NORTH SLOPE CHILLERS

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WORLD -CLASS CUSTOM CAPABILITIES



SHORTEST INDUSTRY LEAD TIMES



TABLE OF CONTENTS

| Industrial Cooling |
|--|
| Industries We Serve |
| Product Classes: Three Levels of Chill 6-7 |
| Frost: Lite Industrial Chillers 8-9 |
| Freeze: Industrial Chillers |
| Deep Freeze: Low Temp Chillers |
| Fluxwrap: Cooling Jackets |
| lcewrap |
| Custom Cooling Solutions |
| Chiller Worksheet |
| Product Specs |







WHAT IS AN INDUSTRIAL CHILLER?

Industrial chillers are used to cool process fluids, typically water or a water/glycol mix. These process fluids remove heat from machinery, equipment, foods, chemicals, etc. The fluid absorbs the heat from the external source and is then recirculated through the chiller to cool again and again.

INDUSTRIAL

North Slope Chillers provides several performance levels of industrial cooling equipment with precise temperature control that is compact, yet efficient. Easy to install, remove, and relocate, you will be happy to have a chilling system that is painless and easy to use. Preserve your valuable materials and equipment while avoiding downtime when you use North Slope Chillers and Fluxwrap accessories to maintain and regulate safe temperatures.









PROTECT CRITICAL MATERIALS

Numerous industries need to protect expensive and valuable materials from excessive heat.



MAINTAIN ESSENTIAL TEMPERATURES

Precise temperature control for your processes that only requires an electrical outlet



SAVE TIME & MONEY

Reliable and efficient, North Slope Chillers products will prevent waste and lost time, protecting your bottom line.



INCREASE EFFICIENCY

Improve overall efficiency of your operation when temperature control is in your hands.

ENJOY PEACE OF MIND

Rest easy, knowing North Slope Chillers will solve your temperature dilemmas.



INDUSTRIES WE SERVE

A wide variety of industries use cooling systems to preserve materials and equipment and to slow and improve processes. North Slope Chillers are an easily portable cooling solution for these industries.





Industrial chilling can improve the performance and efficiency of many different industries. From fermentation cooling to cooling ink, the applications are varied, but all essential to success.



EDM/LASERS

















3 LEVELS OF CHILL TO **MEET YOUR NEEDS**

North Slope Chillers offers a line of lite-industrial compact chiller units ideal for entry-level applications, standard process cooling systems, and a line of chillers for intense chilling needs. If you find that you require something not found in our Frost, Freeze, and Deep Freeze chiller lines, North Slope can build custom solutions to fit your specific needs with the same quality as our standard units and in a timely manner. Your solutions are a simple phone call away.





FROST

LITE INDUSTRIAL APPLICATIONS

45°F COOLNG CAPACITY 85°F



FREEZE

THE COLD STANDARD

This lite industrial portable chiller system is a fantastic entry-level unit if you are ready to test the waters with chilling. Ideal for single container/ application chilling, Frost creates consistent chilling that will maintain temperatures as cool as 45°F. Frost will help you maximize lite industrial applications.



Meet the compact chiller that is both dependable and powerful. Freeze is North Slopes' standard industrial chiller that cools fluids between 40°F-75°F (1/2-2 ton) and 40°F-65°F (5-10 ton). A small workhorse, Freeze boasts a robust condensing unit and high horsepower. It's a lot of chilling power in a little package.



DEEP FREEZE

THE COLDEST OF THE COLD

-112°F COOLNG CAPACITY 70°F

Intended to provide supreme industrial chilling, Deep Freeze shares many of the same hefty qualities of Freeze. along with the capacity to cool from -112°F to 70°F (depending on model) and fully insulated internal parts to ensure no internal temperature loss. Keep your critical materials and equipment cool even in hot conditions.



NEED A CUSTOM SOLUTION?

If North Slope Chillers standard chiller lines do not meet your unique temperature control needs. our world-class custom team will design a custom solution specifically for you.



SMALL BUT MIGHTY

This lite industrial portable chiller system is a fantastic entry-level unit if you are ready to test the waters with chilling. Ideal for single container/application chilling, Frost creates consistent chilling that will maintain temperatures as cool as 45°F. Frost will help you maximize lite industrial applications.



Shortest Industry Lead Times Made in the USA Award-Winning Manufacturer



World-Class Custom **Engineering Team UL Safety Listed**

ACCEPTABLE r410a REFRIGERANT



This entry level, lite-industrial chiller is ideal for: Process cooling, Home brewing, Soap making, Laser engraving, Lite machinery, Printing And many other applications





POLY TANK RESERVOIR

MOUNTED ON FOUR CASTERS FOR EASY MOBILITY





THE COLD STANDARD

Meet the compact chiller that is both dependable and powerful. Freeze is North Slopes' standard industrial chiller that cools fluids between 40°F-75°F (1/2-2 ton) and 40°F-65°F (5-10 ton). A small workhorse, Freeze boasts a robust condensing unit and high horsepower. It's a lot of chilling power in a little package.



Ideal process cooling solution for Biotech, Dairy, Chemicals, Cannabis, EDM, Fermentation, Hydroponoics, Lasers, Printing, Welding, Food, and Plastics

Shortest Industry Lead Times Made in the USA Award-Winning Manufacturer



World-Class Custom Engineering Team **UL Safety Listed** Smart Chiller™ capabilities available

ENVIRONMENTALLY

r404a REFRIGERANT

ACCEPTABLE r134a OR



SMALL FOOTPRINT 34¾"L x 43¼"W x 40"H POWDER-COATED STEEL CABINET

BRAZED PLATE
HEAT EXCHANGER



POLY TANK RESERVOIR

MOUNTED ON FOUR CASTERS FOR EASY MOBILITY





HOW LOW CAN YOU GO?

Bring on Deep Freeze for ultimate industrial cooling. Intended to provide supreme industrial chilling, Deep Freeze shares many of the same hefty qualities of Freeze, along with the capacity to cool from -112°F to 70°F (depending on model) and fully insulated internal parts to ensure no internal temperature loss. Keep your critical materials and equipment cool even in hot conditions.



Shortest Industry Lead Times

Made in the USA

Award-Winning Manufacturer



World-Class Custom Engineering Team *UL Safety Listed* Smart Chiller[™] capabilities available

ENVIRONMENTALLY ACCEPTABLE r404a

REFRIGERANT



Ideal process cooling solution for Biotech, Dairy, Chemicals, Cannabis, Oil Extraction, EDM, Fermentation, Hydroponoics, Lasers, Printing, Welding, Food, and Plastics



SMALL FOOTPRINT = 34"L x 65"W x 62"H

POWDER-COATED STEEL CABINET

BRAZED PLATE
HEAT EXCHANGER



POLY TANK RESERVOIR

MOUNTED ON FOUR CASTERS FOR EASY MOBILITY





FULL COVERAGE COOLING

MAXIMUM FLOW WITH MINIMAL PRESSURE



MAINTAINS THERMAL **CONDUCTIVITY BETWEEN BLANKET AND DRUM**

CONFORMS TO UNEVEN SURFACES

A CHILLER'S **FAVORITE ACCESSORY**

Flux wrap can chill materials in drums, totes, tanks and all manner of vessels even when a heat exchanger is not currently present. Fluxwraps allow chilling to be applied to many vessels that were previously not able to be chilled or in situations that previously were not financially feasible. Then simply change the temperature of the fluid, and you have an effective medium for heating. Fluxwrap is a versatile fluid temperature control solution.

Shortest Industry Lead Times Made in the USA Award-Winning Manufacturer

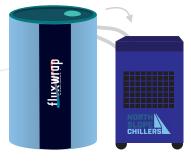




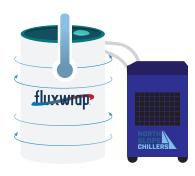
USING FLUXWRAP WITH NORTH SLOPE **CHILLERS IS SIMPLE**

LIGHTWEIGHT









WRAP THE CONTAINER ➤ ATTACH HOSES **APPLY INSULATION**

TURN IT ON!

WHITE VINYL REFLECTS HEAT **INSULATED TO STAY COOLER LONGER EASY INSTALL** ICEWFUL & REMOVAL DRAW HEAT AWAY FROM CONTAINER **EASILY PORTABLE**

ICEWPAD.

ON THE GO

With internal pockets that place ice directly against the surface of your container, North Slope Chillers' Icepack Blanket and Keg Cooler are affordable options for temperature control. This blanket is insulated, ensuring ice packs will last longer than ice alone and longer than other non-insulated options on the market. Freeze your ice packs, wrap your product, and get on the road.



NORTH SLOPE CHILLERS 18-19

CUSTOM:

THE COMPLETE SOLUTION

Often, a cooling solution requires engineering expertise and custom attention. As a premier industrial chiller manufacturer, North Slope Chillers is happy to create the complete cooling solution to quickly meet your needs.



WATER FILTER

Add a filter on the inlet to keep the inside of the process chiller clean, even if the fluid is dirty. UL or CE rated.



ANTI BACKFLOW

If the chilling fluid is located above the chiller, anti-backflow prevents fluid from flowing back into the system when the process chiller is turned off.



HEATER

Add a heater to the commercial chiller. Whether you need increased or decreased temperatures, your commercial water chiller will be equipped to do both jobs. Maintain desired temperatures for your critical materials without changing equipment.



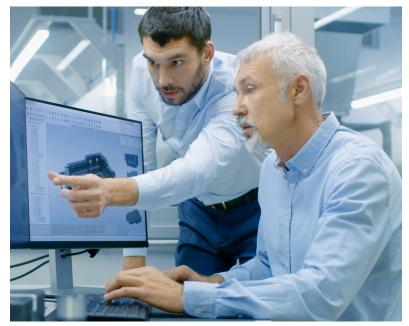


Deionized water is one of the most aggressive solvents known, and corrodes many metals including copper. However, even copper-free cooling systems have purity limits of >0.5 $\mu\text{S/cm}$ to avoid the dissolution of deposits, which may impair functionality. Deionized chillers are an effective application for lasers, medical equipment, semiconductor manufacturing, laboratory instrumentation, pharmaceutics, cosmetics, food processing, plating, and other chemical processing.

WANT COMPLETE CONTROL? ADD BEACON



Beacon is an advanced smart temperature control system that allows you to monitor and control North Slope Chillers products remotely from your smart phone or computer. Enjoy greater peace of mind.









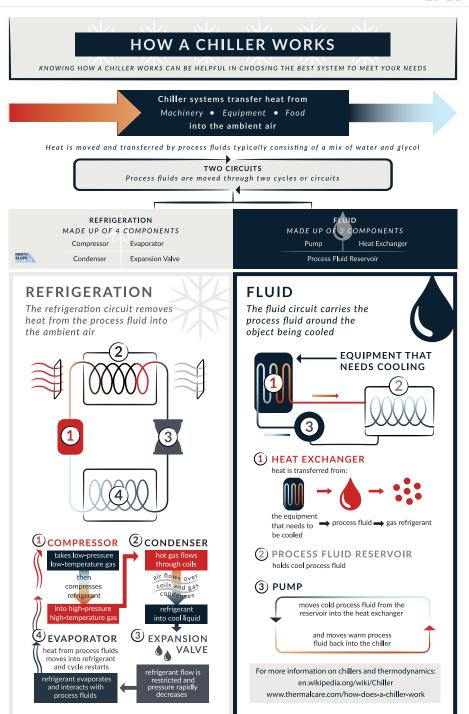
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HOW TO DETERMINE CHILLER SIZE STEP Calculate Temperature Differential ($\Delta T^{\circ}F$) $\Delta T^{\circ}F$ = Incoming Water Temperature (°F) - Required Chilled Water Temperature Example: $85^{\circ}F - 75^{\circ}F = 10^{\circ}F$ **STEP** Calculate BTU/HR BTU/hr = Gallons per hr x 8.33 x Δ T°F Example: $(4 \text{ gpm } \times 60) \times 8.33 \times 10^{\circ}\text{F} = 19,992 \text{ BTU/hr}$ Calculate Tons of Cooling Capacity **STEP** Tons = BTU/hr ÷ 12.000 Example: $19,992 \text{ BTU/hr} \div 12,000 = 1.666 \text{ tons}$ Oversize the Chiller by 20% and Round Up **STEP** Ideal Size in Tons = Tons x 1.2 Example: $1.666 \text{ tons } \times 1.2 = 1.9992 \text{ tons}$: a 2 ton chiller is needed

CHILLER NEEDS WORKSHEET

- 1. What process or process equipment needs to be cooled?
- 2. Is there one large machine or several smaller machines that need cooling?
- 3. What is your desired supply temperature?
- 4. What is the heat load?
- 5. What are the lowest and highest possible ambient temperatures?
- 6. What is the total flow required by the process?
- 7. Is the flow to the process steady or varied?
- 8. What is the maximum fluid pressure required by the process?
- 9. What fluid is being cooled? (water, water/glycol, deionized water)



Panel a - 1x) 44" x 38 1/2" Panel b - 2x) 45 3/4" x 38 1/2"

Panel c - 1x) 39" x 30 3/4"

| | Model Number | Fluid Temp Range (F) | Temp Range | Refrigerant | Inlet/ Outlet | | Pump | | Reservoir Capacity | Cooling Capacity (BTU/hr) | Dimensions | Max Amps (FLA) | Breaker/Service (MCA) | Available Voltages | 끍 | |
|--|------------------------------|-------------------------|--|-------------|------------------|-------------------------------------|--|---|------------------------|---|--|--|---|--|----------|--|
| | NSC0250- FROST | 45°F - 85°F | 35°F - 100°F | r410a | 3/4" Barbed | 3.5 GPM Li Industrial | (ontrituaal | 1 GPM @ 25 PSI 2 GPM @ 15 PSI 3 GPM @ 8 PSI 4 GPM Max | 1.5 Gal Poly Tank | 81°F - 4,850 BTU/hr | 22"L x 11"W x 21.5"H | 5.7A @ 110/1/60 | 15 Amp | 120/1/60 | FROST | |
| | Model Number | Fluid Temp Range (F) | Ambient Temp Range | Refrigerant | Inlet/ Outlet | | Pump | | Reservoir Capacity | Cooling Capacity (BTU/hr) | Dimensions | Max Amps (FLA) | Recommended Breaker/Service (MCA) | Available Voltages | | |
| | NSC0500 | 40°F - 75°F | 40°F - 100°F | R134a | 1/2" NPT | Continuous Duty, non-fe rous | | 4 GPM Fixed 50 PSI Max | 4 Gallon Poly Tank | 40°F - 3,800 BTU/hr 65°F - 6,000 BTU/hr | 28¼"L x 22½"W x 32½"H | 15.6 Amps (std) 9.1 Amps | 20 Amp (std) 15 Amp | 120/1/60 (std) 208-240/1/60 | | |
| | NSC1000 | 40°F - 75°F | 40°F - 100°F | R134a | 1/2" NPT | Continuous Duty, non-fe rous | | 4 GPM Fixed 50 PSI Max | 15 Gallon Poly Tank | 40°F - 7,600 BTU/hr 65°F - 12,000 BTU/hr | 34½"L x 28¼"W x 39"H | 16.3 Amps (std) 14 Amps 6 Amps | 20 Amp (std) 20 Amp 15 Amp | 208-240/1/60 (std) 208-240/3/60 480/3/60 | | |
| | NSC2000 | 40°F - 75°F | 40°F - 100°F | R134a | 3/4" NPT | Continuou Duty, Stainle Steel | | 15 GPM @ 28 PSI 25 GPM @ 23 PSI 35 GPM @ 16 PSI 45 GPM Max | 15 Gallon Poly Tank | 40°F - 16,100 BTU/hr 65°F - 25,400 BTU/hr | 34%"L x 43%"W x 40"H | 30.9 Amps (std) 20.1 Amps 9.2 Amps | 40 Amp (std) 25 Amp 15 Amp | 208-240/1/60 (std) 208-240/3/60 480/3/60 | | |
| | NSC5000 | 40°F - 65°F | 40°F - 100°F | R404a | 1-1/4" NPT | Continuou Duty, Stainle Steel | | 15 GPM @ 39 PSI 30 GPM @ 35 PSI 45 GPM @ 28 PSI 60 GPM Max | 50 Gallon Poly Tank | 40°F - 41,400 BTU/hr 65°F - 60,500 BTU/hr | 34"L x 65"W x 62"H | 29.3 Amps 13.6 Amps (std) | 35 Amp 20 Amp (std) | 208-240/3/60 480/3/60 (std) | FREEZE | |
| | NSC5000E | 40°F - 65°F | 0°F - 100°F | R404a | 1-1/4" NPT | Continuou Duty, Stainle Steel | | 15 GPM @ 39 PSI 30 GPM @ 35 PSI 45 GPM @ 28 PSI 60 GPM Max | 50 Gallon Poly Tank | 40°F - 41,400 BTU/hr 65°F - 60,500 BTU/hr | 34"L x 65"W x 62"H | 29.3 Amps 13.6 Amps (std) | 35 Amp 20 Amp (std) | 208-240/3/60 480/3/60 (std) | | |
| | NSC10000 | 40°F - 65°F | 40°F - 100°F | R404a | 1-1/4" NPT | Continuou Duty, Stainle Steel | | 15 GPM @ 54 PSI 30 GPM @ 48 PSI 45 GPM @ 40 PSI 65 GPM Max | 50 Gallon Poly Tank | 40°F - 83,000 BTU/ hr 65°F - 120,000 BTU/hr | 34"L x 65"W x 62"H | 26.6 Amps (std) | 35 Amp (std) | 480/3/60 (std) | | |
| | NSC10000E | 40°F - 65°F | 0°F - 100°F | R404a | 1-1/4" NPT | Continuou Duty, Stainle Steel | | 15 GPM @ 54 PSI 30 GPM @ 48 PSI 45 GPM @ 40 PSI 65 GPM Max | 50 Gallon Poly Tank | 40°F - 83,000 BTU/ hr 65°F - 120,000 BTU/hr | 34"L x 65"W x 62"H | 26.6 Amps (std) | 35 Amp (std) | 480/3/60 (std) | | |
| | Model Number | Maximum Pressure Rat | | ite Connec | tion T | Max emperature | Approx Fluid Volum | е | Cooling F | Fluid | Wrap Din | nensions | Min/Max Surf | ace Temperature | | |
| | FLUX05 | (05 | | | | | 1/8 Gallon | | | | 38" x 8 | 3 1/4" | | | П | |
| | FLUX15 FLUX30 6 PSI @ inlet | | | 3/4 Gallon | | "Water (| "Water (if fluid temp is greater than 45F) -OR- Propylene Glycol / Water (50/50 max concentration) | | | 47" x 22 3/4" 60" x 23 1/4" | | -10°F/150°F -23.3°C/65.5°C | | | | |
| | | | GI @ inlet 4 GPM @ 3/" Barbed 120°F (70°F Water/Glycol | | 5/8 Gallon | | | | | | | | | | | |
| | FLUX55 | 55 0 P S1 @ INIE | 5 PSI | Fittir | ng v | mix) | 1 ½ Gallon | | -OR- | | 76" x 3 | | 10 1/130 1 | 20.0 0,00.0 0 | FLUXWRAP | |
| | | | | | | | | | | ETNVIONO (3)VC | Ethylene Glycol / Water (50/50 max concentration)" | | | 4" 00 4 /0" | | |

Ethylene Glycol / Water (50/50 max concentration)"

| Product | Model | Description | Ice Packets | | |
|------------|------------|-------------------------|--------------|--|--|
| | PBICE05IP | Ice Wrap-5 Gallon Drum | 8 Ice Packs | | |
| LNA/ | PBICE015IP | Ice Wrap-15 Gallon Drum | 12 Ice Packs | | |
| IceWrap | PBICE030IP | Ice Wrap-30 Gallon Drum | 18 Ice Packs | | |
| | PBICE055IP | Ice Wrap-55 Gallon Drum | 24 Ice Packs | | |
| Keg Cooler | PBICEKEGIP | Ice Wrap-Keg | 12 Ice Packs | | |

4 Gallons

FLUX275

| Model Number | Fluid Temp Range (F) | Ambient Temp Range | Refrigerant | Inlet/ Outlet | | Pump | | Reservoir Capacity | Cooling Capacity (BTU/hr) | Dimensions | Max Amps (FLA) | Recommended Breaker/Service (MCA) | Available Voltages |
|------------------|---|--------------------------|-------------|------------------|--|--------------------------------------|---|---------------------------------|---|-----------------------------|--|---|--|
| NSC0500-LT | 10°F - 45°F | 40°F - 100°F | R404a | 1/2" NPT | Continuous Duty, non-fer- rous | 1/3 HP Fixed Displacement Pump | 4 GPM Fixed 50 PSI Max | 4 Gallon Poly Tank | 10°F - 2,500 BTU/hr 45°F - 5,070 BTU/hr | 28.25"L x 22.5"W x32.5"H | 16.6 Amps | 20 Amp | 120/1/60 (std) |
| NSC1000-LT | 10°F - 45°F | 40°F - 100°F | R404a | 1/2" NPT | Continuous Duty, non-fer- rous | 1/3 HP Fixed Displacement Pump | 4 GPM Fixed 50 PSI Max | 15 Gallon Poly Tank | 10°F - 5,900 BTU/hr 45°F - 11,900 BTU/hr | 34½"L x 28½"W x 39"H | 16.3 Amps (std) 14 Amps 6 Amps | 20 Amp (std) 20 Amp 15 Amp | 208-240/1/60 (std) 208-240/3/60 480/3/60 |
| NSC2000-LT | 10°F - 45°F | 40°F - 100°F | R404a | 3/4" NPT | Continuous Duty, Stainless Steel | 3/4 HP Centrifugal Pump | 15 GPM @ 28 PSI 25 GPM @ 23 PSI 35 GPM @ 16 PSI 45 GPM Max | 15 Gallon Poly Tank | 10°F - 13,800 BTU/hr 45°F - 27,200 BTU/hr | 34%"L x 43%"W x 40"H | 30.9 Amps (std) 20.1 Amps 9.2 Amps | 40 Amp (std) 25 Amp 15 Amp | 208-240/1/60 (std) 208-240/3/60 480/3/60 |
| NSC5000-LT | 10°F - 45°F | 40°F - 90°F | R404a | 1-1/4" NPT | Continuous Duty, Stainless Steel | 1-1/2 HP Centrifugal Pump | 15 GPM @ 39 PSI 30 GPM @ 35 PSI 45 GPM @ 28 PSI 60 GPM Max | 50 Gallon Poly Tank | 0°F - 19,200 BTU/hr 45°F - 44,900 BTU/hr | 34"L x 65"W x 62"H | 29.3 Amps 13.6 Amps (std) | 35 Amp 20 Amp (std) | 208-240/3/60 480/3/60 (std) |
| NSC5000E- LT | 10°F - 45°F | 0°F - 90°F | R404a | 1-1/4" NPT | Continuous Duty, Stainless Steel | 1-1/2 HP Centrifugal Pump | 15 GPM @ 39 PSI 30 GPM @ 35 PSI 45 GPM @ 28 PSI 60 GPM Max | 50 Gallon Poly Tank | 0°F - 19,200 BTU/hr 45°F - 44,900 BTU/hr | 34"L x 65"W x 62"H | 29.3 Amps 13.6 Amps (std) | 35 Amp 20 Amp (std) | 208-240/3/60 480/3/60 (std) |
| NSC10000- LT | 10°F - 45°F | 40°F - 90°F | R404a | 1-1/4" NPT | Continuous Duty, Stainless Steel | 2 HP Centrif- ugal Pump | 15 GPM @ 54 PSI 30 GPM @ 48 PSI 45 GPM @ 40 PSI 65 GPM Max | 50 Gallon Poly Tank | 15°F - 53,000 BTU/hr 45°F - 90,000 BTU/hr | 34"L x 65"W x 62"H | 26.6 Amps (std) | 35 Amp (std) | 480/3/60 (std) |
| NSC10000E- LT | 10°F - 45°F | 0°F - 90°F | R404a | 1-1/4" NPT | Continuous Duty, Stainless Steel | 2 HP Centrif- ugal Pump | 15 GPM @ 54 PSI 30 GPM @ 48 PSI 45 GPM @ 40 PSI 65 GPM Max | 50 Gallon Poly Tank | 15°F - 53,000 BTU/hr 45°F - 90,000 BTU/hr | 34"L x 65"W x 62"H | 26.6 Amps (std) | 35 Amp (std) | 480/3/60 (std) |
| Model Number | Fluid Temp Range (F) | Refrigerant | Condenser | Inlet/ Outlet | | Pump | | Reservoir Capacity | Cooling Capacity (BTU/hr) | Dimensions | Max Amps (FLA) | Recommended Breaker/Service (MCA) | Available Voltages |
| NSC0500- ULT | -112°F to +70°F -80°C to +21°C | R404a/ R508b | Air-cooled | 1/2" NPT | Continuous Duty, Stainless Steel | Fixed Displacement | 4 GPM Fixed | 5 Gallon Stainless Steel | -40°C (-40°F) - 1,700 Watts (5,800 BTU/hr) -80°C (-112°F) - 600 Watts (2,000 BTU/hr) | 28.25"L x 22.5"W x32.5"H | 16 Amps | 20 Amp | 208-240/3/60 (std) |
| NSC01000- ULT | -112°F to +70°F -80°C to +21°C | R404a/ R508b | Air-cooled | 3/4" NPT | Continuous Duty, Stainless Steel | Fixed Displacement | 4 GPM Fixed | 10 Gallon Stainless Steel | -40°C (-40°F) - 3,700 Watts (12,000 BTU/ hr) -80°C (-112°F) - 1,750 Watts (4,600 BTU/hr) | 34½"L x 28¼"W x 39"H | 25 Amps (std) | 30 Amp (std) | 208-240/3/60 (std) |
| NSC2000- ULT | -112°F to +70°F -80°C to +21°C | R404a/ R508b | Air-cooled | 3/4" NPT | Continuous Duty, Stainless Steel | Fixed Displacement | 8 GPM Fixed | 20 Gallon Stainless Steel | -40°C (-40°F) - 7,000 Watts (24,000 BTU/ hr) -80°C (-112°F) - 3,000 Watts (10,200 BTU/hr) | 34%"L x 43%"W x 40"H | 20 Amps (std) | 30 Amp (std) | 480/3/60 (std) |

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