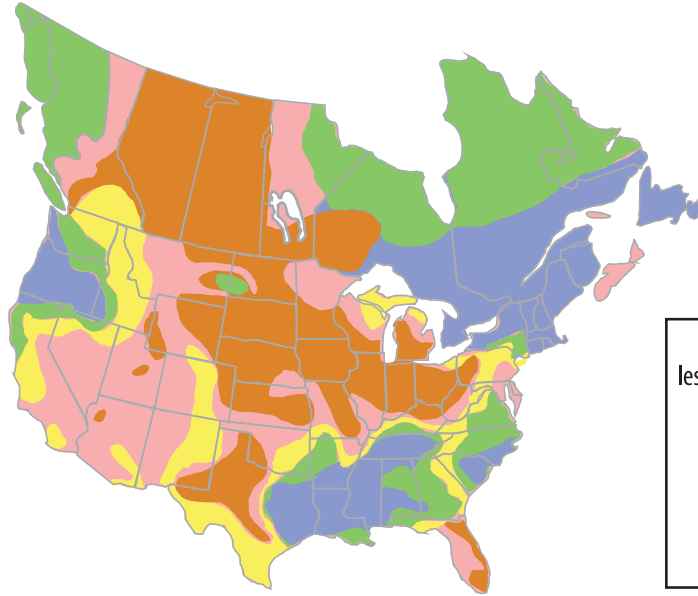


HARD WATER: Water described as "hard" is high in dissolved minerals, specifically calcium and magnesium. Hard water is not a health risk, but a nuisance because of mineral buildup on fixtures and poor soap and/or detergent performance.



According to the United States Geological Survey, 89.3% of the US homes have hard water.

Over 85% of Canada has a hard water problem.

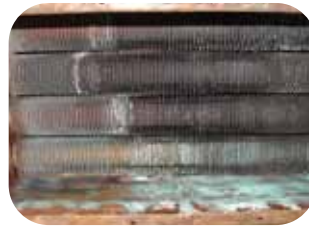
Water Supply Classifications	
less than 3 gpg	■ Slightly Hard
3 to 7 gpg	■ Moderately Hard
7 to 10 gpg	■ Hard
10 to 14 gpg	■ Very Hard
over 14 gpg	■ Extremely Hard
gpg= grains per gallons	

LEVELS OF HARDNESS

The hardness level depends on the concentration of calcium and magnesium present in the water. Hard water makes soap difficult to lather and may cause scaling or corrosion in water pipes, boilers, water heaters and other appliances, and industrial equipment. For details on the quality of your water, contact the local water municipality or have your water professionally tested by a water treatment expert.

HOW IS THE NORITZ PRODUCT AFFECTED BY HARD WATER?

- Problems resulting from scale formation are not covered by the warranty.
- Areas with moderately hard to hard water (3-10 gpg) have to flush the heater yearly (not necessary with H₂FLOW).
- Areas with very hard water (12 gpg or more) must be treated with either a water softener or a water treater that reduces the amount of scale deposits.



Norritz heating element damaged by scale formation.

DISADVANTAGES OF TRADITIONAL SOFTENERS

Most conventional water-softening devices depend on a process known as ion-exchange in which "hardness" ions trade place with sodium and chloride ions. Most of the salt employed in the regeneration process gets flushed out of the system and is usually released into the soil or drainage system- something that can have damaging consequences to the environment. For this reason, many jurisdictions prohibit the use of water softeners.



CONSEQUENCES OF HARD WATER:

The harder the water, the more aggressive it is on appliances, especially water heaters. Water that is heated allows the dissolved minerals to come out of solution and deposit inside the water heater. Over time this scale reduces the performance as well as the longevity of a water heater.

PLUGGED SHOWER HEADS & FAUCETS

Scale plugs up shower heads and faucets, restricting flow. This can be costly, depending on the number of shower heads or faucets that need to be replaced.



TANKLESS HEAT EXCHANGER

Accumulated scale is a poor conductor of heat. In tankless water heaters, accumulated scale insulates the water from the heat source.



Clean Norritz heat exchanger.

HOME PIPING

When untreated hard water is heated it begins to deposit solid calcium carbonate. This is the cause of lime scale building which leads to the blockage of water pipes.

- Scale reduces the inner diameter of pipes and elbows, ultimately leading to restrictions in flow rate and pressure loss problems in systems.
- Scale often becomes encrusted on internal moving parts of valves & components, affecting their intended purpose or worse, causing safety failures.
- In a boiler or water heater, heating elements can become coated with scale, reducing system efficiency and increasing operating costs for end users.



Scale build-up on a Norritz heat exchanger in an extremely hard water area.

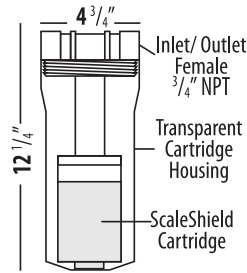
SCALESIELD

YOUR HEATER'S FIRST LINE OF DEFENSE

Applicable Hardness Range:

- | | | | |
|-------------------------------------|-----------------|--------------------------|-----------------|
| <input checked="" type="checkbox"/> | less than 3 gpg | <input type="checkbox"/> | Slightly Hard |
| <input checked="" type="checkbox"/> | 3 to 7 gpg | <input type="checkbox"/> | Moderately Hard |
| <input checked="" type="checkbox"/> | 7 to 10 gpg | <input type="checkbox"/> | Hard |
| <input type="checkbox"/> | 10 to 14 gpg | <input type="checkbox"/> | Very Hard |
| <input type="checkbox"/> | over 14 gpg | <input type="checkbox"/> | Extremely Hard |

- Noritz's ScaleShield is a unique product providing superior limescale prevention, corrosion control for your tankless water heater while retaining beneficial minerals in water without the waste.
- Provides consistent scale prevention and corrosion control.
- No electricity, maintenance or guesswork is required.
- A simple glance at the ScaleShield cartridge indicates when replacement is needed.
- Replace cartridge 1-2 times a year depending on usage.



Model	Description	Part Number
ScaleShield	Up to 9.8 GPM	SS-HB-1
ScaleShield	Up to 11.1 GPM	SS-HB-2
Cartridge	Replacement cartridge	HBC-1
Cartridge	Replacement cartridge	HBC-2

*For further information on flushing & the replacement schedule please see the Noritz tankless unit's installation manual.

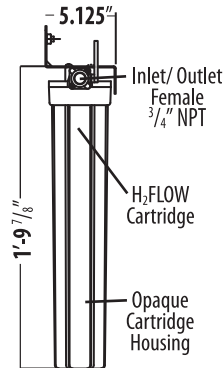
H₂FLOW

THE ULTIMATE TANKLESS HARD WATER SOLUTION

Applicable Hardness Range:

- | | | | |
|-------------------------------------|-----------------|--------------------------|-----------------|
| <input checked="" type="checkbox"/> | less than 3 gpg | <input type="checkbox"/> | Slightly Hard |
| <input checked="" type="checkbox"/> | 3 to 7 gpg | <input type="checkbox"/> | Moderately Hard |
| <input checked="" type="checkbox"/> | 7 to 10 gpg | <input type="checkbox"/> | Hard |
| <input checked="" type="checkbox"/> | 10 to 14 gpg | <input type="checkbox"/> | Very Hard |
| <input checked="" type="checkbox"/> | over 14 gpg | <input type="checkbox"/> | Extremely Hard |

- H₂FLOW is not a water softener. No salt or chemicals to add or maintain & no discharge.
- Compact design allows for installation in tight areas.
- Economical and efficient. Very low maintenance.
- Retains "beneficial minerals" in water and produces no waste water.
- Inlet ball valve for easy isolation shutoff and filter changes.
- Replace cartridge every 2 years.
- Extends life of heating system components and reverses existing scale problems.



Model	Description	Part Number
H2Flow	Up to 10 GPM	H2F
Cartridge	H2Flow replacement cartridge	H2F-C

*For further information on flushing & the replacement schedule please see the Noritz tankless unit's installation manual.

NORITZ



Tankless Hard Water Protection

Protect Your Investment

(866) 766-7489

www.noritz.com/watertreatment

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