



# EZ ICE Ammonia Direct Expansion (ADX)

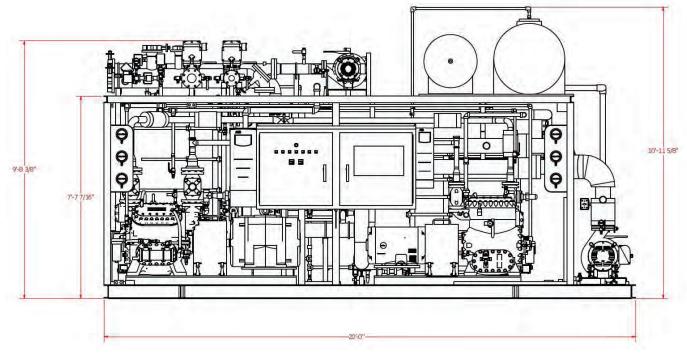
## A STATE OF THE ART, LOW AMMONIA CHARGE SKID PACKAGE

The new EZ ICE ADX skid packages developed by Ultimate Fabrication are designed to take advantage of the efficiency of the Ammonia refrigerant by utilizing direct expansion, resulting in a VERY LOW refrigerant charge. The system features are:

- EZ to install, EZ to operate, EZ to maintain and EZ to service.
- Low Ammonia Charge!
- Water, Ethylene or Propylene Glycol can be used for condenser loop:
  - Condenser loop are used for the Snow Melt Pit (SMP) system.
  - Heat floor system. Option to have separate heat exchanger to convert existing heat floor system to brine if required.
- All NH3 piping completed on skid. No external NH3 piping required.
  - Meets Technical Standards and Safety Act (TSSA), 2000 R6 rating.
- Motor Control Centre (MCC) with all compressor safeties, starters, overloads, relays and timers in a CSA type 12 cabinet mounted on skid package.
  - All motors are completely wired within the skid.
- Compressors are direct drive with Variable Frequency Drive (VFD) control.
- The ADX packages are available in different capacities.

- Standard Digital Direct Controller (DDC) included (with many options to expand)
- A service-friendly skid package designed to allow for easy access to all maintainable components.
- Each skid satisfies the IMC-Ch11-2012, UFC-2012, ASHRAE 15-2010, and CSA B-52 code requirements.
  - Ammonia vent lines from all vessels with pressure relief valves (PRV) are piped to a common header and vented to a water tank on skid that meets the CSA B-52-13 code section 7.3.6.1.3b, and ASHRAE 15-2010 section 9.7.8.2b.
- Options to choose from upon request
  - Heat floor system
  - Snowmelt pit system
  - Domestic water preheat system
  - 100% back-up pump completely piped in ready for automatic switch over
  - Expandable DDC system
  - Handrail and catwalk for maintenance of elevated equipment with a removable aluminum ladder





#### **SKID SPECIFICATIONS**

Skid Dimensions*	7' - 6" (2286 mm) Wide x	
	20' - 0" (6096 mm) Long x	
	10' - 6" (3200 mm) High	
Shipping Weight**	23,600 lbs (10,727 kg)	
Operating Weight	26,600 lbs (12,090 kg)	
NH3 Charge	60 lbs (27 kg)	
*Dimensions may vary based on final design.		

<sup>\*</sup>Dimensions may vary based on final design.

\*\*Shipping weight may vary based on final design.

#### **ELECTRICAL SPECIFICATIONS**

Supply Voltage	575V / 3Ph / 60Hz	460V / 3Ph / 60Hz
Full Load Amps (FLA)*	181 Amps	226 Amps
(Skid Package Only)		
Total Motor HP of Skid**	160.5 HP	160.5 HP
Compressor #1 Motor	50 HP	50 HP
Compressor #2 Motor	100 HP	100 HP
<b>Cool Pump Motor</b>	30 HP	30 HP
<b>Jacket Cool Pump Motor</b>	1/2 HP	1/2 HP
Cond Glycol Pump	10 HP	10 HP
Fluid Cooler Fan Motor	TBD	TBD
Fluid Cooler Water Pump	TBD	TBD
Heat Pump Motor***	3 HP	3 HP
Snowmelt Pit Pump Motor***	3 HP	3 HP

<sup>\*</sup>Full Amperage of skid package is only for motors listed in performance specifications data. Final amperage of skid package is confirmed at time order is placed and optional items secured.

#### PERFORMANCE SPECIFICATIONS

System Tonnage	100 TR
Design Condition	10° F SST
	95° F SCT
Primary Refrigerant	R-717 Ammonia (NH3)
Secondary Refrigerant	21% CaCl2 - Calcium Chloride
Compressors	Mycom 2M & 4M Reciprocating
Quantity	One 2M & One 4M
Tons per Compressor	2M = 37.5 TR / 4M = 71.7 TR
Brake Horsepower	2M = 48.4 BHP / 4M = 89.1 BHP
Chiller	Plate & Frame - DX
Cool Floor Pump	Armstrong 4030 - 6x5x10 - 30 HP
Flow & PD	850 USGPM @ 36 PSIG
Condenser	Plate & Frame
Condenser Glycol Pump	Armstrong 4280 - 4x3x10 - 10 HP
Flow & PD	337 USGPM @ 25 PSIG

### 100 TR with 60 lbs NH3!

Utilizing Ammonia Direct Expansion (ADX), this system achieves 100 TR of refrigeration using only 60 lbs of ammonia. Traditional ammonia flooded systems require 350 to 450 lbs of refrigerant. With ADX, we can achieve the same tonnage with 1/8 of the system charge!

<sup>\*\*</sup>Total HP of skid package includes only motors listed in performance specifications data and does not include optional items. Final HP of skid package will be determined at time of order.

<sup>\*\*\*</sup> Motors not included in performance specification chart as they are option items only and need to be confirmed at time of order. **HP ratings could change.**