

## Sizing Water Heater Circulation Fittings on Storage Tanks

Sizes shown are for copper heat exchanger and Type L copper pipe. For CuNi requirements, consult factory.

### If Building Hot Water Re-circulation Line is Plumbed Directly to Storage Tank or not used.

Use the chart below to determine the proper fitting size.

Table 1. Minimum Required Boiler Circulation Fitting Size				
Model	Number of PRIMERA Water Heaters Connected to Storage Tank			
	1	2	3	4
400W	2" NPT	2" NPT	3" NPT	3" NPT
750W	2" NPT	3" NPT	2 sets @ 3" NPT	2 sets @ 3" NPT
1000W	2-1/2" NPT	2 sets @ 3" NPT	2 sets @ 3" NPT	consult factory
1200W	2" NPT	3" NPT	2 sets @ 3" NPT	2 sets @ 3" NPT
1600W	2" NPT	3" NPT	2 sets @ 3" NPT	2 sets @ 3" NPT
2000W	2-1/2" NPT	2 sets @ 3" NPT	2 sets @ 3" NPT	consult factory

### If Building Hot Water Re-circulation Line is Plumbed into Boiler-to-Tank Circulation Piping:

1. Add the gpm flow rate of the building's re-circulating loop to the gpm flow of the PRIMERA water heater(s) from table 2. (Do not attempt to reduce flow through the PRIMERA water heater)

2. Compare the gpm flow rate determined in step one to the maximum flow capacity of the fittings (table 3) to determine required fitting size.

Table 2. GPM Flow Rates of PRIMERA Water Heaters (factory setting)				
Model	Number of Heaters Connected to Storage Tank			
	1	2	3	4
400W	30	60	90	120
750W	61	122	183	244
1000W	76	152	228	304
1200W	46	92	138	184
1600W	61	122	183	244
2000W	76	152	228	304

Table 3. Maximum flow rate for Boiler Supply /Return Connections (each set)	
Fitting Size	Flow Rate (gpm)
2" NPT	61
3" NPT	125

If flow rate exceeds maximums for these fitting sizes, contact Riverside Hydronics.