

High Pressure Mastic Hose

With Rubber Tube, Static Ground

307358 rev.N



Important Safety Instructions

Read all warnings and instructions in this manual.
Save these instructions.

3100 psi (21.4 MPa, 214 bar) Maximum Working Pressure

Hose No.	ID	Coupling Thread & Type	Inner Tube Material	Length
218689	3/4 in.	3/4 npt(mbe)	Buna-N	50 ft (15.2 m)
218986	1 in.	1 npt(mbe)	Buna-N	50 ft (15.2 m)

3500 psi (24 MPa, 240 bar) Maximum Working Pressure

Spring guards on both ends

Hose No.	ID	Coupling Thread & Type	Inner Tube Material	Length
214962	1/2 in.	1/2 npt(mbe)	Buna-N	15 ft (4.6 m)
214964	1/2 in.	1/2 npt(mbe)	Buna-N	50 ft (15.2 mm)

5000 psi (34.5 MPa, 345 bar) Maximum Working Pressure

Hose No.	ID	Coupling Thread & Type	Inner Tube Material	Length
215445	1/2 in.	1/2 npt(mbe)	Buna-N	5 ft (1.5 m)
215441	1/2 in.	1/2 npt(mbe)	Buna-N	10 ft (3.1 m)
215442	1/2 in.	1/2 npt(mbe)	Buna-N	15 ft (4.5 m)
215443	1/2 in.	1/2 npt(mbe)	Buna-N	25 ft (7.6 m)
215444	1/2 in.	1/2 npt(mbe)	Buna-N	50 ft (15.2 m)
215241	3/4 in.	3/4 npt(mbe)	Neoprene	6 ft (1.8 m)
215238	3/4 in.	3/4 npt(mbe)	Neoprene	10 ft (3.1 m)
215239	3/4 in.	3/4 npt(mbe)	Neoprene	15 ft (4.6 m)
215240	3/4 in.	3/4 npt(mbe)	Neoprene	25 ft (7.6 m)
287887	1 in.	1 npt(mbe)	Synthetic Rubber	10 ft (3.1 m)
287888	1 in.	1 npt(mbe)	Synthetic Rubber	15 ft (4.6 m)
287889	1 in.	1 npt(mbe)	Synthetic Rubber	20 ft (6.2 m)
287890	1 in.	1 npt(mbe)	Synthetic Rubber	25 ft (7.6 m)

Symbols

Warning Symbol



This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

Caution Symbol



This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the instructions.

WARNING



INSTRUCTIONS

EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture or malfunction and result in serious injury.

- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are not sure, call your Graco distributor.
- Do not alter or modify this equipment.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure stated on the equipment or in the **Technical Data** for your equipment. Do not exceed the maximum working pressure of the lowest rated component in your system.
- Use fluids and solvents which are compatible with the equipment wetted parts. Refer to the **Technical Data** section of all equipment manuals. Read the fluid and solvent manufacturer's warnings.
- Handle hoses carefully. Do not pull on hoses to move equipment.
- Route hoses away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose Graco hoses to temperatures above 66°C (150°F) or below -40°C (-40°F).
- Do not move or lift pressurized equipment.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.



SKIN INJECTION HAZARD

Spray from the gun, leaks or ruptured components can inject fluid into your body and cause extremely serious injury, including the need for amputation. Fluid splashed in the eyes or on the skin can also cause serious injury.

- Fluid injected into the skin is a serious injury. The injury may look like just a cut, but it is a serious injury. **Get immediate surgical treatment.**
- Do not stop or deflect leaks with your hand, body, glove or rag.
- Follow the **Pressure Relief Procedure** for your equipment if the spray tip clogs and before cleaning, checking or servicing the equipment.
- Tighten all fluid connections before operating the equipment.
- Check the hoses, tubes, and couplings daily. Replace worn, damaged, or loose parts immediately. Permanently coupled hoses cannot be repaired; replace the entire hose.

WARNING



FIRE AND EXPLOSION HAZARD

Improper grounding, poor ventilation, open flames or sparks can cause a hazardous condition and result in a fire or explosion and serious injury.

- Ground the equipment and the object being sprayed. Refer to the **Grounding** procedure for your equipment.
- If there is any static sparking or you feel an electric shock while using this equipment, **stop spraying immediately**. Do not use the equipment until you identify and correct the problem.
- Provide fresh air ventilation to avoid the buildup of flammable fumes from solvents or the fluid being sprayed.
- Keep the spray area free of debris, including solvent, rags, and gasoline.
- Do not smoke in the spray area.
- Do not turn on or off any light switch in the spray area while spraying or while operating if fumes are present.
- Do not operate a gasoline engine in the spray area.



TOXIC FLUID HAZARD

Hazardous fluid or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, or swallowed.

- Know the specific hazards of the fluid you are using.
- Store hazardous fluid in an approved container. Dispose of hazardous fluid according to all local, state and national guidelines.
- Always wear protective eyewear, gloves, clothing and respirator as recommended by the fluid and solvent manufacturer.

[illegible]

KEY to Chemical Resistance Tables, pages 6–11.

“1” Excellent Resistance: This fluid is expected to have minor or no effect on the polymer.

“2” Good Resistance: This polymer should give reasonably satisfactory service. Due to the nature of this chemical an under prolonged exposure, the rubber may exhibit minor to moderate deterioration and/or solution discoloration. Environmental changes such as temperature, concentration, etc., may promote increased degradation.

“X” Not Recommended: This polymer is unsatisfactory for this chemical and should not be used.

“–” (Dash): Insufficient or no data is available for this material. Testing is advised.

Note 1: The above ratings as applied to the Chemical Resistance Tables are intended as guides only. They are compiled from the best data available to us. Ratings shown in the tables are based on a temperature of 70° F and 100% concentrated or saturated solutions unless otherwise noted.

Note 2: If unusual conditions exist, a polymer test in the fluid is suggested.

Note 3: Where a chemical listed in the Resistance Tables is soluble in a solvent other than water, the solvent should also be checked for its suitability with the polymer.

Note 4: Discoloration of fluids conveyed in hose. There are no generally accepted standard tests for measuring or rating discoloration of fluids passing through a hose. The amount of discoloration that can be tolerated is usually established by the user on the basis of application. Obviously, products such as paint must be conveyed through a hose having very good non-discoloring characteristics. If the product is not visually affected, then the hose is satisfactory. For some products, the discoloration may not be objectionable from a visual standpoint. However, the amount and makeup of the particles causing discoloration may be objectionable if they effect the final use of the product.

Some of the more common methods of checking discoloration are:

1. Allowing the fluid to remain in a sample piece of hose for a given period, and then inspecting visually for discoloration.
2. Testing fluid as in No. 1 above and then passing it through filter paper to check for foreign content.
3. A more refined test can be made with a spectrometer. This instrument measures light transmission through the fluid before and after immersion tests with rubber stocks. This gives a relative reading expressed in percent, the original fluid being rated as 100%.

Buna-N Tube	CHEMICAL
	A
1	Absorption Oil
X	Acetaldehyde
–	Acetal
2	Acetamide
X	Acetic Acid (10%)
X	Acetic Acid (25%)
X	Acetic Acid (50%)
X	Acetic Acid, Glacial
X	Acetic Acid, Anhydride
X	Acetic Oxide
X	Acetone
X	acetonitrile
X	Acetophenone
–	acetylene
–	Acrolein (Inhibited)
X	Acrylonitrile
X	Aero-Safe 2300
1	Aeroshell Type 1A, 1AC, 4
1	Air 150° F
2	Air 180° F
X	Air 200° F
1	Aircraft Hyd. Oil AA
X	Alkazene
–	Alkylaryl Sulfonates
X	Allyl Chloride
2	Aluminum Acetate
1	Aluminum Bromide
1	Aluminum Chloride
1	Aluminum Fluoride
1	Aluminum Hydroxide
1	Aluminum Nitrate
1	Aluminum Salts
1	Aluminum Sulfate
1	Alums (Ammonium or Potassium)
2	Amines (Mixed)
–	Ammonia (Anhydrous)
1	Ammonia (Aqueous)
–	Ammonium Bisulfate (50%)
X	Ammonium Carbonate
1	Ammonium Chloride
2	Ammonium Hydroxide
2	Ammonium Metaphosphate
1	Ammonium Nitrate (Fertilizer)
X	Ammonium Nitrite
X	Ammonium Persulfate
1	Ammonium Phosphate (Mono, Di, Tri Basic)
2	Ammonium Sulfate
1	Ammonium Thiocyanate
X	Amyl Acetate
2	Amyl Alcohol
2	Amyl Borate
–	Amyl Chloride
X	Amyl Chloronapthalene
X	Amyl Napthelene
–	Amyl Phenol
X	Aniline
X	Aniline Dyes
2	Aniline Hydrochloride
2	Animal Fats
1	Anti Freeze (Glycol Base)

Buna-N Tube	CHEMICAL
	A (continued)
–	Antimony Chloride (50%)
X	Aqua Regia
1	Arco A. T. F. Dexron
–	Arsenic Acid
X	Askarel (Transformer Oil)**
2	Asphalt (Under 180° F)†
2	Asphalt (Cut Back)
1	ASTM Oil No. 1
1	ASTM Oil No. 2
1	ASTM Oil No. 3
1	ASTM Reference Fuel A
1	ASTM Reference Fuel B
2	ASTM Reference Fuel C
1	ATF Special (Automatic Transmission Fluid)
	B
1	Baltic Types (100, 150, 200, 300, 500)
–	Banvel (Ag. Spray)
X	Bardol B
1	Barium Carbonate
1	Barium Chloride
1	Barium Hydroxide
–	Barium Sulfate
1	Barium Sulfide
–	Beer*
1	Beet Sugar Liquors
1	Bellows 80–20 Hydraulic Oil
X	Benzaldehyde
X	Benzene (Benzol)
–	Benzenesulfonic Acid (10%)
2	Benzine (Petroleum Ether)
–	Benzophenone
X	Benzyl Alcohol
–	Benzyl Benzoate
X	Benzyl Chloride
–	Benzyl Carbonate
2	Bitumastic
2	Black Sulfate Liquor
X	Blast Furnace Gas
2	Borax
2	Bordeaux Mixture
1	Boric Acid
1	Brake Fluid (Petroleum Base)
X	Brake Fluid (Synthetic Base)
–	Bromine
2	Bunker Oil
2	Butadiene (Monomer)
–	Butane (Gas)
–	Butane (Liquid)
–	Butter Oil
–	Butyric Acid
X	Butyl Acetate
X	Butyl Alcohol (Butanol)
X	Butyl Amine
2	Butyl "Carbitol"
2	Butyl Ether
–	Butyl Mercaptan (Tertiary)
X	Butyl Stearate
–	Butyraldehyde

Buna-N Tube	CHEMICAL
	C
1	Cake Alum
1	Calcine Liquor
X	Calcium Acetate
1	Calcium Bisulfate
1	Calcium Bisulfite
1	Calcium Carbonate
1	Calcium Chlorate
1	Calcium Chloride
2	Calcium Hydroxide
–	Calcium Hypochlorite (5%)
–	Calcium Hypochlorite (15%)
1	Calcium Nitrate
2	Calcium Silicate
1	Calcium Sulfate
1	Calcium Sulfide
1	Caliche Liquors*
1	Cane Sugar Liquors
X	Carbamates
X	Carbolic Acid (Phenol)
2	Carbon Disulfide
1	Carbon Dioxide (Dry)
2	Carbon Monoxide (Hot, 150° F)
X	Carbon Tetrachloride
1	Carbonic Acid
1	Carter Motor Oil
2	Castor Oil
X	Caustic Potash (30%) (Potassium Hydroxide)
X	Caustic Soda (50%)
X	Cellosolve Acetate
X	Cellosolve, Butyl
1	Cellugard, Cellugard 2000
X	Cellulube Types 90, 150, 220, 300, 550, 1000, 220A, ST220, A60
2	China-Wood Oil (Tung Oil)
X	Chlorine Water (25% Chlorine)
–	Chlorine Gas (Wet)
–	Chlorine Gas (Dry)
–	Chlorine Trifluoride
X	Chloroacetic Acid
X	Chlorobenzene
X	Chlorobromo Methane
X	Chloroform
X	O-Chloronaphthalene
–	Chlorosulfonic Acid
X	Chlorothene
X	Chlorotoluene
–	Chlorox
X	Chromic Acid (10%)
X	Chromic Acid (25%)
X	Chromic Acid (50%)
X	Citgo FR Fluids
1	Citgo Glycol FR-20 XD
1	Citgo Pacemaker Invert FR Fluid
1	Citgo Tractor Hyd. Fluid
X	Citric Acid
–	Cobalt Nickel Plating Solution
2	Cocoa Butter
X	Cod Liver Oil
X	Coke Oven Gas
2	Condor Types 1000, 1002, 1004, 1006, 1008, 1010, 1012, 1014, 1016
–	Copper Arsenate

Buna-N Tube	CHEMICAL
	C (continued)
2	Copper Chloride (Cupric Chloride)
2	Copper Cyanide (Cupric Cyanide)
1	Copper Nitrate (Cupric Nitrate)
1	Copper Sulfate (Cupric Sulfate)
1	Cordage Oil
2	Corn Oil
2	Corn Syrup
2	Cottonseed Oil
2	Cottonseed Oil (170° F)
2	Creosote (Wood or Coal Tar)
X	Cresol (Cresylic Acid)
–	Cresol 85%, Xylene 5%, DDT 10%
2	Crude Wax
2	Cryolite (10%)
1	Cutting Oil
2	Cyclohexane
X	Cyclohexanone
X	Cymene
	D
1	Dasco FR150, FR200B, FR310
1	Dasco IFR
1	DC200, DC510, DC550, DC560
2	Decalin
–	Deionized Water
1	Dectol R&O Oils
1	Denatured Alcohol
–	Developing Solutions (Hypos)
1	Dexron
X	Diacetone
	Diacetone Alcohol
X	Dibenzyl Ether
X	Dibutyl Ether
X	Dibutyl Phthalate
X	Dibutyl Sebacate
X	Dichlorobenzene
1	Diesel Oil
2	Diethylamine
–	Diethylbenzene
–	Diethyl Ether
X	Diethyl Phthalate
X	Diethyl Sebacate
1	Diethylene Glycol
X	Di-Isobutyl Ketone
2	Di-Isobutylene
X	Di-Isopropyl Ketone
X	Dimethyl Aniline
X	Dimethyl Ether
X	Dimethyl Formamide
X	Dimethyl Phthalate
X	Diocetyl Phthalate
X	Diocetyl Sebacate
X	Dioxane (Diethylene Ether)
X	Dipentene
1	Dirco Oils
X	Dowtherm A
–	Dowtherm E
1	Duro FR-HD
1	Duro Oils
1	DP47, 200 Fluid-Dow

Buna-N Tube	CHEMICAL
	E
1	Energol HL 68
1	Energol HLPC 68
1	EP Hydraulic Oils - Chevron
–	Epichlorohydrin
2	Ethanolamine
X	Ethyl Acetate
X	Ethyl Acetoacetate
X	Ethyl Acrylate
1	Ethyl Alcohol (Ethanol)
X	Ethyl Amine
X	Ethyl Benzene
X	Ethyl Butyrate
–	Ethyl Cellulose
X	Ethyl Chloride
X	Ethyl Ether
X	Ethyl Mercaptan
X	Ethyl Oxalate
X	Ethyl Pentachlorobenzene
1	Ethyl Silicate
X	Ethyl Bromide (Di)
X	Ethylene Chloride (Di)
X	Ethylene Chlorhydrin
2	Ethylene Diamine
1	Ethylene Glycol
	F
1	Factovis 52
2	Fatty Acids
–	Ferric Chloride
–	Ferric Nitrate
2	Ferric Sulfate
–	Ferrous Chloride
2	Ferrous Nitrate
2	Ferrous Sulfate
1	Fire Resistant Hydra-Fluid (Texaco)
–	Fluoboric Acid
–	Fluorine (Liquid)
X	Fluosilicic Acid (50%)
2	Formaldehyde (37%)
–	Formic Acid
1	FR Fluid D
1	FR Hydraulic Fluid
1	FRM (Code 6SS22)
–	Freon 114
–	Freon 12
1	Fuel Oil
–	Fumaric Acid
X	Furan (Furfuran)
X	Furfural (Ant Oil)
–	Fusel Oil
1	Fryguard 150, 200
X	Fryquel 90, 150, 220, 300, 550, 1000, 15R&O, 220R&O, 550R&O
–	Firtec 290, MF

Buna-N Tube	CHEMICAL
	G
X	Gallic Acid
1	Gasoline (Standard)
1	Gasoline (Premium)
1	Gasoline (Unleaded Up To 50& Aromatics)
–	Glauber's Salt
1	Glucose
2	Glue
1	Glycerine (Glycerol)
1	Glycols
1	Glycol FR Fluids
1	Grease
2	Green Sulfate Liquor
1	Gulf FR Fluid G–200
X	Gulf FR Fluid P-37, P-40, P-43, P-45, P-47
	H
X	Halowax Oil
1	Harness Oil
1	Heptane
X	N-Hexaldehyde
1	Hexane
2	Hexene
1	Hexyl Alcohol (Hexanol)
1	Houghto - Safe 271, 416, 520, 525, 616, 620, 625, 640
X	Houghto - Safe 1010, 1055, 1115, 1120, 1130
1	Houghto Safe 5046, 5046W
1	Hy-Chock Oil
1	Hydrafluid AZR&O, A, B, AA, C
1	Hydrafluid 760 (Texaco & Houghton)
1	Hydrasol A
1	Hydraulic Oils (Shell)
–	Hydraulic Fluid HF-31
1	Hydraulic Fluid HF-18, HF-20
1	Hydraulic Safety Fluid 200 & 300 (Texaco)
1	Hydraulic Fluid (Std. Petroleum Oils)
X	Hydraulic Fluid (Phosphate Ester Base)
1	Hydraulic Fluid (Water Glycol Base)
X	Hydrazine
X	Hydrobromic Acid (37%)
X	Hydrochloric Acid (15%)
–	Hydrochloric Acid (37%)
X	Hydrocyanic Acid (20%)
–	Hydrocyanic Acid (98%)
1	Hydro-Drive Oil (Houghton)
X	Hydrofluoric Acid (10%)
X	Hydrofluoric Acid (20%)
X	Hydrofluoric Acid (48%)
X	Hydrofluoric Acid (70%)
X	Hydrochloric Acid (Conc.)
X	Hydrofluosilicic Acid (50%)
–	Hydrogen (Gas)
X	Hydrogen Peroxide (10%)
X	Hydrogen Peroxide (30%)
X	Hydrogen Peroxide (70%)
–	Hydrogen Sulfide (Gas)
2	Hydrolubic Oil (Houghton)

Buna-N Tube	CHEMICAL
	H (continued)
–	Hydroquinone
2	Hykil No. 6 (33%): Water (67%)
X	Hydrochlorous Acid
	I
1	Imol. Imol S150, S220, S300, S500
1	Industron 53
–	Ink (Printers)
2	Ink Oil
1	Insulating Oil (Transformer)*
X	Iodine
1	Irus Fluid 902
1	Irus Fluid 905
–	Isobutane
2	Isobutyl Alcohol
1	Iso Octane
–	Iso Octyl Thioglycolate
X	Isopropyl Acetate
2	Isopropyl Alcohol
X	Isopropyl Ether
–	Isocyanate (Toluene Diisocyanate)
	J
1	Jet Fuel** JP-3
1	Jet Fuel** JP-4
1	Jet Fuel** JP-5
1	Jet Fuel** JP-6
1	Jet Fuel** JP-X
	K
2	Kerosene
	L
X	Lacquers
X	Lacquer Solvents
X	Lactic Acid
2	Lactol
–	Lard†
–	Lard Oil
–	Lasso (Ag. Spray)
–	Latex
X	Lead Acetane
2	Lead Arsenate
2	Lead Nitrate
1	Lead Sulfate
–	Lead Sulphamate
X	Lecithin
1	Ligroin (Pertroleum Ether)
–	Lime (Chlorinated)*
2	Lime Bleach
–	Lindane (Ag. Spray)
2	Linoleic Acid
2	Linseed Oil (Boiled)
–	Liquid Soap
1	Lubricating Oils

Buna-N Tube	CHEMICAL
	M
1	Magnesium Carbonate
1	Magnesium Chloride
2	Magnesium Hydroxide
2	Magnesium Nitrate
2	Magnesium Sulfate
1	Magnus - Light
1	Magnus - Medium
–	Malathion (Ag. Spray)
2	Malic Acid
1	Maxmul (Pennzoil Hyd. Fluid)
2	Mercuric Chloride
2	Mercuric Cyanide
2	Mercurous Nitrate
2	Mercury
2	Mercury Vapor
X	Mesityl Oxide
X	Methyl Acetate
X	Methyl Acrylate
1	Methyl Alcohol (Methanol)
X	Methyl Amine (25% Aqueous Solution)
–	Methyl Amyl Carbinol
X	Methyl Bromide
X	Methyl Butyl Ketone (MBK)
–	Methyl Cellosolve
X	Methyl Chloride
X	Methyl Ethyl Ketone (MEK)
X	Methyl Formate
X	Methyl Isobutyl Ketone (MIBK)
X	Methyl Isopropyl Ketone
X	Methyl Methacrylate
X	Methyl Salicylate
X	Methylene Chloride
X	Methylene Dichloride
–	Milk†
1	Mineral Oil
1	Mineral Spirits
–	Miners Oil
1	Mobile Hydraulic Oils
1	Mobilmet S122
2	Molasses
X	Monochlorobenzene
2	Monoethanolamine
–	Mould Oil
–	Muriatic Acid (Hydrochloric)
–	Mustard
	N
2	Naptha (Low Aromatic Content**)
X	Naphthalene†
–	Natural Gas
2	Neutral Oil
–	Nickel Acetate
2	Nickel Chloride
2	Nickel Nitrate
2	Nickel Plating Solution
2	Nickel Sulfate
–	Nicotine Salts
1	Niter Cake (Sodium Bisulfate)
X	Nitric Acid (10%)
X	Nitric Acid (25%)
X	Nitric Acid (40 %)
X	Nitric Acid (60%)

Buna-N Tube	CHEMICAL
	N (continued)
X	Nitric Acid (Red Fuming)
X	Nitrobenzene
X	Nitroethane
1	Nitrogen
–	Nitrogen Tetroxide
X	Nitromethane
X	Nitropropane
–	Nitrosyl Chloride
1	Nyvac FR Fluid
1	Nyvac FR 200 Fluid
1	Nyvac 20 (WG), 30 (WG)
2	n-Octane
	O
2	Octyl Alcohol
1	Oil (SAE)
2	Oleic Acid
X	Oleum (Fuming Sulfuric Acid)
2	Olive Oil
X	Oxalic Acid
–	Oxygen
X	Ozone
	P
1	Pacemaker Types 150T, 300T, 500T, (Citgo)
–	Paint
1	Palm Oil
2	Palmitic Acid
1	Paraffin (Petroleum)
2	Paraformaldehyde
1	Peanut Oil
1	Pennant Motor Oils
–	Perchloric Acid
X	Perchloroethylene
2	Pentasol
1	Petroleum Oils
X	Phenol (Carbolic Acid)
–	Phorone
2	Phosphoric Acid (50%)
X	Phosphoric Acid (85%)
2	Picric Acid (Water Solution)
2	Pine Oil
2	Pinene
2	Piperazine Hydrochloride Solution (34%)
–	Plating Solution (Chrome)
–	Polyster Resin
–	Polyurethane (To 120° F)
–	Potassium Acetate
1	Potassium Carbonate
2	Potassium Chlorate
1	Potassium Chloride
2	Potassium Cyanide
–	Potassium Dichromate
X	Potassium Hydroxide (30%) (Caustic Potash)
1	Potassium Nitrate
–	Potassium Permanganate
1	Potassium Sulfate
2	Potassium Sulfite
1	Powerlube (Carter)

Buna-N Tube	CHEMICAL
	P (continued)
X	Primatol A, S, P (Agric, Spray)
–	Propane Gas
X	Propionic Acid
X	Propyl Acetate
2	Propyl Alcohol
–	Purina Insecticide
1	Puropale RX Oils
X	Pydraul F-9
–	Pydraul 50–E
X	Pydraul 150
X	Pydraul A-200
X	Pydraul 280
X	Pydraul 312
X	Pydraul 540
X	Pydraul 625
X	Pydraul 10–E, 29–E-LT, 30E, 60 65E, 115E
X	Pydraul 135
X	Pyrene (Carbon Tetrachloride)
–	Pyridine (50%)
X	Pyrogard 51, 53, 55
–	Pyrogard 160, 230, 630
1	Pyrogard C, D
–	Pyronal (Transformer Oil)
	R
–	Ramrod (Ag. Spray)
1	Rando Oils
–	Rape Seed Oil
2	Red Oil (Comm. Oleic Acid)
1	Refined Wax (Petroleum)
1	Regal Oils R&O
1	Rubilene Oils
	S
X	Safetytex 215
X	Salicylic Acid
2	Salt Water (Sea Water)
1	Santosafe W-G15, W-G20, W-G30,
–	SCC 7204 (Stauffer)
–	Sevin
2	Sewage
X	SFR Fluid B (Shell)
X	SFR Fluid C (Shell)
2	Silicone Grease
2	Silicone Oils
1	Silver Nitrate
X	Skydrol 500 A & 7000
2	Soap Oil
1	Soap Solutions
1	Soda Ash (Sodium Carbonate)
X	Sodium Acetate
1	Sodium Bicarbonate
1	Sodium Bisulfate (Niter Cake)
1	Sodium Bisulfite
1	Sodium Borate
1	Sodium Chloride
1	Sodium Cyanide
–	Sodium Fluoride (70%)
2	Sodium Hydroxide (40%)

Buna-N Tube	CHEMICAL
	S (continued)
X	Sodium Hydroxide (50%, 115°F)
–	Sodium Hydroxide (50%, 180°F)
X	Sodium Hydroxide (60%)
X	Sodium Hypochlorite (5%)
X	Sodium Hypochlorite (20%)
2	Sodium Metaphosphate
X	Sodium Nitrate
X	Sodium Perborate
–	Sodium Peroxide
–	Sodium Phosphates
2	Sodium Sulfite
1	Sodium Thiosulfate (HPO)
–	Sodium Tripolyphosphate (STPP)
1	Solnus Oils
1	Solvac 1535G
2	Soybean Oil
–	Spent Acid
2	Stannic Chloride
1	Stanoil No. 15, 18, 25, 31, 35, 51
–	Stauffer Jet 1
–	Stauffer Jet 2
1	Staysol FR
–	Steam*
2	Stearic Acid
–	Stoddard Solvent
X	Styrene (Monomer)
1	Sucrose Solutions
–	Sulfamic Acid (10%)
–	Sulfamic Acid (10& 170°F)
–	Sulfur (200°F)
X	Sulfur Chloride
X	Sulfur Dioxide (Dry)
X	Sulfur Trioxide (Dry)
2	Sulfuric Acid (10%)
–	Sulfuric Acid (30%)
X	Sulfuric Acid (50%)
X	Sulfuric Acid (75%)
X	Sulfuric Acid (93%)
X	Sulfuric Acid (98%)
X	Sulfuric Acid, Fuming
X	Sulfurous Acid (10%)
X	Sulfurous Acid (75%)
1	Sun R&O Oils
1	Sunsafe F
1	Suntac HP Oils
1	Suntac WR Oils
1	Sunvis Oils 700, 800, 900
1	Super Hydraulic Oils (Conoco)
1	303 Fluid (Conoco)
–	Synthetic Oil (Citgo)
–	Syrup
	T
2	Tall Oil (To 150°F)
2	Tallow
X	Tannic Acid (10%)
2	Tar (Bituminous)
2	Tartaric Acid
1	Tellus Oils
1	Tenol Oils
–	Tergitol
–	Terpineol
1	Terresstic

Buna-N Tube	CHEMICAL
	T (continued)
–	Tetraethyllead (TEL)
–	Tetrahydrofuran
X	Titanium Tetrachloride
X	Toluene (Toluol)
–	Toluene Diisocyanate
1	Transformer Oil* (Petroleum Type)
X	Transformer Oil* (Askarel Types)
1	Transmission Fluid (Type A)
X	Tributoxyethyl Phosphate
X	Tributyl Phosphate
X	Trichloroethylene
X	Tricresyl Phosphate
2	Triethanolamine
–	Tripolyphosphate
2	Tung Oil
2	Turpentine
1	Tycol Avalon 50, 57, 60
1	Tycol A Turbio 37, 50, 58, 60
	U
–	Ucon M1
–	Ucon Hydrolube Types 150CP, 200CP, 275CP, 300CP, 550CP, 900CP, 150DB, 275DB, 150LT, 200LT, 275LT, 300LT, 200NM, 300NM
1	Union C-2 Fluid
1	Union C-P Oil
1	Union ATF Dexron
1	Union ATF Type F
1	Union Hydraulic Oil AW
1	Union Hydraulic Tractor Fluid
2	Urea Solution
	V
X	Varnish
–	Vegetable Oils**
–	Versilube F-50, F-44
X	Vinegar
X	Vinyl Acetate
X	Vinyl Chloride
–	Vinyl Fluoride
1	Vitrea Oils
	W
1	Water
–	Wines**
	X
X	Xylene
	Z
1	Zeric
X	Zinc Acetate
1	Zinc Chloride Solutions
2	Zinc Sulfate Solutions

Graco Standard Warranty

Graco warrants all equipment manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

Graco makes no warranty, and disclaims all implied warranties of merchantability and fitness for a particular purpose in connection with accessories, equipment, materials or components sold but not manufactured by Graco. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

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Graco Information

TO PLACE AN ORDER, contact your Graco distributor, or call one of the following numbers to identify the distributor closest to you:

1-800-328-0211 Toll Free

612-623-6921

612-378-3505 Fax

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