## Grundfos Pumps Hot Water Recirculation Products UP15-10, UP15-18 \& UP15-42

Grundfos Pumps has developed several circulator pump models to meet the needs of "Domestic Hot Water Recirculation" systems, otherwise known as "Instant Hot Water".

These models are available with various configurations including bronze housings with 1/2" \& 3/4" sweat ( $\mathrm{B} 5 \& B 7$ ) and stainless steel housings with union threaded connections (SU). Also, Grundfos has developed the first circulators that include an integrated check valve inside a union fitting on a sweat pump housing (BUC5 \& BUC7).

These models have been fitted with the options of built-in 115 volt line cord ("LC") or line cord and 24 hour programmable timer ("TLC").

As with other Grundfos circulators pumps, these feature the following:

- Easy to install user friendly application of product.
- Wet rotor design for quiet, maintenance free operation.
- Stainless Steel rotor cladding and canister construction to prevent corrosion.
- Composite impeller design for optimal application performance.
- Built-in 6 foot, 115 volt ac line cord ("LC \& TLC" models) with a NEMA, 3 prong male plug.
■ Optional Built-in 24 hour programmable timer and line cord ("TLC" models).
■ Fully grounded connection ("LC" \& "TLC" models).
- UL Recognized strain relief and wire connections ("LC" \& "TLC" models).
- All models are fully UL Recognized.

■ Each unit is run and "High Pot" tested.

- Available volute configurations include bronze sweat (B5\&7), bronze sweat with integrated check valve in a bronze union fitting (BUC5\&7), and stainless steel union (SU).
- Designed specifically for Hot Water Recirculation applications.



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# 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 <br> $\#$ | $1 / 2^{\prime \prime}$ Supply <br> Pipe, Max. <br> Length (ft.) | Total Max. <br> Pipe Length <br> (ft.) | Supply Line <br> Volume <br> (gallons) |
| :---: | :---: | :---: | :---: |
| UP15-10B5 | 100 | 200 | 2.4 |

UP-Bronze Model Circulators with Built-In Check Valve

| Model <br> $\#$ | $1 / 2^{\prime \prime}$ Supply <br> Pipe, Max. <br> Length (ft.) | Total Max. <br> Pipe Length <br> (ft.) | Supply Line <br> Volume <br> (gallons) |
| :---: | :---: | :---: | :---: |
| UP15-10BUC5 | 85 | 170 | 2.0 |

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

UP-Bronze Model Circulators

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

NOTE: Calculations are based on $110^{\circ} \mathrm{F}$ 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 <br> Component | Equiv. Pipe <br> Length of 1/2" (fi.) <br> Component (ft.) | Equiv. Pipe <br> Length of 3/4" <br> Component (ft.) |
| :---: | :---: | :---: |
| $90^{\circ}$ Elbow | 1.55 | 2.06 |
| $45^{\circ}$ 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 slection charts to get the revised max. supply pipe length.

