

Carbon Steel

Model	WFLV
Sizes	6", 8", 12", 16"
Connections	150# RF
Body Material	Carbon Steel
PMO Max. Operating Pressure	150 PSIG
TMO Max. Operating Temperature	366°F
PMA Max. Allowable Pressure	150 PSIG @ 562°F

Note: 300 PSIG unit available. Consult factory.

Typical Applications

The WFLV Flash tanks are installed in condensate return systems to separate off flash steam from hot condensate and neutralize pressure in condensate return lines. The flash steam may be used for low pressure heating applications or vented to atmosphere.

How to Size / Order

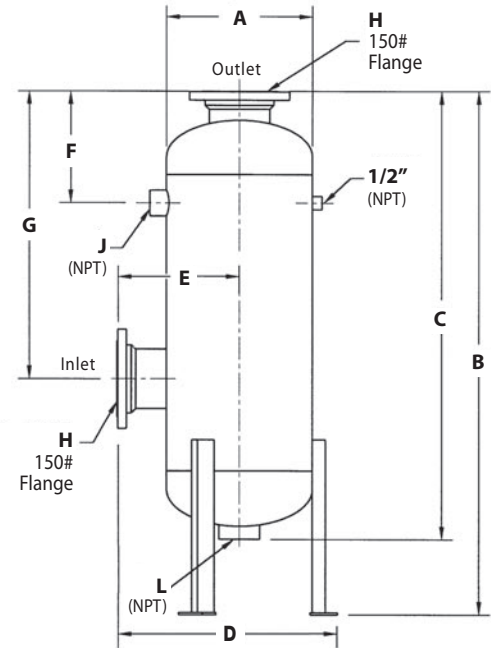
Use Table 1 to determine amount of Flash Steam that will be generated by the hot pressurized condensate. The percentage of Flash Steam formed is found where Condensate Pressure and Flash Tank Pressure intersect.

Multiply your Condensate Load by the decimal equivalent of the Flash Steam Percent to determine the amount of Flash Steam in lbs/hr. Then, use Figure 1 to determine Flash Tank Size required:

Example: Condensate Pressure: 100 PSIG  
Flash Tank Pressure: 20 PSIG  
Condensate Load: 8,000 lbs/hr  
% Flash Steam: 8.7% from chart  
Decimal Equivalent % Flash Steam = .087

$.087 \times 8000 = 696 \text{ lbs/hr of flash steam}$

Therefore Choose: 12" FLASH TANK

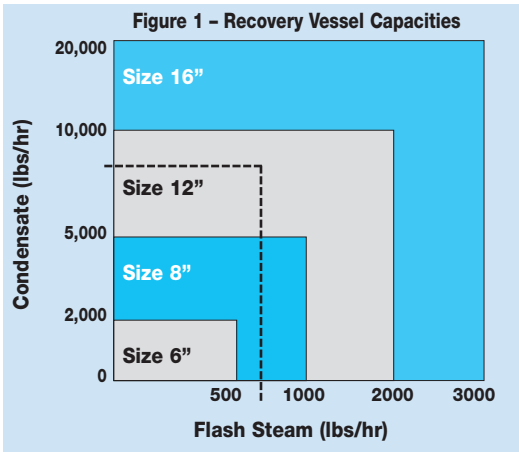


Note: All Watson McDaniel flash steam recovery vessels are supplied with ASME Section VIII Code Stamp.

Table 1 – PERCENT (%) FLASH STEAM

Produced when condensate is discharged to atmosphere (0 PSIG) or into a flash tank controlled at various pressures

Condensate Pressure (PSIG)	Flash Tank Pressure (PSIG)									
	0	5	10	20	30	40	60	80	100	
5	1.6	0.0								
10	2.9	1.3	0.0							
15	3.9	2.4	1.1							
20	4.9	3.3	2.1	0.0						
30	6.5	5.0	3.7	1.7	0.0					
40	7.8	6.3	5.1	3.0	1.4	0.0				
60	10.0	8.5	7.3	5.3	3.7	2.3	0.0			
80	11.8	10.3	9.1	7.1	5.5	4.2	1.9	0.0		
100	13.3	11.8	10.6	8.7	7.1	5.8	3.5	1.6	0.0	
125	14.9	13.5	12.3	10.4	8.8	7.5	5.3	3.4	1.8	
150	16.3	14.9	13.7	11.8	10.3	9.0	6.8	4.9	3.3	
200	18.7	17.3	16.2	14.3	12.8	11.5	9.4	7.6	6.0	
250	20.8	19.4	18.2	16.4	14.9	13.7	11.5	9.8	8.2	
300	22.5	21.2	20.0	18.2	16.8	15.5	13.4	11.7	10.2	
350	24.1	22.8	21.7	19.9	18.4	17.2	15.1	13.4	11.9	
400	25.6	24.2	23.1	21.4	19.9	18.7	16.7	15.0	13.5	



DIMENSIONS & WEIGHTS – inches													
Tank Diameter	Model Code	Side In/Top Out 150#FLG (H)	A	B	C	D	E	F	G	J	L	Weight (lbs)	
6"	WFLV-6-18-F150	2 1/2"	6 5/8	47	38 1/2	12	8	9	25 1/2	3/4	1 1/2	105	
8"	WFLV-8-20-F150	4"	8 5/8	48	39 3/4	13	8 1/2	9 1/2	25 5/8	3/4	2	172	
12"	WFLV-12-21-F150	5"	12 3/4	49 1/2	41 1/4	21	11 3/4	11 1/2	26	1 1/2	3	210	
16"	WFLV-16-22-F150	6"	16	58	50	24	13 3/8	12 1/2	32	2	3	300	