

KOLBI

PIPE MARKER CO.

2024

AMMONIA

IDENTIFICATION CATALOG



2024 EDITION

www.kolbipipemarkers.com | 800-499-8450 | sales@kolbipipemarkers.com

Welcome to Our Catalog

Kolbi has specialized in the manufacturing of identification products for over 50 years. Our manufacturing lead times, product quality, and customer service are unmatched in the industry, earning us a reputation for excellence and integrity. Our foundation is built on these three values:

Quality

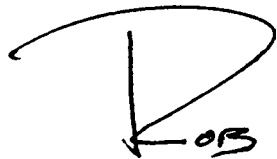
We guarantee your satisfaction with every order and care too much to have it any other way. Our products exceed industry standards and are made to last. We strive to do it right the first time, but on those rare occasions we do not...we promise to make it right.

Service

Our job is to make you look good. With over half a million products in stock, we go all out to ship your order the same day it's placed. We are here to assist you in any way we can and to make every transaction seamless. Whomever takes your order in our office or manufactures it in our factory, it will be someone who really cares.

Simplicity

Your job is complicated enough, so we try to make ordering as simple as possible. Place orders the way you want and get exactly what you ordered. When you use Kolbi, you're dealing directly with the manufacturer. We really know our business and work hard to understand yours.



Rob Seitz
President and Owner
Kolbi Pipe Marker Co.



Table of Contents

IIAR Bulletin No. 114 2019	3
Ammonia Legends	4
Adhesive Markers	5
Wrap Around Markers	5
High Performance Pipe Markers	6
Aluminum Carriers	6
Component Markers	7
Signage	8
Valve Tags	9
Multi-Valve Tags	9
Valve Tag Accessories	9
Equipment Plates	10
Kolbi Services	11

IIAR Bulletin No. 114 2019

Guidelines for Ammonia Refrigeration Pipe Markers

Bulletin 114 was developed and published in 1991 as means to establish uniformity among ammonia refrigeration users and practitioners in identifying refrigerant piping. The basis of the guidelines was ANSI Standard A1.1-1981 "Scheme for Identification of Piping systems". In 2007 ANSI A13.1 was released to indicate that orange backgrounds, rather than yellow should be used to indicate toxic and corrosive fluids (i.e. Ammonia). Bulletin 114 was updated in 2014 to reflect this standard. 2019 is the most recent standard.



Pipe Marker Components

Pipe Marker Body

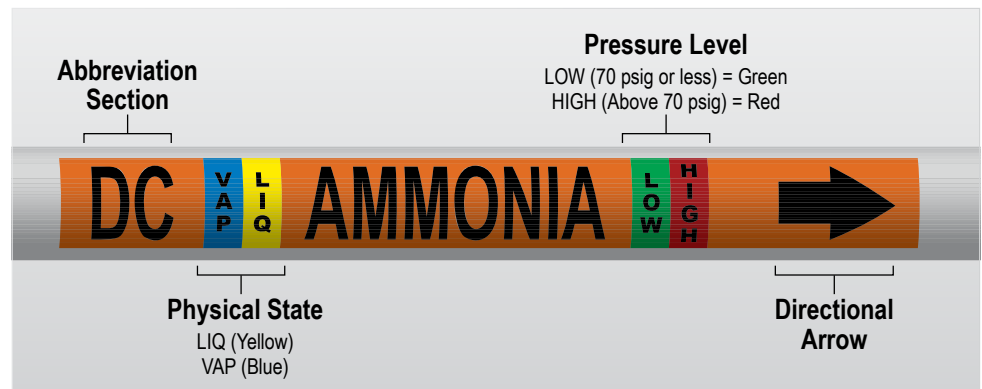
- The body of the marker should be "SAFETY ORANGE" and the text to be BLACK.
- Should follow ANSI 13.1 sizing chart (see bottom right corner of this page).
- Should Include the Pipe System in the Abbreviation Section.

Pressure Level

- If the pressure level exceeds 70 psig the pressure should be indicated as HIGH printed black on a red band.
- If the pressure level is at or below 70 psig the pressure should be indicated as LOW printed black on a green band (as seen in the above example).

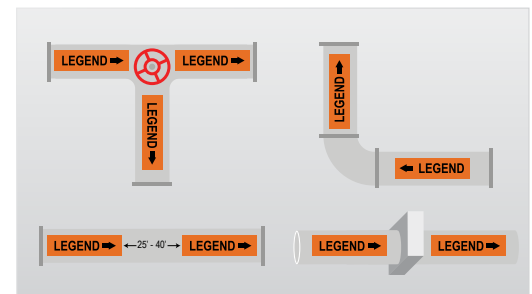
Physical State

- If refrigerant state is liquid, LIQ should be printed black on a yellow band.
- If refrigerant is in the vapor state, VAP should be printed black on a sky blue band.
- If the refrigerant is in both vapor and liquid states both VAP and LIQ bands should be present.



Pipe Marker Placement

- Before and after a change in piping direction.
- Before and after piping penetrates walls, ceilings and floors.
- On extended horizontal or vertical runs of pipe, with a maximum spacing of 40ft between markers.



ANSI/IIAR Pipe Marker Size Minimums (Per ANSI 13.1)

Diameter (O.D.) Range	Marker Width	Marker Length	Letter Size	Physical State	Pressure Level
Up to 1-1/4"	1"	8"	1/2"	1/2"	1/2"
Greater than 1-1/4"-2"	1-1/2"	8"	3/4"	3/4"	3/4"
Greater than 2"-7"	2-1/2"	12"	1-1/4"	1"	1"
Greater than 7" - 10"	3-1/2"	24"	2-1/2"	1-1/2"	1-1/2"
Over 10"	4-1/2"	32"	3-1/2"	2"	2"

Ammonia Identification

Ammonia Legends

Item #	Legend	Abbr.	State	Pressure
A1	BOOSTER DISCHARGE	BD	VAP	LOW
A1A	BOOSTER SUCTION	BS	VAP	LOW
A2	CONDENSER DRAIN	CD	LIQ	HIGH
A3	DEFROST CONDENSATE	DC	LIQ	HIGH
A3A	DEFROST CONDENSATE	DC	LIQ VAP	HIGH
A4	ECONOMIZER SUCTION	ES	VAP	LOW
A5	EQUALIZER	EQ	VAP	HIGH
A6	FOUL GAS	FG	VAP	LOW
A6A	FOUL GAS	FG	VAP	HIGH
A7	HIGH PRESSURE LIQUID	HPL	LIQ	HIGH
A8	HIGH STATE DISCHARGE	HSD	VAP	HIGH
A9	HIGH STATE SUCTION	HSS	VAP	LOW
A10	HIGH TEMP RECIRCULATED LIQUID	HTRL	LIQ	LOW
A11	HIGH TEMP RECIRCULATED SUCTION	HTRS	LIQ VAP	LOW
A12	HIGH TEMP SUCTION	HTS	VAP	LOW
A13	HOT GAS	HG	VAP	HIGH
A14	HOT GAS DEFROST	HGD	VAP	HIGH
A15	INTERMEDIATE PRESSURE LIQUID	IPL	LIQ	LOW
A15A	LIQUID DRAIN	LD	LIQ	LOW
A16	LIQUID INJECTION COOLING	LIC	LIQ	HIGH
A17	LIQUID TRANSFER	LT	LIQ	LOW
A18	LOW STAGE SUCTION	LSS	VAP	LOW

Item #	Legend	Abbr.	State	Pressure
A18A	LOW TEMPERATURE LIQUID	LTL	LIQ	LOW
A18B	LOW LOW TEMPERATURE LIQUID	LLTL	LIQ	LOW
A19	LOW TEMP RECIRCULATED LIQUID	LTRL	LIQ	LOW
A19A	LOW LOW TEMPERATURE RECIRCULATED LIQUID	LLTRL	LIQ	LOW
A20	LOW TEMP RECIRCULATED SUCTION	LTRS	LIQ VAP	LOW
A20A	LOW LOW TEMPERATURE RECIRCULATED SUCTION	LLTRS	LIQ VAP	LOW
A21	LOW TEMP SUCTION	LTS	VAP	LOW
A22	MEDIUM TEMP RECIRCULATED LIQUID	MTRL	LIQ	LOW
A23	MEDIUM TEMP RECIRCULATED SUCTION	MTRS	LIQ VAP	LOW
A24	MEDIUM TEMP SUCTION	MTS	VAP	LOW
A24A	OIL DRAIN	OD	N/A	N/A
A25	PUMP OUT	PO	VAP	LOW
A25A	PURGE	PRG	VAP	HIGH
A26	PURGE LINE	PL	VAP	HIGH
A27	RELIEF VENT	RV	VAP	LOW
A28	RELIEF VENT	RV	VAP	HIGH
A28A	SUB-COOLED LIQUID	SCL	LIQ	HIGH
A29	THERMOSYPHON RETURN	TSR	LIQ VAP	HIGH
A30	THERMOSYPHON SUPPLY	TSS	LIQ	HIGH
A31	THERMOSYPHON VENT	TSV	VAP	HIGH
A32	SUB COOLED HIGH PRESSURE LIQUID	SCHPL	LIQ	HIGH
A33	DEFROST RETURN	DR	LIQ VAP	LOW

Yellow Ammonia Markers Available Upon Request



CO2 and Other Refrigerant Legends Available Upon Request





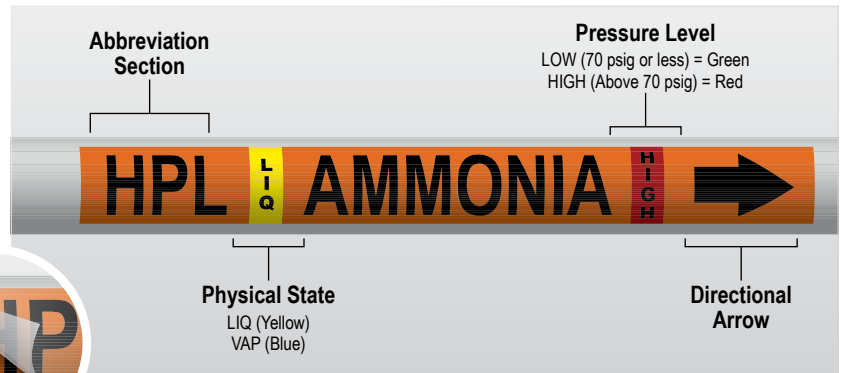
Ammonia Identification

Adhesive Ammonia Markers

Easy to install pressure-sensitive vinyl markers. All of our markers are designed for easy removal from the liner and quick installation in the field. Standard Adhesive Ammonia Markers come with a weatherproof UV resistant overlamine to ensure longevity in the label's intended environment.

- Durable pressure sensitive vinyl material with permanent adhesive
- Includes weather proof UV resistant overlamine
- Outdoor life expectancy up to 5+ years
- Temp range of -40°F to 176°F
- Standard orange background
- Yellow background available
- Meets 2019 IIAR 4.1.6 Specifications
- Apply to a clean and dry surface above 50°F

OVERLAMINATED FOR
EXTRA PROTECTION
(at no extra cost)



Kolbi Style	Pipe OD (including insulation)	Letter Size	Marker Size	PRICING		
				1-49	50-99	100+
AA	3/4" to 1-1/4"	1/2"	1" x 9"	3.73	3.54	3.39
AB	1-1/2" to 2-1/4"	3/4"	1-1/2" x 12"	4.05	3.85	3.53
AC	2-1/2" to 7-7/8"	1-1/4"	2-1/2" x 16"	5.17	4.90	4.53
AD	8" to 10"	2-1/2"	3-1/2" x 24"	6.74	6.40	6.06
AE	Over 10"	3-1/2"	4-1/2" x 32"	8.43	8.08	7.72

Combine quantities for best pricing.

Wrap Around Ammonia Markers

Our pre-coiled markers simply snap onto pipes, significantly reducing install time. These markers easily go over dirty/greasy pipes or insulation without any cleaning or preparation.

- Outdoor life expectancy up to 5 years
- Ideal for indoor installation
- Standard orange background color
- Yellow background available
- Complies with IIAR Bulletin 114
- Temperature range -40°F to 180°F
- UV resistant material and inks



Style	Pipe OD including insulation	Shape	Marker Width	Letter Size	PRICING		
					1-49	50-99	100+
AWA	3/4" to 1-1/2"	Coiled	8"	1/2"	9.37	7.43	6.44
AWB	1-1/8" to 2-1/4"	Coiled	8"	3/4"	9.98	7.92	6.87
AWC	2-1/2" to 3-1/4"	Coiled	12"	1-1/4"	11.91	9.45	8.17
AWD	3-3/8" to 4-1/2"	Coiled	12"	1-1/4"	15.11	11.96	10.39
AWE	4-5/8" to 5-7/8"	Coiled	12"	1-1/4"	16.54	13.10	11.36
AWFF*	6" to 7-7/8"	Flat	12"	1-1/4"	16.54	13.10	11.36
AWF**	6" to 7-7/8"	Coiled	12"	1-1/4"	24.75	21.57	17.96
AWGF*	8" to 10"	Flat	24"	2-1/2"	22.05	17.47	13.85
AWG**	8" to 10"	Coiled	22-1/2"	2-1/2"	32.42	28.17	23.80
AWHF*	10"+	Flat	32"	3-1/2"	23.65	18.73	14.87
AWH**	10"+	Coiled	22-1/2"	3-1/2"	35.72	32.14	28.96

Additional Nylon Ties 36" (WF) .65 48" (WG/WH) .90

*Ships flat with nylon ties included. **Styles AWF, AWG and AWH include adhesive strip - these are full Wrap Arouns.

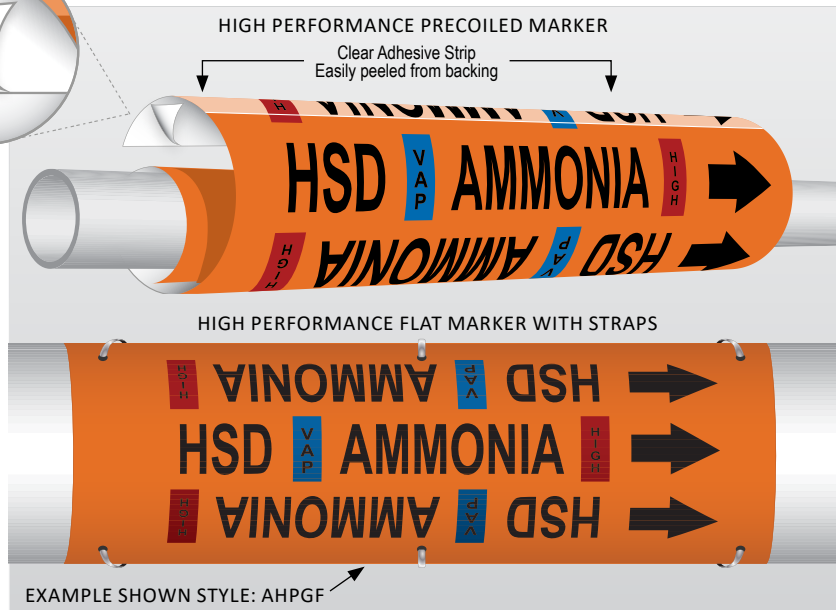
Combine quantities for best pricing.

Ammonia Identification

High Performance Pipe Markers

Kolbi High Performance Markers are manufactured to withstand high temperatures, harsh chemicals and intense UV exposure. No surface preparation, cleaning or drying of the pipes is necessary. Allowing for quicker installation than self-adhesive markers.

- Made of polyester, UV resistant ink and Polyester overlamine to ensure chemical and UV resistance
- Average outdoor life expectancy up to 5+ years
- Rated from -40°F to 248°F (-40°C to 120°C)
- Sizes AHPA through AHPG coil completely around the pipe and are secured tight with an attached adhesive strip. Sizes AHPFF and AHPGF come flat and strap on with included self-locking 316 Stainless Steel straps
- 360° View on pipes for sizes AHPA through AHPG
- Arrows included on every marker to indicate flow direction
- Complies with IIAR Bulletin 114 2019



Pipe OD (Incl. Insulation)	Kolbi Style	Marker Length around the pipe (circumference)	Marker Width	Letter Size	Type	Installation Method	PRICING		
							1 - 99	100 - 249	250 +
Less than 0.5"	AHPA	2"	4"	0.25"	Precoiled	Adheres to itself with adhesive strip	3.00	2.75	2.60
0.5" - 1.3"	AHPB	5"	8"	0.5"	Precoiled	Adheres to itself with adhesive strip	5.70	5.13	4.87
1.4" - 2.4"	AHPC	9"	8"	0.75"	Precoiled	Adheres to itself with adhesive strip	7.00	6.30	5.99
2.5" - 4.75"	AHPD	17"	12"	1.25"	Precoiled	Adheres to itself with adhesive strip	10.35	9.32	8.85
5" - 7.875"	AHPE	26"	12"	1.25"	Precoiled	Adheres to itself with adhesive strip	14.30	12.87	12.23
8" - 10"	AHPFF	10"	24"	2.5"	Flat with strap	Straps on with self locking 316 stainless steel strap	18.00	16.20	15.39
10" +	AHPGF	12"	32"	3.5"	Flat with strap	Straps on with self locking 316 stainless steel strap	22.00	19.80	18.81
8" - 10"	AHPF*	34"	24"	2.5"	Flat - coil on site	Adheres to itself with adhesive strip	28.00	25.20	23.94
10" - 14"	AHPG*	46"	32"	3.5"	Flat - coil on site	Adheres to itself with adhesive strip	32.00	28.80	27.36

*AHPF & AHPG markers come flat and wrap completely around the pipe by the installer.

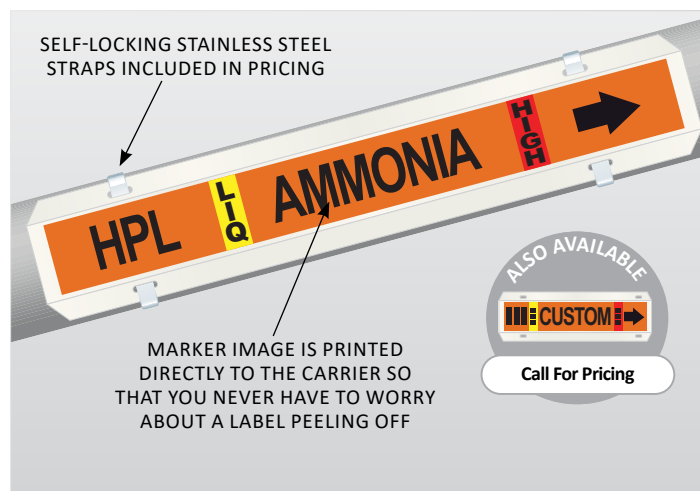
Aluminum Ammonia Carriers

Engineered to last in the harsh environment of your facility's roof. Aluminum carrier markers are crack-resistant and weatherproof and are installed with stainless steel straps to ensure your marker stays fastened to the pipe during high winds. The pipe's system information is protected with a UV and chemical resistant polyester overlamine.

- High Temperature range of up to 300°F
- Outdoor life expectancy up to 8+ years
- Highly resistant to UV exposure
- Crack resistant powder coated aluminum carrier
- Easy to install
- Includes two pre-cut 316 stainless steel self-locking straps
- Meets IIAR Bulletin 114 for letter height
- Extra arrow included



Strapping Tool 179.50



Style	Pipe OD (Incl. Insulation)	Letter Size	Carrier Size	Carrier Dimensions	PRICING			Additional Arrow Price	SS Strap Length	Additional SS Straps
					1-49	50-99	100+			
CAB	1-3/8" to 2"	3/4"	Extra Small	2-1/2"H x 14"W	14.37	13.19	12.35	0.58	33"	.80
CAC	2-1/8" to 7"	1-1/4"	Small	3-1/2"H x 20"W	16.01	14.69	13.78	1.59	33"	.80
CAD	7-1/8" to 10"	2-1/2"	Medium	4-7/8"H x 26"W	19.94	18.31	17.14	2.12	47"	1.20
CAE	Over 10"	3-1/2"	Large	6-3/16"H x 33"W	23.87	21.87	20.51	2.92	60"	1.50

Combine quantities for best pricing.

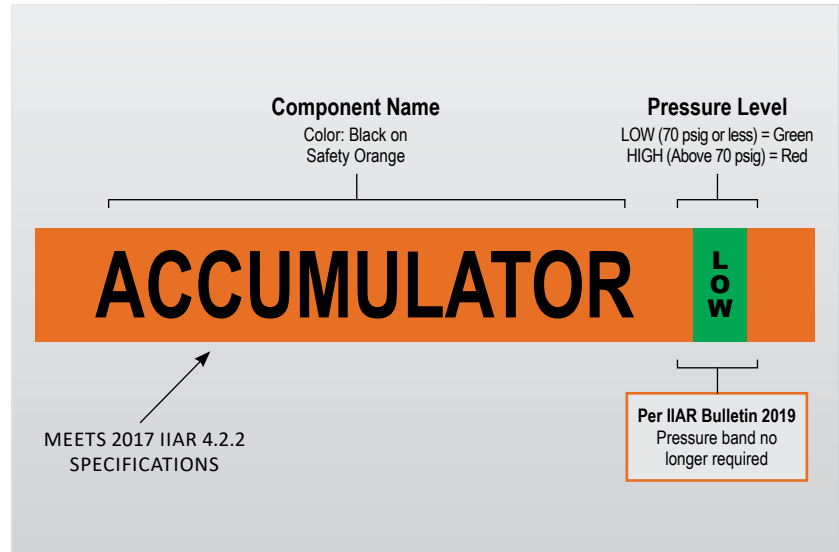


Ammonia Identification

Component Markers

For easy identification of all your Ammonia Refrigeration System Components. We offer component markers in the standard IIAR legends as well as custom solutions to your specialized component marker needs.

- Durable pressure-sensitive vinyl material with permanent adhesive
- Component markers are manufactured with UV resistant ink and laminated with a UV resistant overlaminate to reduce fading in the sun.
- Temperature range of -40°F to 176°F
- Standard background color is orange (Yellow backgrounds are available upon request)
- Indicate pressure level when ordering (Note: Per IIAR Bulletin 114 2019 the pressure label is no longer required)
- Apply to clean/dry surface above 50°F
- Complies with IIAR Bulletin 114 2019
- For a higher temperature rating (up to 250°F) polyester component markers are available



Style	Letter Size	Marker Size	PRICING		
			1-49	50-99	100+
ACM	2-1/2"	3-1/2" x 24"	7.70	6.13	5.51

Combine quantities for best pricing.

STANDARD COMPONENT MARKER LEGENDS

Item#	Legend	ABBR
AC1	ACCUMULATOR	ACC
AC2	AIR COOLED CONDENSER	AC
AC3	AIR HANDLING UNIT	AHU
AC4	AIR UNIT	AU
AC5	BOOSTER COMPRESSOR	BC
AC6	CONTROLLED PRESSURE RECEIVER	CPR
AC7	EVAPORATIVE CONDENSER	EC
AC8	HEAT EXCHANGER	HEX
AC9	HIGH PRESSURE RECEIVER	HPR

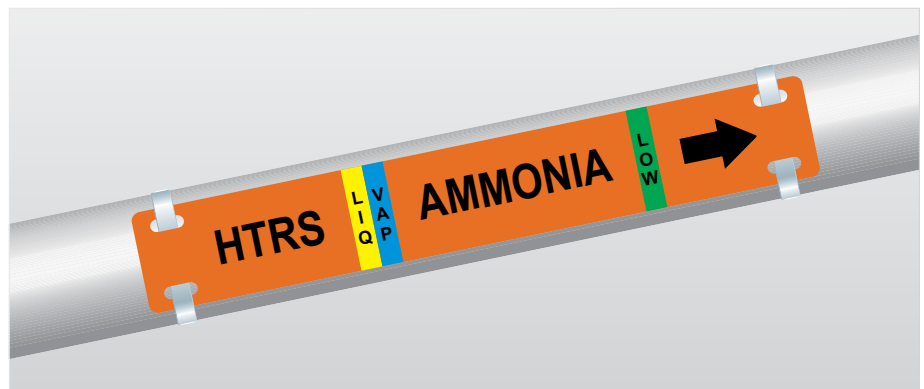
Item#	Legend	ABBR
AC10	HIGH STAGE COMPRESSOR	HSC
AC11	HIGH TEMPERATURE RECIRCULATOR	HTR
AC12	INTERCOOLER	IC
AC13	LIQUID TRANSFER UNIT	LTU
AC14	LOW TEMPERATURE COMPRESSOR	LTC
AC15	LOW TEMPERATURE RECIRCULATOR	LTR
AC16	LOW LOW TEMP RECIRCULATOR	LLTR
AC17	OIL POT	OP
AC18	OIL SEPARATOR	OS

Item#	Legend	ABBR
AC19	PILOT RECEIVER	PR
AC20	PURGE UNIT	PRG
AC21	REFRIGERANT PUMP	RP
AC22	REFRIGERATED MAKE-UP AIR UNIT	RMAU
AC23	ROOFTOP AIR UNIT	RTU
AC24	SURGE DRUM	SD
AC25	SWING COMPRESSOR	SWC
AC26	THERMOSYPHON RECEIVER	TSR
AC27	WATER COOLED CONDENSER	WC

Ammonia Mini Carrier Markers

The only carrier marker designed for pipes less than 1-3/8 diameter. Engineered to last in the harsh environment of your facility's roof. Stainless steel carrier markers are crack-resistant and weatherproof and are installed with stainless steel straps to ensure your marker stays fastened to the pipe during high winds. The pipe's system information is protected with a UV and chemical resistant polyester overlaminate.

- The most durable solution for your pipes
- Resistant stainless steel
- Stainless steel straps included



Style	Pipe OD (Incl. Insulation)	Letter Size	Carrier Size	Carrier Dimensions	PRICING			Additional Arrow Price	SS Strap Length	Additional SS Straps
					1-49	50-99	100+			
CAA	1/2" to 1-1/4"	1/2"	Mini	1-1/2" x 10"	11.48	10.56	9.92	0.43	8"	0.37

Ammonia Identification

Ammonia Plant Signage

Kolbi offers standard cold storage plant signage or can produce signs for your custom needs.

AMMONIA REFRIGERATION MARKER LAYOUT DETAILS

LTRS: AMMONIA

Each marker has five sections:

1. Ammonia piping abbreviation section
2. Physical State LID (filled) and/or VAP (Blue)
3. Ammonia: Black letters on orange background
4. Pressure Level: LOW (70 PSIG or less) or HIGH (greater than 70 PSIG) or Red
5. Directional arrow

SECTION 1 - IAR APPROVED ABBREVIATIONS

Low Temp Section	LTS
Condenser Clean	CC
Defrost Condensate	DC
Hot Gas Defrost	HGD
High Pressure Liquid	HPL
High Stage Discharge	HSD
High Temp Section	HTS
High Temp Recirculated Liquid	HTRL
High Temp Recirculated Section	HTRS
Low Temp Recirculated Liquid	LTSL
Low Temp Recirculated Section	LTSS
Refrill Vent	RV
Thermopneum Return	TBR
Thermopneum Supply	TBS
Pump Out	PO
Equalizer	EQ

SECTION 2 - PHYSICAL STATE ABBREVIATION

Liquid	LID
Vapor	VAP

NOTE: May be both liquid and vapor

SECTION 3 - AMMONIA

SECTION 4 - PRESSURE LEVEL ABBREVIATION

LOW (70 PSIG and under)	LOW
HIGH (greater than 70 PSIG)	HIGH

SECTION 5 - FLOW DIRECTION ARROW

Left Pointing Arrow
Right Pointing Arrow

ANHYDROUS AMMONIA

DOT HAZARD CLASS: NON-FLAMMABLE GAS

HAZARD Pictogram: 3 (Health), 0 (Instability)

HEALTH HAZARD

4 - DEADLY
3 - EXTREME DANGER
2 - HAZARDOUS
1 - SLIGHTLY DANGEROUS
0 - NORMAL

FIRE HAZARD

4 - EXTREME TEST F
3 - BELOW 100°F
2 - BELOW 50°F
1 - ABOVE 50°F
0 - WILL NOT BURN

REACTIVITY HAZARD

4 - MAY DETONATE
3 - DECOMPOSES MAY DETONATE
2 - REACTS WITH WATER
1 - UNSTABLE IF HEATED
0 - STABLE

PERSONAL PROTECTION REQ'D

1. GOGGLES/SHIELDING
2. GLOVES
3. RESPIRATOR
4. PROTECTIVE CLOTHING
5. NO SMOKING OR OPEN FLAMES

ACUTE TOXICITY

1. IRRITATION
2. SEVERE
3. FATAL

FIRST AID

1. REMOVE TO FRESH AIR. IF BREATHING HAS STOPPED, USE ARTIFICIAL RESPIRATION. RESPIRATOR MUST BE USED FOR ALL EXPOSURES.
2. REMOVE CONTAMINATED CLOTHING IMMEDIATELY. IMMEDIATELY GET MEDICAL ATTENTION IN EVENT OF EXPOSURE. WASH CONTAMINATED CLOTHING IMMEDIATELY.
3. IMMEDIATELY GET MEDICAL ATTENTION IN EVENT OF EXPOSURE.
4. DO NOT INDUCE VOMITING. IF CONSCIOUS, GIVE ORAL FLUIDS. IF UNCONSCIOUS, GIVE ORAL FLUIDS. IF UNCONSCIOUS, GIVE ORAL FLUIDS. IF UNCONSCIOUS, GIVE ORAL FLUIDS.

SNOWFLAKE FROZEN FOOD PRODUCTS

HAZARD Pictogram: 3 (Health), 0 (Instability)

REFRIGERANT INVENTORY SUMMARY 11/05/2017

15.144 POUNDS OF ANHYDROUS AMMONIA (R717) SYSTEM CHARGE

AN EMERGENCY STOP BUTTON SHUTS DOWN ALL REFRIGERATION COMPRESSORS AND LIQUID FLOW. THIS STOP BUTTON DOES NOT TURN ON THE EXHAUST FAN. IF STOP BUTTON IS PRESSED, BEHOLD CTRN. IF STOP 2 AND IF STOP 3 ARE RATED AT 3000 CFM EACH AND ARE ACTIVATED BY AMMONIA DETECTORS, THERMOSTATS AND EMERGENCY VENTILATION. BUTTONS LOCATED ON THE EXTERIOR MACHINE ROOM DOORS.

FIELD TEST PRESSURE APPLIED HIGH SIDE: 330 PSIG
FIELD TEST PRESSURE APPLIED LOW SIDE: 330 PSIG

EMERGENCY TELEPHONE NUMBERS

SNOWFLAKE CORPORATE	800-555-5555
SNOWFLAKE SECURITY	800-555-5555
SNOWFLAKE ENGINEERING DEPARTMENT	800-555-5555
SNOWFLAKE COLBI COOLING	800-555-5555

LOCAL UTILITIES

SNOWFLAKE CORPORATE	800-555-5555
SNOWFLAKE SECURITY	800-555-5555
SNOWFLAKE ENGINEERING DEPARTMENT	800-555-5555
SNOWFLAKE COLBI COOLING	800-555-5555

AMMONIA LEAK OVER 100 POUNDS MUST CONTACT BELOW AGENCIES WITHIN 15 MINUTES OF THE ACTUAL RELEASE

NATIONAL RESPONSE CENTER 800-555-5555
ENVIRONMENTAL PROTECTION AGENCY 800-555-5555
FEDERAL BUREAU OF INVESTIGATION 800-555-5555
INTELLIGENCE SPILL RESPONSE 800-555-5555

Informational Signage

- Signs measure 24" x 12"
- UV resistant pressure-sensitive vinyl
- UV .040 plastic (adhesive backing)



Style	PRICING
Pressure-Sensitive Vinyl	30.21
Plastic (.040)	36.57

REFRIGERATION MACHINERY ROOM

AUTHORIZED PERSONNEL ONLY

CAUTION

EYE AND EAR PROTECTION REQUIRED IN THIS AREA

CAUTION

AMMONIA R-717

REFRIGERATION MACHINERY ROOM VENTILATION

EMERGENCY USE ONLY

REFRIGERATION MACHINERY ROOM SHUT DOWN

EMERGENCY USE ONLY

WARNING

WHEN ALARMS ARE ACTIVATED AMMONIA HAS BEEN DETECTED.

1. LEAVE ROOM IMMEDIATELY
2. DO NOT ENTER EXCEPT BY TRAINED AND AUTHORIZED PERSONNEL
3. DO NOT ENTER WITHOUT PERSONAL PROTECTIVE EQUIPMENT

Standard Engine Room Signage

- Signs measure 7" x 12"
- 6 mil adhesive backed vinyl or .040 plastic
- Sold individually or in sets that include all 6 labels



Style	Individual	Set of 6
Pressure-Sensitive Vinyl	7.84	41.34
Plastic (.040)	9.54	50.35

Stack Light Signs

RED LIGHT

MACHINERY ROOM VENTILATION FAILURE

AMBER LIGHT

SAFETY RELIEF VENT LINE AMMONIA DETECTION ACTIVATED 700 PPM AMMONIA DETECTED

BLUE LIGHT

150 PPM OF AMMONIA DETECTED IN MACHINERY ROOM

YELLOW LIGHT

25 PPM OF AMMONIA DETECTED IN MACHINERY ROOM

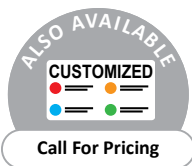
- UV resistant pressure-sensitive vinyl
- UV .040 plastic (adhesive backing)
- Custom sizes available

AMMONIA DETECTION ALARM

GENERAL ALARM

←

←



Custom NFPA Signs

FLAMMABILITY HAZARD RATING

HEALTH HAZARD RATING

INSTABILITY HAZARD RATING

SPECIAL HAZARD IDENTIFIER

3

3

0

HAZARD RATING SYMBOLS

Symbol	Description
OX	Oxidizing
SA	Simple Asphyxiants
W	Reacts violently or explosively with water

- Meets NFPA 704 requirements
- Select the appropriate rating numbers (0 – 4)
- Durable vinyl material with permanent, pressure sensitive adhesive
- Other materials available

Size	1-9	10-24	25-49
10" x 10"	21.35	18.79	16.73
15" x 15"	28.82	25.07	21.75

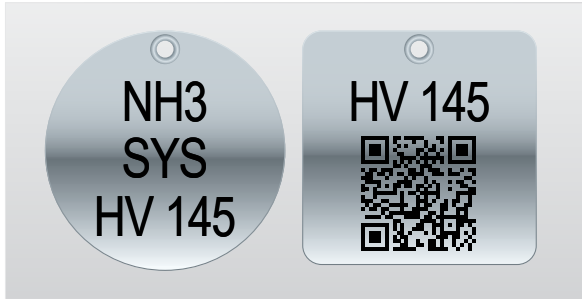
Other sizes available. Call for Info.



Ammonia Identification

Ammonia Valve Tags

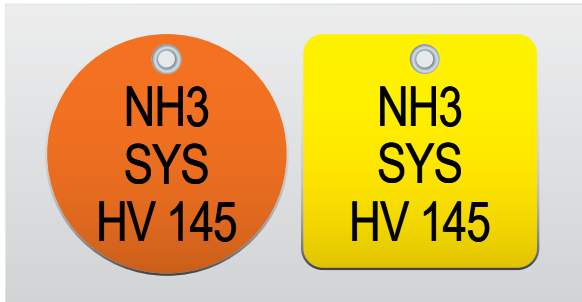
Kolbi's high performance valve tags are engineered for the harsh conditions on your plant's roof.



Stainless Steel

- .030 Type 316 steel
- 3/16" top hole standard
- Temperature range: -40°F to 2400°F
- Barcode and QR codes available
- Outdoor durability

Size/Shape	SINGLE SIDED PRICING			DOUBLE SIDED PRICING		
	1-99	100-249	250+	1-99	100-249	250+
1-1/2" Round	5.38	4.93	4.67	7.26	6.65	6.30
2" Round	5.85	5.45	5.17	7.89	7.35	6.97
1-1/2" Square	5.38	4.93	4.67	7.26	6.65	6.30
2" Square	5.85	5.45	5.17	7.89	7.35	6.97



Plastic

- Grommets included
- 1/8" top hole standard
- 2-ply, orange or yellow material
- 1/8" outdoor grade plastic
- Temperature range: -40° F to 175° F
- Barcode and QR codes available

Size/Shape	SINGLE SIDED PRICING			DOUBLE SIDED PRICING		
	1-99	100-249	250+	1-99	100-249	250+
1-1/2" Round	2.56	2.32	2.02	3.50	3.13	2.75
2" Round	3.07	2.87	2.57	4.10	3.87	3.47
1-1/2" Square	2.56	2.32	2.02	3.50	3.13	2.75
2" Square	3.07	2.87	2.57	4.10	3.87	3.47

Ammonia Multi-Valve Tags

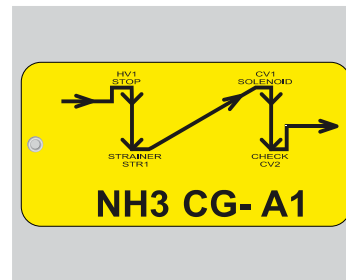
Kolbi Multi-Valve tags can be made out of a wide variety of materials, in any shape and size to fit your needs.



Multi-Valve Tags

- Stainless Steel

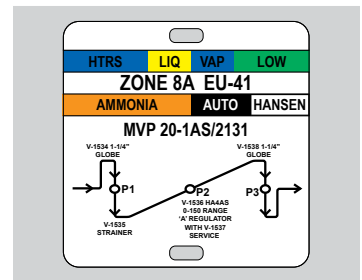
Size	PRICING		
	1-99	100-249	250+
1-1/4" x 3"	6.93	6.17	5.61



Block Valve Tags

- Engraved Multi-ply Plastic

Size	PRICING		
	1-99	100-249	250+
2" x 4"	6.80	6.05	5.50



Combination Tags

- Stainless Steel & Aluminum

Size	PRICING		
	1-99	100-249	250+
3" x 3" SS	9.51	8.46	7.70
3" x 3" AL	6.47	5.75	5.24

PLEASE CONTACT US FOR YOUR CUSTOM TAG NEEDS!

Valve Tag Accessories

Stop using tie wire, make your valve tagging application quick and professional looking by using these valve tag accessories. Other accessories available by request.



Heavy Duty Self-Locking Ties

- Tamper Proof
 - Galvanized Steel Cable
 - No installation tools necessary
- 14" Stainless Steel 3.12 each
6" Stainless Steel 1.75 each



Aluminum 2 Hole Seal With Steel 12" Wire

- 12" long Galvanized Steel Cable
 - Lightweight and can be easily sealed with pliers
- 100-Pack 156.16



Lead Meter Seals and Sealing Press

- 12" long
 - Sold in packages of 100
 - Seal with Sealing Press
- Stainless Steel (4 Strand) . 41.81
Steel Press 107.10

Ammonia Identification

Equipment Plates

Engraved equipment plates in the most commonly requested sizes for easy and economical ordering. Just select the size, material, color, and wording. These highly durable plates are professionally engraved for a long-lasting image and are recommended for the harsh conditions of an ammonia refrigerated facility.

Outdoor Grade Plastic

- 1/8" 2-ply plastic
- Beveled edges
- 4 Standard color combinations
- Temperature range: -40° F to 175° F
- Adhesive backed, mounting holes or both



Stainless Steel

- .032 Type 316 stainless steel
- Standard hole size: 3/16"
- Temperature range: up to 2400° F
- Adhesive backed, mounting holes or both



Standard Color Combinations

BLACK	BLACK	WHITE	BLACK
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Plastic

- Available sizes:
 - 1/16" 2-ply (standard)
 - 1/8" 2-ply
 - 1/16" 3-ply (Double Sided)
- Beveled edges
- 10 Standard color combinations
- Temperature range: -40° F to 175° F
- Adhesive backed, mounting holes or both



Anodized Aluminum

- .020" anodized aluminum
- Available in four color combinations
- Base material with white characters
- Temperature range: up to 1400° F
- Standard hole size: 3/16"



Standard Color Combinations

Standard Color Combinations

BLACK	GREEN	RED	BLUE	WHITE	WHITE	WHITE	WHITE	YELLOW	BLACK
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Standard Color Combinations

WHITE	WHITE	WHITE	BLACK	WHITE	WHITE	WHITE
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	1/16" 2-ply Plastic <small>Most commonly requested, general purpose indoor material.</small>			1/8" 2-ply Plastic <small>Thicker, more durable material designed for indoor use.</small>			1/8" Outdoor Grade Plastic <small>Specifically designed for outdoor durability.</small>			Anodized Aluminum <small>For projects that require metal tags to be color coded.</small>			Stainless Steel <small>For projects requiring high durability and properties of stainless steel.</small>		
Size	1-99	100-249	250+	1-99	100-249	250+	1-99	100-249	250+	1-99	100-249	250+	1-99	100-249	250+
1" x 2"	3.10	2.85	2.50	4.34	3.99	3.50	5.58	5.13	4.50	4.75	4.50	3.70	5.70	5.40	4.44
1" x 3"	3.70	3.40	3.00	5.18	4.76	4.20	6.66	6.12	5.40	5.00	4.85	4.40	6.00	5.82	5.28
1" x 4"	4.10	3.75	3.25	5.74	5.25	4.55	7.38	6.75	5.85	6.10	5.20	4.75	7.32	6.24	5.70
1-1/2" x 4"	5.35	4.90	4.30	7.49	6.86	6.02	9.63	8.82	7.74	6.90	5.90	5.40	8.28	7.08	6.48
2" x 3"	5.35	4.90	4.30	7.49	6.86	6.02	9.63	8.82	7.74	6.90	5.90	5.40	8.28	7.08	6.48
2" x 4"	6.00	5.50	4.80	8.40	7.70	6.72	10.80	9.90	8.64	7.40	6.30	5.75	8.88	7.56	6.90
2-1/2" x 4"	6.40	5.90	5.10	8.96	8.26	7.14	11.52	10.62	9.18	7.88	6.79	6.17	9.46	8.15	7.40
2" x 6"	6.70	6.15	5.35	9.38	8.61	7.49	12.06	11.07	9.63	9.45	8.15	7.40	11.34	9.78	8.88
3" x 4"	6.70	6.15	5.35	9.38	8.61	7.49	12.06	11.07	9.63	9.45	8.15	7.40	11.34	9.78	8.88
3" x 5"	7.20	6.60	5.75	10.08	9.24	8.05	12.96	11.88	10.35	9.75	8.35	7.60	11.70	10.02	9.12
3" x 6"	7.70	7.10	6.15	10.78	9.94	8.61	13.86	12.78	11.07	11.45	9.77	8.91	13.74	11.72	10.69
4" x 6"	8.45	7.75	6.75	11.83	10.85	9.45	15.21	13.95	12.15	14.60	12.40	11.35	17.52	14.88	13.62

Any size option is available within up to 24" x 48". Call for pricing.



Bracketed Control Bank Signs

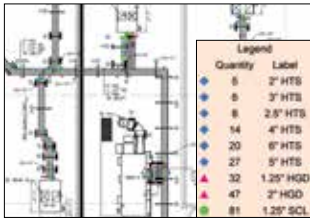
Kolbi's Bracketed Control Bank Signs make identifying zones fast and easy. A standard marker has limited visibility and viewing range. Using these bracketed signs solves that problem, provides extended viewing distance, and are designed to withstand the harsh environment of a rooftop.

- Increased durability for your rooftop
- Heavy-duty stainless steel brackets (installed)
- Price includes (2) 60" stainless steel straps

Size	PRICING		
	1-24	25-49	50+
4" x 12"	39.83	36.97	34.77

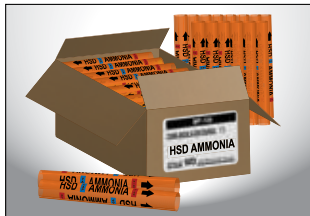


Free Kolbi Services



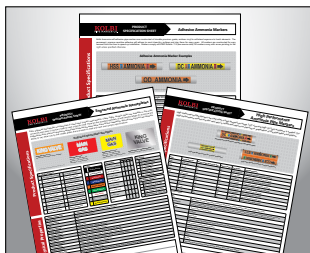
Identification Takeoff Service

This can be a time-consuming process and if not done correctly, it can result in excess material at the end of the job. The Kolbi Takeoff Service is designed to prevent that from happening. We offer the most comprehensive and accurate Takeoff service in the industry. Our Takeoffs will be developed based on the project specifications, drawings and ANSI/IIAR standards for ammonia identification.



Sort and Pack Service

We are sure that at one point or another you have received a pile of boxes containing identification products and spend hours sorting through them to prepare for installation...well, not anymore. Kolbi's Sort & Pack Service lets us do that work for you. Just tell us how you want to install the product and we will presort and package the order for easy installation. We can package by room, floor or however you would like. Every box is clearly labeled, both inner packages and outer boxes for easy distribution.



Submittal Service

Kolbi's new submittals are designed to be easily customized to meet the exact specifications of any project, so approval is a breeze! Our submittals are the only ones in the industry that are customized to the specific project requirements. Just send us your project specifications and our trained Submittal Preparation Specialists will review the requirements, identify the appropriate submittals and prepare a comprehensive submittal package specifically for that project. Along with the submittals, you will get an index sheet cross referencing the section of the specifications to our submittals. You will receive a complete package ready to submit for approval.

TERMS AND CONDITIONS:

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PRICING The prices in this catalog are current as of October 2022. The pricing does not include any taxes, freight or other charges that may apply. We make every effort to validate the accuracy of our pricing, however if an incorrect price exists, we reserve the right to charge the correct price. Pricing can change at any time and customers will be notified if discrepancies exist when an order is placed.

RETURNS Kolbi guarantees its products against defects in workmanship. If you would like to return or exchange a defective product, please contact our Customer Service Team at 800-499-8450 within 30 days of purchase. Non-defective product can only be returned after written authorization and may have a 20% restocking fee applied. Custom products are not eligible for return unless defective.



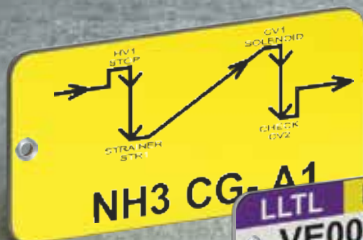
Ammonia Markers



Carrier Markers



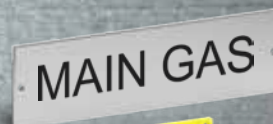
Valve Tags



Multi-Valve Tags



Bracketed Control Bank Signs



Equipment Plates



Mini Carrier Markers

QUALITY | SERVICE | SIMPLICITY

KOLBI
PIPE MARKER CO.



2024 **AMMONIA**
IDENTIFICATION CATALOG

SCAN TO ORDER NOW

2024 EDITION

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