

Worksheet/Coin Laundry

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Sizing and selection of Raypak Raytherm WH hot water supply heaters, storage tanks and circulators.

Date: _____ Prepared For: _____

STEP 1: Calculate hot water demand.

Hot water requirements of popular front and top load washers are shown on Page 12.

Washer Manufacturer	Model	Washer Hot Water Gals/Cycle	Number of Washers	Total Hot Water Gals/Cycle
_____	_____	_____	x _____	= _____
_____	_____	_____	x _____	= _____
_____	_____	_____	x _____	= _____
_____	_____	_____	x _____	= _____
_____	_____	_____	x _____	= _____
Total Hot Water Gallons/Cycle — all Machines: =				_____
Multiply by 2 (Cycles per hour)				x 2
TOTAL DEMAND IN GALLONS PER HOUR				_____

Equipment Specifications Water Heater:

Raytherm WH hot water supply heaters, indoor or outdoor.
On/Off firing.
Finned copper tube 2-pass heat exchanger.
Bronze headers.
Intermittent electric ignition.
125 psi pressure relief valve.
Adjustable automatic operating control.
Temperature and pressure gauge.
Economaster pump time delay.

Tank

Vertical, w/pipe legs.
Glass lining.
3" NPT connections on sizes 235-534 Gal.
3" NPT connections on sizes 684-1164 Gal.
Tankstat and thermometer (loose).
125 PSI ASME Code.

Pump

Bronze.

STEP 2: Select heater, tank and pump.

Determine the temperature rise (° F) required. In the table below, and in the columns headed by the selected temperature rise, find the GPH closest to but not less than the TOTAL GALLONS PER HOUR calculated in Step 1. On that line, and under the appropriate column heading, find the heater model number, the recommended tank size and circulator (pump) specifications. Note that Type WH hot water supply heaters are offered in **indoor** and **outdoor** styles.

Type WH Indoor Water Heater				Type WH Outdoor Water Heater					Tank		Pump*	
Heater Model Number	Temperature Rise			ΔT Across Heater	Heater Model Number	Temperature Rise			Normal Capacity Gallons	Diameter X Length	HP	Ft. Hd.**
	80°F	90°F	100°F			80°F	90°F	100°F				
	Gallons per Hour					Gallons per Hour						
514	636	565	508	20	514	636	565	508	Stock 235	30 x 84	0.25	4.5
624	779	692	623	20	624	779	692	623				
724	902	802	722	20	724	902	802	722			Stock 335	36 x 84
824	1025	911	820	20	824	1025	911	820				
962	1195	1062	956	20	926	1150	1023	920	390	42 x 72		
1125	1397	1242	1118	20	1083	1346	1196	1076				
1223	1519	1350	1215	20	1178	1464	1301	1171			Stock 534	42 x 96
1336	1661	1476	1328	30	1287	1599	1421	1279				
1468	1823	1620	1458	30	1414	1756	1560	1404	712	48 x 101		
1631	2025	1800	1620	30	1571	1951	1734	1560				
1826	2268	2016	1815	30	1758	2184	1941	1747			803	54 x 90
				35	(2) 926	2300	2046	1840				
2100	2609	2319	2087	20					922	54 x 102		
				20	(2) 1083	2692	2392	2152				
				20	(2) 1178	2928	2602	2342			1164	60 x 105
2500	3105	2760	2484	30								
				30	(2) 1287	3198	2842	2558	803	54 x 90		
				30	(2) 1414	3512	3120	2808				
3001	3727	3313	2982	30							922	54 x 102
				30	(2) 1571	3902	3468	3120				
3500	4348	3865	3479	30					1164	60 x 105		
				30	(2) 1758	4368	3882	3494				
4001	4970	4418	3976	40							1164	60 x 105

*Based on 5-15 per gallon hardness

**Ft. Hd is based on 70 Ft. equivalent length of pipe, valve and fittings between heater and tank placed five (5) feet apart and stated ΔT across heater.

Raypak, Inc. reserves the right to make product changes or improvements at any time without notice.

See other side for washing machine specifications.

Worksheet/Coin Laundry (cont'd)

Washing Machine Manufacturers Specifications**

FRONT LOAD

Manufacturer	Model	Capacity (lbs.)	Hot Water Per Cycle (Gals.)	Minutes Per Cycle
Cook/Ald	Prowash 30	30	30	21
Dexter		16	13	20
		20	20	24
	WCB-35	35	35	30
	WCB-50	50	50	30
Hoyt	Mighty Midget	18	18	28
	HD 2000	20	24	18
	HD 3000	30	29	18
IPSO	Mighty Mac-18	18	8	17
	Big Mac-35	35	15	17
	Big Mac-50	50	25	25
Laudercenter	L-18	18	16	25
	L-35	33	33	25
Maytag		18	12	21
		35	24	21
		50	42	21
Pellerin-Milnor	30015CWE	35	27	24
	30020CWE	50	35	24
Primus		18	6	20
		25	7	20
		35	16	20
		50	22	20
Speed Queen	WF 1001N	18	12	27
	CL 9161-63	25	16	30
	WX-401	40	34	22
Unimac		30	-	15
		50	-	15
Wascomat	P-10	10	7	25
	EX-7	15	10	-
	W-74	18	12	24
	W-124	30	22	24
	W-184	50	34	24
	W-244	75	51	24

TOP LOAD

Manufacturer	Model	Capacity (lbs.)	Hot Water Per Cycle (Gals.)	Minutes Per Cycle
General Electric	WWC9000F	14	18	21
Maytag	A23CS	N/A	16	23
	A23CD	N/A	16	19
	WA4970, 71, 80 & 81	N/A	16	19
	EA1120	N/A	15.2	19
Whirlpool	CA2762XS	N/A	18.6	19

NOTES

** Source: American Coin-Op Magazine



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