

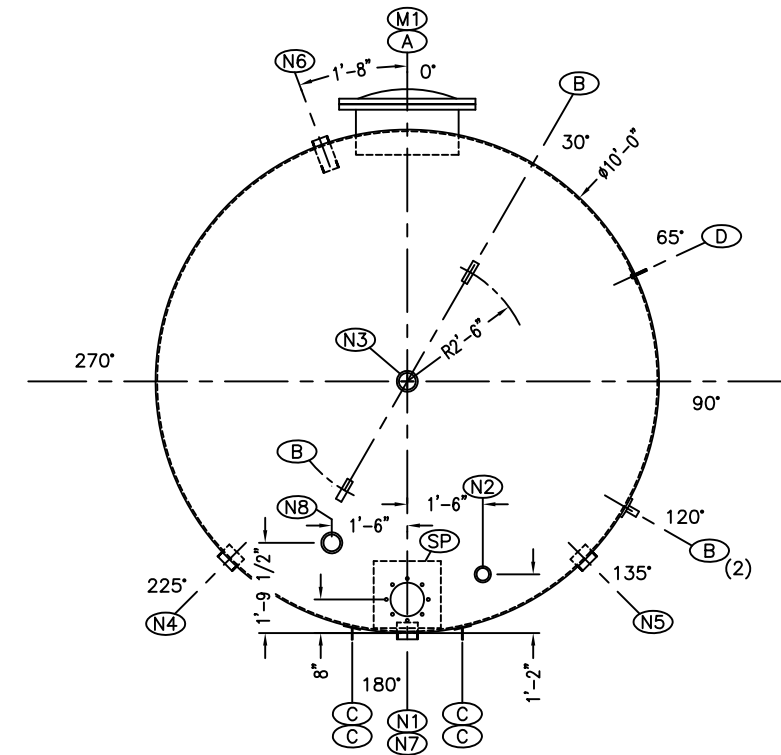


API-12P Vertical FRP Tank

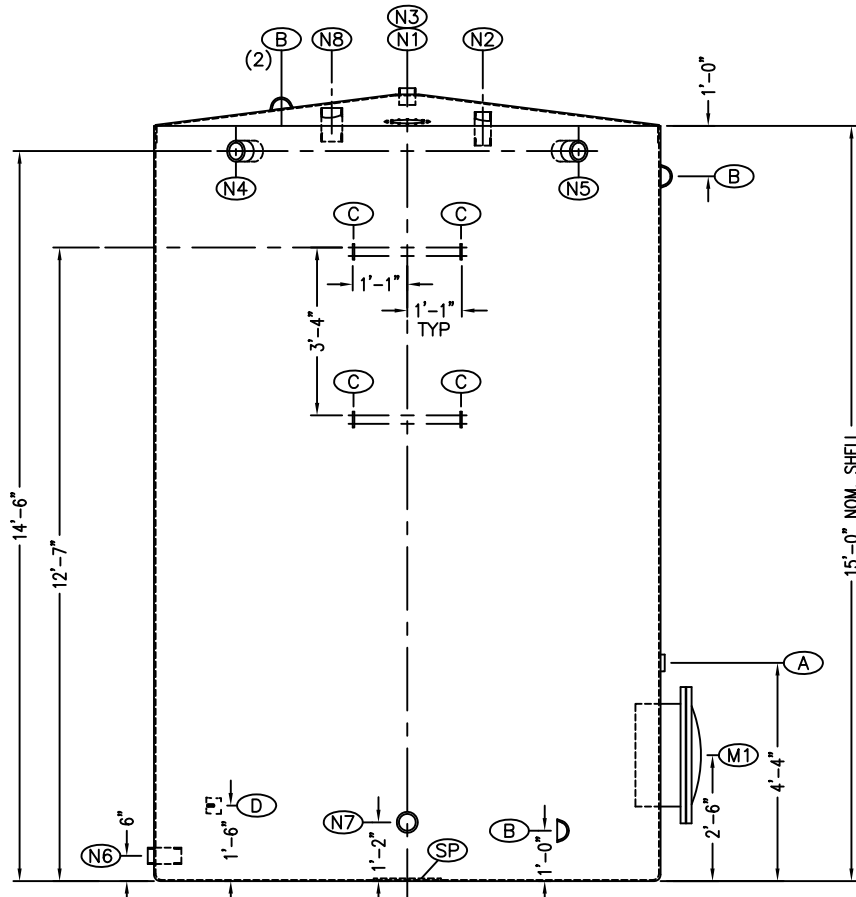
Storage Capacity 210 BBL (8,800 Gallons)

Tank Size 10' Diameter x 15' Straight Shell

Contact our Sales Department for Pricing



PLAN VIEW
(TRUE ORIENTATION)



ELEVATION VIEW
(NOT TRUE ORIENTATION)

Palmer MANUFACTURING AND TANK INC.

PART NUMBER STD-F210-01B REV. 0
 API SPEC 12P SERIAL NUMBER
 YEAR BUILT ??/2011
 NOMINAL DIAMETER 10'
 NOMINAL HEIGHT 15'
 NOMINAL CAPACITY 210 BBL.
 RESIN ISO/ORTHO S.G. 1.0
 MAXIMUM TEMPERATURE 120 °F
 DESIGN VAC. 1.2 OZ 2 IN. W.C.
 DESIGN PRESSURE 4 OZ.

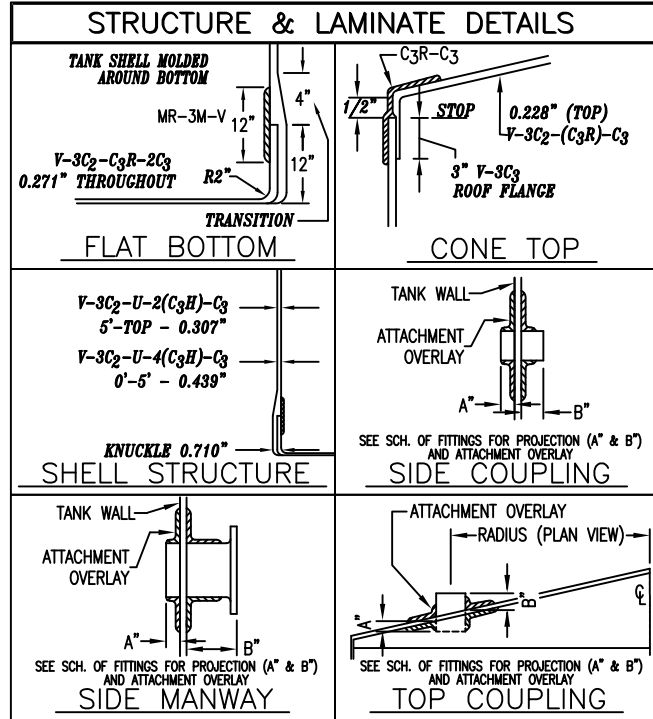
API NAMEPLATE
NTS

BILL OF MATERIALS

QUAL. CHK.	SYM.	PALMER INVENTORY	QTY.	DESCRIPTION	NOTES/MODEL NO.	ATTACHMENT OVERLAY		MATERIAL
						OUTSIDE	INSIDE	
			1	FLAT BOTTOM: 10' I.D.				ISO/ORTHO
			1	CONE TOP: 10' I.D.				ISO/ORTHO
			1	SHELL: 10' I.D.				ISO/ORTHO
	A	10049	1	NAMEPLATE BRACKET			2M	ALUMINUM
		07531A	1	NAMEPLATE				ALUMINUM
	B	30043	4	PALMER #1 LIFT LUG			2F-M	CARBON STEEL
		50152	1	24" SIDE MANWAY HARDWARE	24" SIDE MANWAY BOLT KIT			CARBON STEEL
		08011	1	24" MANWAY GASKET				NEOPRENE
		50141	1	8" THIEF HATCH HARDWARE	8" THIEF HATCH BOLT KIT			CARBON STEEL
	C	30044	4	WALKWAY BRACKET			2F-M	CARBON STEEL
	SP	30037	1	1/4" x 16" x 16" STRIKER PLATE			2M-V	CARBON STEEL
		10010A	1	S.S. GROUNDING LUG			MR-M	Vc-2MR-3M-Vc
	D	01524C	1	12" CARBON VEIL LINER STRIP				316 S.S.

QUAL. CHK.	SYM.	PALMER INVENTORY	QTY.	SCHEDULE OF FITTINGS	SERVICE	PROJECTION		ATTACHMENT OVERLAY			MATERIAL
						OUTSIDE-B	INSIDE-A	OUTSIDE	INSIDE	REPAD	
	M1	04026	1	24" SIDE MANWAY w/COVER AND HARDWARE	SIDE ACCESS	6"	A/R	3MR-2M	2MR-3M-V		ISO
	N1	06042	1	8" THIEF HATCH	LEVEL/INSPECTION			(BOLTED)			ALUMINUM
	N2	07119	1	3" NPT FULL COUPLING	FILL	1 1/2"	A/R	3M	3M-V		VINYL ESTER
	N3	07040	1	4" NPT HALF COUPLING	VENT	1 1/2"	A/R	1MR-2M	3M-V		VINYL ESTER
	N4	07040	1	4" NPT HALF COUPLING	OVERFLOW	1 1/2"	A/R	1MR-2M	3M-V		VINYL ESTER
	N5	07040	1	4" NPT HALF COUPLING	OVERFLOW	1 1/2"	A/R	1MR-2M	3M-V		VINYL ESTER
	N6	07119	1	3" NPT FULL COUPLING	DRAIN	1 1/2"	A/R	3M	3M-V		VINYL ESTER
	N7	07040	1	4" NPT HALF COUPLING	PIPE LINE	1 1/2"	A/R	1MR-2M	3M-V		VINYL ESTER
	N8	07120	1	4" NPT FULL COUPLING	AUXILIARY	1 1/2"	A/R	1MR-2M	3M-V		VINYL ESTER

QUAL. CHK.	SYM.	PALMER INVENTORY	QTY.	ITEMS TO SHIP LOOSE	NOTES/MODEL NO.	MATERIAL



- NOTES:
- STRUCTURAL LAYER ANALYSIS:
 MINIMUM KNUCKLE RADIUS---2"
 C₁ = CHOP 27% E GLASS REINFORCEMENT 0.010"
 C₂ = CHOP 27% E GLASS REINFORCEMENT 0.033"
 C₃ = CHOP 27% E GLASS REINFORCEMENT 0.043"
 F = FABMAT (1.5 oz MAT w/24 oz ROVING) 0.076"
 H = HOOP WOUND 50% E GLASS REINFORCEMENT 0.023"
 M = 1.5 oz. RANDOM STRAND MAT 0.043"
 N = NEXUS VEIL 0.010"
 P = 3D FABRIC .1875"
 R = 24 oz. WOVEN ROVING 0.033"
 U = UNIGLASS 0.023"
 V = C-VEIL 0.010"
 V_c = CARBON-VEIL 0.010"
 - TANK EXTERIOR TO BE PIGMENTED: _____
 - TANK TO BE HYDROSTATIC TESTED BY FILLING W/WATER 12" ABOVE THE TOP CROWN OF TANK. HOLD WATER LEVEL FOR FOUR HOUR MINIMUM.
 - DIMENSIONAL TOLERANCE TO BE ± 1/8".
 - THICKNESS TOLERANCE TO BE -0 + 15%.
 - BOLTING HARDWARE IS SA-563 NUTS, AND SA-307 BOLTS.
 - CONTAINS 1% - 3% RENFIL/RESIN RATIO BY WEIGHT TO REDUCE STYRENE EMISSIONS, NOT USED AS A FILLER.

APPROVED FOR PRODUCTION: _____

DATE: _____

PALMER SO#: _____

PALMER SERIAL#: _____

DESIGN CONDITIONS	MATERIAL CONSTRUCTION
PRESSURE: ATMOSPHERIC	LINER RESIN: ISO
TEMPERATURE: AMBIENT	LINER MATERIAL: C-VEIL
CONTENTS: OIL	STRUCTURE RESIN: ORTHO
SPECIFIC GRAVITY: 1.0 (MAX.)	STRUCTURE MATERIAL: E GLASS
EMPTY WEIGHT: 3,200# NOM	UV INHIBITOR: TINUVEN
CAPACITY: 8,820 GAL./210 BBL (NOM)	MFG. SPEC: API-12P 3rd ED. (STANDARD)
SCALE: 3/8"=1'-0"	DATE: 8/6/11
	CHKD.BY: JK
	DWN.BY: TGF

Palmer MFG. & TANK, INC.
GARDEN CITY, KANSAS.

<p>THIS IS AN EXACT COPY OF (FRP-210-10 REV 0) WITH THESE CHANGES: CHANGED DRAWING NUMBER TO PART NUMBER, UPDATED PART NUMBER TO CURRENT NAMING CONVENTION, UPDATED NOTES SECTION, ADDED RENFIL NOTE, UPDATED B.O.M., UPDATED NAMEPLATE TO CURRENT STANDARD, REMOVED DETAILS THAT ARE NOW STANDARD, CHANGED ATTACHMENT LAMINATES ON WALKWAY BRACKETS.</p>	JK	8/6/11	TGF	SALES ORDER NUMBER:
	SYM.	DRAWING REVISIONS	CHKD. BY	DATE

API 12P (STANDARD)

210 BBL. STORAGE TANK

PART NUMBER: STD-F210-01B

SHEET: 1 OF 1

