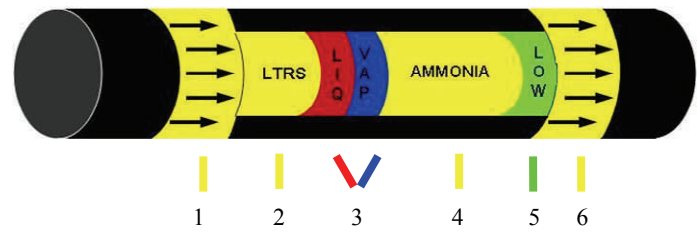




## AMMONIA TEMPERATURE PRESSURE CHART

Temp. deg.°F	Press lbs./In	Temp. deg.°F	Press lbs	Temp. deg.°F	Press lbs
-60	18.6	-2	14.3	32	47.6
-55	16.6	-1	15.0	33	48.9
-50	14.3	0	15.7	34	50.2
-45	11.7	1	16.5	35	51.6
-40	8.7	2	17.2	36	52.9
-35	5.4	3	18.0	37	54.3
-30	1.6	4	18.8	38	55.7
-29	.08	5	19.6	39	57.2
-28	.00	6	20.4	40	58.6
-27	.4	7	21.2	41	60.1
-26	.8	8	22.1	42	61.6
-25	1.3	9	22.9	43	63.1
-24	1.7	10	23.8	44	64.7
-23	2.2	11	24.7	45	66.3
-22	2.6	12	25.6	46	67.9
-21	3.1	13	26.5	47	69.5
-20	3.6	14	27.5	48	71.1
-19	4.1	15	28.4	49	72.8
-18	4.6	16	29.4	50	74.5
-17	5.1	17	30.4	55	83.4
-16	5.6	18	31.4	60	92.9
-15	6.2	19	32.5	65	103.1
-14	6.7	20	33.5	70	114.1
-13	7.3	21	34.6	75	125.8
-12	7.9	22	35.7	80	138.3
-11	8.5	23	36.8	85	151.7
-10	9.0	24	37.9	90	165.9
-9	9.7	25	39.0	95	181.1
-8	10.3	26	40.2	100	197.2
-7	10.9	27	41.4	105	214.2
-6	11.6	28	42.6	110	232.2
-5	12.2	29	43.8	115	251.5
-4	12.9	30	45.0	120	271.7
-3	13.6	31	46.3	125	293.1

## AMMONIA REFRIGERATION PIPING IDENTIFICATION GUIDE



Use arrows to indicate the direction of flow in the pipe.  
Use the following abbreviations to properly identify system components.

<b>BD</b>	Booster Discharge	<b>HTS*</b>	High Temp Suction
<b>CD</b>	Condenser Drain	<b>LIC</b>	Liquid Injection Cooling
<b>DC</b>	Defrost Condensate	<b>LSS</b>	Low Stage Suction
<b>EQ*</b>	Equalizer	<b>LTRL</b>	Low Temp Recirculated Liquid
<b>ES</b>	Economizer Suction	<b>LTRS</b>	Low Temp Recirculated Suction
<b>HGD</b>	Hot Gas Defrost	<b>LTS*</b>	Low Temp Suction
<b>HPL</b>	High Pressure Liquid	<b>PO*</b>	Pump Out
<b>HSD</b>	High Stage Discharge	<b>PU*</b>	Purge
<b>HSS</b>	High Stage Suction	<b>RV</b>	Relief Vent
<b>HTRL</b>	High Temp Recirculated Liquid	<b>TSR</b>	Thermosyphon Return
<b>HTRS</b>	High Temp Recirculated Suction	<b>TSS</b>	Thermosyphon Supply

Indicates whether the refrigerant is a liquid, vapor, or both.  
**Liq** - Orange color band indicates liquid state.  
**Vap** - Blue color band indicates vapor state.  
 Use both color bands if both liquid and vapor may be present.  
 Print "AMMONIA" in black letters on Yellow background.  
 Indicates whether the internal pipe pressure is high or low.  
**High** - Red color band indicates high pressure.  
**Low** - Green color band indicates low pressure.

*\* Not currently recognized in the IAR standards.*

## ANHYDROUS AMMONIA EMERGENCY ACTION



Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind; keep out of low areas and ventilate closed spaces before entering. Self-contained breathing apparatus (SCBA) and structural firefighter's protective clothing will provide limited protection for short-term exposure to these materials. Fully-encapsulated protective clothing should be worn for spills and leaks with no fire. Evacuate the leak or spill area immediately for at least 50 feet in all directions. In the event that a release of 100 pounds or more of ammonia occurs in a 24 hour period, it is mandatory to follow the procedures outlined in the Emergency Planning and Community Right-to-Know Act (EPCRA), Title III of the Superfund Amendments and Reauthorization Act (SARA) (8.7). **The National Emergency Response Center shall be notified immediately at 1-800-424-8802.**

### Preparing for an AMMONIA EMERGENCY

- Learn Ammonia **FIRST AID PROCEDURES**
  - Mouth to Mask Resuscitation.
  - Cardiopulmonary Resuscitation (CPR).
  - Treatment for shock.
  - Be prepared** - DELAY and INEXPERIENCE may result in a more serious injury.
- Make sure your emergency support is knowledgeable about ammonia first aid and treatment.
  - Local Fire Department/Ambulance Service
  - Emergency Clinic
  - Local Hospital
- NEVER wear contact lenses when working with any chemicals.

### Overexposure to Ammonia Vapor

- Remove victim to fresh air.
- Summon an ambulance.
- If breathing fails, start mouth/mask resuscitation.
- If no pulse, begin CPR.
- If patient goes into shock, treat accordingly.
- Oxygen may be administered by trained persons.

### Exposure to Liquid Ammonia – Eyes

- FLOOD IMMEDIATELY with water for at least 15 minutes. Eyelid must be held open during washing.
- Summon an ambulance.
- Determine if patient is wearing contact lenses and advise medical personnel.

### Exposure to Liquid Ammonia – Skin

- FLOOD IMMEDIATELY with large quantities of water for at least 15 minutes.
- Summon an ambulance.
- Decontaminate the victim with water before transporting in the close confines of an ambulance.
- Flood clothing with large quantities of water. CAUTION: Skin may be frozen to clothing. Decision to remove clothing should be made by medical personnel only.
- Advise medical personnel that burns are from ammonia and salves or ointments should not be applied.



## ALTA REFRIGERATION CONTACTS

**24 HOUR EMERGENCY**  
(678) 554-1150  
Toll Free (866) 554-1150

**SERVICE**  
(678) 554-1150  
[servicem@cold4u.com](mailto:servicem@cold4u.com)

**PARTS**  
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[parts@cold4u.com](mailto:parts@cold4u.com)

**TECHNICAL SUPPORT**  
(678) 554-1150  
[techsupport@cold4u.com](mailto:techsupport@cold4u.com)

**SALES**  
(678) 554-1100  
[sales@cold4u.com](mailto:sales@cold4u.com)



ALTA Refrigeration, Inc. is a professional full service industrial refrigeration contracting company offering services that include engineering design, field construction, shop fabrication and custom package assembly, as well as a parts and service department.

## ALTA REFRIGERATION CONTACTS










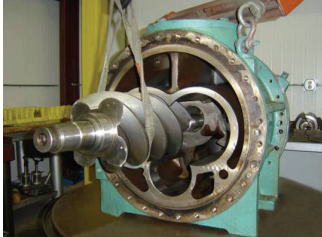


<b>24 HOUR EMERGENCY</b> (678) 554-1150 <b>Toll Free (866) 554-1150</b>	<b>SERVICE</b> (678) 554-1150 <a href="mailto:servicem@cold4u.com">servicem@cold4u.com</a>	<b>PARTS</b> (678) 554-1150 <a href="mailto:parts@cold4u.com">parts@cold4u.com</a>	<b>TECHNICAL SUPPORT</b> (678) 554-1150 <a href="mailto:techsupport@cold4u.com">techsupport@cold4u.com</a>	<b>SALES</b> (678) 554-1100 <a href="mailto:sales@cold4u.com">sales@cold4u.com</a>
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## MARKET SPECIALTIES

Cold Storage Facilities	Food Service Distribution Centers	Grocery Distribution Centers	Food Processing Plants	Pharmaceutical and Chemical	Custom Refrigeration Packages
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## PRODUCTS

*A sample of major components and systems that we sell and service*

			
<b>Compressors</b>	<b>Condensers</b>	<b>ASME Pressure Vessels &amp; Insulation</b>	<b>Evaporators</b>
			
<b>Chillers</b>	<b>Water &amp; Refrigeration Pumps</b>	<b>Purgers &amp; Purger Packages</b>	<b>Control Systems</b>
			
<b>Control, Isolation &amp; Relief Valves</b>	<b>Compressor Rebuilding Shop</b>	<b>IIAR Ammonia Labels • Valve Tags Label Making Equipment</b>	<b>Parts and Accessories</b>

## SUPPLIERS

*A sample of major product lines that we sell*

WE ACCEPT  