

PIPE SIZES			
	1 UNIT	2 UNITS	3 UNITS
<b>RAYTHERM</b>			
181-401	1-1/2"	2"	2-1/2"
514-824	2"	3"	4"
926-1826	2-1/2"	3"	4"
2100-4001	3"	4"	6"
<b>MVB</b>			
503-754	2"	3"	4"
1003-2004	2-1/2"	4"	5"
<b>HI DELTA</b>			
HD101-HD401	1-1/2"	2"	2-1/2"
302-902	2"	3"	4"
992-2342	2-1/2"	4"	5"

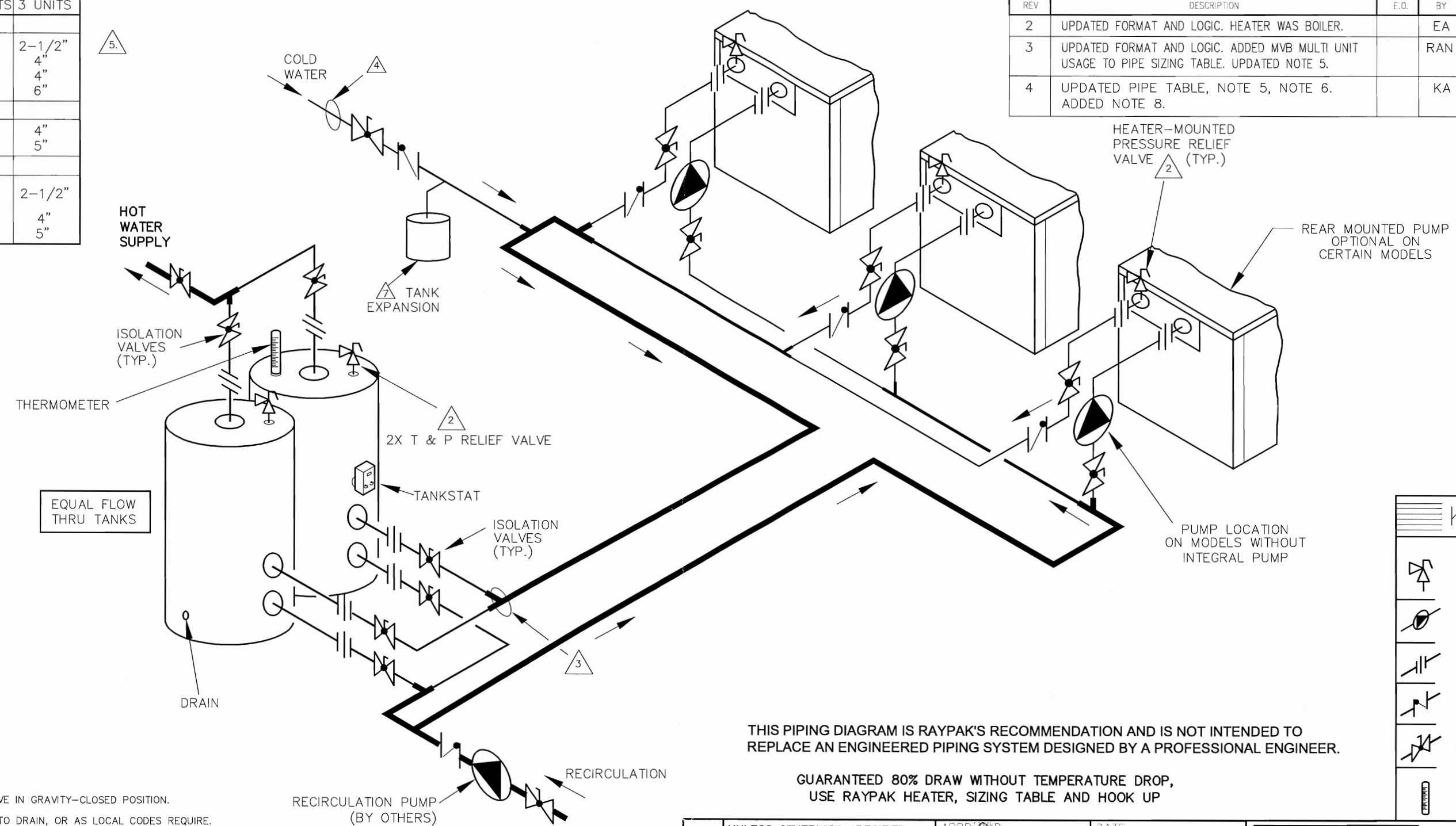
REVISIONS				
REV	DESCRIPTION	E.O.	BY	DATE
2	UPDATED FORMAT AND LOGIC. HEATER WAS BOILER.		EA	5-6-04
3	UPDATED FORMAT AND LOGIC. ADDED MVB MULTI UNIT USAGE TO PIPE SIZING TABLE. UPDATED NOTE 5.		RAN	1-27-09
4	UPDATED PIPE TABLE, NOTE 5, NOTE 6. ADDED NOTE 8.		KA	2-3-14

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- NOTES:
1. PLUMB SWING CHECK VALVE IN GRAVITY-CLOSED POSITION.
  2. PIPE ALL RELIEF VALVES TO DRAIN, OR AS LOCAL CODES REQUIRE.
  3. LOCATE TEE AS CLOSE AS POSSIBLE TO TANK.
  4. INSTALL COLD WATER BETWEEN HEATER OUTLET AND TANK.
  5. SEE CHART "PIPE SIZES" FOR PIPE SIZES, CALCULATED AT MAXIMUM FLOW, NOT TO EXCEED 7.5 FT/SEC.
  6. STANDARD PUMP SIZING BASED ON 75 EQUIVALENT FEET OF PIPING. IF DISTANCE IS GREATER, THE PUMP MUST BE SIZED TO ACCOMMODATE INCREASE IN PIPING-RELATED LOSSES.
  7. PROVIDE FOR THERMAL EXPANSION OF HOT WATER IF A BACKFLOW PREVENTER, CHECK VALVE, WATER METER OR PRESSURE-REDUCING VALVE IS INSTALLED IN THE COLD WATER LINE.
  8. IF HOT WATER SETPOINT EXCEEDS 160°F WITH MAX FLOW, SPECIFY "H" BOILERS INSTEAD OF "WH" WATER HEATERS.

THIS PIPING DIAGRAM IS RAYPAK'S RECOMMENDATION AND IS NOT INTENDED TO REPLACE AN ENGINEERED PIPING SYSTEM DESIGNED BY A PROFESSIONAL ENGINEER.

GUARANTEED 80% DRAW WITHOUT TEMPERATURE DROP, USE RAYPAK HEATER, SIZING TABLE AND HOOK UP

KEY	
	PRESSURE RELIEF VALVE
	PUMP
	UNION
	CHECK VALVE
	BALL VALVE
	THERMOMETER

ACAD: 8032.DWG

HEATERS SHOWN REPRESENT VARIOUS MODELS. BECAUSE INDIVIDUAL MODELS WILL VARY IN DESIGN AND SIZING, SEE EACH SPECIFIC HEATER TYPE FOR DETAILS.

8032	UNLESS OTHERWISE SPECIFIED: ALL UNITS ARE IN INCHES FRACTIONS ±1/32 ANGLES ±1° X.X = ±.12 X.XX = ±.06 X.XX = ±.03 X.XXX = ±.010 DRAFT WALL RADII CONCENTRICITIES .020 DIA. SQUARENESS .015 IN./IN. BREAK EDGES .015 MAX. SURFACE FINISH PER ASME Y14.36M-1996	APPROVED 	DATE 2-14-14		OXNARD, CALIFORNIA	
	CHECKED D BALDWIN	DATE 4-17-96	E.O.		SCALE	
	DRAWN D BALDWIN	DATE 4-17-96	SPR	NONE	THIS DRAWING SUBMITTED UNDER CONFIDENTIAL RELATIONSHIP, AS IT EMBODIES PROPRIETARY INFORMATION, WITH ALL RIGHTS RESERVED BY RAYPAK, INC.	
	TITLE PIPING, UNI-TEMP 80: 3 HEATER, 2 V TANKS		SIZE B			
4	MAT'L.	SERIES/MODEL WH	DWG. NO. 8032	REV 4		