Pressure Drop

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SoCalGas Hot Water Demonstration Lab
Entering Section of Experiment:

1. Flushing and Priming
2. Flow Rate
3. Pressure 1
4. Temperature 1
Exiting Section of Experiment:

1. Pressure 2
2. Temperature 2
3. Discharge through Plumbing Fixture
Demonstrating Performance

A.1 - Pex - 75 ft. - Uninsulated - 3/4" dia - Red Pex

90 Seconds to 110°F

1.3 gpm
1.3 gallons in the pipe
Time-to-tap:
Est.1.3/1.3*60 = 60 seconds
Why 30 seconds more?
Demonstrating Performance

C.2 - Pex - 10ft. - Uninsulated - 1/2" dia - Red Pex

12 Seconds to 110°F

1.3 gpm
0.1 gallons in the pipe
Time-to-tap:
Est. $0.1 / 1.3 \times 60 = 5$ seconds
Why 7 seconds more?