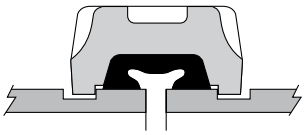
GRUVLOK GASKET-STYLES

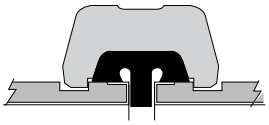
Gruvlok offers a variety of pressure responsive gasket styles. Each serves a specific function while utilizing the same basic sealing concept. Proper installation of the gasket compresses the inclined gasket lips on the pipe O.D., forming a leak tight seal. This sealing action is reinforced when the gasket is encompassed and compressed by the coupling housings. The application of internal line pressure energizes the elastometric gasket and further enhances the gasket sealing action.

"C" STYLE



The "C" Style cross section configuration is the most widely used gasket. It is the gasket style provided as standard in many Gruvlok Couplings (Fig. 7000, 7001, 7003, 7004HPR, 7307, 7400 and 7401). Grade "E" and "T" are standard grades while other grades are available for special applications.

END GUARD™

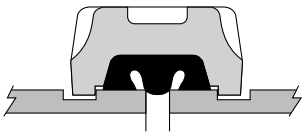


The projecting rib fits between the ends of lined pipe to prevent damage to unprotected pipe ends during coupling joint assembly.

The E.G. gasket is provided as standard with the Fig. 7004 E.G. Coupling.

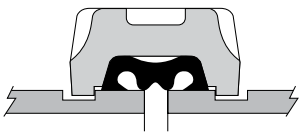
Grade "E" and "T" gaskets are available.

FLUSH GAP™



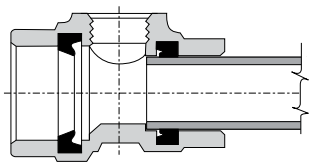
Designed to prohibit contaminates from building up in the gasket cavity. The centering rib fits flush over the gap between the two pipe ends thus closing off the gasket cavity. It can be used with Fig. 7000, 7001, 7400 and 7401 Couplings for many applications. Recommended for use in dry fire protection systems.

SLIDELOK™ PRESSURE RESPONSIVE



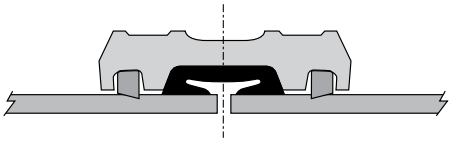
SlideLOK gasket patent pending design easily slides over the grooved pipe end for quick installation. The gasket design provides a 360° consistent compression seal when fully installed. The internal ribs are design to prohibit contaminants from building in the gasket cavity by engaging individually with each pipe end.

SOCK-IT®



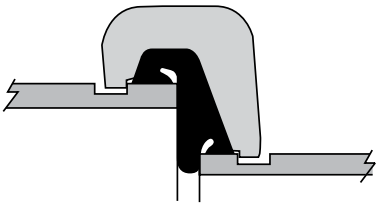
Used in Sock-It fittings only, this pressure energized gasket provides a leak-tight seal on plain end seal pipe. Available in Grade "E" material only.

ROUGHNECK®



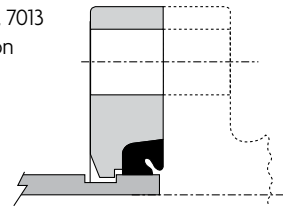
This "C" style gasket is similar in appearance and design to the Standard gasket but is only used with Fig. 7005 Roughneck Couplings and Fig. 7305 HDPE Couplings. The Roughneck gasket is wider, which allows for minor pipe end separation as line pressure sets the grippers into the plain end pipe.

REDUCING COUPLING



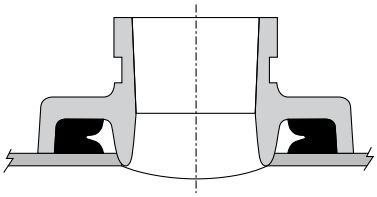
The centering rib allows for pipe positioning and serves to keep the smaller pipe from telescoping during installation. Used only with the Fig. 7010 Reducing Coupling.

FLANGE



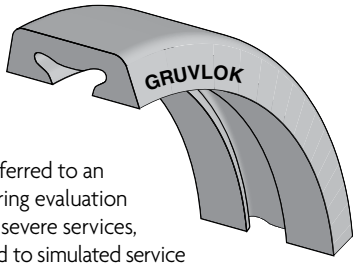
A specially designed gasket for the Fig. 7012, 7013 and 7312 Flange provides for a reliable seal on both the pipe and the mating flange.

CLAMP-T™



These gaskets conform to the curved exterior of the pipe to provide a pressure responsive seal. This unique design is only used with Fig. 7045, 7046 Clamp-T and Fig. 7047, 7048, and 7049 Clamp-T Crosses.

GASKET GRADE INDEX & GASKET RECOMMENDATION



The lists are provided as an aid in selecting the optimum gasket grade for a specific application to assure the maximum service life.

The recommendations have been developed from current information supplied by manufacturers of the elastomers, technical publications, and industry applications. The information supplied should be considered as a basis for evaluation but not as a guarantee.

Selection of the optimum gasket grade for a specific service requires the consideration of many factors; primarily temperature, fluid concentration, and continuity of service. Unless otherwise noted, all gasket recommendations are based on 100°F (38°C) maximum temperature service condition. Where more than one gasket grade is shown, the preferred grade is listed first.

Combinations of fluids should be referred to an Anvil Representative for an engineering evaluation and recommendation. In unusual or severe services, gasket materials should be subjected to simulated service conditions to determine the most suitable gasket grade.

Gasket recommendations apply only to Gruvlok gaskets. Contact an Anvil Representative for recommendations for services not listed. These listings do not apply to Gruvlok Butterfly Valves.

All Gruvlok products marked with UL/ULC Listed, FM approved VdS and/or LPC symbols are Listed/Approved with EPDM material. For other Listed/Approved materials, please contact an Anvil Representative for more information.

GASKET GRADE INDEX

STANDARD GASKETS

Grade	Temp. Range	Compound	Color Code	General Service Applications
EP	-40°F to +250°F (-40°C to 121°C)	EPDM	Green and Red	Water, dilute acids, alkalies, salts, and many chemical services not involving hydrocarbons, oils, or gases. Excellent oxidation resistance. **NOT FOR USE WITH HYDROCARBONS**
E	-40°F to +230°F (-40°C to 110°C)	EPDM	Green	Water, dilute acids, alkalies, salts, and many chemical services not involving hydrocarbons, oils, or gases. Excellent oxidation resistance. **NOT FOR USE WITH HYDROCARBONS**
T	-20°F to +180°F (-29°C to 82°C)	Nitrile (Buna-N)	Orange	Petroleum products, vegetable oils, mineral oils, and air contaminated with petroleum oils. **NOT FOR USE IN HOT WATER SERVICES**

SPECIAL GASKETS

Grade	Temp. Range	Compound	Color Code	General Service Applications
O	+20°F to +300°F (-20°C to 149°C)	Fluoro Elastomer	Blue	High temperature resistance to oxidizing acids, petroleum oils, hydraulic fluids, halogenated, hydrocarbons and lubricants
L	-40°F to +350°F (-40°C to 177°C)	Silicone	Red Gasket	Dry, hot air and some high temperature chemical services.
E Type A	-40°F to +150°F (-40°C to 66°C)	Pre-Lubricated	Violet	Wet & Dry (oil free air) Pipe in Fire Protection Systems. For dry pipe systems, Gruvlok Xtreme™ Temperature Lubricant is required.

APPROVED GASKET APPLICATIONS

WATER & AIR

Service	Gasket Grade
Air, (no oil vapors) Temp. -40°F to 250°F (-40°C to 121°C)	EP
Air, (no oil vapors) Temp. -40°F to 350°F (-40°C to 177°C)	L
Air, Oil vapor Temp. -20°F to 150°F (-29°C to 66°C)	T
Air, Oil vapor Temp. 20°F to 300°F (-7°C to 149°C)	O
Water, Temp to 150°F (66°C)	E/EP/T
Water, Temp to 250°F (121°C)	EP
Water, Acid Mine	E/T
Water, Chlorine	(E/EP/O)
Water, Deionized	E/EP/T
Water, Seawater	E/EP/T
Water, Waste	E/EP/T
Water, Lime	E/EP/T

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PETROLEUM PRODUCTS

Service	Gasket Grade
Biodiesel	O
Crude Oil - Sour	T
Diesel Oil	T
Fuel Oil	T
Gasoline, Leaded	T
Gasoline, Unleaded*	(O)
Hydraulic Oil	T
JP-3, JP-4 and JP-5	T/O
JP-6, 100°F (38°C) Maximum Temp.	O
Kerosene	T
Lube Oil, to 150°F (66°C)	T
Motor Oil	T
Natural Gas**	T
Tar and Tar Oil	T
Transmission Fluid —Type A	O
Turbo Oil #15 Diester Lubricant	O

Unless otherwise noted, all gasket listings are based upon 100°F (38°C) maximum temperature service conditions.

For services not listed, contact an Anvil Representative for recommendation.

*Contact an Anvil Representative for service evaluation.

**Extreme caution and care is required when installing Gruvlok couplings on a natural gas system. Must be located in a well ventilated area.

VACUUM SERVICE

VACUUM SERVICE

Size	Vacuum Level	Gasket Recommendation
1" - 12" (25 - 300mm)	0" - 10" Hg	Standard
14" - 16" (350 - 400mm)	0" - 10" Hg	Standard
1½" - 24" (40 - 600mm)	0" - 29.9" Hg	Flush Gap
2" - 8" (50 - 200mm)	0" - 29.9" Hg	SlideLOK

GRUVLOK GASKET-RECOMMENDATIONS

CHEMICAL SERVICES	
Chemical Composition	Gasket Grade
Acetic Acid 50%	E/EP
Acetic Acid Glacial	L/E/EP
Acetone	E/EP
Acethlene	E/EP/T
Alkalis	T/E/EP
Alums	E/EP/T/O
Aluminum Chloride	E/EP/T
Aluminum Fluoride	E/EP/T/O
Aluminum Hydroxide	E/EP/O
Aluminum Nitrate	E/EP/T
Aluminum Salts	E/EP
Ammonia Gas, Cold	E/EP
Ammonia Liquid	E/EP
Ammonium Chloride	T/E/EP
Ammonium Fluoride	E/EP
Ammonium Hydroxide	E/EP
Ammonium Nitrate	T/E/EP
Amyl Acetate	E/EP
Amyl Alcohol	E/EP
Aniline	E/EP
Animal Fats	T
Argon-Gas	L
Arsenic Acid, to 75%	T/E/EP/O
Barium Carbonate	E/EP/T
Barium Chloride	E/EP/T
Barium Hydroxide	E/EP/T
Barium Nitrate	E/EP/O
Barium Sulphide	E/EP/T
Beet Sugar Liquors	T
Benzene	O
Benzene Sulfonic (Aromatic Acid)	(E/EP)
Benzoic Acid	O
Benzyl Alcohol	E/EP
Benzyl Chloride	E/EP
Biodeisel	O
Black Sulphate Liquor	T
Bleach, 5% Active Cl2	E/EP/O
Borax	E/EP/O
Boric Acid	E/EP/T
Bromine	O
Butyl Alcohol	E/EP/T
Butyl Stearate	E/EP
Butylene	T/O
Calcium Bisulfate	T/O
Calcium Bisulphide	T/O
Calcium Bisulphite	T/O
Calcium Carbonate	E/EP/T
Calcium Chloride	E/EP/T

CHEMICAL SERVICES	
Chemical Composition	Gasket Grade
Calcium Hydroxide (Lime)	E/EP/T
Calcium Sulfate	E/EP/T
Calcium Sulfide	E/EP/T
Caliche Liquors	E/EP/T
Cane Sugar Liquors	T
Carbitol	E/EP/T
Carbon Dioxide, Dry	E/EP/T
Carbon Dioxide, Wet	E/EP/T
Carbon Monoxide	E/EP
Carbon Tetrachloride	O
Castor Oil	T
Caustic Potash	E/EP
Caustic Soda	E/EP
Cellosolve	E/EP
Chlorine Dry	(O)
Chlorinate Solvents	(O)
Chlorobenzene	O
Chlorobenzene Chloride	O
Chlorobromomethane	O
Chloroform	O
Chrome Alum	E/T
Chrome Plating Solutions	O
Chromic Acid, to 50%	O
Citric Acid	E/EP/T
Coconut Oil	T
Cod Liver Oil	T
Coke Oven Gas	T/O
Copper Carbonate	E/EP/T
Copper Chloride	E/EP/T
Copper Cyanide	E/EP/T
Copper Sulphate	E/EP/T
Corn Oil	T
Cotton Seed Oil	T
Cresole, Cresylic Acid	T/O
Creosote, Coal Tar	(T/O)
Creosote, Wood	T/O
Cupric Chloride	E/EP/T
Cupric Fluoride	E/EP/T
Cupric Sulphate	E/EP/T
Cychohexanol	O
Diacetone Alcohol	E/EP
Dichlorobenzene	O
Dichloroethylene	O
Dioctyl Phthalate	(E/EP)
Epson-Salt	E/EP/T
Ethane	E/EP
Ethanolamine	E/EP
Ethyl Acetate	(E/EP)

CHEMICAL SERVICES	
Chemical Composition	Gasket Grade
Ethyl Alcohol	E/EP/T
Ethyl-Chloride	E/EP/T
Ethyl Ether	(T)
Ethylene Chloride	E/EP
Ethylene Chlorohydrin	E/EP
Ethylene Diamine	E/EP/T
Ethylene Dichloride (Dichloroethane)	O
Ethylene Glycol	E/EP/T
Ethylene Oxide	(E/EP)
Ferric Chloride, to 35%	E/EP/T
Ferric Nitrate	E/EP/T
Ferric Sulphate	E/EP/T
Ferrous Chloride	E/EP/T
Fish Oils	T
Fluroboric Acid	E/EP
Fluorosilicic Acid	E/EP
Fly-Ash	E/EP
Formaldehyde	E/EP/T
Formamide	E/EP/T
Formic Acid	E/EP/O
Freon 11, 130°F (54°C) Max.	T
Freon 12, 113, 114, 115, 130°F (54°C) Max.	T
Fructose	T
Furfuryl Alcohol	(E/EP)
Glucose	E/EP/T
Glue	T
Glycerin	E/EP/T
Glycerol	E/EP/T
Glycol	E/EP/T
Heptane	T
Hexaldehyde	E/EP
Hexane	T
Hexylene Glycol	T
Hydrochloric Acid, to 36%, 75°F (24°C)-Max.	E/EP
Hydrochloric Acid, to 36%, 158°F (70°C)-Max.	(O)
Hydrofluoric Acid, to 75%, 158°F (70°C)-Max.	(O)
Hydrofluosilicic Acid	T/E/EP
Hydrogen Peroxide, to 50%	E/EP/T/O
Hydrogen Peroxide, to 90%	(L/O)
Hydroquinone	T/O
Iodine,-Wet	E/EP
Isoamyl Alcohol	E/EP
Isooctane	T
Isobutyl Alcohol	E/EP
Isopropyl Alcohol	E/EP
Lacquer	(O)
Lacquer Solvent	(O)
Lactic Acid	T

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Check gasket grade when ordering. Use Gruvlok lubricant on gasket.

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Check gasket color code to be certain it is recommended for the service intended.

GRUVLOK GASKET-RECOMMENDATIONS (CONT.)

CHEMICAL SERVICES	
Chemical Composition	**Gasket Grade**
Lard Oil	T
Latex (1% Styrene &-Butadiene)	0
Lead Acetate	E/EP/T
Linseed Oil	T
Lithium Bromide	T/O
Magnesium Chloride	E/EP/T
Magnesium Hydroxide	E/EP/T
Magnesium Nitrate	E/EP
Magnesium Sulphate	E/EP/T
Malonyl Nitrile	E/EP/T
Mercuric Chloride	E/EP/T
Mercuric Cyanide	E/EP/T
Mercury	E/EP/T
Methyl Acetate	(E/EP)
Methyl Alcohol, Methanol	E/EP/T
Methyl Cellosolve (Ether)	E/EP
Methyl Chloride	(0)
Methyl Ethyl Ketone	(E/EP)
Methyl Formate	E/EP
Methyl Isobutyl Carbinol	E/EP/T
Methyl Isobutyl Ketone	(E/EP)
Mineral Oils	T
Naphtha, 160°F (71°C)-Max.	0
Naphthalene 176°F	0
Nickel Chloride	E/EP/T
Nickel Nitrate	E/EP
Nickel Plating Solution 125°F (52°C)-Max.	E/EP
Nitric Acid, to 10%, 75°F-(24°C)-Max.	E/EP
Nitric Acid, 10-50%, 75°F-(24°C)-Max.	0
Nitric Acid, 50-86%, 75°F (24°C)-Max.	(0)
Nitric Acid, Red Fuming	(0)
Nitro Benzene	(0)
Nitrous Oxide	E/EP
Octyl Alcohol	T
Olive Oil	T
Oxalic Acid	E/EP
Ozone	E/EP
Phenol (Carbolic acid) 300°F (149°C)-Max.	0
Phenylhydrazine	(0)
Phosphate Ester	E/EP

CHEMICAL SERVICES	
Chemical Composition	**Gasket Grade**
Phosphoric Acid, to 75% & 70°F (21°C)-Max.	E/EP/T
Phosphoric Acid, to 85% & 150°F (66°C) Max.	0
Photographic Solutions	T
Potassium Bromide	E/EP/T
Potassium Carbonate	E/EP/T
Potassium Chloride	E/EP/T
Plating Solutions (gold, brass cadmium, copper, lead, silver, tin, zinc)	E/EP
Potassium Chromate	T
Potassium Cyanide	E/EP/T
Potassium Ferricyanide	E/EP/T
Potassium Ferrocyanide	E/EP/T
Potassium Hydroxide	T
Potassium Iodide	E/EP/T
Potassium Nitrate	E/EP/T
Potassium Permanganate, saturated, to 25%	E/EP
Potassium Sulphate	E/EP/T
Propanol	E/EP
Propyl Alcohol	E/EP/T
Propylene Glycol	E/EP/T
Pydraul 312C	0
Pyroguard "C" &-"D"	T
Pyroguard 55	E/EP
Pyrrole	E/EP
Salicylic Acid	E/EP/T
Silver Cyanide	E/EP
Silver Nitrate	E/EP
Skydrol, 200°F (93°C)-Max.	L
Skydrol 500 Phosphate Ester	(L/E/EP)
Soda Ash,-Sodium Carbonate	E/EP/T
Sodium Bicarbonate	E/EP/T
Sodium Bisulphate	E/EP/T
Sodium Bisulphite (black liquor)	E/EP/T
Sodium Bromide	E/EP/T
Sodium Chlorate	E/EP/T
Sodium Chloride	E/EP/T
Sodium Cyanide	E/EP/T
Sodium Hydroxide, to 50%	E/EP
Sodium Hypochlorite, to 20%	E/EP
Sodium Metaphosphate	E/EP/T

CHEMICAL SERVICES	
Chemical Composition	**Gasket Grade**
Sodium Nitrate	E/EP/T
Sodium Peroxide	E/EP
Sodium Phosphate	E/EP/T
Sodium Silicate	E/EP/T
Sodium Sulphide	E/EP/T
Sodium Sulphite Solution, to 20%	E/EP/T
Sodium Thiosulphate, "Hypo"	E/EP/T
Soybean Oil	T
Stannous Chloride, to 15%	E/EP/T/O
Starch	E/EP/T
Stearic Acid	T
Styrene	0
Sucrose Solutions	T
Sulphur	E/EP
Sulphuric Acid, to 25%, 150°F (66°C)-Max.	E/EP
Sulphuric Acid, 25-50%, 200°F (93°C) Max.	0
Sulphuric Acid, 50-95%, 150°F-(66°C)-Max.	0
Sulphuric Acid, Fuming	(0)
Sulphuric Acid, Oleum	(0)
Sulphurous Acid	(0)
Tetrachloroethylene	0
Toluene	0
Tributyl Phosphate	(E/EP)
Trichloroethylene, 200°F-(93°C)-Max	0
Triethanolamine	E/EP/T
Trisodium Phosphate	(E/EP/T)
Turpentine 158°F-(70°C)-Max.	T/O
Urea	E/EP/T
Vegetable Oils	T
Vinegar	T
Vinyl Acetate	(E/EP)
White Liquor	E/EP
Xylene (Xylol)-158°F (70°C)-Max.	0
Zinc Sulphate	E/EP/T

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