHK'D	DATE: 2-6-74	DRWN: GORMAN	CHK'D: JK	APVD:
				PERMASTRAN PIPE RUBBER RING BELL - SPIGOT SAMPLES ; PERM #2 ; PERM #3			
	NOT TO SCALE			DWG. PL16-901 SUPERVISED DWG.			

MTC 010507