



*Need
SOP & up date*

TO SPU Leaders

DATE May 8, 1980

FROM Michael R. Briones *MRB*

SUBJECT Nitrogen Fittings/Hose-Fitting Policy

Some of the preliminary work (i.e., stocking fittings, providing hoses with new fittings, getting a location list of nitrogen outlets, gathering training information), has been completed to initiate the conversion of the "Kelley" fittings on nitrogen systems to a new fitting.

In the process of making preparations for the fitting conversion, the overall hose standards and fittings for all services were reviewed. Some minor changes in these areas were made.

The attached information package includes those changes as well as the information which will be implemented into hose and fitting standard policy.

Display boards exemplifying these policy guidelines are provided at the Plant "A" Toolroom and are to be used as a training aid when training your personnel. These display boards are to be returned to the Toolroom after training is completed so they may be erected in designated locations throughout the plant by Maintenance in order to allow personnel to refer to them as needed. Your area Safety Coordinator will be available to assist you in your training needs.

Please make a concentrated effort to train all your personnel by the end of May so the conversion of fittings will transpire without any undue difficulties. Our conversion target date is June 2, 1980, with completion date being July 1, 1980.

Your continual cooperation will be appreciated.

MRB:bb

Attachment

xc: Plant Safety Council
Roger Corley
Bob McCorquodale
Safety Coordinators

*No (N₂ - Kelley)
adapter is legal
as of 1985 L.M.
4/21/85*

SL 020214

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TRAINING GUIDE

PLANT HOSE AND FITTING STANDARD

TRAINING: Plantwide training will be conducted during the month of May, 1980.

IMPLEMENTATION: We will begin actual installation of the Cam-Lock Fittings for nitrogen service Monday, June 2, 1980.

1. Display Boards

- a) All fittings on board have been damaged to prevent their removal and use.
 - b) Boards will be permanently located throughout the plant for quick and easy reference.
2. The program is basically the same as we have had in the past, with the following changes:
- a) Each hose service will have a specific color. These color changes will take place on a "used up" basis.
 - b) Each hose service will have a specific fitting. Fitting changes will be made progressively on a unit basis beginning on June 2, 1980.
 - c) All air, water, and utility hoses which must be repaired in the plant will use the two-bolt clamp shown on the display board. Band clamping may be done by the supplier only.

3. Standard Operating Procedure

- a) Hoses will be branded by trade name. If the hose fails, tag a portion of it which shows their identification and note the use condition at time of failure. The inspection department should then be notified so they can investigate. This will help us follow up hose failures with the manufacturer and supplier.
- b) Safety pins should always be used on the quick acting couplers, i.e., Kelly, Air King, Chicago.

- c) Clamps on Cam-Lock fittings should be wired closed.
- d) Ask for J.S.I. if a question exists concerning which type hose or fitting should be used.

4. Hoses and Fittings

A. Utility Air and Water (includes hot water wash down)

- 1) Per specifications drawing.
- 2) Basic change is this hose will always be red in color, plus the minimum temperature, pressure, and hose composition specifications have been raised to exceed expected usage needs.

B. General Chemical

- 1. Per specifications drawing.
- 2. No basic change. (NOTE: Solid red, blue, or black colors are not allowed.)

C. Steam

- 1) Per specifications drawing.
- 2) No change from existing standard. (NOTE: Boss fitting must be used.)

D. Breathing Air

The only change is the fitting. Beginning June 2, 1980, the Hanson fitting will be installed on all plant respiratory equipment.

NOTE: No field repairs are allowed on breathing air hose or fitting. Return all damaged equipment to the Safety Department and secure replacement equipment.

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E. Nitrogen Service

1. Attached is the new Nitrogen Specification PL-B-14 and the new hose and coupling Specification PL-B-21.

The Nitrogen Specification details the new supply drop, the nitrogen sign, and the correct process tie-in arrangements. Note that the allowable tie-in method does not allow use of a Kelly fitting in nitrogen service. However, a utility adapter with a Kelly is allowed to tie in water and air to a nitrogen purge point. Note process nitrogen purge points must have the Cam-Lock fitting.

On a plantwide basis, the nitrogen changeover will be handled as follows:

1. All process points that require nitrogen and all nitrogen drops will have the Kelly fittings replaced with the respective Cam-Lock fitting. A utility adapter for tying in water or air will be supplied loose.
2. All usable blue nitrogen hoses will have the Kelly fittings changed to the Cam-Lock.
3. All broken nitrogen service boxes will have the new nitrogen sign installed in place of the box.
2. Specifications drawing nitrogen drops--future and repair/replacement installations.
3. Specifications drawing nitrogen sign--future installation and replacement for damaged blue boxes.
4. Specifications drawing hose and fitting.
5. Nitrogen fittings constitute a basic fitting change. The

Kelly or Chicago type connection will no longer be allowed in nitrogen service. The new fitting will be the 3/4" Cam-Lock type.

6. All nitrogen hoses will be blue.

7. Change over will begin June 2 on a unit basis and be completed as soon as possible.

F. Purpose - Scope - General - Responsibility

REVIEW SPECIFICATIONS SHEET

(Handouts may be reproduced from the attached specifications sheets.)

/bb

4/28/80

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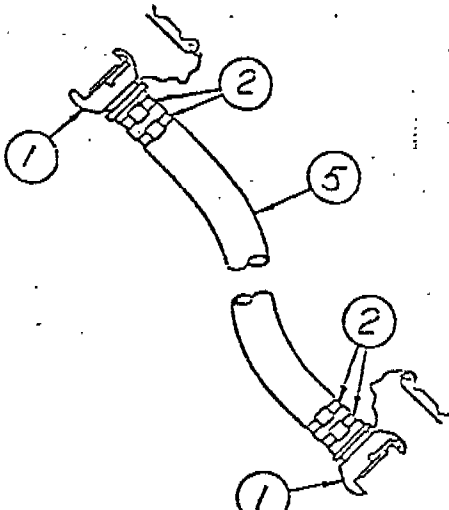
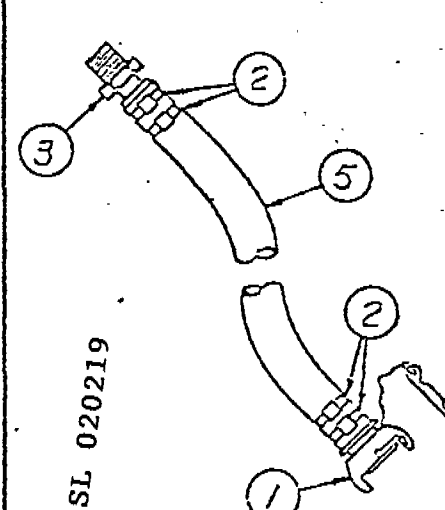
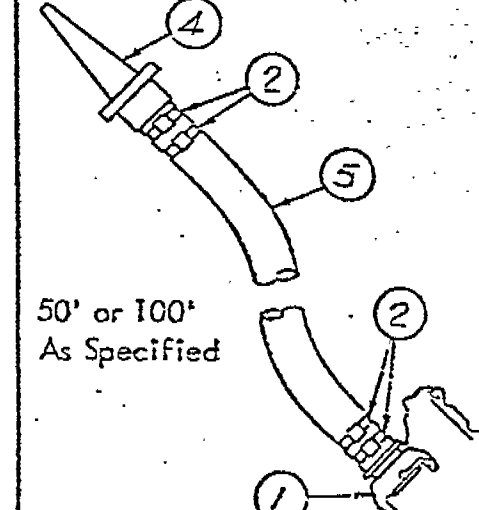
HOSE AND COUPLING SPECIFICATION - UTILITY AIR AND WATER (Includes Hot Water Washdown)

HOSE

Color	Red
Size	3/4" ID x 50'
Working Pressure	250 psi minimum
Cover	Neoprene
Carcass	Two ply rayon (or equal) fiber braided
Tube	Buna N or neoprene
Other	Branded, Domestic
Trade Names	Uniroyal P-980 Goodyear Redwing Dayco Day-Flo (7134) Gates 6B Dura Master (Other Equals)

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COUPLINGS/FITTINGS

Utility Air and Water	Hot Water Washdown (Caustic area as specified)	Hot Water Washdown (Dia. Cell area as specified)
		

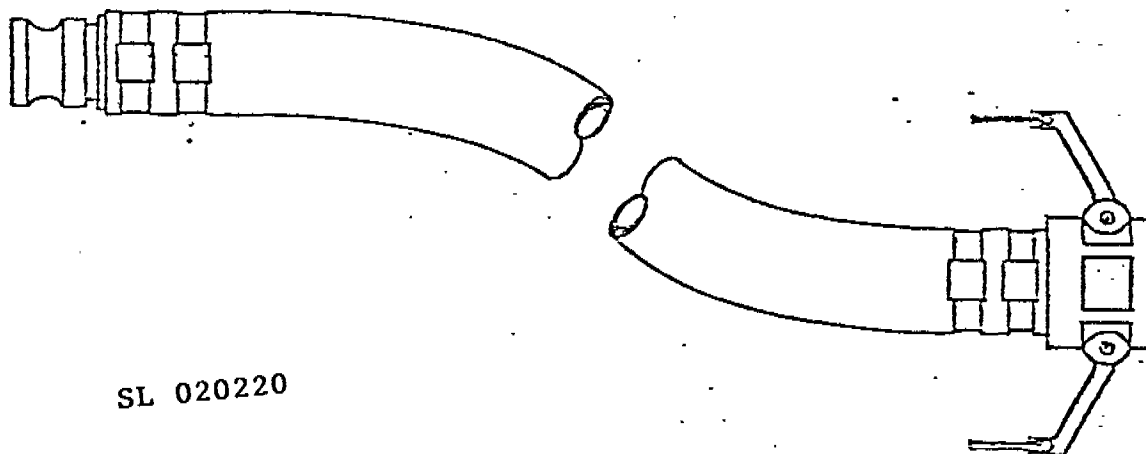
1. "Air-king" quick acting cad. plated couplings or equal with safety pin and lanyard attached.
- * 2. Double "band-it" (or equal) locking band clamps. (1/2" bands required)
3. 3/4" x 3/4" NPT galvanized male standard serrated nipple, with clamp collar.
4. Molded rubber nozzle, 3/4" P-9206 Uniroyal or equal.
5. Red hose per above specifications.

* Double "band-it" clamps by vendors only. Field repairs by Maintenance should use two-bolted clamp from Stores.

HOSE AND COUPLING SPECIFICATION - GENERAL CHEMICAL

Color	As specified by area excluding <u>solid</u> red, blue, or black.
Size	As specified by area
Working Pressure	100 psi minimum
Coupling	Cam-Lok type quick disconnect couplings (Ever-Tite, Kamlock, or equal). Coupling material as specified by area.
Cover	As specified excluding <u>solid</u> colors red, blue, or black.
Carcass	As specified
Tube	As specified or determined by chemical service
Other	Branded (when practical) Domestic
Trade Name	As specified by area

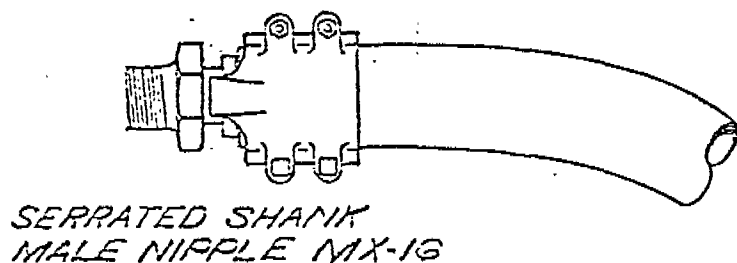
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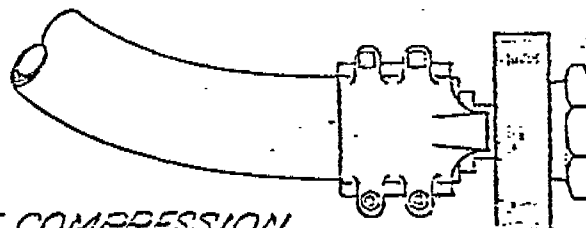
SL 020220

HOSE AND COUPLING SPECIFICATION - STEAM

Color	Black
Size	ID as specified x 50' length (3/4" to 1 1/2" dia. range)
Working Pressure	250 psi @ 406°F saturated steam
Couplings	GJ-Boss, X-34 and clamp, cadmium or zinc plated.
Cover	<u>Black EPDM</u>
Carcass	Two braids of carbon steel wire
Tube	EPDM heat resistant rubber
Other	Branded Domestic
Trade Name	B. F. Goodrich burst proof steam regular Uniroyal P-889 (or equals)



*FEMALE SPUD/BOSS
GROUND JOINT END*



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Revised by TJZ
Date

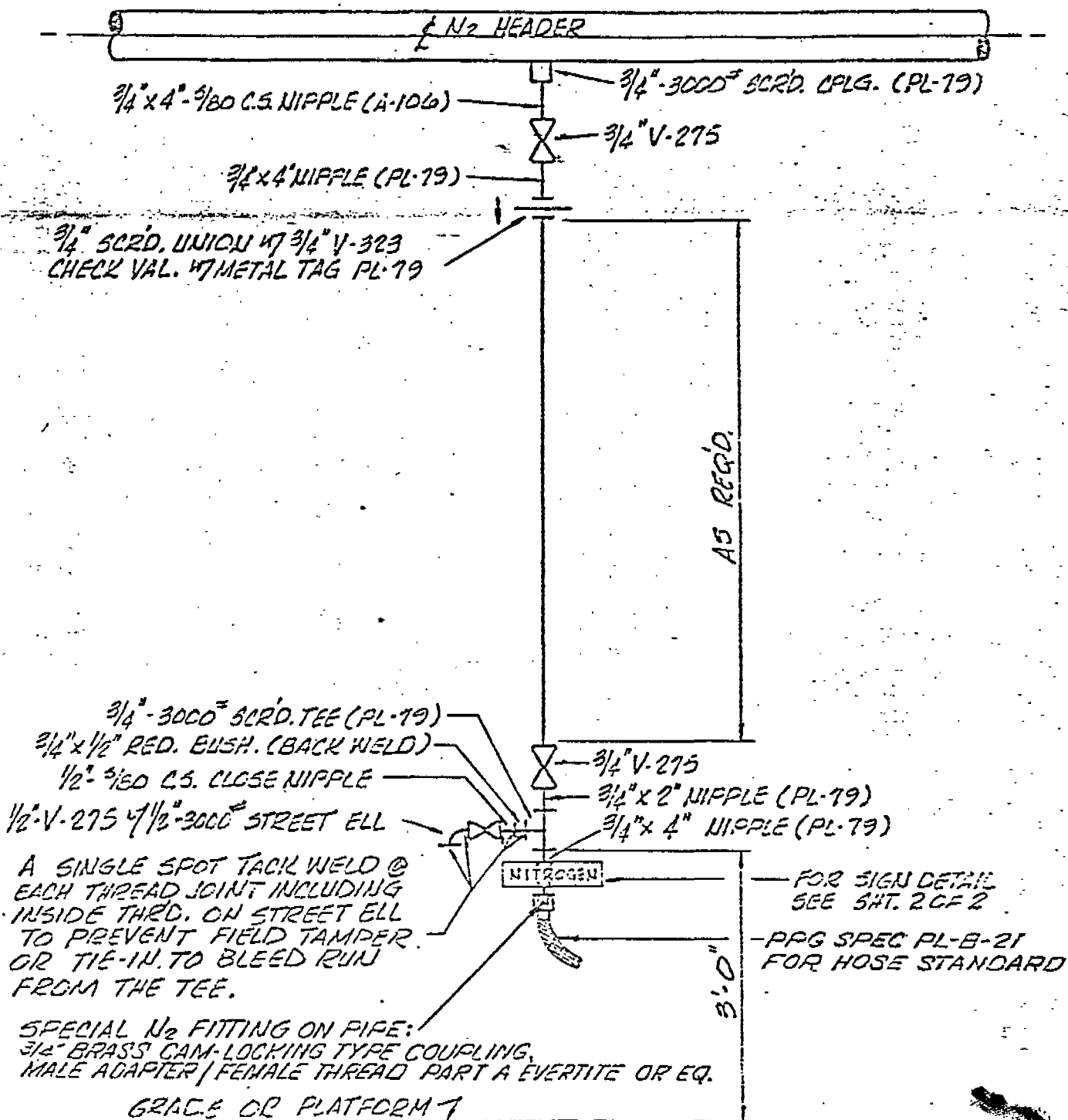
HOSE AND COUPLING SPECIFICATION - BREATHING AIR

Color	Black
Size	3/8" ID x 50'
Working Pressure	150 psi
Coupling	1/4" Hansen 3000 series plug and socket
Cover	Black synthetic rubber
Carcass	Braided high strength synthetic yarn
Tube	Nylon
Other	Branded Domestic
Trade Name	Scott 30010, or equal

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TITLE NITROGEN SERVICE STATION AND TIE-INS



SL 020223

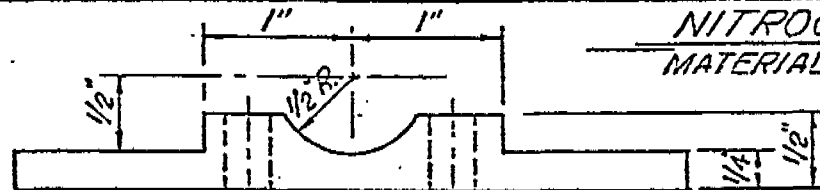
NOTE:

PIPE & FITTINGS PER PL-19

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NITROGEN SIGN
MATERIAL: CAST IRON

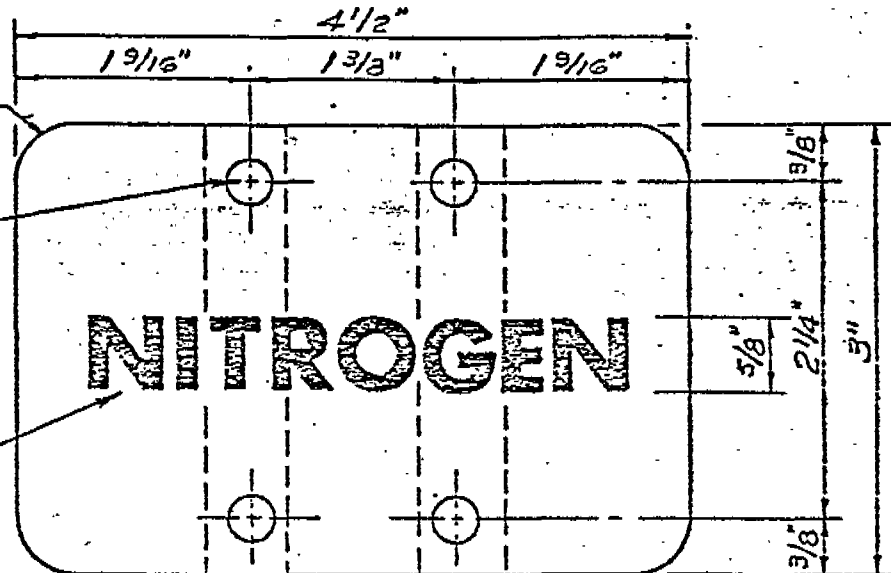


TOP VIEW

RADIUS CORNERS

DRILL HOLES $\frac{3}{8}$ " ϕ
TYR 4

BLOCK LETTERS
 $\frac{1}{8}$ " WIDE & $\frac{1}{8}$ " RAISED

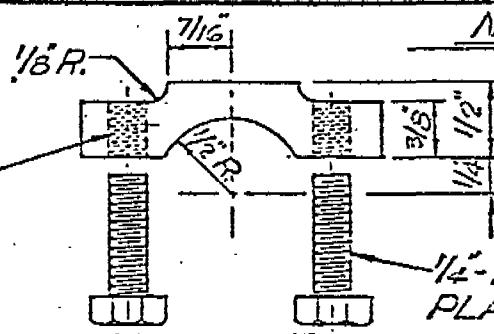


FRONT VIEW

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NITROGEN SIGN BRACKET
MATERIAL: CAST IRON

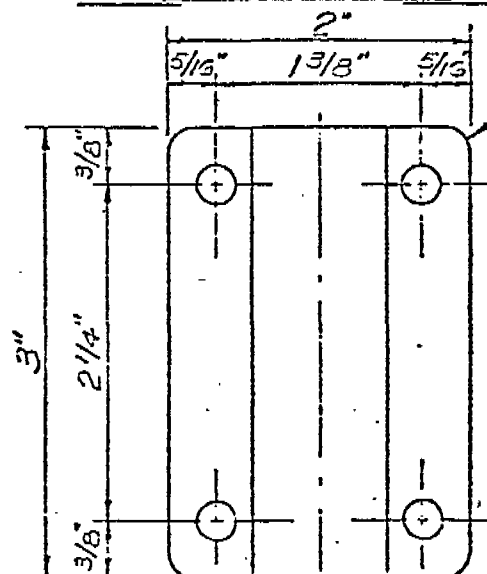
DRILL & TAP THROUGH
FOR $\frac{1}{4}$ "-20 BOLT
(TYR 4 HOLES)



TOP VIEW

$\frac{1}{4}$ "-20 x $1\frac{1}{2}$ " LG. CADMIUM
PLATED BOLTS (4 REQ'D.)

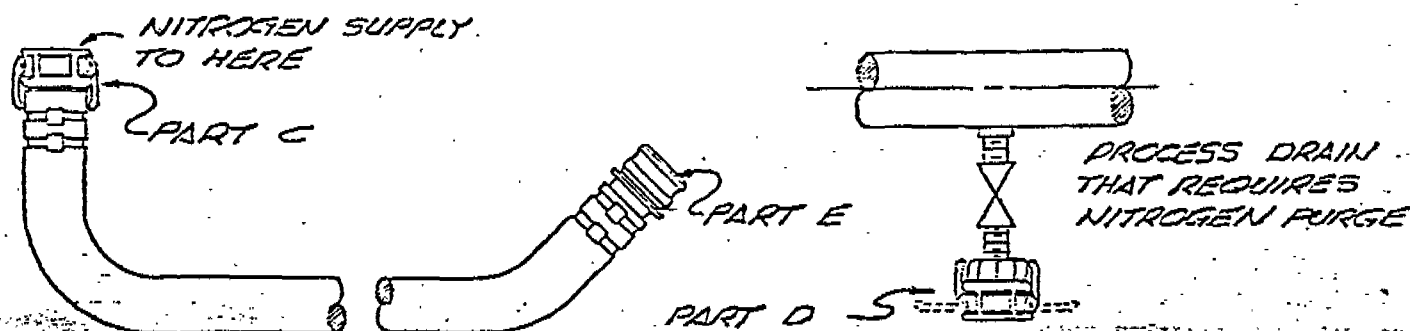
VENDOR:
Furnish clamp
bracket already
bolted to sign.



RADIUS CORNERS

PPG Commodity
No. 28-669-0310.

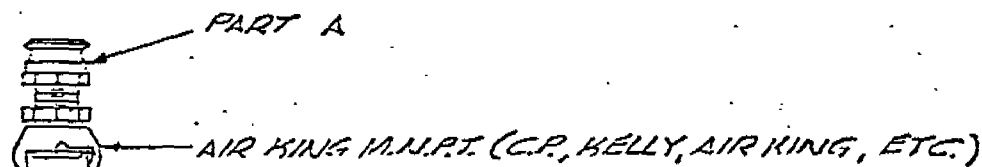
NITROGEN TIE-INS ON PROCESS EQUIPMENT AND LINES



THIS PREVENTS THE USE OF A QUARTER-TURN QUICK ACTING AIR/WATER FITTING IN NITROGEN SERVICE.

IN ORDER TO TIE-IN AIR OR WATER USE A MALE HOSE END-TO-KELLY ADAPTER.

UTILITY ADAPTER

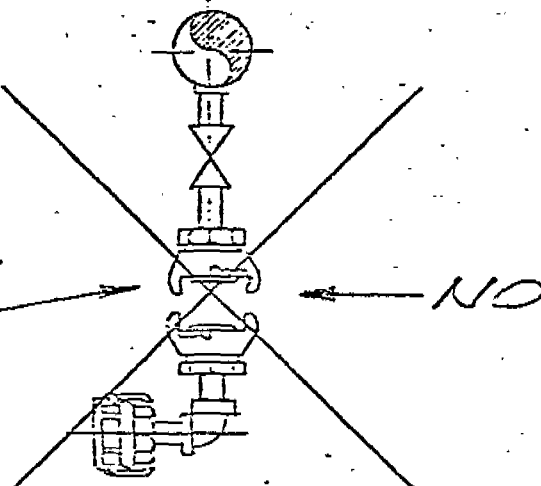


DO NOT ALLOW AN ADAPTER THAT INCLUDES A KELLY FOR NITROGEN SERVICE

QUICK-ACTING
QUARTER-TURN CONNECTOR

NOT
ALLOWED

IN NITROGEN SERVICE



COUPLINGS: 3/4" Brass CAM-Locking Type (Ever-Tite or equal) SL 020225

PART A: Male Adapter/Female Thread
PART C: Female Coupler/Hose Shank
PART D: Female Coupler/Female Thread

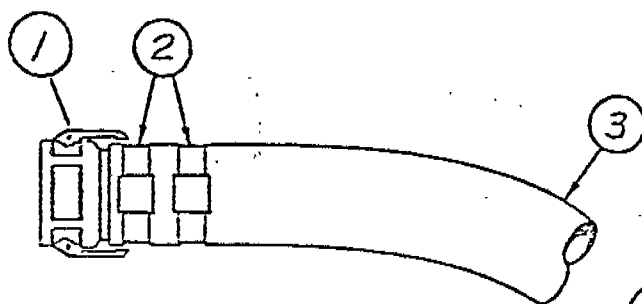
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HOSE AND COUPLING SPECIFICATION - NITROGEN SERVICE

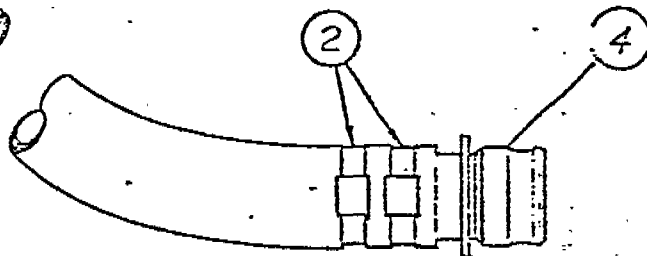
HOSE

Color	Blue
Size	3/4" ID x 50'
Working Pressure	200 psi minimum
Cover	EDPM, SBR, Neoprene; Hypalon or Butyl
Carcass	Two ply rayon (or equal) fiber braided
Tube	EDPM, SBR, Neoprene, Hypalon, or Butyl
Other	Branded, Domestic, (No specific use reference allowed).
Trade Names	Uniroyal P-2978 or equal

COUPLINGS/FITTINGS



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SL 020226

1. Coupling, 3/4" brass Cam-Locking Type, Part C Evertite or equal.
2. Double "Band-it" (or equal) locking band clamps. (1/2" bands required).
3. Blue hose per above specifications.
4. Coupling, 3/4" brass Cam-Locking Type, Part E.

TLE PLANT HOSE SPECIFICATION - Air, Water, Steam, Nitrogen, Chemical

PURPOSE

To establish and define the standards for designated service hoses in the Lake Charles plant.

SCOPE

The specification contained herein is the minimum required. Supervisors are not relieved of the responsibility of setting higher standards if deemed necessary in special applications.

GENERAL

1. The hoses listed shall adhere to the color-code indicated.
2. Trade names listed are not mandatory, however, substitute hose shall be of equal quality and must be approved by the Safety Department.
3. All inserted fittings banded or clamped to hoses must be serrated.

RESPONSIBILITY

1. All employees are charged with the responsibility of providing full support to this specification.
2. No modification or interchanging of fittings or colored hoses will be allowed; Operations and Maintenance supervision is responsible for the enforcement.

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SL 020227