



**MMC INTERNATIONAL CORP**

**OPERATING AND MAINTENANCE  
INSTRUCTIONS**

**FLEXI-DIP SAMPLING TAPE  
(RESTRICTED GAUGING)**

**MODEL D-2562-1FS**

**MMC INTERNATIONAL CORP.  
60 INIP DRIVE  
INWOOD, NEW YORK 11096**

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## SECTION I

### 1.0 INTRODUCTION:

The MMC Gauging Sampling system is part of a growing family of MMC products designed to make the gauging and sampling of bulk petroleum and chemical products, more accurate and safer.

The easy use and safety in utilization of MMC Product equipment is always foremost in the minds of our designers.

The use of MMC Restricted Gauging and Sampling Equipment, in conjunction with MMC Vapor Control Valves is well known and established worldwide.

## SECTION II

### 2.0 **BASIC OPERATING PROCEDURES:**

(Please refer to Figure 1 and Drawing D-2562-1FS and D-2519-1)

This operation requires the use of MMC's sampler tape shown on Drawing D-2562-1FS and a suitable sampler container, such as shown on Drawing D-2519-1.

Attach the sampler container to the snap hook on the sampler tape and fully rewind.

As far as cargo sampling, the sampler tape barrel is inserted into the vapor valve, and the securing collar tightened. The vapor valve can now be opened, and the sample container lowered into the product.

A product sample is being taken into the sample cylinder as it is lowered into the desired sample level. Upon obtaining the desired sample level, the cylinder is raised with a continuous motion up into the sampler tape barrel, the valve is then closed.

The sampler tape can now be removed from the station. Carefully lower the sample container from the barrel and disconnect from the sampler hook. The contents of the sample container may now be poured into a suitable transfer container.

## SECTION III

### 3.0 SYSTEM GROUNDING AND OTHER GAUGING AND/OR SAMPLING PRECAUTIONS:

As previously mentioned, the sampler assembly is provided with a grounding cable.

It is recommended that the sampler assembly grounding cable be properly connected to a known good hull vessel ground, at all times during usage.

However, please also refer to the specific equipment grounding directives of your company or other regulatory bodies, which should be strictly adhered to as the primary operator responsibility.

- 3.1 The sampling of products known to be static accumulators should only be carried out with prior approval of the local site authorities.

While such judgements are a matter of experience and established recommendations, if in doubt, do not proceed with a sampling operation until such is resolved, with the proper authorities.

- 3.2 In the process of sample collection, excess product may remain within the valve interior, due to the sample bottle capacity. This may be the case when double dipping using a 1/3-liter sampler, with a 1/2 liter sampler bottle.

- 3.3 In the case of sampling static accumulative type products, the above procedures are not recommended without an inert gas blanket over the product.

In the latter case, the excess product should be collected in another sampler bottle, and either returned to tank by approved means, or otherwise safely disposed of.

- 3.4 The sampling of certain products may require the use of special protective devices. The sole use of this equipment does not eliminate the need for such additional protective measures, unless so authorized by responsible parties.

## SECTION VI

### 4.0 CARE AND MAINTENANCE:

The care and maintenance of this equipment is the responsibility of the end user.

Depending on the types of different products which are to be sampled, the necessity for cleaning of the reel housing becomes self-evident.

The sampler barrel and associated equipment is easily cleaned with any standard cleaning solution or solvent.

- 4.1 The gauging tape, which serves to raise and lower the provided sampler tube, is also used to provide a ground path between the sampler tube and main reel housing.

The continuity of the gauging tape ground path should be verified at frequent intervals. A simple ohmmeter check is all that is required.

- 4.2 The lack of ground continuity through the gauging tape to the main tape reel housing and then to the grounding cable, is a cause for concern.

A first check would be the grounding cable to housing, and then the gauging tape from its reel hub ground points to the tape snap hook end.

- 4.3 A gauging tape with a broken or fractured steel core should be replaced.

- 4.4 If a gauging tape requires replacement, please be careful to notice the order of parts removal, to ensure a correct re-assembly. Always re-check the ground continuity upon completion of gauging tape replacement.

## WARRANTY

### MMC RESTRICTED SAMPLING TAPES:

The seller, MMC or its licensed agents, fully warrants equipment of its manufacture against defects in materials or workmanship for a period of one year from the date of shipment. No other warranty period, in excess of one year, may be expressed or implied by sub-agents or others, unless authorized in writing by MMC. The liability of the seller under this warranty is limited, at seller's option, solely to repair or replace with equivalent equipment.

The seller, upon the expiration of the warranty period, has the option to apply a limited credit, not to exceed the original equipment sales price, toward the purchase of a new piece of equipment, if returned equipment is beyond reasonable repair. In any event, non-warranty repair charges will be quoted to the buyer, for authorization, before repair work commences.

In the event of Returns for Warranty Repairs:

This warranty does not include mechanical failure due to wear or corrosion from normal usage, nor does it cover elastomer seals.

- A. The buyer is to notify the seller in writing upon discovery of the defects.
- B. Upon receipt of written authorization from the seller, the equipment is to be returned as directed, transportation prepaid by the buyer.
- C. Buyer is to disclose the use of this product within hazardous chemical substances. It is the responsibility of the buyer to clean or decontaminate this product before returning for repairs. Buyer's refusal will void repair warranty at seller's option.
- D. If seller's examination of such equipment disclosed to his satisfaction that defects were not caused by negligence, misuse, improper installation, accident or unauthorized repair or alteration by the buyer, repairs will be immediately affected.
- E. Buyer is to provide shipping instructions for the return, including mode of transportation. This warranty does not include mechanical parts failure due to wear or corrosion from normal usage, nor does it cover limited life electrical components or elastomer seals.

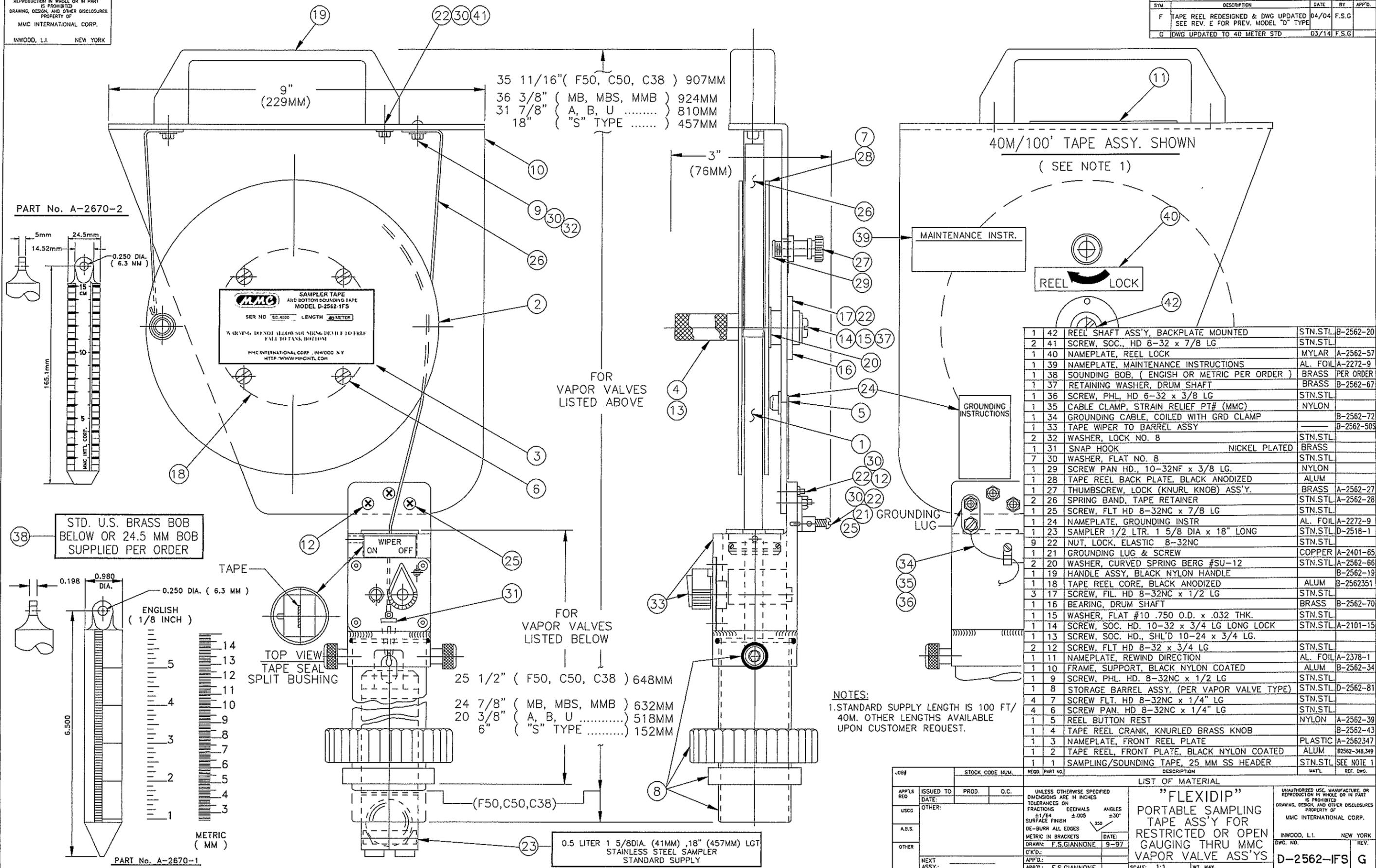
This warranty is in lieu of all other warranties, expressed or implied, including that implied of fitness for a particular purpose to the original purchaser or to any other person. Seller shall not be liable for consequential damages of any kind.

## LIST OF DRAWINGS

<u>DRAWING NUMBER</u>	<u>REV.</u>	<u>DESCRIPTION</u>
D-2562-1FS	G	Flexi-Dip Sampling Tape Restricted Gauging
D-2519-1	C	Samplers for Tank Gauging and Sampling Stations

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INWOOD, L.I. NEW YORK

REVISIONS				
STN.	DESCRIPTION	DATE	BY	APP'D.
F	TAPE REEL REDESIGNED & DWG UPDATED SEE REV. E FOR PREV. MODEL "D" TYPE	04/04	F.S.G.	
G	DWG UPDATED TO 40 METER STD	03/11	F.S.G.	



QTY	DESCRIPTION	STN.	STL.	REF. DWG.
1	42 REEL SHAFT ASS'Y, BACKPLATE MOUNTED	STN.STL.	B-2562-20	
2	41 SCREW, SOC., HD 8-32 x 7/8 LG	STN.STL.		
1	40 NAMEPLATE, REEL LOCK	MYLAR	A-2562-57	
1	39 NAMEPLATE, MAINTENANCE INSTRUCTIONS	AL. FOIL	A-2272-9	
1	38 SOUNDING BOB, ( ENGLISH OR METRIC PER ORDER )	BRASS	PER ORDER	
1	37 RETAINING WASHER, DRUM SHAFT	BRASS	B-2562-67	
1	36 SCREW, PHL, HD 6-32 x 3/8 LG	STN.STL.		
1	35 CABLE CLAMP, STRAIN RELIEF PT# (MMC)	NYLON		
1	34 GROUNDING CABLE, COILED WITH GRD CLAMP		B-2562-72	
1	33 TAPE WIPER TO BARREL ASSY		B-2562-50S	
2	32 WASHER, LOCK NO. 8	STN.STL.		
1	31 SNAP HOOK	NICKEL PLATED	BRASS	
7	30 WASHER, FLAT NO. 8	STN.STL.		
1	29 SCREW PAN HD., 10-32NF x 3/8 LG.	NYLON		
1	28 TAPE REEL BACK PLATE, BLACK ANODIZED	ALUM		
1	27 THUMBSCREW, LOCK (KNURL KNOB) ASS'Y.	BRASS	A-2562-27	
2	26 SPRING BAND, TAPE RETAINER	STN.STL.	A-2562-28	
1	25 SCREW, FLT HD 8-32NC x 7/8 LG	STN.STL.		
1	24 NAMEPLATE, GROUNDING INSTR	AL. FOIL	A-2272-9	
1	23 SAMPLER 1/2 LTR. 1 5/8 DIA x 18" LONG	STN.STL.	D-2518-1	
9	22 NUT, LOCK, ELASTIC 8-32NC	STN.STL.		
1	21 GROUNDING LUG & SCREW	COPPER	A-2401-65	
2	20 WASHER, CURVED SPRING BERG #SU-12	STN.STL.	A-2562-66	
1	19 HANDLE ASSY, BLACK NYLON HANDLE		B-2562-19	
1	18 TAPE REEL CORE, BLACK ANODIZED	ALUM	B-2562351	
3	17 SCREW, FIL. HD 8-32NC x 1/2 LG	STN.STL.		
1	16 BEARING, DRUM SHAFT	BRASS	B-2562-70	
1	15 WASHER, FLAT #10 .750 O.D. x .032 THK.	STN.STL.		
1	14 SCREW, SOC. HD. 10-32 x 3/4 LG LONG LOCK	STN.STL.	A-2101-15	
1	13 SCREW, SOC. HD., SHL'D 10-24 x 3/4 LG.	STN.STL.		
2	12 SCREW, FLT HD 8-32 x 3/4 LG	STN.STL.		
1	11 NAMEPLATE, REWIND DIRECTION	AL. FOIL	A-2378-1	
1	10 FRAME, SUPPORT, BLACK NYLON COATED	ALUM	B-2562-34	
1	9 SCREW, PHL. HD. 8-32NC x 1/2 LG	STN.STL.		
1	8 STORAGE BARREL ASSY. (PER VAPOR VALVE TYPE)	STN.STL.	D-2562-81	
4	7 SCREW FLT. HD 8-32NC x 1/4" LG	STN.STL.		
4	6 SCREW PAN. HD 8-32NC x 1/4" LG	STN.STL.		
1	5 REEL BUTTON REST	NYLON	A-2562-39	
1	4 TAPE REEL CRANK, KNURLED BRASS KNOB		B-2562-43	
1	3 NAMEPLATE, FRONT REEL PLATE	PLASTIC	A-2562347	
1	2 TAPE REEL, FRONT PLATE, BLACK NYLON COATED	ALUM	B2562-348,349	
1	1 SAMPLING/SOUNDING TAPE, 25 MM SS HEADER	STN.STL.	SEE NOTE 1	

NOTES:  
1. STANDARD SUPPLY LENGTH IS 100 FT/ 40M. OTHER LENGTHS AVAILABLE UPON CUSTOMER REQUEST.

JOB#	STOCK CODE NUM.	REQ. PART NO.	DESCRIPTION	MATL.	REF. DWG.

APPLS. REQ.	ISSUED TO	PROD.	Q.C.

USCC	OTHER:

A.B.S.	OTHER:

OTHER:	DATE:

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE IN INCHES	UNLESS OTHERWISE SPECIFIED TOLERANCES ARE IN MILLIMETERS
FRACTIONS: ±1/64	FRACTIONS: ±0.05
DECIMALS: ±0.005	DECIMALS: ±0.05
ANGLES: ±30'	ANGLES: ±30'
SURFACE FINISH: DE-BURR ALL EDGES	SURFACE FINISH: DE-BURR ALL EDGES
METRIC IN BRACKETS	METRIC IN BRACKETS
DRAWN: F.S.GIANNONE	DRAWN: F.S.GIANNONE
C'K'D:	C'K'D:
APP'D:	APP'D:
NEXT ASSY:	NEXT ASSY:

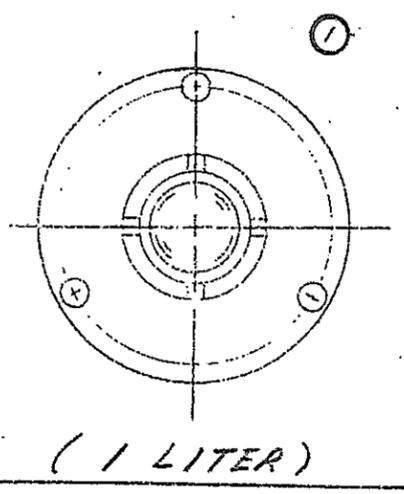
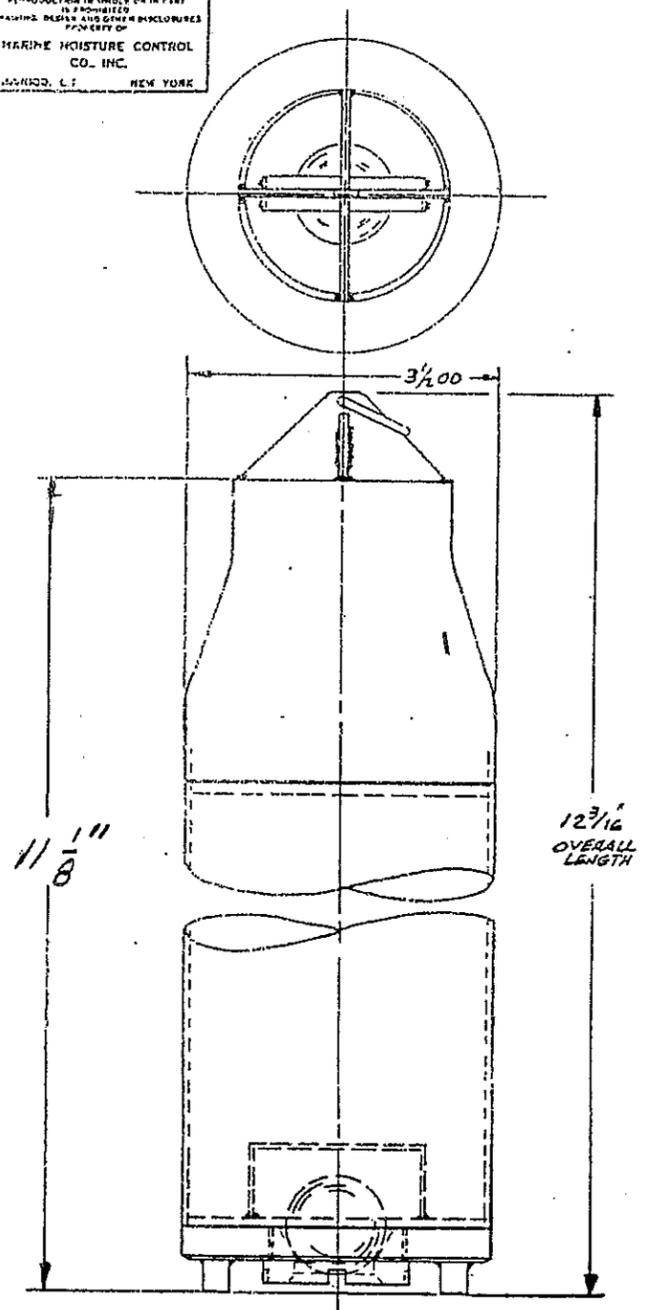
LIST OF MATERIAL	
"FLEXIDIP" PORTABLE SAMPLING TAPE ASS'Y FOR RESTRICTED OR OPEN GAUGING THRU MMC VAPOR VALVE ASS'YS	SCALE: 1:1 WT. MAX.

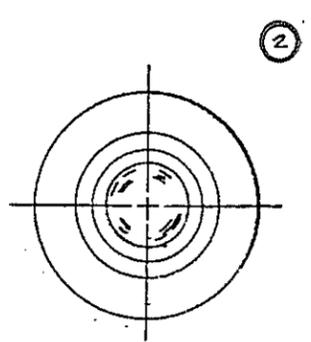
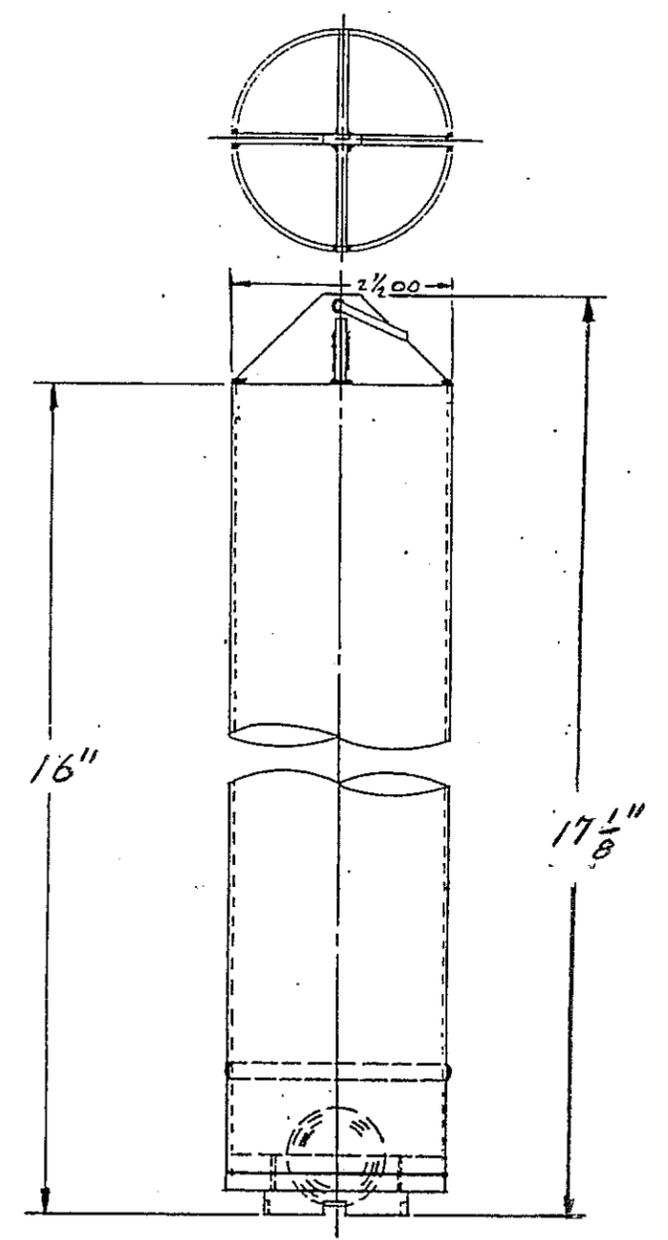
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DWG. NO. D-2562-IFS	REV. G

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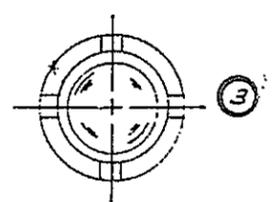
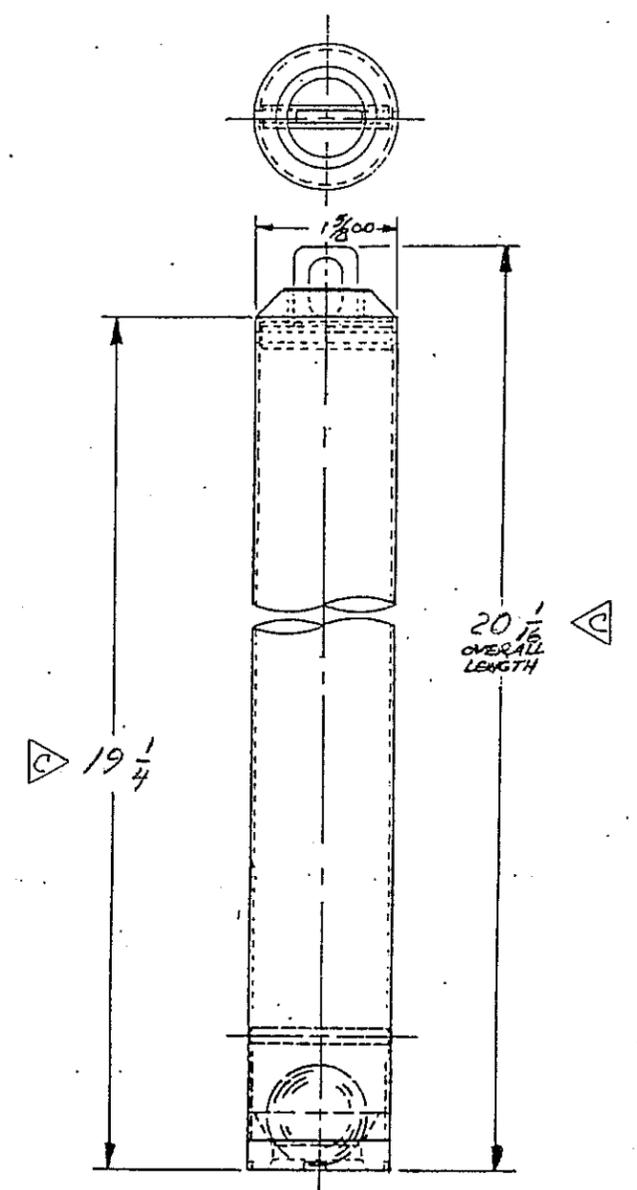
REVISIONS				
SYM.	DESCRIPTION	DATE	BY	APP'D
A	REVISED PICTORIALY	7-14-51	LC	
B	ADDED SIZE (3)	11-31-51	JA	
C	WAS 18 1/8" 13/16" RESP.	9/19/51		<i>[Signature]</i>



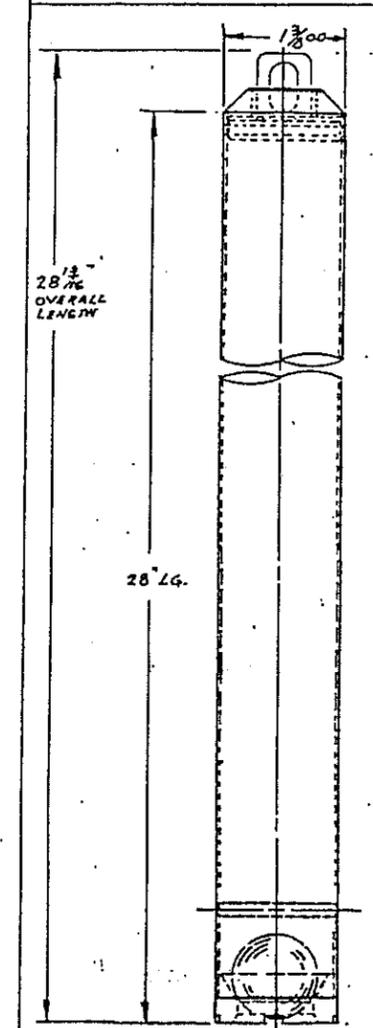
( 1 LITER )



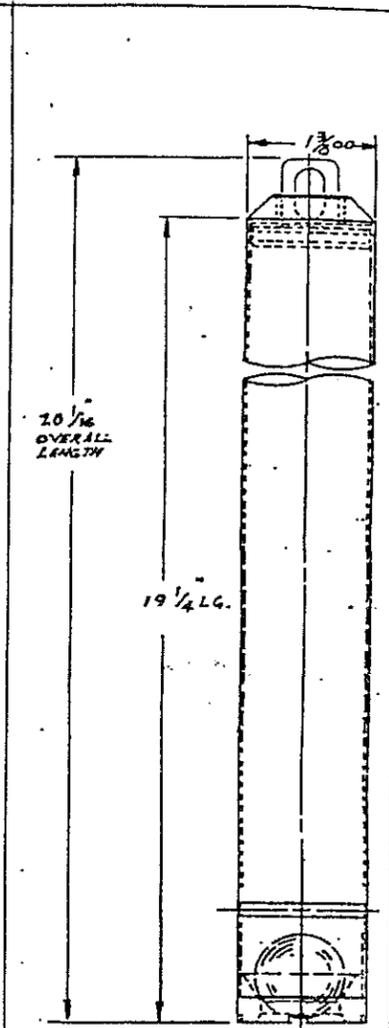
( 1 LITER )



( 1/2 LITER )



(5) ( 1/3 LITER ) SPECIAL (SEE D-2518-2)



(4) ( 1/3 LITER )

ITEM NO.	ORDER PART NUMBER
1	1 LITER PT # 1LTR-3.5X11LG
2	1 LITER PT # 1LTR-2.516LG
3	1/2LTR-1.625X19
4	1/3LTR-1.375X19

NOTE: ABOVE ARE ALL STN. STL. CONSTRUCTION.

JOB #	STOCK CODE NUM.	ISS. PART NO.	DESCRIPTION	WGT.	ASTM NO.
LIST OF MATERIAL					
APPL. REQ.	ISSUED TO	PROD.	Q.C.	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES.	
DATE	OTHER:			TOLERANCES ON FRACTIONS: DECIMALS ANGLES 1/16 1/32 1/64	
WKS.	DATE			METRIC IN BRACKETS	
ASST.	DATE			DRAWN: P.H.	
OTHER	DATE			CHECKED: [Signature]	
NEXT ASST.			DATE		
SCALE: FULL			WT. MAX.		
SAMPLERS FOR TANK GAUGING & SAMPLING STATIONS				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN WHOLE OR IN PART INCHES. DESIGN AND OTHER ENCLOSURES ARE THE PROPERTY OF MARINE MOISTURE CONTROL CO., INC.	
				WOOD: L.L.	NEW YORK
				DWG. NO.	REV.
				D-2519-1	C