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What is the difference between floodback and migration

What is flooding?

Flooding (also known as floodback) is the term used to describe the condition when liquid refrigerant reaches the compressor. This occurs when the amount of liquid fed to the evaporator is more than can be evaporated. There are many possible causes of flooding including:

- TXV oversized for the application
- TXV adjusted incorrectly (Superheat too low)
- System overcharged with refrigerant
- Insufficient airflow over evaporator
- Dirty evaporator
- Evaporator fans not operating
- TXV bulb not properly attached


What is migration?

Migration is the term used when liquid refrigerant moves some place in the refrigeration system where it is not supposed to be, such as when liquid refrigerant migrates back to the compressor crankcase. This phenomenon occurs because refrigerant will always migrate to the coldest part of a refrigeration system. As an example, in a split air conditioning system with the compressor/condenser outside, liquid refrigerant from the evaporator will migrate to the compressor during winter months due to the compressor being colder than the indoor (evaporator) temperature. If this is not prevented, then upon start up in the spring, compressor slugging, and damage may occur.

How can I prevent migration?

1. Use a pump down system
2. Use a crankcase heater to boil off any liquid refrigerant

For more information about Emerson's TXV valves, click [here](#).



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