

How to Choose the Proper Circulator Pump Model

Find the table below that best describes the design you plan to use.
Select the pump model based on the supply pipe length, size and pump options.

Circulator Pump Models used on 1/2" Supply & 1/2" Return Pipes

UP-Bronze Model Circulators

Model #	1/2" Supply Pipe, Max. Length (ft.)	Total Max. Pipe Length (ft.)	Supply Line Volume (gallons)
UP15-10B5	100	200	2.4

UP-Bronze Model Circulators with Built-In Check Valve

Model #	1/2" Supply Pipe, Max. Length (ft.)	Total Max. Pipe Length (ft.)	Supply Line Volume (gallons)
UP15-10BUC5	85	170	2.0

Circulator Pump Models used on 3/4" Supply & 1/2" Return Pipes

UP-Bronze Model Circulators

Model #	3/4" Supply Pipe, Max. Length (ft.)	Total Max. Pipe Length (ft.)	Supply Line Volume (gallons)
UP15-10B5	200	400	10.0
UP15-10B7	215	430	10.8
UP15-18B5	460	920	23.1
UP15-18B7	500	1000	25.1

UP-Stainless Steel Model Circulators

Model #	3/4" Supply Pipe, Max. Length (ft.)	Total Max. Pipe Length (ft.)	Supply Line Volume (gallons)
UP15-18SU	255	510	12.8
UP15-42SU	425	850	21.4
UP25-64SU	700	1400	35.2

UP Bronze Model Circulators with Built-In Check Valve

Model #	3/4" Supply Pipe, Max. Length (ft.)	Total Max. Pipe Length (ft.)	Supply Line Volume (gallons)
UP15-10BUC5	170	340	8.5
UP15-10BUC7	195	390	9.8
UP15-18BUC5	460	920	23.1
UP15-18BUC7	500	1000	25.1

Circulator Pump Models used on 3/4" Supply & 3/4" Return Pipes

UP-Bronze Model Circulators

Model #	3/4" Supply Pipe, Max. Length (ft.)	Total Max. Pipe Length (ft.)	Supply Line Volume (gallons)
UP15-10B7	500	1000	25.1
UP15-18B7	1600	3200	80.4
UP15-42B7	1800	3600	90.5

UP-Stainless Steel Model Circulators

Model #	3/4" Supply Pipe, Max. Length (ft.)	Total Max. Pipe Length (ft.)	Supply Line Volume (gallons)
UP15-18SU	1275	2550	64.1
UP15-42SU	1350	2700	67.8
UP25-64SU	2200	4400	110.7

UP Bronze Model Circulators with Built-In Check Valve

Model #	3/4" Supply Pipe, Max. Length (ft.)	Total Max. Pipe Length (ft.)	Supply Line Volume (gallons)
UP15-10BUC7	620	1240	31.2
UP15-18BUC7	1575	3150	79.2
UP15-42BUC7	1700	3400	85.4

NOTE: Calculations are based on 110°F water at 1 gpm for type "L" copper pipe with 20 elbows and 10 tees for the hot water supply. Also, allows use of type "L"-copper pipe of equal length as the supply with 20 elbows and 1 check valve for the return pipe. Check valve is removed from calculations for models with built-in check valves. For other selections, call your local Grundfos Sales Representative.

For Additional Piping Components

Pipe Component	Equiv. Pipe Length of 1/2" Component (ft.)	Equiv. Pipe Length of 3/4" Component (ft.)
90° Elbow	1.55	2.06
45° Elbow	0.83	1.10
Tee (Straight Port)	1.00	1.40
Tee (Side Port)	3.10	4.10
Flow Check	5.10	6.86

NOTE: For each additional pipe component on the system, its equivalent length must be subtracted to the supply pipe max. length on the pump selection charts to get the revised max. supply pipe length.