



DRIVEN BY POSSIBILITY™

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HYDRAULIC HOSES & COUPLINGS

PRODUCT & APPLICATION GUIDE - 2024





DRIVEN BY POSSIBILITY™

Gates Corporation is a leading manufacturer of application-specific fluid power and power transmission solutions. At Gates, we are driven to push the boundaries of materials science to engineer products that continually exceed industry expectations. We don't rest on our rich heritage of innovation. We leverage it to inspire solutions that will power the next hundred years.

We invest continually in R&D and technology, so our products not only outperform industry standards; they also exceed our customers' demanding expectations. We invest in our people, bringing real-world experience that enables us to solve our customers' diverse challenges of today and anticipate those of tomorrow. And We are constantly expanding our product catalogue and value-added service offerings to support every facet of our customers' operations.

In the most extreme environments and those more familiar, Gates is there with the right product, in the right place at the right time. Whether building original equipment or maintaining products in the aftermarket, we enable companies in every industry to be more efficient, productive, and profitable.

We are Gates. For over 25+ years, Gates India has a leading presence in fluid power and power transmission solutions. As a part of Gates

Corporation, we share the same DNA of pushing the boundaries of materials science to engineer products that continually exceed expectations

With a team of more than 1500 employees, four world class manufacturing facilities, two corporate offices and a countrywide network of 280+ Distributors. Gates in India is catering to the needs of all major industrial and automotive OEMs and aftermarket. As a leading manufacturer in Power Transmission and Fluid Power, Gates is well known for its superior quality, technology expertise and application engineering support in India, which is trusted by our esteemed customers from diversified industries.

As a system solution provider, Gates Corporation is dedicated to driving innovation through substantial investments in research and development. Our focus on continuous improvement ensures that our product offerings evolve to meet the ever-changing needs of our clients. Backed by a team of experienced professionals, we possess the knowledge and skills to effectively tackle the diverse challenges encountered by our customers. Gates Corporation is committed to delivering customized solutions. Our unwavering dedication to excellence and client satisfaction enables us to enhance operational efficiency and promote success across a wide range of industries.

OUR VISION

“CONTINUALLY PUSH THE BOUNDARIES OF MATERIALS SCIENCE TO ADVANCE THE WAY THE WORLD MOVES.”

Warning: All Hydraulic Hose assemblies have a limited life on a given application. Assuming the correct hose has been selected, this can be adversely affected by factors including external abuse, excessive pressures, high temperatures, misapplication, and internal abrasion. Should a hose assembly fail during use, serious injury or destruction could result from propelled couplings, whipping hose, high pressure or high velocity discharge, chemical contact, high temperature materials, explosion, or fire.

Contact Gates product Application for assistance and hose recommendations on specific applications.

** The products shown are illustrative only and may not be an exact representation of the product.

Due to continual product improvements, Gates reserves the right to alter specifications and prices without prior notice. This Hydraulic hose catalog is the latest edition & supercedes all earlier Gates Hydraulic hose catalogs.

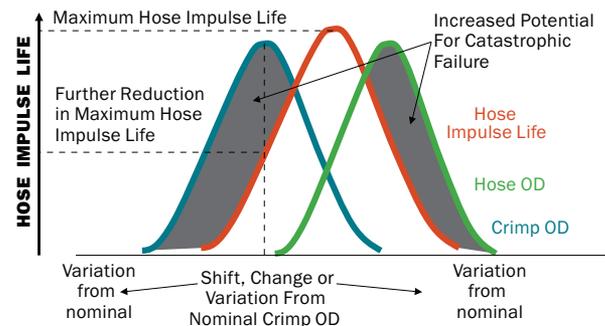
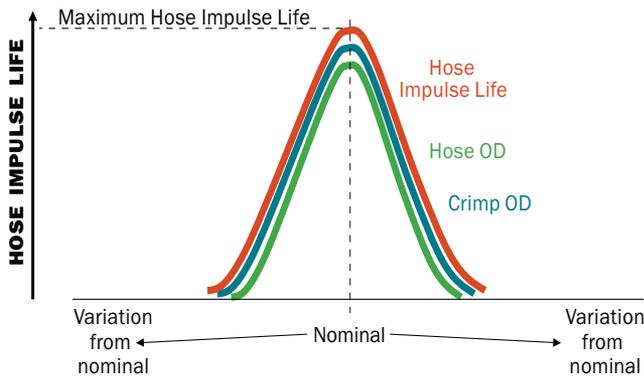
DON'T MIX & MATCH HYDRAULICS

- A 3,000 psi coupling on a 3,000 psi hose doesn't always equal a 3,000 psi assembly.
- One of the most important and oftentimes overlooked factors in hydraulic hose assembly performance is the hose/coupling interface.
- You can't just design a hose. You can't just design a coupling. You must design a system (a **MegaSystem**).

Unless you have a hose and coupling specifically designed for each other, you may end up with a hose assembly with a lower pressure rating, reduced life, or even worse, a catastrophic failure.

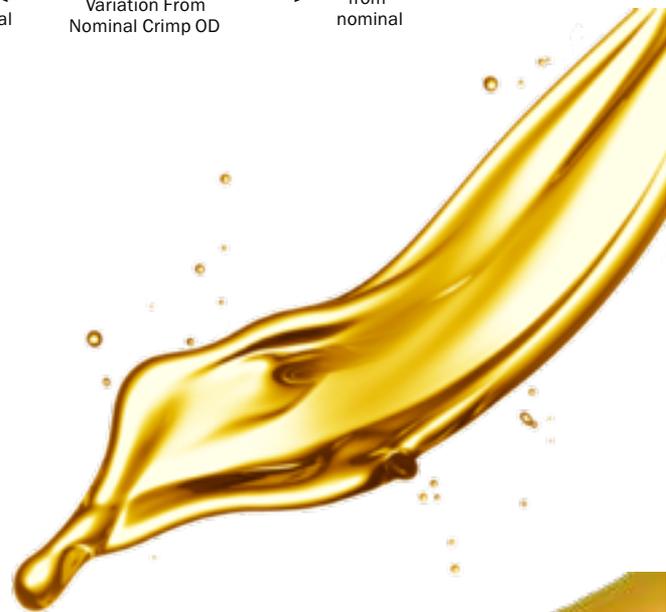
Hose outside diameter and crimp outside diameter are only two of the variables affecting assembly performance.

As variation or tolerances increase even slightly for each component a significant reduction in hose assembly life is guaranteed and the risk for catastrophic failure increases.



THE NEXT TIME YOU GRAB ANY HOSE AND A COUPLING ASK YOURSELF:

- Who is the manufacturer of these components?
- Have these components been designed together?
- Validated together? And if not, what are the risks I am assuming?
- Am I willing to accept an assembly with a guarantee for reduced impulse life and performance?
- Am I willing to risk catastrophic failure?



Avoid injury to yourself and others by following these important hose assembly steps

WARNING

Never underestimate the power of a blown hydraulic assembly.

Serious injury, death and destruction of property can result from rupture or blow-apart of a hydraulic hose assembly, that is:

- Damaged or worn out
- Assembled or installed incorrectly
- Wrong for application

1. Receive hands-on training with Gates recommended equipment.
2. Follow current Gates **operating manuals and crimp data**.
3. Use only new (unused) Gates recommended hose and couplings with **Gates crimpers**.
4. **Wear safety glasses.**

Select and Install Assemblies With Care

1. **Select proper hose assemblies for the application.** Many factors and conditions affecting the inside and outside diameter of the hose must be taken into account.
2. Hose assembly routing **must not** create an injury hazard or damage hose. Refer to the standards, regulations and directories that apply in the countries where the equipment is sold and used.
3. Select hydraulic components so that the application's temperature, pressure and bend radius **do not exceed** recommended component limits.

4. Hose must not be stretched, kinked, crushed or twisted during installation or use. Hose must not be bent to less than the minimum bend radius.
5. Use only non-conductive non-thermoplastic hose for non-conductive applications. For instance: cherry pickers. All other Gates hoses are electrically conductive, unless specified otherwise.

6. **DO NOT use standard hydraulic hose to convey gases or steam over 500 PSI. Use only products rated for this service.**
7. **DO NOT use hydraulic hose in place of permanent piping.**

Follow Good Maintenance Practices

1. **Establish a program** of inspection, testing and replacement of hose assemblies from factors including:
 - Severity of application
 - Frequency of equipment use
 - Past performance of hose assemblies

2. **Only properly trained persons** should inspect, test or service hose assemblies. Update training periodically.
3. **Document** maintenance, inspections and testing.

4. AVOID FLUID INJECTION INJURIES

- Fluid under pressure can cause serious injury. It can be almost invisible escaping from a pinhole, and it can pierce the skin into the body.
- Do not touch a pressurized hydraulic hose assembly or attempt to find a hydraulic system leak with any part of your body.
- If fluid punctures the skin, **even if no pain is felt, a serious emergency exists.** Obtain medical assistance immediately. **Failure to do so can result in loss of the injured body part or death.**
- 5. Stay out of hazardous areas while testing hose assemblies under pressure. **Use proper safety protection.**

OTHER SAFETY INFORMATION

Many factors affect the selection, crimping, installation and maintenance of hose assemblies. This catalog, Gates Corporation, the hydraulic equipment maker, the Society of Automotive Engineers Recommended Practice SAE J1273 and the International Organization for Standardization Practices for hydraulic hose assemblies ISO 17165-2 have useful information about selecting, crimping,

installing and servicing hydraulic hose assemblies. For further information, please contact your local Gates representative or call Gates Corporation.

Gates recommends hose and coupling combinations in this catalog only after completing extensive testing.

Evaluation of a hose and coupling combination requires considerable

impulse testing and cannot be determined by a simple burst or pressure hold test. Gates disclaims all liability for any hose assembly made in violation of Gates recommendations, procedures and current crimp data. Crimp data is updated on average every year. For the most up-to-date crimp data, visit our website at www.gates.com/ecrimp.

The consumer's exclusive remedy with respect to any claim shall be a refund of the purchase price or replacement of the product at the option of Gates. In no event shall Gates be liable for any incidental or consequential damages whatsoever.

WARNING

Hydraulic fluid under pressure is potentially dangerous!

Serious injury, death and destruction of property can result from the rupture or other failure of a hose assembly that is:

- damaged or worn out;
- assembled or installed incorrectly.

Protect yourself and others.

- Ensure you are properly trained in the use of Gates hose, couplings and assembly equipment.
- Use correct crimp information. Ensure your assembly equipment is properly maintained and calibrated.
- Use only (unused) Gates hose and coupling products and Gates assembly equipment.
- Never mix products from different manufacturers.
- Use safety glasses and safety protection.

Hose selection and installation.

- Basic notes and advice are included in this publication.
- Consult Gates Safe Hydraulics Manual (E2/50092) for detailed selection and installation advice.

Regularly inspect hose assemblies for defects or signs of wear or ageing.

- Product life will be influenced by:
 - severity of application;
 - frequency of equipment use.

Avoid injury.

- Always position a shield between yourself and any pressurised hydraulic lines when working close to hydraulic systems - or shut off the pressure.
- Never touch or work on pressurised hydraulics or hose assemblies.
- Do not use hands to check for leaks.
- Stay out of hazardous areas, including machine operating areas, when testing hose assemblies.
- Remember that some hydraulic fluids are highly flammable.
- If an injury occurs, particularly one where hydraulic fluid may have punctured the skin, seek medical assistance immediately.
- frequency of equipment use.

Nominal dimensions.

All dimensions are nominal, do not use for inspection. We reserve the right to amend dimensions without notice.

Caution!

Gates recommends only those hose and coupling combinations specified in the Gates hydraulic products catalogues. Gates disclaims all liability for any hose assemblies which have not been produced in conformance with Gates assembly recommendations and correct crimp data charts, or are incorrectly installed. Extensive testing has been done to verify the recommendations shown.

Any claim for defects must follow the RR (Return Report) procedure (information from your sales coordinator), to enable Gates to assess, report and act upon any alleged defect.



WARNING

Hose Shelf Life

Hose in storage can deteriorate to the point where they fail immediately or prematurely after being taken out of storage. The storage conditions, along with the rubber materials, can change the shelf life limit. Some hose materials such as EPDM have a tendency to last longer in storage due to the inherent resistance characteristics of the material. But there are many more variables affecting hose storage, making hose shelf life a value that is hard to quantify.

Standards SAE J517, SAE J1273, BS 5244, ISO 2230 and ISO 8331 provide guidelines for hose storage and age control. Refer to these specifications, and note that some storage precautions can support in the optimum shelf life.

Stored hose must not be subjected to damage that could reduce their expected service life and must be placed in a cool, dark and dry area with the ends capped. Stored hose must not be exposed to temperature extremes, ozone, oils, corrosive liquids or fumes, solvents, high humidity, rodents, insects, ultraviolet light, electromagnetic fields or radioactive materials.

The storage period should be kept to a minimum, rotation of stock is therefore essential. Hose must be stored in a manner that facilitates age control and first-in and first-out usage based on manufacturing date of the hose.

Before fitting, all hose should be subjected to visual examination for evidence of deterioration.

The shelf life of rubber Hydraulic hose that have passed visual inspection follow below recommendation scheme from the date of manufacture. The shelf life of thermoplastic Hydraulic hose is considered to be unlimited.

For non-hydraulic hose applications such as engine hoses and industrial hoses Gates shelf life recommendation is set at maximum 8 years from the date of manufacture.

Test recommendations for hoses	
Age	Recommendations (if stored in accordance with ISO 8331)
Up to 4 years	Use without further testing
4 to 6 years	Use after representative samples subjected to a proof pressure test
6 to 8 years	Use after representative samples subjected to proof, impulse and burst pressure tests, and cold bend and electrical tests
Over 8 years	Scrap



WARNING

LISTING OF GATES RESTRICTED APPLICATIONS

The purpose of this list is to identify applications for which Gates will not recommend product. These applications have been identified as having risk potential beyond that which is acceptable. In general, Gates does not make or sell products suitable for most of these uses. These applications involve potential for severe injury, loss of life and/or high damage. In most instances, they involve uses that cannot be monitored or serviced to control against catastrophic breaks and ruptures of the hose assembly. This list also identifies recommended responses to inquiries involving these applications.

SCOPE AND APPLICABILITY

This list encompasses hose and hose assembly applications in industrial, hydraulic and automotive markets. It is not considered all-inclusive, but represents applications that exceed the maximum acceptable level of risk. Predicting new applications that could also exceed limits of risk is difficult; therefore, this list also identifies characteristics that should be considered in evaluating other inquiries.

RESPONSIBILITY

Gates personnel and distributors are expected to respond to inquiries with the information in this document. They should also help define and identify other applications that carry these risk factors. Sales associates consult with a product application engineer before handling inquiries about excessively risky applications.

PROCEDURE OR WORK INSTRUCTION

The table on the following page lists applications that have sufficiently high damage or safety risks so as to be avoided. This list is not inclusive. If an application is not specifically listed but has similar risk factors to those shown, no Gates product will be recommended without prior written approval by a member of Gates Product Application Engineering.

APPLICATION	APPLICATION
Certain Types of Hazardous Materials Alkali Metals (Lithium, Sodium, Potassium) Nerve gases Anhydrous Ammonia Chlorine Gas Chlorosulfonic Acid Fluorine Gas Hydrogen Gas Hydrogen Sulfide Gas Malic Acid Mercury Vapor Phosphorus Cryogenic atmospheric gases (liquefied oxygen, nitrogen)	Death or serious injury can result from toxic exposure, burns, and suffocation of operator or bystanders.
Hydraulic brake systems that require the hose to meet the SAE J1401 standard.	Gates does not sell hydraulic brake hoses or fittings where liquid pressure is used to activate the brake system and stop the vehicle. Loss of braking from an improper hose can result in property damage, serious injury or death to operator, passengers and bystanders.
High Pressure gas or air (over 500 psi), unless steam.	Death or serious injury from explosive decompression. Reduced serviceability due to permeation and cover separations.
In-flight aircraft (airborne), manned and unmanned applications.	Death or serious injury from loss of flightworthiness caused by system failure.
Buried Applications	Hidden from regular inspection and maintenance. Environmental damage. Permeation of material conveyed to surface.
Underwater applications, such as submarine transfer and some dock to ship applications.	Hidden from regular inspection and maintenance. Environmental damage. Permeation of material conveyed to surface.
Any "permanent" installations.	Hose has limited service life. Hidden from regular inspection and maintenance. High replacement costs. Costly structural damage.
In-floor and in-wall radiant heat applications.	Hidden from regular inspection and maintenance. High replacement costs. Costly structural damage.
Out of sight applications, especially in commercial buildings, for which inspection is not convenient or possible.	Hidden from regular inspection/maintenance. High replacement costs. Costly structural damage.
"Mix and Match" Hydraulic Hose and Couplings. (Using coupling and hose combinations not specifically recommended by Gates.)	Component Compatibility - Unknown performance. Death or serious injury from ejected couplings.
Reusable couplings on LPG hose.	Death or serious injury from Fire and Suffocation risks.

WARNING

DEFINITIONS

APPLICATION – The use of product for specific purposes. An application is defined by the size of hose, temperature range, the purpose it serves, the material conveyed, the operating pressure and cycles, the end terminations and fluid dynamics. Other environmental and operating conditions may also be specified as well.

BRAKE SYSTEMS – The use of hydraulic brake systems per SAE J1401 where liquid pressure is used to activate the brake systems are restricted. Hydraulic brake systems that use a liquid but not pressure (gravity etc.) are acceptable such as between the reservoir and cylinder. Air brake systems per SAE J1402 and SAE J844 where air pressure is used to activate the brake systems are acceptable. Vacuum brake systems per SAE J1403 where a vacuum is used to activate the brake systems are acceptable.

BURIED APPLICATION – An application that is underground or involves covering the hose assembly with earth, sand, gravel, mud, concrete or similar materials.

HOSE ASSEMBLY – The combination of a hose and its couplings (accessories such as sleeves, guards, and bend restrictors should also be considered where required or desirable).

IN-FLIGHT AIRCRAFT APPLICATION – Any application that involves any airborne system having both end connections on an aircraft while operating off of the ground whether manned or unmanned. This includes helicopters, drones, lighter than air craft (balloons), missiles, experimental aircraft, and gliders. This does not include aircraft servicing applications that are used and connected to ground based equipment while the aircraft, airborne equipment or machine is on the ground, for example, for refueling service.

IN-FLOOR AND IN-WALL RADIANT HEAT APPLICATION – Any application for providing heat through walls and floors of structures or roads and driveways by carrying fluids.

“MIX AND MATCH” – The use of unqualified or unsuitable hose, end-fitting or other coupling components with Gates components. For example, a competitor’s stem and ferrule on a Gates hose, Gates end-fittings on a competitor’s hose, or Gates end-fitting on a Gates hose in a way not recommended by Gates crimp data.

OUT OF SIGHT APPLICATION – Any application where the assembly is not visible for regular inspection or preventative maintenance.

PERMANENT INSTALLATION – Any application where the assembly is never expected to wear out or to be replaced. These can also be applications where the expected service life of the assembly is shorter than the application’s reasonable inspection or maintenance interval.

PERMEATION – The migration or diffusion of fluids (liquids, gases) through the hose wall. Directions can be inward as well as outward. For example, a hose carrying LPG will allow diffusion of LPG through the hose wall into the environment. Also, water can migrate into an air conditioning system through the hose wall.

RISK ANALYSIS – A systematic evaluation of the business, safety and legal exposure of an application.

RISK FACTOR – An element contributing to the chance of injury or loss. A hazard or dangerous chance.

UNDERWATER APPLICATION – An application that is under the surface of a body of water or covered by water.

GATES HYDRAULIC HOSES



MegaSys® Constant Pressure Hose and ISO 18752

The progression of the Gates MegaSys® products spans over three decades, beginning in the 1980's with the innovative SAE half-bend radius MegaFlex® products M2T and M1T (now M3K). Gates MegaSys® evolved to Constant Pressure specifications and was the forerunner that drove SAE, EN and ISO to follow the Gates engineering lead.

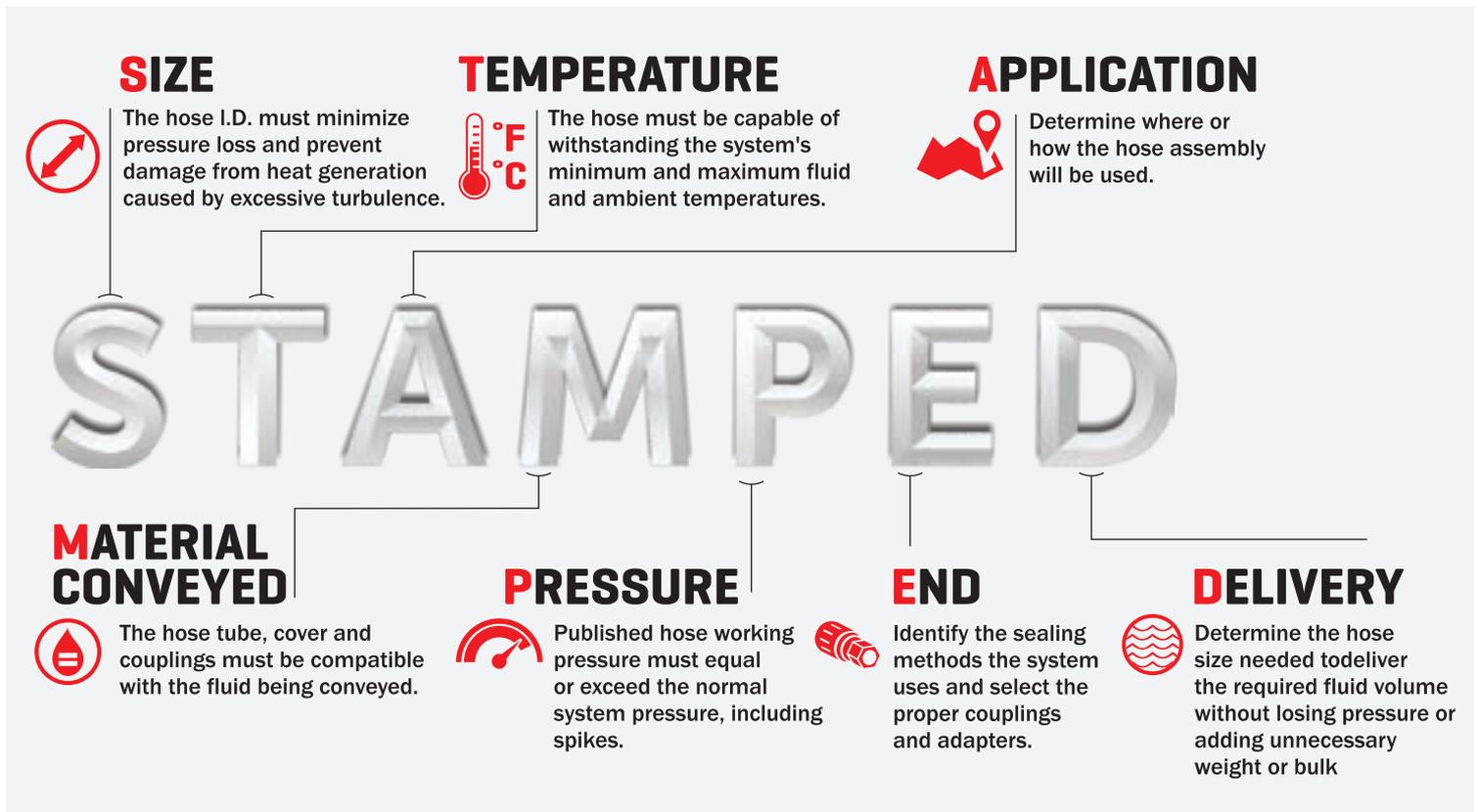
ISO Standard 18752 released in 2006, differs from SAE J517 that reflects the design practices of users who construct hydraulic systems based on performance and pressure requirements.

ISO 18752 is the International Standard specifying requirements for nine classes, four grades and seven types of wire- or textile-reinforced hydraulic hoses and hose assemblies of nominal sizes. Each class has a single maximum working pressure for all sizes.

Hoses are classified according to their resistance to impulse into four grades: A, B, C and D. Each grade is classified by outside diameter into standard types (AS, BS and CS) and compact types (AC, BC, CC and DC). The MegaSys® products exceed the SAE and EN specifications and are aligned and exceed the performance matrix requirements of ISO 18752.

PSI	18752 ISO A	18752 ISO B	18752 ISO C	18752 ISO D
3000 PSI	M3K	M3K	M3KH	EFG3K
4000 PSI	M4K	M4K	M4KH	MXG4K**/EFG4K
5000 PSI	M5K	M5K	EFG5K	MXG5K**/EFG5K
6000 PSI	M6K	M6K	EFG6K	12EFG6K

** Compact Type.



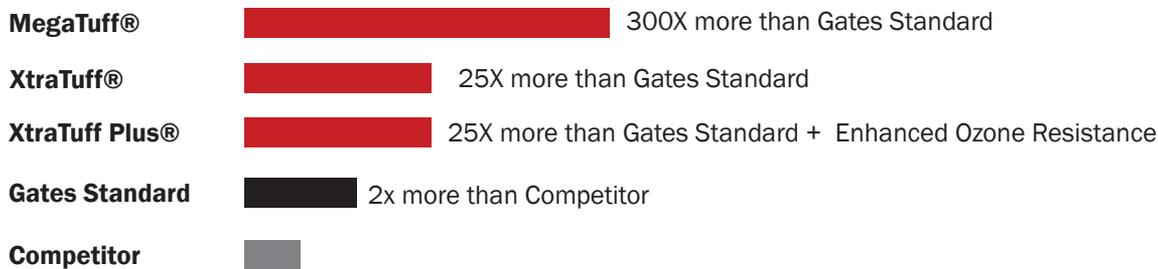
GATES HYDRAULIC HOSES



MEGATUFF®, XTRATUFF® PLUS & XTRATUFF® COVERS

Nothing is harder on hydraulic hose covers than constant abrasion. Rubbed against metal or other hose, most standard hydraulic hoses – even ones with spring guards or nylon sleeving – can’t take the punishment. There’s no industry standard for hose cover performance. Historically OUR COVERS, Gates leads the pack in establishing engineering specs, and hose covers are no exception.

JUDGE US BY OUR COVERS



MEGATUFF®

Gates MegaTuff hoses are exceptionally resistant to abrasion. The specially bonded cover stays put and won’t peel as some competitive hose covers do.

- Maintain flexibility and minimum bend radius
- Resistant to oil, ozone and UV rays
- Tested to 1,000,000 ISO6945 metal-to-hose rubbing cycles without failure

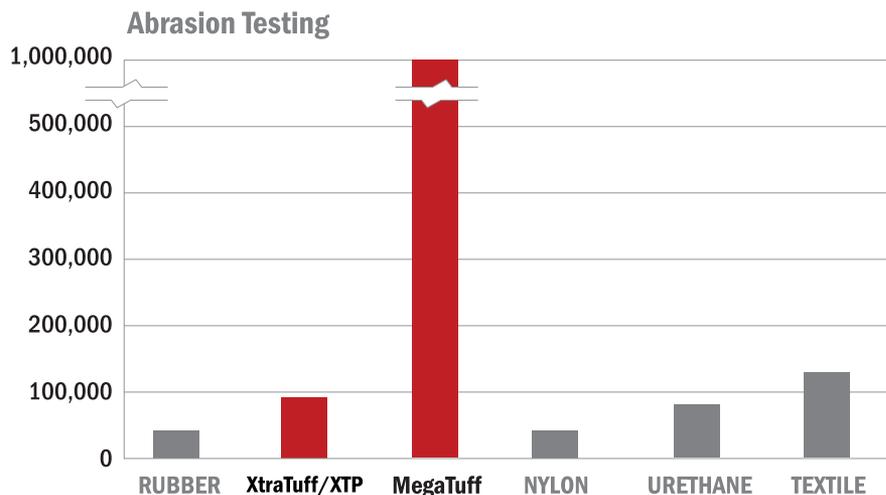
XTRATUFF®

Made of special hybrid compounds, Gates XtraTuff covers are versatile, flexible and easy to manage.

- Increase service life
- Lower maintenance
- Eliminate the need for costly hose protectors
- Lower installation friction

XTRATUFF® PLUS

- Enhanced 800+ hour ozone resistance- ideal for equipment operating outdoors
- No impact on flexibility
- Smooth cover - easier to route



GATES HYDRAULIC HOSES



TUFFCOAT® PLATING

Just as hoses need a rubber cover to protect the metal reinforcement inside, hydraulic couplings need plating to prevent deterioration of the metal. When hydraulic fittings begin to rust, the base metal is being eaten away by oxidation.

Red rust can eventually damage a hydraulic system in several ways:

- Contaminate hydraulic fluids
- Compromise fitting connections and components
- Create leak paths
- Make maintenance more difficult

TuffCoat® plating sets the global standard in both corrosion resistance and environmental friendliness. Gates has removed all hexavalent chromium from its plating process. This metal, common in industrial plating, is toxic to the environment. Gates engineered TuffCoat plating to be stronger and more resistant to corrosion, without the toxicity of hexavalent chromium.

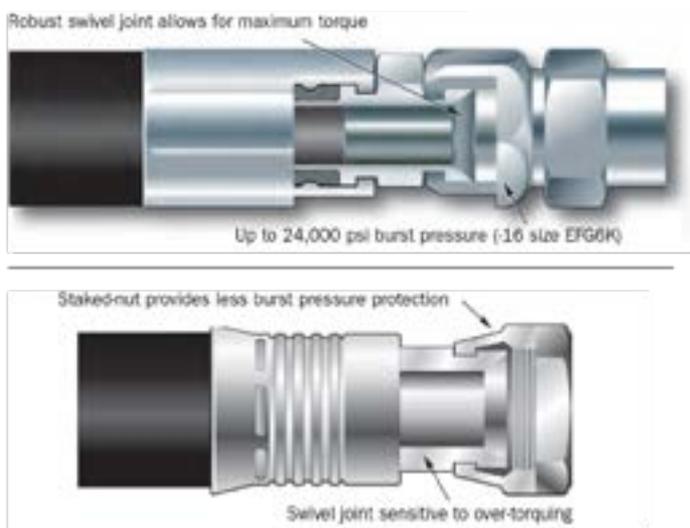
TuffCoat: One Tough Plating for All Gates Standard Couplings

All Gates couplings are protected, at the minimum, with TuffCoat plating. In ASTM B117 salt spray tests, TuffCoat plating resisted red rust formation for 500 hours. That's nearly 347% greater than the SAE 144-hour standard.



FULL-TORQUE NUT™ TECHNOLOGY

Over-Torque Protection



One of the most common causes of hydraulic leaks is a cracked coupling nut or seat due to over-torque.

Gates has engineered a solution – Full-Torque Nut™ technology which is standard on all MegaCrimp® and GlobalSpiral™ couplings.

Full-Torque Nut couplings are stronger and more durable than traditional staked-nut fittings.

A large holding shoulder evenly distributes stress forces at the nut for higher resistance against cracking, even when inadvertently over-torqued. Increase equipment uptime by eliminating damaged couplings and leaks from too much torque.

GATES HYDRAULIC HOSES



As advanced hydraulic systems are designed and engineered into more and more highpowered, high-pressure equipment, the importance of high-quality, flexible, durable hose assemblies that won't fail has never been more critical.

As the industry leader in hydraulic hose technology, Gates has developed an integrated solution to meet the expanding needs of today's hydraulic systems – and tomorrow's.

Gates MegaSys® hydraulic hose and coupling products offer a combination of technology, performance and flexibility that is unmatched by anything on the market today – or for the foreseeable future!

The fully integrated MegaSys® hose line is designed to provide maximum flexibility and performance in a wide range of high-pressure hydraulic applications while simplifying hose selection and assembly fabrication.

MegaSys® products and features save time, space and money. Color-coded laylines and constant pressure ratings through all sizes make hose identification and selection easier and faster while reducing inventory requirements.

Couplings provide leak-free performance. A bend radius up to one-third the SAE specification enables use of shorter hose lengths and savings of up to 64%. It all adds up to more value for your money.

CONSTANT PRESSURE HOSE

The MegaSys® line consists of constant pressure spiral-wire and wire-braid hose that can be bent up to one-third SAE specifications. Combined with innovative couplings specifically designed to crimp on these hose, leak-free performance is guaranteed up to maximum working pressures as high as 8,000 psi.

MegaSys® Benefits

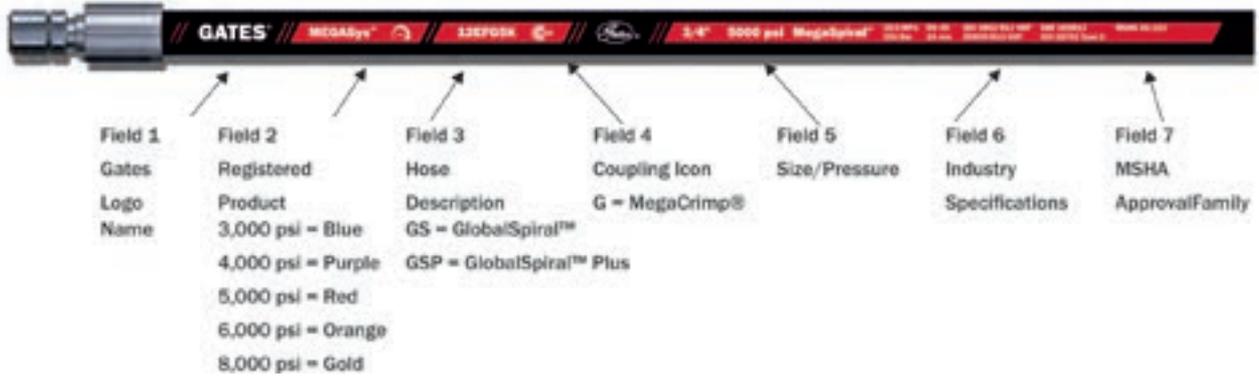
- Gates Patent Awarded for Superpack construction. This patent covers the hose designs used for both MXG and MXT hose families.
- Superior impulses performance
- Light, compact and lower force to bend
- Simplifies hose selection with constant pressure ratings
- Bends up to one-third SAE bend radius specifications
- Saves overall hose assembly length
- Non skive hose and coupling design
- Facilitates easier routing in tight applications
- Requires fewer bent tube fittings
- Eases installation with higher flexibility
- Lowers inventory requirements
- Extends life in bending, flexing applications
- Available with abrasion-resistant XtraTuff® Plus, XtraTuff® & MegaTuff® covers



GATES HYDRAULIC HOSES



These newly developed laylines are used exclusively on MegaSys hose. Distinctive design and pressure color coding makes MegaSys hose easy to identify in stock or in service.



MEGASYS HOSES BEND, BEND - AND BEND SOME MORE

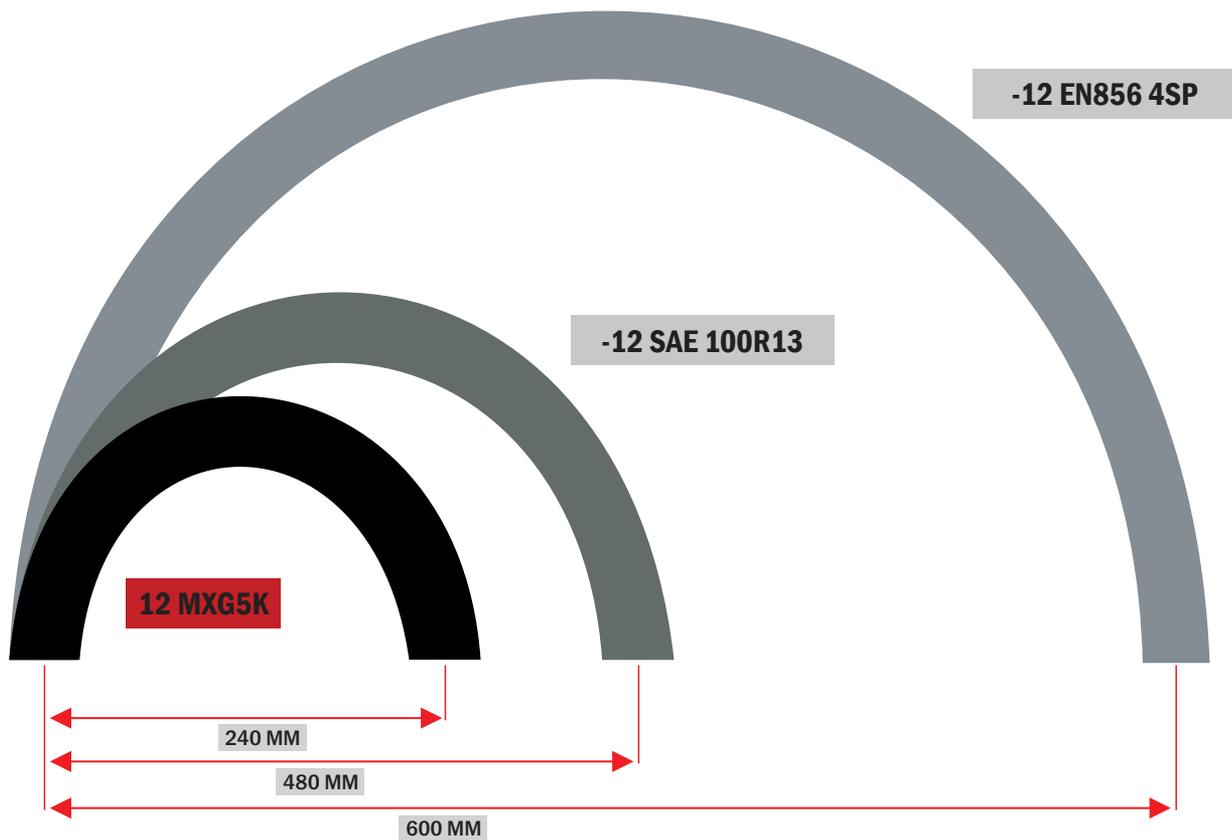
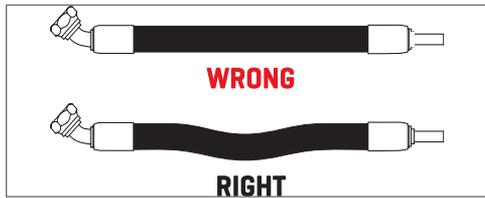


Illustration of hose flexibility and reduced hose length requirements

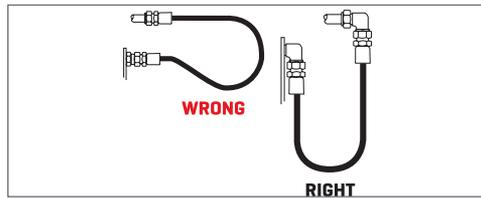
GATES HYDRAULIC HOSES



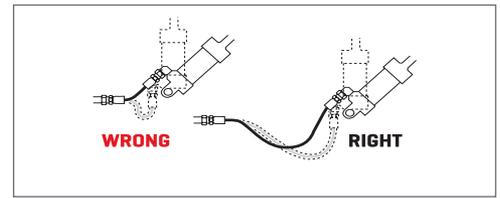
Proper hose installation is essential for satisfactory performance. If hose length is excessive, the appearance of the installation will be unsatisfactory and unnecessary cost of equipment will be involved. If hose assemblies are too short to permit adequate flexing and changes in length due to expansion or contraction, hose service life will be reduced. The following diagrams show proper hose installations which provide maximum performance and cost savings. Consider these examples in determining length of a specific assembly.



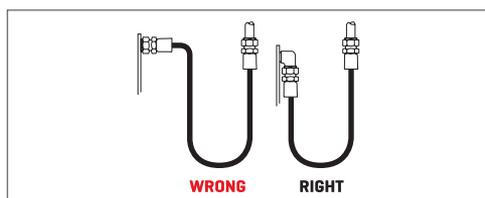
When hose installation is straight, allow enough slack in hose line to provide for length change which will occur when pressure is applied.



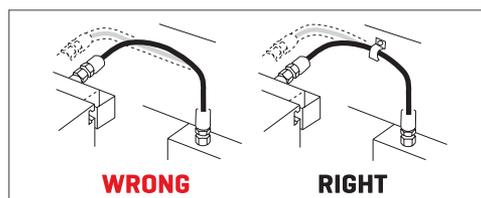
When radius is below the required minimum, use an angle adaptor to avoid sharp bends



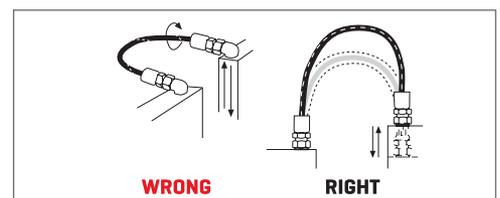
Adequate hose length is necessary to distribute movement on flexing applications and to avoid abrasion



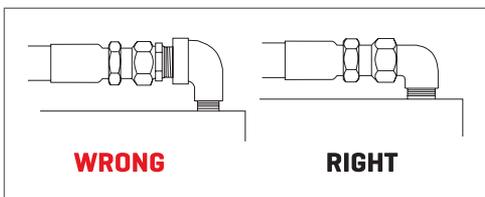
Use proper angle adaptor to avoid tight or bend in hose



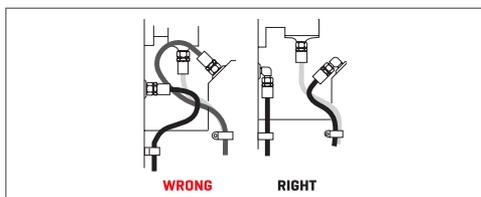
Avoid twisting of hose lines bent in two planes by clamping hose at change of plane



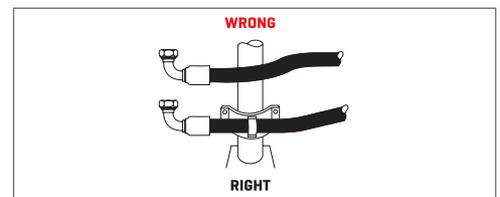
Prevent twisting and distortion by bending hose in same plane as the motion of the port to which hose is connected



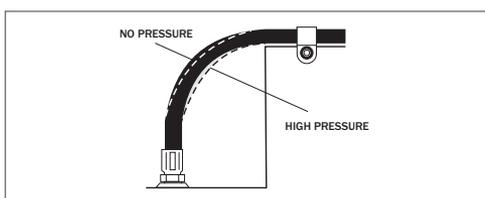
Reduce number of pipe thread joints by using hydraulic adaptors instead of pipe fittings.



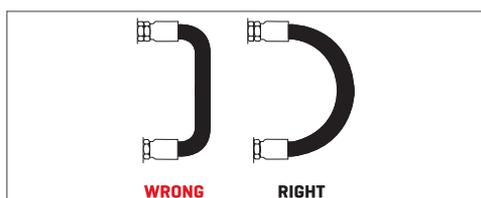
Route hose directly by using 45° and /or 90° adaptors and fittings. Avoid excessive hose length to improve appearance



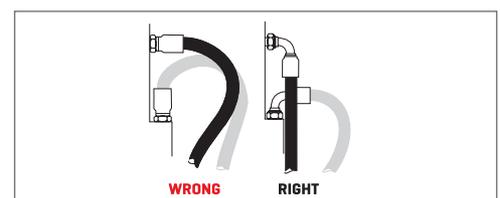
High ambient temperatures shorten hose life, so make sure hose is kept away from hot parts. If this is not possible, insulate hose



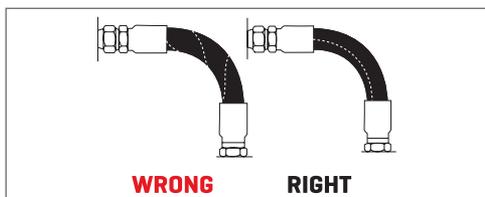
To allow for length change when hose is pressurized, do not clamp at bends so that curve will absorb changes. Do not clamp high and low pressure lines together.



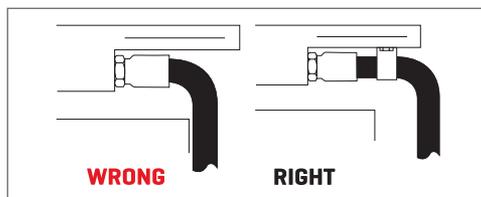
To avoid hose collapse and flow restriction keep hose bend radii as large as possible. Refer to hose specification tables for minimum bend radius



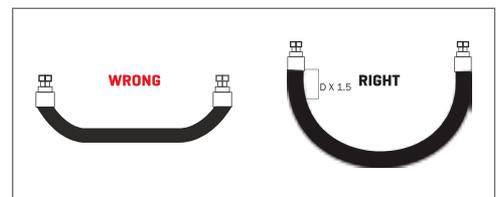
Elbows and adaptors should be used to relieve strain on the assembly, and to provide neater installations which will be more accessible for inspection and maintenance



When installing hose, make sure it is not twisted. Pressure applied to a twisted hose can result in hose failure or loosening of connections.



Run hose in the installation so that it avoids rubbing and abrasion. Often, Clamps are required to support long hose runs or to keep hose away from moving parts. Use clamps of the correct size a clamp too large allows hose to move inside the clamp and cause abrasion



Any bending of hose should not commence at a point less than 1.5 D (hose diameter) from an end

GATES HYDRAULIC HOSES



ADDITIONAL TEMPERATURE LIMITS FOR GATES HYDRAULIC HOSES

Caution : Water, Water/oil emulsions and water/glycol solutions must be kept below the temperatures listed in the tables below, relative to line pressures. Low pressure applications, i.e., in return lines require lower maximum temperatures as shown

HOSE	PRESSURE LINES	RETURN LINES
EFG6K, EFG5K, EFG4K, C3, C6, G1, G2, M6K, M5K, M4K, M3K, CR1, CR2, 4XP-XTF, 4XP, 4XH-XTF, 4XH, MXT, MXT-TXP, MXG4K, MXG5K, LOL, ProFlex	+93°C	+82°C
G2H, G1H, MegaTech ACR, G2XH, GTH, G3H	+107°C	+82°C

Maximum Temperature Limits For Water, Water/oil Emulsions and water/Glycol Solutions

Do not expose hose to maximum temperature and maximum rated working pressure at the same time.

Caution : The fluid manufacturer's recommended maximum operating temperature for any given fluid not be exceeded. If different than the above listed hose temperatures, the lower must precedence.

Actual service life at temperatures approaching the recommended limit will depend on the particular application and the fluid being used in the hose intermittent (up to 10% of operating time) refers to momentary temperatures surges.

Deterimental effects increase with increased exposure to elevated temperatures.

Hose Type	ABS	ARAI	DNV	NK	ATEX	MSHA
G1	•		•	• 40G1, 48G1		•
G1H						•
CR1			•			•
MXT	•		•			•
MXT-TXP	•		•			•
G2	•		•			•
CR2			•			•
G2H						•
G2XH						•
BHL						•
M3K	•		•			•
M3K-XTF			•			•
M4K	•		•			•
M4K-XTF			•			•
M5K			•			•
M5K-XTF			•			•
EFG6K	•		•			•
EFG4K	•		•			•
MXG4K-XTF	•		•			•
EFG5K	•		•			•
MXG5K-XTF	•		•			•
4XP						•
4XH						•
4XH-XTF						•
4XP-XTF						•
GTH						•
C6						•
C3						•
G3H						•
J2AT						•
Fuel Master Curb Pump					•	
CNG		•				
IC5K						•
PROFLEX						•

Dash No.	HOSE ID (Inches)			
	All except C5 Series, C14 & Polarseal		C5 Series, C14 & Polarseal	
	Inches	mm	Inches	mm
-2	1/8	3.2	-	-
-3	3/16	4.8	-	-
-4	1/4	6.4	3/16	4.8
-5	5/16	7.9	1/4	6.4
-6	3/8	9.5	5/16	7.9
-8	1/2	12.7	13/32	10.3
-10	5/8	15.9	1/2	12.7
-12	3/4	19.0	5/8	15.9
-14	7/8	22.2	-	-
-16	1	25.4	7/8	22.2
-20	1-1/4	31.8	1-1/8	28.6
-24	1-1/2	38.1	1-3/8	34.9
-28	1-3/4	44.5	-	-
-32	2	50.8	1-13/16	46.0
-36	2-1/4	57.6	-	-
-40	2-1/2	63.5	2-3/8	60.3
-48	3	76.2	-	-
-56	3-1/2	88.9	-	-
-64	4	101.6	-	-
-72	4-1/2	115.2	-	-

AGENCY SPECIFICATIONS AND HOSE SELECTION GUIDE

INDUSTRY AGENCIES
 ABS American Bureau of Shipping
 DIN Ootuch Industry Norm, Germany
 DNV Det Norske Veritas
 EN European Norm/Standard
 IJS Industrial Jack Specification
 GL Germanischer Lloyd
 SAE Society Of Automotive Engineers

GOVERNMENT AGENCIES

MSHA U.S. Mine Safety & Health Administration
 USCG U.S. Coast Guard
 DGMS Directorate General Of Mines & Safety, India
 DGQA Directorate General Of Quality Assurance, India

- This data is only representative of the Gates Hydraulic Hose range and not a comprehensive list of all sizes of Hydraulic Hoses manufactured by Gates. For types and sizes not mentioned here please contact Gates Customer Care.
- Due to continual product improvements, Gates reserves the right to alter specification and prices without prior notice. This Hydraulic Hose Catalog is the latest edition & supercedes all earlier Gates Hydraulic catalogs.

GATES HYDRAULIC HOSES



EFG6K MEGASYS SPIRAL WIRE HOSE – SAE 100R15



PRODUCT DESCRIPTION	PRODUCT NO.											TEMPERATURE RANGE
		(in)	(mm)		(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)		
6 EFG6K	46511396*	0.38	9.5	20.3	6000	420	24000	1680	2.5	63.5	-	-40 °C to +121 °C
8 EFG6K	46511680	0.50	12.7	24.1	6000	420	24000	1680	3.5	88.9	-	-40 °C to +121 °C
10 EFG6K	46511672	0.63	15.9	27.6	6000	420	24000	1680	4.0	101.6	-	-40 °C to +121 °C
12 EFG6K	46514909	0.75	19.1	31.4	6000	420	24000	1680	4.8	120.7	-	-40 °C to +121 °C
16 EFG6K	46514910	1.00	25.4	38.7	6000	420	24000	1680	6.0	152.4	-	-40 °C to +121 °C
20 EFG6K	46511400*	1.25	31.8	50.0	6000	420	24000	1680	8.2	208.3	-	-40 °C to +121 °C
24 EFG6K	46511572*	1.50	38.1	57.4	6000	420	24000	1680	10	254.0	-	-40 °C to +121 °C

* Imported Range

Recommended For: Extremely high pressure, high-impulse action such as hydrostatic transmissions, EFG6K is designed to meet all requirements of SAE 100R15 specifications and performance requirements of EN 856 4SP (-6, -8, -10 and -12) and EN856 4SH (-12, -16 and -20) and ISO 3862 Type R15 (-6, -8, -10, -12, -16, -24) Compatible with biodegradable hydraulic based fluids like polyolester, polyglycol and vegetable oil as well as standard petroleum based fluids. Superior impulse performance: tested to 1,000,000 impulse cycles with Gates couplings.

Tube: Black, oil resistant synthetic rubber [Nitrile].

Reinforcement: Four [Six for (-20, -24, -32)] alternating layers of spiraled, high tensile steel wire

Cover: Black, oil resistant, synthetic rubber [Polychloroprene] with color coded layline.

Temp. Range: -40 °C to +121 °C **Coupling:** GS (Thru-6to -20) & GSM (Thru -24 &-32)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G”

EFG5K MEGASYS SPIRAL WIRE HOSE – SAE 100R13



PRODUCT DESCRIPTION	PRODUCT NO.											TEMPERATURE RANGE
		(in)	(mm)		(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)		
8 EFG5K	46511679	0.50	12.7	24.1	5000	350	20000	1400	3.5	88.9	-	-40 °C to +121 °C
10 EFG5K	46511675	0.63	15.9	27.6	5000	350	20000	1400	4.0	101.6	-	-40 °C to +121 °C
12 EFG5K	46514903	0.75	19.1	31.4	5000	350	20000	1400	4.8	120.7	-	-40 °C to +121 °C
16 EFG5K	46514904	1.00	25.4	38.7	5000	350	20000	1400	6.0	152.4	-	-40 °C to +121 °C
20 EFG5K	46511393*	1.25	31.8	50.0	5000	350	20000	1400	8.2	208.3	-	-40 °C to +121 °C
24 EFG5K	46512208*	1.50	38.1	57.4	5000	350	20000	1400	10	254.0	-	-40 °C to +121 °C
32 EFG5K	46510059*	2.00	50.8	71.1	5000	350	20000	1400	25	635.0	-	-40 °C to +121 °C

* Imported Range

Recommended For: Extremely high–pressure high–impulse applications. Exceeds all requirements of ISO 18752 Grade D (except for -24) and SAE 100R13 and performance requirements of EN 856 4SH (-16 and -20), EN 856 4SP (-10, and -12), EN 856 R13 and ISO 3862 Type R13 (-12, -16, -20, -24, -32). Compatible with biodegradable hydraulic fluids like polyolester, polyglycol and vegetable oil as well as standard petroleum–based fluids. Superior impulse performance: tested to 1,000,000 impulse cycles with Gates couplings

Tube: Black, oil resistant synthetic rubber [Nitrile].

Reinforcement: Four [Six for (-20, -24, -32)] alternating layers of spiraled, high tensile steel wire.

Cover: Black, oil resistant, synthetic rubber [Polychloroprene]. With color coded layline. Also available in MegaTuff cover in import range.

Temp. Range: -40 °C to +121 °C **Coupling:** GS (-6 to -20) & GSM (-24 &-32)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G”

GATES HYDRAULIC HOSES



MXG™ 5K MEGASYS SPIRAL WIRE HOSE – SAE 100R13



PRODUCT DESCRIPTION	PRODUCT NO.	ID		OD	WT		IMP		BEND		TEMPERATURE RANGE	
		(in)	(mm)		(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)		(in HG)
6 MXG 5K*	-	0.38	9.5	18.0	5,076	350	20,300	1400	2.5	65	-	-40 °C to +121 °C
8 MXG 5K	46790008	0.50	12.7	21.6	5,076	350	20,300	1400	3.5	90	-	-40 °C to +121 °C
10 MXG 5K	46790014	0.63	15.9	26.1	5,076	350	20,300	1400	3.9	100	-	-40 °C to +121 °C
12 MXG 5K	46790006	0.75	19.1	29.6	5,076	350	20,300	1400	4.7	120	-	-40 °C to +121 °C

*Under Development

Recommended For: Extremely high-pressure, high-impulse applications. Exceeds all criteria of ISO 18752 350DC, exceeds performance criteria of SAE 100R13, EN856 R13, and ISO 3862 R13; sizes -10, -12 also exceeds EN856 4SP performance requirements. Superior impulse performance: tested to 1,000,000 impulse cycles with Gates couplings

Tube: Black, oil resistant synthetic rubber tube.

Reinforcement: Xpiral™ woven spiral construction with four layers of high-tensile steel wire reinforcement.

Cover: Black, XtraTuff™ Plus abrasion resistant, ozone resistant, synthetic rubber; smooth cover. MSHA Flame Resistant

Temp. Range: -40°C to +121°C

Coupling: GS (GS1F-2 Ferrule for sizes -6,-8,-12) GSID1F -4 Ferrule for size -10

20 IC5K SPIRAL WIRE HOSE – SAE 100R13



PRODUCT DESCRIPTION	PRODUCT NO.	ID		OD	WT		IMP		BEND		TEMPERATURE RANGE	
		(in)	(mm)		(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)		(in HG)
20 IC5K	46515042	1.25	31.8	45.2	5000	345	20000	1380	16.5	420.0	-	-40 °C to +121 °C

Recommended For: Extremely high pressure and high impulse hydraulic applications, meets the performance requirements of ISO 3862/SAE 100R13. Recommended applications include underground mining, injection molding machines, backhoes, wheel loaders, forestry equipment, excavators, and crawlers.

Tube: Black, oil resistant, synthetic rubber (Nitrile - type C).

Reinforcement: Four alternating layers of spiraled, high tensile steel.

Cover: Black, oil resistant, synthetic rubber (Neoprene - type A).

Temp. Range: -40 °C to +121 °C

Coupling: GS

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G”

GATES HYDRAULIC HOSES



EFG4K MEGASYS SPIRAL WIRE HOSE – SAE 100R12



PRODUCT DESCRIPTION	PRODUCT NO.	↔		⊘	⌚		💥		⤵		⊙	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
6EFG4K	46511810*	0.38	9.5	20.3	4000	280	16000	1120	2.5	63.5	-	-40 °C to +121 °C
8 EFG4K	46511678	0.50	12.7	23.9	4000	280	16000	1120	3.5	88.9	-	-40 °C to +121 °C
10 EFG4K	46511674	0.63	15.9	27.6	4000	280	16000	1120	4.0	101.6	-	-40 °C to +121 °C
12 EFG4K	46514901	0.75	19.1	30.7	4000	280	16000	1120	4.8	120.7	-	-40 °C to +121 °C
16 EFG4K	46514902	1.00	25.4	38.1	4000	280	16000	1120	6.0	152.4	-	-40 °C to +121 °C
20 EFG4K	46511683	1.25	31.8	47.0	4000	280	16000	1120	8.2	208.3	-	-40 °C to +121 °C

* Imported Range

Recommended For: Very high-pressure, high-impulse applications. Exceeds all requirements of ISO 18752 Grade D*, SAE 100R12, EN 856 R12 and ISO 3862 Type R12. *(Sizes 3/8", 1/2" and 5/8" exceed ISO 18752 Grade D performance but does not meet OD requirements). Compatible with biodegradable hydraulic fluids like polyolester, polyglycol and vegetable oil as well as standard petroleum-based fluids. Superior impulse performance: tested to 1,000,000 impulse cycles with Gates couplings.

Tube: Black, oil resistant synthetic rubber [Nitrile].

Reinforcement: Four alternating layers of spiraled, high tensile steel wire.

Cover: Black, oil resistant, synthetic rubber [Polychloroprene] with color coded layline.

Temp. Range: -40 °C to +121 °C **Coupling:** GS (-6 to -20)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA 2G"

MXG™ 4K MEGASYS SPIRAL WIRE HOSE – SAE 100R12



PRODUCT DESCRIPTION	PRODUCT NO.	↔		⊘	⌚		💥		⤵		⊙	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
6 MXG 4K	46780017	0.38	9.5	17.7	4060	280	16,240	1120	2.5	65.0	-	-40 °C to +121 °C
8 MXG 4K	46780018	0.50	12.7	20.7	4060	280	16,240	1120	3.5	90.0	-	-40 °C to +121 °C
10 MXG 4K	46780019	0.63	15.9	25.2	4060	280	16,240	1120	3.9	100.0	-	-40 °C to +121 °C
12 MXG 4K	46780020	0.75	19.1	28.9	4060	280	16,240	1120	4.7	120.0	-	-40 °C to +121 °C
16 MXG 4K	46780021	1.00	25.4	38.0	4060	280	16,240	1120	5.9	150.0	-	-40 °C to +121 °C

Recommended For: Hydraulic applications, built with our proprietary wire-braid process technology, MegaSys™ MXG™ 4K hose is lightweight, highly flexible, and qualified to 1,000,000 impulse cycles with Gates couplings. MXG™ 4K exceed performance criteria of SAE 100R12, EN 856 R12, and ISO 3862 R12(Size-16 also exceeds EN856 4SP performance requirements), exceed all criteria of ISO 18752 280DC & SAE100R19.

Tube: Black, oil resistant, synthetic rubber tube.

Reinforcement: Two layers of braided, high-tensile steel wire reinforcements

Cover: Black, XtraTuff™ Plus abrasion resistant, ozone resistant, synthetic rubber; smooth cover. MSHA Flame Resistant

Temp. Range: -40 °C to +121 °C

Coupling: GS (GS1F-2 Ferrule for sizes -6,-8,-10,-12 & GS1F-4 Ferrule for size -16)

GATES HYDRAULIC HOSES



4XH SPIRAL WIRE HOSE – EN856 4SH/ISO 3862



PRODUCT DESCRIPTION	PRODUCT NO.	↔		⊘	⌚		💥		⤵		⊙	TEMPERATURE RANGE
		(in)	(mm)		(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)		
10 4XH	46511685	0.63	15.9	27.9	6530	450	26100	1800	4.0	102.0	-	-40 °C to +100 °C
12 4XH	46514907	0.75	19.1	31.5	6100	420	24400	1680	8.3	211.0	-	-40 °C to +100 °C
16 4XH	46514908	1.00	25.4	37.8	5600	386	22400	1544	8.7	221.0	-	-40 °C to +100 °C
20 4XH	46511775	1.25	31.8	45.2	5000	350	20300	1400	16.5	420.0	-	-40 °C to +100 °C
24 4XH	46510831	1.50	38.1	53.3	4351	299	17404	1199	22.0	559.0	-	-40 °C to +100 °C

Recommended For: Extremely high hydraulic applications. Most flexible EN 856 4SH Hose in industry Compatible with biodegradable hydraulic fluids like synthetic ester, polyglycol and vegetable oil as well as standard petroleum based fluids. Superior impulse performance: tested to 1,000,000 impulse cycles with Gates couplings.

Tube: Black, oil resistant synthetic rubber [Nitrile- Type C].

Reinforcement: Four alternating layers of spiraled, high tensile steel wire.

Cover: Black, oil resistant, synthetic rubber [Neoprene -Type A].

Temp. Range: -40 °C to +100 °C

Coupling: GS & GSP (-24 with 24 GSP1 F-4 Ferrule)

MEETS MSHA FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G”

4XH-XTF SERIES SPIRAL WIRE HOSE



PRODUCT DESCRIPTION	PRODUCT NO.	↔		⊘	⌚		💥		⤵		⊙	TEMPERATURE RANGE
		(in)	(mm)		(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)		
12 4XH-XTF	46510838	0.75	19.1	31.5	6091	420	24366	1680	8.3	210.8	-	-40 °C to +100 °C
16 4XH-XTF	46510839	1.00	25.4	37.7	5598	386	22394	1544	8.7	221.0	-	-40 °C to +100 °C
20 4XH-XTF	46510840	1.25	31.8	45.2	5004	345	20305	1400	16.5	419.1	-	-40 °C to +100 °C

Recommended For: Extremely high pressure and high impulse hydraulic applications. 4XH hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids. Superior impulse performance: tested to 1,000,000 impulse cycles with Gates couplings.

Tube: Black, oil resistant synthetic rubber [Nitrile- Type C].

Reinforcement: Four alternating layers of spiraled, high tensile steel.

Cover: Black, oil resistant, & weather resistant Xtratuff synthetic rubber [Modified Nitrile-Type C2].

Temp. Range: -40 °C to +100 °C

Coupling: GS

MEETS MSHA FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G”

GATES HYDRAULIC HOSES



4XP SPIRAL WIRE HOSE – EN 856 4SP/ISO 3862



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↻	⌚		💥		⤵		○	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
8 4XP	46511681	0.50	12.7	24.3	6150	425	24600	1700	4.7	119.4	-	-40 °C to +100 °C
10 4XP	46511677	0.63	15.9	27.7	5800	400	23200	1600	5.5	139.7	-	-40 °C to +100 °C
12 4XP	46514905	0.75	19.1	31.5	5500	380	23925	1650	6.7	170.2	-	-40 °C to +100 °C
16 4XP	46514906	1.00	25.4	39.1	4650	320	20300	1400	13.4	340.4	-	-40 °C to +100 °C
20 4XP	46511682	1.25	31.8	49.8	3050	210	18120	1250	18.1	459.7	-	-40 °C to +100 °C

Recommended For: Extremely high impulse hydraulic applications. Most flexible EN 856 4SP hose in industry. Superior impulse performance, tested to 1,000,000 impulse cycles with Gates couplings at bend radius lower than EN 856 standard. Compatible with biodegradable hydraulic fluids like synthetic ester, polyglycol and vegetable oil as well as standard petroleum based fluids

Tube: Black, oil resistant synthetic rubber [Nitrile].

Reinforcement: Four alternating layers of spiraled, high tensile steel wire.

Cover: Black, oil resistant, synthetic rubber [Nitrile]

Temp. Range: -40 °C to +100 °C

Coupling: GS1F-4 (-8 TO -16) & GS1F-6 (-20)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G”

4XP-XTF SPIRAL WIRE HOSE



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↻	⌚		💥		⤵		○	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
8 4XP-XTF	46510832	0.50	12.7	24.2	6164	425	24656	1700	4.7	119.4	-	-40 °C to +100 °C
10 4XP-XTF	46510833	0.63	15.9	27.7	5801	400	23206	1600	5.5	139.7	-	-40 °C to +100 °C
12 4XP-XTF	46510834	0.75	19.1	31.5	5511	380	23931	1650	6.7	170.2	-	-40 °C to +100 °C
16 4XP-XTF	46510835	1.00	25.4	39.1	4641	320	20305	1400	13.4	340.4	-	-40 °C to +100 °C

Recommended For: Extremely high pressure and high impulse hydraulic applications, Superior impulse performance, tested to 1,000,000 impluse cycles with Gates couplings. 4XP hose is compatible with biodegradable hydraulic fluids like synthetic esters, polyglycols and vegetable oils as well as petroleum-based fluids.

Tube: Black, oil resistant, synthetic rubber (Nitrile -Type C).

Reinforcement: Four alternating layer of spiraled high-tensile steel.

Cover: Black, oil, abrasion and weather resistant Xtratuff synthetic rubber (Modified Nitrile-Type C2).

Temp. Range: -40 °C to +100 °C

Coupling: GS1F-4 (-8 to -16)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G”

GATES HYDRAULIC HOSES



MXT™ MEGASYS WIRE BRAID HOSE – SAE 100R2/SAE 100R16



PRODUCT DESCRIPTION	PRODUCT NO.											TEMPERATURE RANGE
		(in)	(mm)		(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)		
4MXT	46579657	0.25	6.4	14.0	6000	414	24000	1655	1.5	38.1	-	-40 °C to +100 °C
5MXT	46560062	0.31	8.3	15.4	5500	379	22000	1517	1.8	45.7	-	-40 °C to +100 °C
6 MXT	46579831	0.38	9.8	17.2	4800	331	19200	1324	2.5	63.5	-	-40 °C to +100 °C
8 MXT	46579753	0.50	12.7	20.7	4000	276	16000	1103	2.8	70.0	-	-40 °C to +100 °C
10 MXT	46579754	0.63	15.9	24.3	3625	250	14500	1000	3.0	76.2	-	-40 °C to +100 °C
12 MXT	46579755	0.75	19.1	27.9	3125	216	12500	862	4.8	121.0	-	-40 °C to +100 °C
16 MXT	46579756	1.00	25.4	35.2	2400	166	9600	662	6.0	152.4	-	-40 °C to +100 °C

Recommended For: Recommended for High pressure hydraulic oil lines. Meets SAE 100R16 and 100R17* dimension and performance. Meets SAE 100R2 and SAE 100R19* performance. Meets EN 853 2SN and EN 857 2SC performance. *Applies only to sizes up to and including -12 for SAE 100R17 and -8 for SAE 100R19. Tested to 6,00,000 impluse cycles with Gates couplings.

Tube: Black, oil resistant, synthetic rubber tube.

Reinforcement: Braided, high-tensile steel wire reinforcements.

Cover: Black, abraision resistant, synthetic rubber; smooth cover

Temp. Range: -40 °C to +100 °C

Coupling: MegaCrimp®, PCK Couplings (-6 through -16) & GB (-8,-12 & -16) sizes

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA"

MXT™-XTP MEGASYS WIRE BRAID HOSE – SAE 100R2/SAE 100R16



PRODUCT DESCRIPTION	PRODUCT NO.											TEMPERATURE RANGE
		(in)	(mm)		(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)		
6MXT-XTP	46560397	0.38	9.5	17.1	4,800	331	19,200	1324	2.5	63.5	-	-40 °C to +100 °C
8MXT-XTP	46560398	0.50	12.7	20.2	4,000	276	16,000	1103	2.8	70.0	-	-40 °C to +100 °C
12MXT-XTP	46560400	0.75	19.1	27.4	3,125	216	12,500	862	4.8	121.0	-	-40 °C to +100 °C
16MXT-XTP	46560401	1.00	25.4	35.1	2,400	166	9,600	662	6.0	152.0	-	-40 °C to +100 °C

Recommended For: Recommended for High pressure hydraulic oil lines. Meets SAE 100R16 and 100R17* dimension and performance. Meets SAE 100R2 and SAE100R19* performance. Meets EN 853 2SN and EN 857 2SC performance. *Applies only to sizes up to and including -12 for SAE 100R17 and -8 for SAE 100R19. Tested to 6,00,000 impluse cycles with Gates couplings.

Tube: Black, oil resistant, synthetic rubber tube.

Reinforcement: Braided, high-tensile steel wire reinforcements.

Cover: Black, XtraTuff™ Plus abrasion resistant, ozone resistant, synthetic rubber; smooth cover

Temp. Range: -40 °C to +100 °C

Coupling: MegaCrimp®, PCK Couplings (for sizes -6, -8, -12 & -16)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA"

GATES HYDRAULIC HOSES



G2 2-WIRE BRAID HOSE – SAE 100R2 TYPE AT/EN 853 2SN



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↻	⌚		💥		⤵		○	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
3 G2	46578750	0.19	5.1	13.2	6025	414	24000	1655	3.5	88.9	-	-40 °C to +100 °C
20 G2	46574900	1.25	31.8	47.5	1825	126	7300	504	16.5	419.1	-	-40 °C to +100 °C
24 G2	46574894	1.50	38.1	53.6	1300	90	5200	360	20.0	508.0	-	-40 °C to +100 °C
32 G2	46574895	2.00	50.8	66.5	1175	81	4700	324	25.0	635.0	-	-40 °C to +100 °C
40 G2	46547970*	2.50	63.5	82.3	1000	69	4000	280	30.0	762.0	-	-40 °C to +100 °C
48 G2	46547727*	3.00	76.2	96.5	625	43	2500	172	33.0	838.0	-	-40 °C to +100 °C

*Gates Proprietary Hose

- Recommended For:** High-pressure hydraulic oil lines. Meets or exceeds the requirements of SAE 100R2, ISO 1436 2SN R2 and EN 853 2SN.
 - Tube:** Black, oil resistant, synthetic rubber (Nitrile).
 - Reinforcement:** Two braids of high tensile steel wire.
 - Cover:** Black, oil and abrasion resistant, synthetic rubber (Nitrile and PVC).
 - Temp. Range:** -40 °C to +100 °C
 - Coupling:** MegaCrimp (-20), GSP thru (-24 & -32)
- MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA 2G"

ProFlex™ Hose – SAE 100R2/ EN857 2SC/ EN853 2SN/SAE 100R16



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↻	⌚		💥		⤵		○	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
4 ProFlex	46560671	0.25	6.4	13.1	5800	400	23200	1600	2.0	50	-	-40 °C to +100 °C
5 ProFlex	46560635	0.31	7.9	14.7	5075	350	20300	1400	2.1	55	-	-40 °C to +100 °C
6 ProFlex	46560672	0.37	9.4	16.6	4800	331	19200	1324	2.5	65	-	-40 °C to +100 °C
8 ProFlex	46560606	0.50	12.7	20.2	4000	276	16000	1103	3.5	90	-	-40 °C to +100 °C
10 ProFlex	46560607	0.63	16.0	24.0	3625	250	14500	1000	4.0	100	-	-40 °C to +100 °C
12 ProFlex	46560608	0.75	19.1	27.4	3125	215	12500	862	4.7	120	-	-40 °C to +100 °C
16 ProFlex	46560609	1.00	25.4	35.1	2400	165	9600	662	6	150	-	-40 °C to +100 °C

- Recommended For:** Meet or exceed performance requirement of SAE 100R2/EN 857 2SC/EN 853 2SN. Meets SAE 100R16, SAE 100R17 except 1" (-16 DN25) dimension & performance cycles.
 - Tube:** Black, oil resistant synthetic rubber tube.
 - Reinforcement:** Integrated two wire braided high tensile steel.
 - Cover:** Black, abrasion resistant, synthetic rubber
 - Temp. Range:** -40 °C to +100 °C
 - Coupling:** Megacrimp, PCK, GB (-8, -12 & -16)
- MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA 2G"

GATES HYDRAULIC HOSES



CR2 HOSE – SAE 100R2/EN 853 2SN



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↻	⌚		💥		⤵		○	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
4CR2	46579497	0.25	6.7	14.5	5800	400	23200	1600	4.0	101.6	-	-40 °C to +100 °C
5CR2	46579810	0.31	7.9	15.9	5100	352	20350	1403	4.5	114.0	-	-40 °C to +100 °C
6CR2	46579415	0.38	9.8	18.5	4800	331	19200	1324	5.1	129.8	-	-40 °C to +100 °C
8CR2	46579416	0.50	12.7	21.6	4000	276	16000	1103	7.1	179.8	-	-40 °C to +100 °C
10CR2	46579417	0.63	15.9	24.9	3625	250	14500	1000	7.9	199.9	-	-40 °C to +100 °C
12CR2	46579577	0.75	19.1	29.0	3125	215	12500	862	9.4	239.8	-	-40 °C to +100 °C
16CR2	46579579	1.00	25.4	37.1	2400	165	9600	662	11.8	300.0	-	-40 °C to +100 °C

Recommended For: Medium pressure hydraulics with low flexure/non-severe applications. Meets SAE 100R2 & EN 853 2SN standard requirement. Engineered for less demanding hydraulic applications.

Tube: Black, oil resistant synthetic rubber tube.

Reinforcement: Two braids of high-tensile steel wire.

Cover: Black, oil and abrasion resistant synthetic rubber. MSHA flame resistant

Temp. Range: -40 °C to +100 °C

Coupling: PCK

G2H HIGH TEMP 2 WIRE BRAID HOSE – SAE 100R2 TYPE AT



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↻	⌚		💥		⤵		○	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
24 G2H	46574842	1.50	38.1	53.6	1300	90	5200	360	20.0	508.0	-	-40 °C to +135 °C
32 G2H	46574843	2.00	50.8	66.5	1175	81	4700	324	25.0	635.0	-	-40 °C to +135 °C

Recommended For: High-temperature high-pressure hydraulic oil lines. Meets or exceeds the requirements of SAE 100R2, ISO 1436 2SN R2 and EN 853 2SN.

Tube: Black, oil resistant, synthetic rubber (Nitrile).

Reinforcement: Two braids of high tensile steel wire.

Cover: Black, oil resistant synthetic rubber (CSM).

Temp. Range: -40 °C to +135 °C

Coupling: GSP for -24 & -32

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA 2G"

GATES HYDRAULIC HOSES



G2XH - 2 WIRE BRAID EXTREME HEAT HOSE – SAE 100R2 TYPE AT



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↻	⌚		💥		⤵		○	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
20 G2XH	46574787	1.25	31.8	47.5	2250	155	9000	621	16.5	419.0	-	-40 °C to +149 °C
24 G2XH	46574788	1.50	38.1	54.6	1800	124	7200	497	20.0	508.0	-	-40 °C to +149 °C
32 G2XH	46574789	2.00	50.8	67.3	1500	103	6000	414	25.0	635.0	-	-40 °C to +149 °C

Recommended For: Extremely high-temperature high-pressure hydraulic applications where pressure or temperature requirements exceed SAE 100R2, ISO 1436 2SN R2 and EN 853 2SN or where resistance to either petroleum-base or phosphate ester fluids is required. Meets SAE J1942 requirements. Also used in Water-well Rig applications

Tube: Black, oil chemical resistant, synthetic rubber (CPE).

Reinforcement: Two braid of high tensile steel wire.

Cover: Blue, oil and abrasion resistant, thin synthetic rubber (CSM).

Temp. Range: -40 °C to +149 °C

Coupling: MegaCrimp for - 20 & GSP (-24 & -32)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G”

MEGA TECH II – SAE 100R2 TYPE AT - ACP



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↻	⌚		💥		⤵		○	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
24 ACP MEGATECH II	46574785	1.50	38.1	54.1	1500	103	6000	414	20.0	508.0	-	-40 °C to +149 °C
32 ACP MEGATECH II	46574993	2.00	50.8	66.3	1300	90	5200	359	25.0	635.0	-	-40 °C to +149 °C

Recommended For: Multi-purpose high-pressure, high-temperature, air compressor lines, petroleum-base or phosphate ester hydraulic fluid supply lines. Meets or exceeds the requirements of SAE 100R2.

Tube: Black, oil resistant, synthetic rubber (CPE).

Reinforcement: Two braid of high-tensile steel wire.

Cover: Blue, oil & abrasion resistant, polyester braid.

Temp. Range: -40 °C to +149 °C

Coupling: GSP for -24 & -32

GATES HYDRAULIC HOSES



MINING HOSE



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↻	⌚		💥		↷		○	TEMPERATURE RANGE		
		(in)	(mm)		(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)			(mm)	(in HG)
DN 6	46547961	0.25	6.3	17.0	WP Dynamic (psi)	6525	450	WP Dynamic (bar)	26100	1800	4.0	101.6	-	-40 °C to +100 °C
DN 10	46547962	0.37	9.4	21.3		5500	380		22000	1520	5.1	129.5	-	-40 °C to +100 °C
DN 12	46547963	0.50	12.7	26.5		5250	362		21000	1448	6.0	152.4	-	-40 °C to +100 °C
DN 20	46547964	0.75	19.0	33.6		4000	276		16000	1104	9.1	231.4	-	-40 °C to +100 °C
DN 25	46547965	1.0	25.4	40.7		3125	215		12500	861	12.0	304.8	-	-40 °C to +100 °C
DN 32	46547966	1.25	31.75	47.2		2500	172		10000	689	15.1	383.5	-	-40 °C to +100 °C
DN 40	46547967	1.50	38.1	54.0		2118	146		8472	584	18.0	457.2	-	-40 °C to +100 °C

Recommended For: High pressure hydraulic lines in longwall mining equipment and roof support system: petroleum based or water emulsion fluids

Tube: Black, oil resistant, synthetic rubber (Nitrile).

Reinforcement: Two braids of high tensile steel wire.

Cover: Black, oil resistant abrasion resistant, synthetic rubber (Modified Nitrile).

Temp. Range: -40 °C to +100 °C

Coupling: Mining coupling as per BCS 174 Standard

MEETS BCS 174: 1992 PERFORMANCE | MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA 2G"

M5K MEGA5000™ HOSE



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↻	⌚		💥		↷		○	TEMPERATURE RANGE
		(in)	(mm)		(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)		
4 M5K	46575072	0.25	6.7	14.0	5000	350	20000	1400	2.0	50.8	-	-40 °C to +100 °C
6 M5K	46575073	0.38	9.5	17.8	5000	350	20000	1400	2.5	63.5	-	-40 °C to +100 °C

Recommended For: High-pressure hydraulic applications. Exceeds ISO 18752 Grade B. Provides tighter than standard minimum bend radius and greater flexibility for easier plumbing.

Tube: Black, oil resistant, synthetic rubber (Nitrile).

Reinforcement: Two braid of high-tensile steel wire.

Cover: Black, oil, abrasion and weather resistant, synthetic rubber (Nitrile and PVC with color coded layline).

Temp. Range: -40 °C to +100 °C

Coupling: G (MegaCrimp), PCK (-6)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA 2G"

GATES HYDRAULIC HOSES



M5K MEGA5000™ HOSE - XTRATUFF™ COVER



PRODUCT DESCRIPTION	PRODUCT NO.	ID		OD	WORKING PRESSURE		BURST PRESSURE		BEND RADIUS		TEMPERATURE RANGE	
		(in)	(mm)		(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)		(in HG)
4 M5K-XTF	46575058	0.25	6.7	14.0	5000	350	20000	1400	2.0	50.8	-	-40 °C to +100 °C
5 M5K-XTF	46575103	0.31	7.9	15.5	5000	350	20000	1400	2.2	55.9	-	-40 °C to +100 °C
6 M5K-XTF	46575074	0.38	9.5	17.8	5000	350	20000	1400	2.5	63.5	-	-40 °C to +100 °C

Recommended For: High-pressure hydraulic applications. Exceeds ISO 18752 Grade B. Provides tighter than standard minimum bend radius and greater flexibility for easier plumbing.

Tube: Black, oil resistant, synthetic rubber (Nitrile).

Reinforcement: Two braids of high-tensile steel wire.

Cover: Black, oil, abrasion and weather resistant, synthetic rubber (XtraTuff) with color coded layline.

Temp. Range: -40 °C to +100 °C

Coupling: G (MegaCrimp)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G”.

M4K MEGA4000™ HOSE – SAE 100R19



PRODUCT DESCRIPTION	PRODUCT NO.	ID		OD	WORKING PRESSURE		BURST PRESSURE		BEND RADIUS		TEMPERATURE RANGE	
		(in)	(mm)		(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)		(in HG)
4 M4K	46574776	0.25	6.7	14.0	4000	280	16000	1120	1.5	38.1	-	-40 °C to +100 °C
6 M4K	46574777	0.38	9.5	17.8	4000	280	16000	1120	2.0	50.8	-	-40 °C to +100 °C
8 M4K	46574793	0.50	12.7	20.8	4000	280	16000	1120	2.8	71.1	-	-40 °C to +100 °C
10 M4K	46575056	0.63	15.9	25.1	4000	280	16000	1120	3.0	76.2	-	-40 °C to +100 °C
12 M4K	46575060	0.75	19.1	29.7	4000	280	16000	1120	3.8	96.5	-	-40 °C to +100 °C

Recommended For: High-pressure hydraulic applications. Exceeds ISO 18752 Grade B, SAE 100R19 and ISO 11237 R19. Allows for tighter minimum bend radius, increased working pressure and improved impulse cycles than industry standards. Provides greater performance, flexibility, easier routing and plumbing of mobile and stationary hydraulic platforms.

Tube: Black, oil resistant, synthetic rubber (Nitrile).

Reinforcement: Two braids of high-tensile steel wire.

Cover: Black, oil, abrasion and weather resistant, synthetic rubber (Nitrile and PVC), with color coded layline.

Temp. Range: -40 °C to +100 °C

Coupling: G (MegaCrimp®), GB (-4 to -12), PCK (-4 to -8)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G” AND ISO 11237 R19.

GATES HYDRAULIC HOSES



M4K MEGA4000™ HOSE – SAE 100R19 - XTRATUFF® COVER



PRODUCT DESCRIPTION	RODUCT NO.	↔		↻	⌚	💥		⤵		○	TEMPERATURE RANGE	
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)		(in HG)
4 M4K-XTF	46574790	0.25	6.7	14.0	4000	280	16000	1120	1.5	38.1	-	-40 °C to +100 °C
6 M4K-XTF	46574791	0.38	9.5	17.8	4000	280	16000	1120	2.0	50.8	-	-40 °C to +100 °C
8 M4K-XTF	46574794	0.50	12.7	20.8	4000	280	16000	1120	2.8	71.1	-	-40 °C to +100 °C
10 M4K-XTF	46575057	0.63	15.9	25.1	4000	280	16000	1120	3.0	76.2	-	-40 °C to +100 °C
12 M4K-XTF	46575059	0.75	19.1	29.7	4000	280	16000	1120	3.8	96.5	-	-40 °C to +100 °C

Recommended For: High-pressure hydraulic applications. Exceeds ISO 18752 Grade B, SAE 100R19 and ISO 11237 R19. Allows for tighter minimum bend radius, increased working pressure and improved impulse cycles than industry standards. Provides greater performance, flexibility, easier routing and plumbing of mobile and stationary hydraulic platforms.

Tube: Black, oil resistant, synthetic rubber (Nitrile).

Reinforcement: Two braids of high-tensile steel wire.

Cover: Black, oil, abrasion and weather resistant, synthetic rubber (XtraTuff® Nitrile), with color coded layline.

Temp. Range: -40 °C to +100 °C

Coupling: G (MegaCrimp®)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G”.

M3K MEGA3000® HOSE – SAE 100R17



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↻	⌚	💥		⤵		○	TEMPERATURE RANGE	
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)		(in HG)
4 M3K	46574778	0.25	6.7	12.2	3250	225	13000	900	1.5	38.1	-	-40 °C to +100 °C
6 M3K	46574779	0.38	9.5	16.0	3250	225	13000	900	2.0	50.8	-	-40 °C to +100 °C
8 M3K	46574780	0.50	12.7	20.2	3250	225	13000	900	2.8	71.1	-	-40 °C to +100 °C
10 M3K	46574782	0.63	15.9	25.1	3250	225	13000	900	3.0	76.2	-	-40 °C to +100 °C
12 M3K	46574781	0.75	19.1	29.2	3250	225	13000	900	3.8	96.5	-	-40 °C to +100 °C
16 M3K	46575061	1.00	25.4	37.6	3250	225	13000	900	4.5	114.3	-	-40 °C to +100 °C

Recommended For: High-pressure hydraulic oil lines. Exceeds ISO 18752 Grade B, SAE 100R17 and ISO 11237 R17 working pressure, minimum bend radius requirements and performance requirements of EN 857 1SC. M3K hose has smaller exterior dimensions and significantly tighter bend radius than other SAE 100R1 and 100R2 hose.

Tube: Black, oil resistant, synthetic rubber (Nitrile).

Reinforcement: Braided, high-tensile steel wire. -4, -6 and -8 sizes are one braid; -10, -12 and -16 sizes are two braid.

Cover: Black, oil, abrasion and weather resistant, synthetic rubber (Nitrile and PVC), with color coded layline.

Temp. Range: -40 °C to +100 °C

Coupling: G (MegaCrimp®), GB (-4 to -16)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G”

GATES HYDRAULIC HOSES



M3K MEGA3000® HOSE – SAE 100R17 - XTRATUFF® COVER



PRODUCT DESCRIPTION	PRODUCT NO.	Ø		Ø	P		P		R		Ø	TEMPERATURE RANGE
		(in)	(mm)		(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)		
4 M3K-XTF	46574792	0.25	6.7	12.2	3250	225	13000	900	1.5	38.1	-	-40 °C to +100 °C
6 M3K-XTF	46574795	0.38	9.5	16.0	3250	225	13000	900	2.0	50.8	-	-40 °C to +100 °C
8 M3K-XTF	46574799	0.50	12.7	20.3	3250	225	13000	900	2.8	71.1	-	-40 °C to +100 °C
10 M3K-XTF	46574800	0.63	15.9	25.1	3250	225	13000	900	3.0	76.2	-	-40 °C to +100 °C
12 M3K-XTF	46574796	0.75	19.1	29.2	3250	225	13000	900	3.8	96.5	-	-40 °C to +100 °C
16 M3K-XTF	46575062	1.00	25.4	37.6	3250	225	13000	900	4.5	114.3	-	-40 °C to +100 °C

Recommended For: High-pressure hydraulic oil lines. Exceeds ISO 18752 Grade B, SAE 100R17 and ISO 11237 R17 working pressure, minimum bend radius requirements and performance requirements of EN 857 1SC. M3K hose has smaller exterior dimensions and significantly tighter bend radius than other SAE 100R1 and SAE 100R2 hose

Tube: Black, oil resistant, synthetic rubber (Nitrile).

Reinforcement: Braided, high-tensile steel wire; -4, -6, -8 have one braid, -10, -12, -16 have two braids

Cover: Black, oil, abrasion and weather resistant, synthetic rubber (XtraTuff® Nitrile), with color coded layline.

Temp. Range: -40 °C to +100 °C

Coupling: G (MegaCrimp®)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA 2G"

BHL X-TRA HOSE



PRODUCT DESCRIPTION	PRODUCT NO.	Ø		Ø	P		P		R		Ø	TEMPERATURE RANGE
		(in)	(mm)		(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)		
4 BHL	46578743	0.25	6.7	15.1	5075	350	20300	1400	2.0	50.8	-	-40 °C to +100 °C
6 BHL	46578744	0.38	9.5	17.7	4785	330	19140	1320	2.4	60.0	-	-40 °C to +100 °C
8 BHL	46578745	0.50	12.7	20.6	3987	275	15950	1100	3.0	75.0	-	-40 °C to +100 °C
10 BHL	46578746	0.63	15.9	24.8	3987	275	15950	1100	3.5	90.0	-	-40 °C to +100 °C

Recommended For: Hose for high impulse and tight bend radius application. Mainly used for backhoe loader, other construction and earth moving application

Tube: Nitrile Black

Reinforcement: Two braids of high-tensile steel wire

Cover: Specially modified synthetic rubber

Temp. Range: -40 °C to +100 °C

Coupling: PCK

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA 2G"

GATES HYDRAULIC HOSES



J2AT 2 - WIRE BRAID JACK HOSE



PRODUCT DESCRIPTION	PRODUCT NO.	ID		OD	PS		PS		B		ID	TEMPERATURE RANGE
		(in)	(mm)		(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)		
4 J2AT	46578737	0.25	6.7	15.0	10000	690	20000	1380	2.0	50.8	-	-40 °C to +49 °C
6 J2AT	46578751	0.38	9.5	18.8	10000	690	20000	1380	2.5	63.5	-	-40 °C to +49 °C

Recommended For: Hydraulic jack applications. Meets Material handling Institute specification IJ 100 for hydraulic hose and assemblies used with jacking systems. 10,000 static pressure only.

Tube: Black, oil resistant, synthetic rubber (Nitrile).

Reinforcement: Two braids of high-tensile steel wire.

Cover: Black, oil and abrasion resistant, synthetic rubber (Nitrile and PVC)

Temp. Range: -40 °C to +49 °C

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA 2G" MEETS IJ 100 JACK HOSE SPEC.

G1 1-WIRE BRAID HOSE – SAE 100R1 TYPE AT/EN 853 1SN



PRODUCT DESCRIPTION	PRODUCT NO.	ID		OD	PS		PS		B		ID	TEMPERATURE RANGE
		(in)	(mm)		(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)		
3 G1	46578749	0.19	5.1	11.9	3625	250	14500	1000	3.0	76.2	-	-40 °C to +100 °C
4 G1	46574846	0.25	6.7	13.5	3275	226	13100	903	4.0	101.6	-	-40 °C to +100 °C
5 G1	46574828	0.31	8.3	15.0	3125	216	12500	862	4.5	114.3	-	-40 °C to +100 °C
6 G1	46572980	0.38	9.8	17.5	2600	179	10400	720	5.0	127.0	-	-40 °C to +100 °C
8 G1	46574825	0.50	12.7	20.8	2325	160	9300	641	7.0	177.8	-	-40 °C to +100 °C
10 G1	46574826	0.63	15.9	23.9	1900	131	7600	524	8.0	203.2	-	-40 °C to +100 °C
12 G1	46574827	0.75	19.1	27.9	1525	105	6100	421	9.0	228.6	-	-40 °C to +100 °C
16 G1	46574829	1.00	25.4	35.8	1300	90	5200	359	12.0	304.8	-	-40 °C to +100 °C
20 G1	46574897	1.25	31.8	43.4	925	64	3700	255	16.0	406.4	-	-40 °C to +100 °C
24 G1	46574898	1.50	38.1	49.8	725	50	2900	200	20.0	508.0	-	-40 °C to +100 °C
32 G1	46574896	2.00	50.8	64.0	600	41	2400	166	25.0	635.0	-	-40 °C to +100 °C
40 G1	46574807*	2.50	63.5	75.0	390	27	1560	108	30.0	762.0	-	-40 °C to +100 °C
48 G1	46574808*	3.00	76.2	89.0	315	22	1260	87	33.0	838.0	-	-40 °C to +100 °C

*GATES PROPRIETARY HOSE

Recommended For: Medium-pressure hydraulic lines. Meets or exceeds the requirements of SAE 100R1, ISO 1436 1SNR1 and EN 853 1SN.

Tube: Black, oil resistant, synthetic rubber (Nitrile).

Reinforcement: One braid of high-tensile steel wire.

Cover: Black, oil and abrasion resistant, synthetic rubber (Nitrile and PVC).

Temp. Range: -40 °C to +100 °C

Coupling: G (thru -4 to -20), GSP (thru -24 & -32), GB (-4, 6, -8, -10, -12, -16) & PCK (-4 to -16)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA 2G"

GATES HYDRAULIC HOSES



CR1 HOSE – SAE 100R1/EN 853 1SN



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↕	⌚		💥		⤵		○	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
4CR1	46579398	0.25	6.7	13.2	3275	225	13100	900	4.0	101.6	-	-40 °C to +100 °C
5CR1	46579498	0.31	8.3	15.1	3125	216	12500	860	4.5	114.3	-	-40 °C to +100 °C
6CR1	46579499	0.38	9.8	16.8	2600	180	10400	720	5.0	127.0	-	-40 °C to +100 °C
8CR1	46579399	0.50	12.7	19.8	2325	160	9300	640	7.0	177.8	-	-40 °C to +100 °C
10CR1	46579400	0.63	15.9	23.1	1900	130	7600	520	8.0	203.2	-	-40 °C to +100 °C
12CR1	46579602	0.75	19.1	27.2	1525	105	6100	420	9.5	241.3	-	-40 °C to +100 °C
16CR1	46579578	1.00	25.4	35.1	1250	87	5000	345	12.0	305.0	-	-40 °C to +100 °C

Recommended For: Medium pressure hydraulics with low flexure/non-severe applications. Meets SAE 100R1 & EN 853 1SN standard requirement. Engineered for less demanding hydraulic applications.

Tube: Black, oil resistant synthetic rubber tube.

Reinforcement: One braid of high-tensile steel wire.

Cover: Black, oil and abrasion resistant synthetic rubber. MSHA flame resistant.

Temp. Range: -40 °C to +100 °C

Coupling: PCK

G1H HIGH TEMP 1 WIRE BRAID HOSE – SAE 100R1 TYPE AT



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↕	⌚		💥		⤵		○	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
3 G1H	46578748	0.19	5.1	12.5	3625	250	14500	1000	3.5	90.0	-	-40 °C to +135 °C
4 G1H	46578702	0.25	6.7	13.5	2750	190	11000	760	4.0	101.6	-	-40 °C to +135 °C
4 G1H (Pricked Cover)	46560126	0.25	6.7	13.5	2750	190	11000	760	4.0	101.6	-	-40 °C to +135 °C
5 G1H	46578703	0.31	8.3	15.1	2500	172	10000	690	4.6	116.8	-	-40 °C to +135 °C
5 G1H (Pricked Cover)	46560215	0.31	8.3	15.1	2500	172	10000	690	4.6	116.8	-	-40 °C to +135 °C
6 G1H	46578704	0.38	9.5	17.5	2250	155	9000	621	5.0	127.0	-	-40 °C to +135 °C
6 G1H (Pricked Cover)	46560127	0.38	9.5	17.5	2250	155	9000	621	5.0	127.0	-	-40 °C to +135 °C
8 G1H	46578705	0.50	12.7	20.8	2000	138	8000	552	7.0	177.8	-	-40 °C to +135 °C
8 G1H (Pricked Cover)	46560128	0.50	12.7	20.8	2000	138	8000	552	7.0	177.8	-	-40 °C to +135 °C
10 G1H	46578719	0.63	15.9	23.8	1500	103	6000	414	8.0	203.2	-	-40 °C to +135 °C
10 G1H (Pricked Cover)	46560129	0.63	15.9	23.8	1500	103	6000	414	8.0	203.2	-	-40 °C to +135 °C
12 G1H	46578706	0.75	19.1	27.9	1250	86	5000	345	9.5	241.3	-	-40 °C to +135 °C
12 G1H (Pricked Cover)	46560130	0.75	19.1	27.9	1250	86	5000	345	9.5	241.3	-	-40 °C to +135 °C
16 G1H	46578726	1.00	25.4	35.8	1000	69	4000	276	12.0	304.8	-	-40 °C to +135 °C
16 G1H (Pricked Cover)	46574695	1.00	25.4	35.8	1000	69	4000	276	12.0	304.8	-	-40 °C to +135 °C
20 G1H (Pricked Cover)	46575104	1.25	31.8	43.6	925	64	3700	255	16.0	406.4	-	-40 °C to +135 °C
24 G1H (Pricked Cover)	46574844	1.50	38.1	50.0	725	50	2900	200	20.0	508.0	-	-40 °C to +135 °C
32 G1H (Pricked Cover)	46574845	2.00	50.8	64.0	600	42	2400	166	25.0	635.0	-	-40 °C to +135 °C

Recommended For: High-temperature medium-pressure hydraulic oil lines. Meets or exceeds requirements of SAE 100R1 Type AT.

Tube: Black, oil resistant, synthetic rubber (Nitrile).

Reinforcement: One braid of high-tensile steel wire.

Cover: Black, oil, and abrasion resistant synthetic rubber (CSM)

Temp. Range: -40 °C to +135 °C

Coupling: PCK (-4 to -16), GB (-20), GSP (-24 and -32)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA 2G"

GATES HYDRAULIC HOSES



MEGATECH™ ACR HIGH TEMP – OIL-AIR RETURN



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↻	⌚		💥		⤵		○	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
12 ACR	46560076	0.75	19.4	29.0	1000	69	4000	276	4.8	120.7	-	-40 °C to +149 °C
16 ACR	46560077	1.00	25.4	34.0	1000	69	4000	276	6.0	152.4	-	-40 °C to +149 °C
20 ACR	46560078	1.25	32.1	41.5	1000	69	4000	276	8.5	215.9	-	-40 °C to +149 °C
24 ACR	46560079	1.50	38.1	49.4	500	35	2000	140	15.0	381.0	-	-40 °C to +149 °C
32 ACR	46560080	2.00	50.8	62.9	500	35	2000	140	18.0	457.2	-	-40 °C to +149 °C
40 ACR	46560081	2.50	63.5	75.3	500	35	2000	140	22.0	558.8	-	-40 °C to +149 °C
48 ACR	46574909	3.00	76.2	88.9	500	35	2000	140	24.0	609.6	-	-40 °C to +149 °C

- Recommended For:** Pressurized hot oil return lines and rotary oil/air compressor lines.
- Tube:** Black, specifically compounded for temperature and chemical resistance (CPE).
- Reinforcement:** One braid of high-tensile steel wire.
- Cover:** Oil and mildew resistant, textile braid, impregnated with synthetic rubber.
- Temp. Range:** -40 °C to +149 °C
- Coupling:** G(Thru -12 to -20) & GSP (Thru -24 & -32)

PILOT LINE HOSE



PRODUCT DESCRIPTION	PRODUCT NO.	↔		↻	⌚		💥		⤵		○	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
4 P1T	46578796	0.25	6.4	11.0	1740	120	6960	480	1.0	25.4	-	-40 °C to +100 °C
6 P1T	46578797	0.38	9.5	14.0	1740	120	6960	480	1.6	40.0	-	-40 °C to +100 °C

- Recommended For:** Designed for hydraulic pilot control applications in confined spaces in industrial, construction and agricultural equipment. This top quality hose features superior flexibility providing a very tight bend radius as well as resistance to expansion, kinking and abrasion. P1 T pilot control hose has been fully tested to meet all possible pilot control applications. It has been engineered as an assembly to ensure maximum trouble free life and avoid replacement in difficult and often inaccessible areas.
- Tube:** Oil resistant Nitrile (NBR)
- Reinforcement:** Single high-tensile steel wire.
- Cover:** Chloroprene (CR)
- Temp. Range:** -40 °C to +100 °C
- Coupling:** P1T

GATES HYDRAULIC HOSES



GTH HIGH TEMP 1 - FIBER BRAID HOSE – SAE 100R6



PRODUCT DESCRIPTION	PRODUCT NO.	Ø		Ø	P		B		R		Ø	TEMPERATURE RANGE
		(in)	(mm)		(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)		
3 GTH	33198999	0.19	4.8	11.2	500	34	2000	138	2.0	50.8	-	-40 °C to +135 °C
4 GTH	33198970	0.25	6.4	12.7	400	28	1600	110	2.5	63.5	-	-40 °C to +135 °C
5 GTH	33198971	0.31	7.9	14.2	400	28	1600	110	3.0	76.2	-	-40 °C to +135 °C
6 GTH	33198978	0.38	9.5	16.0	400	28	1600	110	3.0	76.2	-	-40 °C to +135 °C
8 GTH	33198979	0.50	12.7	19.8	400	28	1600	110	4.0	101.6	-	-40 °C to +135 °C
10 GTH	33198980	0.63	15.9	23.1	350	24	1400	97	5.0	127.0	-	-40 °C to +135 °C
12 GTH	33198987	0.75	19.1	27.0	300	21	1200	83	5.5	139.7	-	-40 °C to +135 °C

Recommended For: Hydraulic oil lines, heavy duty transmission oil cooler lines and glycol anti freeze solution. Meets or exceeds requirements of SAE 100R6 & EN 854 R6. Specially resistant to diesel permeation.

Tube: Black, specially compounded synthetic rubber (Nitrile).

Reinforcement: One fiber braid.

Cover: Black, oil & abrasion resistant synthetic rubber (Polychloroprene)

Temp. Range: -40 °C to +135 °C

Coupling: G (MegaCrimp®), [PCK (-5, to -10), -16] & GB (-4, -8, -10)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G”

C6 1 - FIBER BRAID HOSE – SAE 100R6



PRODUCT DESCRIPTION	PRODUCT NO.	Ø		Ø	P		B		R		Ø	TEMPERATURE RANGE
		(in)	(mm)		(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)		
4 C6	33198957	0.25	6.4	12.7	400	28	1600	112	2.6	66.0	-	-40 °C to +100 °C
5 C6	33198958	0.31	7.9	14.2	400	28	1600	112	3.0	76.2	-	-40 °C to +100 °C
6 C6	33198959	0.38	9.5	16.0	400	28	1600	112	3.0	76.2	-	-40 °C to +100 °C
8 C6	33198960	0.50	12.7	19.7	400	28	1600	112	4.0	101.6	-	-40 °C to +100 °C
10 C6	33198961	0.63	15.9	23.0	350	24	1400	97	5.0	127.0	-	-40 °C to +100 °C
12 C6	33198968	0.75	19.1	27.0	300	21	1200	83	6.0	152.4	-	-40 °C to +100 °C
16 C6	33198962	1.00	25.4	34.9	200	14	800	55	8.0	203.2	-	-40 °C to +100 °C

Recommended For: Hydraulic oil lines, heavy duty transmission anti freeze solution. Meets or exceeds requirements of SAE 100R6/EN 854 R6.

Tube: Specially compounded, oil-resistant, synthetic rubber (Nitrile) Black.

Reinforcement: One braid of high tenacity yarn.

Cover: Oil & abrasion resistant synthetic rubber (Modified Nitrile)

Temp. Range: -40 °C to +100 °C

Coupling: PCK (-4 to -10) & GB (-6, -12, -16)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION “MSHA 2G”

GATES HYDRAULIC HOSES



C3 - TWO FIBER BRAID HOSE – SAE 100R3



PRODUCT DESCRIPTION	PRODUCT NO.	↔		⊘	⌚		💥		⤵		⊙	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
4 C3	33198950	0.25	6.4	14.5	1250	86	5000	345	3.0	76.2	-	-40 °C to +100 °C
5 C3	33198951	0.31	7.9	17.5	1200	83	4800	332	4.0	101.6	-	-40 °C to +100 °C
6 C3	33198952	0.38	9.5	19.1	1125	78	4500	312	4.0	101.6	-	-40 °C to +100 °C
8 C3	33198953	0.50	12.7	23.9	1000	69	4000	276	5.0	127.0	-	-40 °C to +100 °C
10 C3	33198975	0.63	15.9	27.0	875	61	3500	244	5.5	139.7	-	-40 °C to +100 °C
12 C3	33198954	0.75	19.1	31.8	750	52	3000	208	6.0	152.4	-	-40 °C to +100 °C
16 C3	33198955	1.00	25.4	38.1	565	39	2250	156	8.0	203.2	-	-40 °C to +100 °C

Recommended For: Hydraulic oil lines, anti-freeze solution or water. Meets or exceeds requirements of SAE 100R3/EN 854 R3.

Tube: Black, synthetic rubber (Nitrile).

Reinforcement: Two braid of high tenacity synthetic textile yarn.

Cover: Black, oil & abrasion resistant synthetic rubber (Modified Nitrile)

Temp. Range: -40 °C to +100 °C

Coupling: G (MegaCrimp®), PCK (-4, -8, -10)

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA 2G"

G3H HIGH-TEMP 2 FIBER BRAID HOSE – SAE 100R3



PRODUCT DESCRIPTION	PRODUCT NO.	↔		⊘	⌚		💥		⤵		⊙	TEMPERATURE RANGE
		(in)	(mm)	(mm)	(psi)	(Bar)	(psi)	(Bar)	(in)	(mm)	(in HG)	
20 G3H	33198997	1.25	31.8	44.5	375	26	1500	103	10.0	254.0	-	-40 °C to +135 °C
24 G3H	33198998	1.50	38.1	51.0	300	21	1200	83	12.0	304.8	-	-40 °C to +135 °C

Recommended For: High temperature, low pressure hydraulic oil lines and glycol anti-freeze solutions. Meets or exceeds requirements of SAE 100R3/EN 854 R3. Specially resistant to diesel permeation

Tube: Black, synthetic rubber (Nitrile).

Reinforcement: Two braids of high tenacity yarn.

Cover: Black, oil & abrasion resistant, synthetic rubber (Polychloroprene)

Temp. Range: -40 °C to +135 °C

Coupling: -

MEETS FLAME RESISTANCE ACCEPTANCE DESIGNATION "MSHA 2G"

COUPLINGS



**START
CONCENTRIC
REMAIN
CONCENTRIC**

**YOU NEED
TO SELL
VALUE**

**ONE STEM
IS ALL YOU
NEED**



END TO END SOLUTIONS FROM GATES

SOLID, LEAK-FREE COUPLINGS

The majority of hydraulic hose failures occur at the couplings due to blow-offs or leaks. Gates has designed and engineered innovative, robust couplings for MegaSys hose that provide connections you can count on for superior performance – guaranteed.

GlobalSpiral™ Couplings



Key Features

- “Bite-the-wire” crimp for improved coupling retention
- Over 90 thread configurations
- Tested to an industry-leading 1,000,000 impulse cycles
- 6,000 psi working pressure for easy to manage inventory
- +250 °F temperature capability for longer assembly life
- Environmentally-friendly TuffCoat® plating for 347% better corrosion resistance SAE Standard
- Qualified on wire braid hoses for maximum inventory coverage

GlobalSpiral Couplings No-Skive Convenience, Reduced Inventory

GlobalSpiral™ couplings are specially engineered to provide superior performance for extreme highpressure, high-impulse spiral-wire hydraulic hose applications. They can be used with all Gates MegaSys® four- and six-spiral wire hose up to 6,000 psi.

The innovative, two-piece, no-skive design reduces assembly time, labor, fabrication errors and contamination of the fluid power system. The work area stays clean, and the odors, dust, and fire hazard normally created by skiving are eliminated. In addition, the two-piece design reduces parts inventory by 30 percent because only one stem is required for all spiral-wire hose types.

PCK Power Crimp Couplings



Key Features

- Innovative, two-piece, no-skive design
- Fully tested to 2x SAE impulse requirements
- Leak free solution

SPIRAL COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
1	734760026	6GS-8HFBSPORX	BSPP	-6	GS	3/8" X 1/2" BSPP straight with O ring with Backup Hex
2	734760106	6GS-6HFBSPORX	BSPP	-6	GS	3/8" X 3/8" BSPP straight with O ring with Backup Hex
3	734792356	6GS-6FBSPORX90-32	BSPP	-6	GS	3/8" X 3/8" BSPP, 90 degree elbow with O ring, Drop height: 32mm
4	734724146	6GS-6FJX	JIC	-6	GS	3/8" X 9/16-18, straight
5	734724146-2	6GS-6FJX-2W	JIC	-6	GS	3/8" X 9/16-18, straight, with MXG4K & MXG5K hose
6	734792436	6GS-12FDHORX90	METRIC	-6	GS	3/8", M20X1.5, TUBE OD: 12, 90 degree elbow with O ring
7	734792436-2	6GS-12FDHORX90-37-2W	METRIC	-6	GS	3/8", M20X1.5, TUBE OD: 12, 90 degree elbow with O ring, with MXG4K & MXG5K hose
8	734792646	6GS-12FDHORX-WF	METRIC	-6	GS	3/8", M20X1.5, TUBE OD: 12, straight with O ring
9	734791406	8GS-8FBSPORX	BSPP	-8	GS	1/2" X 1/2" BSPP straight with O ring
10	734795546	8GS-8HFBSPORX	BSPP	-8	GS	1/2" X 1/2" BSPP straight with O ring with Backup Hex
11	734791416	8GS-8FBSPORX45	BSPP	-8	GS	1/2" X 1/2" BSPP 45 degree elbow with O ring
12	734791426	8GS-8FBSPORX90M	BSPP	-8	GS	1/2" X 1/2" BSPP 90 degree elbow with O ring
13	734793546	8GS-8MBSPPSP	BSPP	-8	GS	1/2" X 1/2" BSPP male straight _JCB
14	734791366	8GS-8MBSPP	BSPP	-8	GS	1/2" X 1/2" BSPP male straight
15	734791366-2	8GS-8MBSPP-2W	BSPP	-8	GS	1/2" X 1/2" BSPP male straight, with MXG4K & MXG5K hose
16	734791406-2	8GS-8FBSPORX-2W	BSPP	-8	GS	1/2" X 1/2" BSPP straight with O ring, with MXG4K & MXG5K hose
17	734791416-2	8GS-8FBSPORX45-2W	BSPP	-8	GS	1/2" X 1/2" BSPP 45 degree elbow with O ring, with MXG4K & MXG5K hose
18	734791426-2	8GS-8FBSPORX90M-2W	BSPP	-8	GS	1/2" X 1/2" BSPP 45 degree elbow with O ring, with MXG4K & MXG5K hose, with MXG4K & MXG5K hose
19	734793546-2	8GS-8MBSPPSP-2W	BSPP	-8	GS	1/2" X 1/2" BSPP male straight _JCB, with MXG4K & MXG5K hose
20	734795546-2	8GS-8HFBSPORX-2W	BSPP	-8	GS	1/2" X 1/2" BSPP straight with O ring with Backup Hex, with MXG4K & MXG5K hose
21	734789496	8GS-8FJISX	FJISX	-8	GS	1/2" X 1/2" JIS or C TYPE BSPP straight
22	734789496-2	8GS-8FJISX-2W	FJISX	-8	GS	1/2" X 1/2" JIS or C TYPE BSPP straight, with MXG4K & MXG5K hose
23	734741246	8GS-8FL	FLANGE	-8	GS	1/2" X FLANGE OD: 30.18mm, Straight
24	734774246	8GS-8FL90M	FLANGE	-8	GS	1/2" X FLANGE OD: 30.18mm, 90 degree elbow
25	734741246-2	8GS-8FL-2W	FLANGE	-8	GS	1/2" X FLANGE OD: 30.18mm, Straight, with MXG4K & MXG5K hose
26	734774246-2	8GS-8FL90M-2W	FLANGE	-8	GS	1/2" X FLANGE OD: 30.18mm, Straight, with MXG4K & MXG5K hose
27	734789656	8GS-8FJXAM	JIC	-8	GS	1/2" X 3/4-16, straight
28	734789736	8GS-10FJX-4W	JIC	-8	GS	1/2" X 7/8-14, straight
29	734760146	8GS-10FJX-2W	JIC	-8	GS	1/2" X 7/8-14, straight, with MXG4K & MXG5K hose
30	734789656-2	8GS-8FJX-2W	JIC	-8	GS	1/2" X 3/4-16, straight, with MXG4K & MXG5K hose
31	734760196	8GS-8FJX90M	JIC	-8	GS	1/2" X 3/4-16, 90 degree elbow
32	734760266	8GS-10FJX90M	JIC	-8	GS	1/2" X 7/8-14, 90 degree elbow
33	734790636	8GS-16FDHORX-SP	METRIC	-8	GS	1/2", M24X1.5 TUBE OD: 16mm, Straight with O ring
34	734791346	8GS-16FDHORX45	METRIC	-8	GS	1/2", M24X1.5 TUBE OD: 16mm, 45 degree elbow with O ring
35	734789236	8GS-16FDHORX25	METRIC	-8	GS	1/2", M24X1.5 TUBE OD: 16mm, 25 degree elbow with O ring
36	734789296	8GS-16FDHORX90-70	METRIC	-8	GS	1/2", M24X1.5 TUBE OD: 16mm, 90 degree elbow with O ring, Drop height: 70mm
37	734795196	8GS-12FDHORX	METRIC	-8	GS	1/2", M20X1.5 TUBE OD: 12, straight with O ring
38	734791486	8GS-16FDHORX90	METRIC	-8	GS	1/2", M24X1.5 TUBE OD: 16mm, 90 degree elbow with O ring
39	734789236-2	8GS-16FDHORX25-12-2W	METRIC	-8	GS	1/2", M24X1.5 TUBE OD: 16mm, 25 degree elbow with O ring, with MXG4K & MXG5K hose
40	734789296-2	8GS-16FDHORX90-70-2W	METRIC	-8	GS	1/2", M24X1.5 TUBE OD: 16mm, 90 degree elbow with O ring, Drop height: 70mm, with MXG4K & MXG5K hose
41	734789636-2	8GS-16HFDHORX90-44-2W	METRIC	-8	GS	1/2", M24X1.5 TUBE OD: 16mm, 90 degree elbow with O ring with backup hex option, with MXG4K & MXG5K hose
42	734790636-2	8GS-16FDHORX-SP-2W	METRIC	-8	GS	1/2", M24X1.5 TUBE OD: 16mm, Straight with O ring, with MXG4K & MXG5K hose

SPIRAL COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
43	734791346-2	8GS-16FDHORX45-21.6-2W	METRIC	-8	GS	1/2", M24X1.5 TUBE OD: 16mm, 45 degree elbow with O ring, with MXG4K & MXG5K hose
44	734791486-2	8GS-16FDHORX90-44.0-2W	METRIC	-8	GS	1/2", M24X1.5 TUBE OD: 16mm, 90 degree elbow with O ring, with MXG4K & MXG5K hose
45	734795196-2	8GS-12FDHORX-2W	METRIC	-8	GS	1/2", M20X1.5 TUBE OD: 12, straight with O ring, with MXG4K & MXG5K hose
46	734790596	8GS-15FDLORX	METRIC	-8	GS	1/2", M22x1.5, TUBE OD: 15, straight with O ring
47	734790606	8GS-15FDLORX45	METRIC	-8	GS	1/2", M22x1.5, TUBE OD: 15, 45 degree elbow with O ring
48	734730246	8GS-8FFORX	ORFS	-8	GS	1/2" X 13/16-16, straight
49	734731246	8GS-8FFORX45S	ORFS	-8	GS	1/2" X 13/16-16, 45 degree elbow
50	734732246	8GS-8FFORX90S-DH-29MM	ORFS	-8	GS	1/2" X 13/16-16, 90 degree elbow, Drop height: 29mm
51	734769096	8GS-10MFFOR	ORFS	-8	GS	1/2" X 1-14, Male straight
52	734730256	8GS-10FFORX	ORFS	-8	GS	1/2" X 1-14, straight
53	734733256	8GS-10FFORX90M COUPLING	ORFS	-8	GS	1/2" X 1-14, 90 degree elbow
54	734730246-2	8GS-8FFORX-2W	ORFS	-8	GS	1/2" X 13/16-16, straight, with MXG4K & MXG5K hose
55	734730256-2	8GS-10FFORX-2W	ORFS	-8	GS	1/2" X 1-14, straight, with MXG4K & MXG5K hose
56	734731246-2	8GS-8FFORX45S-2W	ORFS	-8	GS	1/2" X 13/16-16, 45 degree elbow, with MXG4K & MXG5K hose
57	734732246-2	8GS-8FFORX90S-2W	ORFS	-8	GS	1/2" X 13/16-16, 90 degree elbow, Drop height: 29mm, with MXG4K & MXG5K hose
58	734733256-2	8GS-10FFORX90M-2W	ORFS	-8	GS	1/2" X 1-14, 90 degree elbow, with MXG4K & MXG5K hose
59	734769096-2	8GS-10MFFOR-2W	ORFS	-8	GS	1/2" X 1-14, Male straight, with MXG4K & MXG5K hose
60	734793966	10GS-12FBSPORX	BSPP	-10	GS	5/8" X 3/4" BSPP straight with O ring
61	734793986	10GS-12FBSPORX90	BSPP	-10	GS	5/8" X 3/4" BSPP 90 degree elbow with O ring
62	734769026	10GS-10FBSPORX 180	BSPP	-10	GS	5/8" X 5/8" BSPP 180 degree bend with O ring
63	734792406	10GS-10FBSPORX-WF	BSPP	-10	GS	5/8" X 5/8" BSPP straight with O ring
64	734795556	10GS-10HFBSPORX-WF	BSPP	-10	GS	5/8" X 5/8" BSPP straight with O ring th Backup hex
65	734769026-2	10GS-10FBSPORX 180-2W	BSPP	-10	GS	5/8" X 5/8" BSPP 180 degree bend with O ring , with MXG4K hose
66	734789306-2	10GS-12HFBSPORX-2W	BSPP	-10	GS	5/8" X 3/4" BSPP straight with O ring withbackup hex, with MXG4K hose
67	734792406-2	10GS-10FBSPORX-2W	BSPP	-10	GS	5/8" X 5/8" BSPP straight with O ring , with MXG4K hose
68	734793966-2	10GS-12FBSPORX-2W	BSPP	-10	GS	5/8" X 3/4" BSPP straight with O ring, with MXG4K hose
69	734793986-2	10GS-12FBSPORX90-60-2W	BSPP	-10	GS	5/8" X 3/4" BSPP 90 degree elbow with O ring , with MXG4K hose
70	734795556-2	10GS-10HFBSPORX-2W	BSPP	-10	GS	5/8" X 5/8" BSPP straight with O ring th Backup hex, with MXG4K hose
71	734775336	10GS-8FLH90M-40	FLANGE	-10	GS	5/8" XFLANGE OD: 31.75mm, 90 degree elbow, Drop height: 40mm
72	734769116	10GS-8FL90-130	FLANGE	-10	GS	5/8" XFLANGE OD: 30.18mm, 90 degree elbow, Drop height: 130mm
73	734911386	10GS-12FLH	FLANGE	-10	GS	5/8" XFLANGE OD: 41.28mm, straight
74	734769116-2	10GS-8FL90-130-2W	FLANGE	-10	GS	5/8" XFLANGE OD: 30.18mm, 90 degree elbow, Drop height: 130mm, with MXG4K hose
75	734775336-2	10GS-8FLH90M-2W	FLANGE	-10	GS	5/8" XFLANGE OD: 31.75mm, 90 degree elbow, Drop height: 40mm, with MXG4K hose
76	734911386-2	10GS-12FLH-2W	FLANGE	-10	GS	5/8" XFLANGE OD: 41.28mm, straight, with MXG4K hose
77	734760206	10GS-8FLH45-61	FLANGE	-10	GS	5/8" XFLANGE OD: 31.75mm, 45 degree elbow, Drop height: 61mm
78	734760236	10GS-12FLH90-62	FLANGE	-10	GS	5/8" XFLANGE OD: 41.28mm, 90 degree Elbow, Drop Height: 62mm
79	734760246	10GS-8FLH45-38	FLANGE	-10	GS	5/8" XFLANGE OD: 31.75mm, 45 degree elbow, Drop height: 38mm
80	734748336	10GS-8FLH	FLANGE	-10	GS	5/8" XFLANGE OD: 31.75mm, Straight
81	734760006	10GS-12FLH45-30	FLANGE	-10	GS	5/8" XFLANGE OD: 41.28mm, 45 degree Elbow, Drop Height: 30mm
82	734760156	10GS-8FLH90-100	FLANGE	-10	GS	5/8" XFLANGE OD: 31.75mm, 90 degree elbow, Drop height: 100mm
83	734782176	10GS-10FJX	JIC	-10	GS	5/8" X 7/8-14, straight

SPIRAL COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
84	734725356	10GS-12FJX 45	JIC	-10	GS	5/8" X 1 1/16-12, 45 degree elbow
85	734728356	10GS-12FJX90M	JIC	-10	GS	5/8" X 1 1/16-12, 90 degree elbow
86	734725356-2	10GS-12FJX 45-21-2W	JIC	-10	GS	5/8" X 1 1/16-12, 45 degree elbow, with MXG4K hose
87	734728356-2	10GS-12FJX90M-2W	JIC	-10	GS	5/8" X 1 1/16-12, 45 degree elbow, with MXG4K hose
88	734782176-2	10GS-10FJX-2W	JIC	-10	GS	5/8" X 7/8-14, straight, with MXG4K hose
89	734792106	10GS-18FDLORX	METRIC	-10	GS	5/8" , M26X 1.5, TUBE OD: 18mm, Straight with O ring
90	734792506	10GS-18FDLORX 45	METRIC	-10	GS	5/8" , M26X 1.5, TUBE OD: 18mm, 45 degree elbow with O ring
91	734792516	10GS-18FDLORX90	METRIC	-10	GS	5/8" , M26X 1.5, TUBE OD: 18mm, 90 degree elbow with O ring
92	734792116	10GS-20FDHORX	METRIC	-10	GS	5/8" , M30X 2.0, TUBE OD: 20mm, Straight with O ring
93	734789286	10GS-20FDHORX90-65	METRIC	-10	GS	5/8" , M30X 2.0, TUBE OD: 20mm, 90 degree elbow with O ring, Drop height:65mm
94	734789556	10GS-20FDHORX90-60	METRIC	-10	GS	5/8" , M30X 2.0, TUBE OD: 20mm, 90 degree elbow with O ring, Drop height:60mm
95	734769166	10GS-20FDHORX 45-29	METRIC	-10	GS	5/8" , M30X 2.0, TUBE OD: 20mm, 45 degree elbow with O ring
96	734789506	10GS-16FDHORX	METRIC	-10	GS	5/8" , M24X 1.5 , TUBE OD: 16mm, Straight with O ring
97	734789616	10GS-20HFDHORX	METRIC	-10	GS	5/8" , M30X 2.0, TUBE OD: 20mm, Straight with O ring with backup hex option
98	734789626	10GS-20HFDHORX 45-32.5	METRIC	-10	GS	5/8" , M30X 2.0, TUBE OD: 20mm, 45 degree elbow with O ring with backup hex option
99	734769166-2	10GS-20FDHORX 45-29-2W	METRIC	-10	GS	5/8" , M30X 2.0, TUBE OD: 20mm, 45 degree elbow with O ring, with MXG4K hose
100	734789286-2	10GS-20FDHORX90-65-2W	METRIC	-10	GS	5/8" , M30X 2.0, TUBE OD: 20mm, 90 degree elbow with O ring, Drop height:65mm, with MXG4K hose
101	734789506-2	10GS-16FDHORX-2W	METRIC	-10	GS	5/8" , M24X 1.5 , TUBE OD: 16mm, Straight with O ring, with MXG4K hose
102	734789556-2	10GS-20FDHORX90-60-2W	METRIC	-10	GS	5/8" , M30X 2.0, TUBE OD: 20mm, 90 degree elbow with O ring, Drop height:60mm, with MXG4K hose
103	734789616-2	10GS-20HFDHORX-2W	METRIC	-10	GS	5/8" , M30X 2.0, TUBE OD: 20mm, Straight with O ring with backup hex option, with MXG4K hose
104	734789626-2	10GS-20HFDHORX 45-32.5-2W	METRIC	-10	GS	5/8" , M30X 2.0, TUBE OD: 20mm, 45 degree elbow with O ring with backup hex option, with MXG4K hose
105	734792106-2	10GS-18FDLORX-2W	METRIC	-10	GS	5/8" , M26X 1.5, TUBE OD: 18mm, Straight with O ring, with MXG4K hose
106	734792116-2	10GS-20FDHORX-2W	METRIC	-10	GS	5/8" , M30X 2.0, TUBE OD: 20mm, Straight with O ring, with MXG4K hose
107	734792506-2	10GS-18FDLORX 45-25-2W	METRIC	-10	GS	5/8" , M26X 1.5, TUBE OD: 18mm, 45 degree elbow with O ring, with MXG4K hose
108	734792516-2	10GS-18FDLORX90-51.5-2W	METRIC	-10	GS	5/8" , M26X 1.5, TUBE OD: 18mm, 90 degree elbow with O ring, with MXG4K hose
109	734730346	10GS-10FFORX	ORFS	-10	GS	5/8" X 1-14, straight
110	734731346	10GS-10FFORX 45-16	ORFS	-10	GS	5/8" X 1-14, 45 degree elbow
111	734732346	10GS-10FFORX90S, DH-32mm	ORFS	-10	GS	5/8" X 1-14, 90 degree elbow, Drop height: 32mm
112	734733346	10GS-10FFORX90M-47	ORFS	-10	GS	5/8" X 1-14, 90 degree elbow, Drop height: 47mm
113	734723876	10GS-10MFFOR	ORFS	-10	GS	5/8" X 1-14, Male straight
114	734789146	10GS-10MFFORBKH-DLN	ORFS	-10	GS	5/8" X 1-14, Male straight bulk head with locknut
115	734730356	10GS-12FFORX	ORFS	-10	GS	5/8" X 1 3/16-12, straight
116	734732356	10GS-12FFORX90-48	ORFS	-10	GS	5/8" X 1 3/16-12, 90 degree elbow, Drop height: 48
117	734723886	10GS-12MFFOR	ORFS	-10	GS	5/8" X 1 3/16-12, Male straight
118	734723876-2	10GS-10MFFOR-2W	ORFS	-10	GS	5/8" X 1-14, Male straight, with MXG4K hose
119	734723886-2	10GS-12MFFOR-2W	ORFS	-10	GS	5/8" X 1 3/16-12, Male straight, with MXG4K hose
120	734730346-2	10GS-10FFORX-2W	ORFS	-10	GS	5/8" X 1-14, straight, with MXG4K hose
121	734730356-2	10GS-12FFORX-2W	ORFS	-10	GS	5/8" X 1 3/16-12, straight, with MXG4K hose

SPIRAL COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
122	734731346-2	10GS-10FFORX 45-16-2W	ORFS	-10	GS	5/8" X 1-14, 45 degree elbow, with MXG4K hose
123	734732346-2	10GS-10FFORX90S-2W	ORFS	-10	GS	5/8" X 1-14, 90 degree elbow, Drop height: 32mm, with MXG4K hose
124	734732356-2	10GS-12FFORX90-48-2W	ORFS	-10	GS	5/8" X 1 3/16-12, 90 degree elbow, Drop height: 48, with MXG4K hose
125	734733346-2	10GS-10FFORX90M-2W	ORFS	-10	GS	5/8" X 1-14, 90 degree elbow, Drop height: 47mm, with MXG4K hose
126	734789146-2	10GS-10MFFORBKH-DLN-2W	ORFS	-10	GS	5/8" X 1-14, Male straight bulk head with locknut, with MXG4K hose
127	734793996	12GS-12FBSPORX	BSPP	-12	GS	3/4" X 3/4" BSPP straight with O ring
128	734795566	12GS-12HFBSPOX	BSPP	-12	GS	3/4" X 3/4" BSPP straight with O ring with backup hex
129	734794006	12GS-12FBSPORX45M	BSPP	-12	GS	3/4" X 3/4" BSPP 45 degree elbow with O ring
130	734794016	12GS-12FBSPORX90M	BSPP	-12	GS	3/4" X 3/4" BSPP 90 degree elbow with O ring
131	734794496	12GS-12MBSPPSP	BSPP	-12	GS	3/4" X 3/4" Male straight_JCB
132	734792206	12GS-12MBSPP	BSPP	-12	GS	3/4" X 3/4" Male straight
133	734789326	12GS-12BKHMBSPP	BSPP	-12	GS	3/4" X 3/4" Male straight bulkhead
134	734789986	12GS-12FBSPORX180_SPL	BSPP	-12	GS	3/4" X 3/4" BSPP 180 degree elbow with O ring
135	734794486	12GS-16MBSPP	BSPP	-12	GS	3/4" X 1" Male straight
136	734769136	12GS-16FBSPORX45-32	BSPP	-12	GS	3/4" X 1" BSPP 45 degree elbow with O ring
137	734760136	12GS-12FBSPORX-2W	BSPP	-12	GS	3/4" X 3/4" BSPP straight with O ring, with MXG4K & MXG5K hose
138	734769136-2	12GS-16FBSPORX45-32-2W	BSPP	-12	GS	3/4" X 1" BSPP 45 degree elbow with O ring, with MXG4K & MXG5K hose
139	734789326-2	12GS-12BKHMBSPP-2W	BSPP	-12	GS	3/4" X 3/4" Male straight bulkhead, with MXG4K & MXG5K hose
140	734789986-2	12GS-12FBSPORX180_SPL-2W	BSPP	-12	GS	3/4" X 3/4" BSPP 180 degree elbow with O ring, with MXG4K & MXG5K hose
141	734792206-2	12GS-12MBSPP-2W	BSPP	-12	GS	3/4" X 3/4" Male straight, with MXG4K & MXG5K hose
142	734794006-2	12GS-12FBSPORX45M-2W	BSPP	-12	GS	3/4" X 3/4" BSPP 45 degree elbow with O ring, with MXG4K & MXG5K hose
143	734794016-2	12GS-12FBSPORX90M-2W	BSPP	-12	GS	3/4" X 3/4" BSPP 90 degree elbow with O ring, with MXG4K & MXG5K hose
144	734794486-2	12GS-16MBSPP-2W	BSPP	-12	GS	3/4" X 1" Male straight, with MXG4K & MXG5K hose
145	734794496-2	12GS-12MBSPPSP-2W	BSPP	-12	GS	3/4" X 3/4" Male straight_JCB, with MXG4K & MXG5K hose
146	734795566-2	12GS-12HFBSPOX-2W	BSPP	-12	GS	3/4" X 3/4" BSPP straight with O ring with backup hex, with MXG4K & MXG5K hose
147	734776196	12GS-12FJISX	FJISX	-12	GS	3/4" X 3/4" JIS or C TYPE BSPP straight
148	734776196-2	12GS-12FJISX-2W	FJISX	-12	GS	3/4" X 3/4" JIS or C TYPE BSPP straight, with MXG4K & MXG5K hose
149	734741446	12GS-12FL.	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, straight
150	734743446	12GS-12FL30M	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 30 degree elbow
151	734744446	12GS-12FL45M	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 45 degree elbow
152	734745446	12GS-12FL60M	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 60 degree elbow
153	734773906	12GS-12FL90-100COUPLING	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 90 degree elbow, Drop height: 100mm
154	734774446	12GS-12FL90M	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 90 degree elbow, Drop height: Medium
155	734748446	12GS-12FLH	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, straight
156	734751446	12GS-12FLH45M	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 45 degree elbow
157	734775446	12GS-12FLH90M	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 90 degree elbow, Drop height: Medium
158	734778726	12GS-12FLH90-67	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 90 degree elbow, Drop height: 67mm
159	734789036	12GS-12FLH90-90 STE-MASSEMBLY	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 90 degree elbow, Drop height: 90mm

SPIRAL COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
160	734773836	12GS-12FLH90-100	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 90 degree elbow, Drop height: 100mm
161	734776416	12GS-12FLH90-122	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 90 degree elbow, Drop height: 122mm
162	734789386	12GS-12FLH67.5-45	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 67 degree elbow
163	734769106	12GS-12FLH45-100	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 45 degree elbow
164	734789716	12GS-12FLH100-67	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 100 degree elbow
165	734741466	12GS-16FL(PART-NO. G20300-1216)	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, straight
166	734773136	12GS-16FL45	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 45 degree elbow
167	734773916	12GS-16FL90S	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: Small
168	734773926	12GS-16FL90M	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: Medium
169	734776276	12GS-16FL90-100	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 100mm
170	734776286	12GS-16FL90-150	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 150mm
171	734779366	12GS-16FL90-130DH	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 130mm
172	734789366	12GS-16FL90-210	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 210mm
173	734748466	12GS-16FLH	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, straight
174	734751466	12GS-16FLH45M-32	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, 45 degree elbow
175	734753466	12GS-16FLH67M	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, 67 degree elbow
176	734754466	12GS-16FLH90S	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, 90 degree elbow, Drop height: Small
177	734776296	12GS-16FLH90-100	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, 90 degree elbow, Drop height: 100mm
178	734762446	12GS-12FLC	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, straight
179	734773946	12GS-12FLC90-68	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 90 degree elbow
180	734762466	12GS-16FLC	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, straight
181	734778356	12GS-12FL90-140 COUPLING	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 90 degree elbow, Drop height: 140mm
182	734779026	12GS-16FL90-178-WF	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 178mm
183	734789046	12GS-12FL45-100 COUPLING	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 45 degree elbow, Drop height: 100mm
184	734741446-2	12GS12FL-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, straight, with MXG4K & MXG5K hose
185	734741466-2	12GS-16FL-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, straight, with MXG4K & MXG5K hose
186	734743446-2	12GS-12FL30M-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 30 degree elbow, with MXG4K & MXG5K hose
187	734744446-2	12GS-12FL45M-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 45 degree elbow, with MXG4K & MXG5K hose
188	734745446-2	12GS-12FL60M-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 60 degree elbow, with MXG4K & MXG5K hose
189	734748446-2	12GS-12FLH-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, straight, with MXG4K & MXG5K hose
190	734748466-2	12GS-16FLH-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, straight, with MXG4K & MXG5K hose
191	734751446-2	12GS-12FLH45M-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 45 degree elbow, with MXG4K & MXG5K hose
192	734751466-2	12GS-16FLH45M-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, 45 degree elbow, with MXG4K & MXG5K hose
193	734753466-2	12GS-16FLH67M-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, 67 degree elbow, with MXG4K & MXG5K hose
194	734754466-2	12GS-16FLH90S-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, 90 degree elbow, Drop height: Small, with MXG4K & MXG5K hose
195	734762446-2	12GS-12FLC-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, straight, with MXG4K & MXG5K hose
196	734762466-2	12GS-16FLC-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, straight, with MXG4K & MXG5K hose
197	734769106-2	12GS-12FLH45-100-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 45 degree elbow, with MXG4K & MXG5K hose
198	734773136-2	12GS-16FL45-28-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 45 degree elbow, with MXG4K & MXG5K hose
199	734773836-2	12GS-12FLH90-100-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 90 degree elbow, Drop height: 100mm, with MXG4K & MXG5K hose
200	734773906-2	12GS-12FL90-100-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 90 degree elbow, Drop height: 100mm, with MXG4K & MXG5K hose
201	734773916-2	12GS-16FL90S-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: Small, with MXG4K & MXG5K hose

SPIRAL COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
202	734773926-2	12GS-16FL90M-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: Medium, with MXG4K & MXG5K hose
203	734773946-2	12GS-12FLC90-68-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 90 degree elbow, with MXG4K & MXG5K hose
204	734774446-2	12GS-12FL90M-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 90 degree elbow, Drop height: Medium, with MXG4K & MXG5K hose
205	734775446-2	12GS-12FLH90M-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 90 degree elbow, Drop height: Medium, with MXG4K & MXG5K hose
206	734776276-2	12GS-16FL90-100-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 100mm, with MXG4K & MXG5K hose
207	734776286-2	12GS-16FL90-150-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 150mm, with MXG4K & MXG5K hose
208	734776296-2	12GS-16FLH90-100-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, 90 degree elbow, Drop height: 100mm, with MXG4K & MXG5K hose
209	734776416-2	12GS-12FLH90-122-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 90 degree elbow, Drop height: 122mm, with MXG4K & MXG5K hose
210	734778356-2	12GS-12FL90-140-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 90 degree elbow, Drop height: 140mm, with MXG4K & MXG5K hose
211	734778726-2	12GS-12FLH90-67-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 90 degree elbow, Drop height: 67mm, with MXG4K & MXG5K hose
212	734779026-2	12GS-16FL90-178-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 178mm, with MXG4K & MXG5K hose
213	734779366-2	12GS-16FL90-130-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 130mm, with MXG4K & MXG5K hose
214	734789036-2	12GS-12FLH90-90-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 90 degree elbow, Drop height: 90mm, with MXG4K & MXG5K hose
215	734789046-2	12GS-12FL45-100-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 38.10mm, 45 degree elbow, Drop height: 100mm, with MXG4K & MXG5K hose
216	734789366-2	12GS-16FL90-210-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 210mm, with MXG4K & MXG5K hose
217	734789386-2	12GS-12FLH67.5-45-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 67 degree elbow, with MXG4K & MXG5K hose
218	734789716-2	12GS-12FLH100-67-2W	FLANGE	-12	GS	3/4" X FLANGE OD: 41.28mm, 100 degree elbow, with MXG4K & MXG5K hose
219	734778076	12GS-16FLH90-120	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, 90 degree elbow, Drop height: 120mm
220	734760076	12GS-16FLH90-80	FLANGE	-12	GS	3/4" X FLANGE OD: 47.63mm, 90 degree elbow, Drop height: 80mm
221	734724446	12GS-12FJX	JIC	-12	GS	3/4" X 1 1/16-12, straight
222	734725446	12GS-12FJX45	JIC	-12	GS	3/4" X 1 1/16-12, 45 degree elbow
223	734728446	12GS-12FJX90M	JIC	-12	GS	3/4" X 1 1/16-12, 90 degree elbow, Drop : Medium
224	734729446	12GS-12FJX90L	JIC	-12	GS	3/4" X 1 1/16-12, 90 degree elbow, Drop : Long
225	734722446	12GS-12MJ	JIC	-12	GS	3/4" X 1 1/16-12, Male straight
226	734722446-2	12GS-12MJ-2W	JIC	-12	GS	3/4" X 1 1/16-12, Male straight, with MXG4K & MXG5K hose
227	734724446-2	12GS-12FJX-2W	JIC	-12	GS	3/4" X 1 1/16-12, straight, with MXG4K & MXG5K hose
228	734725446-2	12GS-12FJX45-21-2W	JIC	-12	GS	3/4" X 1 1/16-12, 45 degree elbow, with MXG4K & MXG5K hose
229	734728446-2	12GS-12FJX90M-2W	JIC	-12	GS	3/4" X 1 1/16-12, 90 degree elbow, Drop : Medium, with MXG4K & MXG5K hose
230	734729446-2	12GS-12FJX90L-2W	JIC	-12	GS	3/4" X 1 1/16-12, 90 degree elbow, Drop : Long, with MXG4K & MXG5K hose
231	734792126	12GS-22FDLORX	METRIC	-12	GS	3/4", M30X2.0, TUBE OD: 22mm, straight with O ring
232	734792136	12GS-22FDLORX90M	METRIC	-12	GS	3/4", M30X2.0, TUBE OD: 22mm, 90 degree elbow with O ring
233	734792146	12GS-20FDHORX	METRIC	-12	GS	3/4", M30X2.0, TUBE OD: 20mm, Straight with O ring
234	734769076	12GS-25FDHORX-SP	METRIC	-12	GS	3/4", M36X2.0, TUBE OD: 25mm, straight with O ring
235	734792176	12GS-25FDHORX45-31	METRIC	-12	GS	3/4", M36X2.0, TUBE OD: 25mm, 45 degree elbow with O ring
236	734792196	12GS-25FDHORX90	METRIC	-12	GS	3/4", M36X2.0, TUBE OD: 25mm, 90 degree elbow with O ring

SPIRAL COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
237	734789206	12GS-25FD-HORX90-130	METRIC	-12	GS	3/4", M36X2.0, TUBE OD: 25mm, 90 degree elbow with O ring, Drop Height: 130mm
238	734769076-2	12GS-25FDHORX-SP-2W	METRIC	-12	GS	3/4", M36X2.0, TUBE OD: 25mm, straight with O ring, with MXG4K & MXG5K hose
239	734789206-2	12GS-25FDHORX90-130-2W	METRIC	-12	GS	3/4", M36X2.0, TUBE OD: 25mm, 90 degree elbow with O ring, Drop Height: 130mm, with MXG4K & MXG5K hose
240	734789576-2	12GS-25FDHORX90-70-2W	METRIC	-12	GS	3/4", M36X2.0, TUBE OD: 25mm, 90 degree elbow with O ring, Drop Height: 70mm, with MXG4K & MXG5K hose
241	734792126-2	12GS-22FDLORX-2W	METRIC	-12	GS	3/4", M30X2.0, TUBE OD: 22mm, straight with O ring, with MXG4K & MXG5K hose
242	734792136-2	12GS-22FDLORX90M-2W	METRIC	-12	GS	3/4", M30X2.0, TUBE OD: 22mm, 90 degree elbow with O ring, with MXG4K & MXG5K hose
243	734792146-2	12GS-20FDHORX-2W	METRIC	-12	GS	3/4", M30X2.0, TUBE OD: 20mm, Straight with O ring, with MXG4K & MXG5K hose
244	734792176-2	12GS-25FDHORX45-31-2W	METRIC	-12	GS	3/4", M36X2.0, TUBE OD: 25mm, 45 degree elbow with O ring, with MXG4K & MXG5K hose
245	734792186	12GS-20FDHORX90	METRIC	-12	GS	3/4", M30X2.0, TUBE OD: 20mm, 90 degree elbow with O ring
246	734792526	12GS-22FDLORX45M	METRIC	-12	GS	3/4", M30X2.0, TUBE OD: 22mm, 45 degree elbow with O ring
247	734760216	12GS-30FDHORX	METRIC	-12	GS	3/4", M42X2.0, TUBE OD: 30mm, straight with O ring
248	734792266	12GS-25MDH	METRIC	-12	GS	3/4", M36X2.0, TUBE OD: 25mm, Male straight
249	734730446	12GS-12FFORX	ORFS	-12	GS	3/4" X 1 3/16-12, straight
250	734731446	12GS-12FFORX45	ORFS	-12	GS	3/4" X 1 3/16-12, 45 degree elbow
251	734732446	12GS-12FFORX90S	ORFS	-12	GS	3/4" X 1 3/16-12, 90 degree elbow, Drop Height: Small
252	734733446	12GS-12FFORX90M	ORFS	-12	GS	3/4" X 1 3/16-12, 90 degree elbow, Drop Height: Medium
253	734734446	12GS-12FFORX90L	ORFS	-12	GS	3/4" X 1 3/16-12, 90 degree elbow, Drop Height: Long
254	734789276	12GS-12FFORX90-155	ORFS	-12	GS	3/4" X 1 3/16-12, 90 degree elbow, Drop Height: 155mm
255	734789156	12GS-12MFFORBKH-DLN	ORFS	-12	GS	3/4" X 1 3/16-12, Male Straight bulkhead with locknut
256	734723836	12GS-12MFFOR	ORFS	-12	GS	3/4" X 1 3/16-12, Male Straight
257	734730466	12GS-16FFORX	ORFS	-12	GS	3/4" X 1 7/16-12, Straight
258	734733466	12GS-16FFORX90M	ORFS	-12	GS	3/4" X 1 7/16-12, 90 degree elbow
259	734732436	12GS-10FFORX90S	ORFS	-12	GS	3/4" X 1-14, 90 degree elbow
260	734730436	12GS-10FFORX-WF	ORFS	-12	GS	3/4" X 1-14, straight
261	734723836-2	12GS-12MFFOR-2W	ORFS	-12	GS	3/4" X 1 3/16-12, Male Straight, with MXG4K & MXG5K hose
262	734730436-2	12GS-10FFORX-2W	ORFS	-12	GS	3/4" X 1-14, straight, with MXG4K & MXG5K hose
263	734730446-2	12GS-12FFORX-2W	ORFS	-12	GS	3/4" X 1 3/16-12, straight, with MXG4K & MXG5K hose
264	734730466-2	12GS-16FFORX-2W	ORFS	-12	GS	3/4" X 1 7/16-12, Straight, with MXG4K & MXG5K hose
265	734731446-2	12GS-12FFORX45-21-2W	ORFS	-12	GS	3/4" X 1 3/16-12, 45 degree elbow, with MXG4K & MXG5K hose
266	734732436-2	12GS-10FFORX90S-2W	ORFS	-12	GS	3/4" X 1-14, 90 degree elbow, with MXG4K & MXG5K hose
267	734732446-2	12GS-12FFORX90S-2W	ORFS	-12	GS	3/4" X 1 3/16-12, 90 degree elbow, Drop Height: Small, with MXG4K & MXG5K hose
268	734733446-2	12GS-12FFORX90M-2W	ORFS	-12	GS	3/4" X 1 3/16-12, 90 degree elbow, Drop Height: Medium, with MXG4K & MXG5K hose
269	734733466-2	12GS-16FFORX90M-2W	ORFS	-12	GS	3/4" X 1 7/16-12, 90 degree elbow, with MXG4K & MXG5K hose
270	734734446-2	12GS-12FFORX90L-2W	ORFS	-12	GS	3/4" X 1 3/16-12, 90 degree elbow, Drop Height: Long, with MXG4K & MXG5K hose
271	734789156-2	12GS-12MFFORBKH-DLN-2W	ORFS	-12	GS	3/4" X 1 3/16-12, Male Straight bulkhead with locknut, with MXG4K & MXG5K hose
272	734789276-2	12GS-12FFORX90-155-2W	ORFS	-12	GS	3/4" X 1 3/16-12, 90 degree elbow, Drop Height: 155mm, with MXG4K & MXG5K hose

SPIRAL COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
273	734790816	16GS-16FBSPORX	BSPP	-16	GS	1" X 1" BSPP straight with O ring
274	734795576	16GS-16HFBSPORX	BSPP	-16	GS	1" X 1" BSPP straight with O ring with backup hex
275	734792276	16GS-16FBSPORX45M	BSPP	-16	GS	1" X 1" BSPP 45 degree bend with O ring
276	734790786	16GS-16FBSPORX-90IMP	BSPP	-16	GS	1" X 1" BSPP 90 degree bend with O ring
277	734789196	16GS-16FB-SPORX90&45	BSPP	-16	GS	1" X 1" BSPP 90&45 degree bend with O ring
278	734793606	16GS-16MBSPPSP	BSPP	-16	GS	1" X 1" BSPP Male straight_JCB
279	734790826	16GS-16MBSPP	BSPP	-16	GS	1" X 1" BSPP Male straight
280	734769336	16GS-12HFBSPORX	BSPP	-16	GS	1" X 3/4" BSPP straight with O ring with backup hex
281	734741556	16GS-16FL	FLANGE	-16	GS	1" X FLANGE OD: 44.45mm, straight
282	734744556	16GS-16FL45	FLANGE	-16	GS	1" X FLANGE OD: 44.45mm, 45 degree elbow
283	734747556	16GS-16FL90S	FLANGE	-16	GS	1" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: Small
284	734774556	16GS-16FL90MCOU-PLING	FLANGE	-16	GS	1" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: Medium
285	734773166	16GS-16FL90-120COU-PLING	FLANGE	-16	GS	1" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 120mm
286	734778396	16GS-16FL90-90	FLANGE	-16	GS	1" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 90mm
287	734778706	16GS-16FL90-150	FLANGE	-16	GS	1" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 150mm
288	734778876	16GS-16FL90-210	FLANGE	-16	GS	1" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 210mm
289	734779376	16GS-16FL90-130	FLANGE	-16	GS	1" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 130mm
290	734789886	16GS-16FL110	FLANGE	-16	GS	1" X FLANGE OD: 44.45mm, 110 degree elbow
291	734748556	16GS-16FLHSTEMASSY	FLANGE	-16	GS	1" X FLANGE OD: 47.63mm, straight
292	734751556	16GS-16FLH45M	FLANGE	-16	GS	1" X FLANGE OD: 47.63mm, 45 degree elbow
293	734775556	16GS-16FLH90M	FLANGE	-16	GS	1" X FLANGE OD: 47.63mm, 90 degree elbow
294	734777226	16GS-16FLH90-110	FLANGE	-16	GS	1" X FLANGE OD: 47.63mm, 90 degree elbow, Drop height: 110mm
295	734789006	16GS-16FLH90-120	FLANGE	-16	GS	1" X FLANGE OD: 47.63mm, 90 degree elbow, Drop height: 120mm
296	734789646	16GS-16FLH60-44	FLANGE	-16	GS	1" X FLANGE OD: 47.63mm, 60 degree elbow, Drop height: 44mm
297	734748566	16GS-20FLH	FLANGE	-16	GS	1" X FLANGE OD: 53.98mm, straight
298	734754536	16GS-12FLH90M	FLANGE	-16	GS	1" X FLANGE OD: 41.28mm, 90 degree elbow
299	734754506	16GS-12FLH90-120	FLANGE	-16	GS	1" X FLANGE OD: 41.28mm, 90 degree elbow, Drop height: 120mm
300	734789926	16GS-12FL45-29	FLANGE	-16	GS	1" X FLANGE OD: 38.10mm, 45 degree elbow
301	734776866	16GS-12FL90-100	FLANGE	-16	GS	1" X FLANGE OD: 38.10mm, 90 degree elbow, Drop height: 100mm
302	734762556	16GS-16FLC	FLANGE	-16	GS	1" X FLANGE OD: 47.63mm, straight
303	734760186	16GS-16FLC45-037	FLANGE	-16	GS	1" X FLANGE OD: 47.63mm, 45 degree elbow
304	734762566	16GS-20FLC	FLANGE	-16	GS	1" X FLANGE OD: 53.98mm, straight
305	734786176	16GS-12FLH90-90-4W	FLANGE	-16	GS	1" X FLANGE OD: 41.28mm, 90 degree elbow, Drop height: 90mm
306	734760296	16GS-20FLH90-75	FLANGE	-16	GS	1" X FLANGE OD: 53.98mm, 90 degree elbow, Drop height: 75mm
307	734724556	16GS-16FJX	JIC	-16	GS	1" X 1 5/16-12, straight
308	734728556	16GS-16FJX90M	JIC	-16	GS	1" X 1 5/16-12, 90 degree elbow
309	734789256	16GS-16FJX45-35	JIC	-16	GS	1" X 1 5/16-12, 45 degree elbow
310	734724566	16GS-20FJX-WF	JIC	-16	GS	1" X 1 5/8-12, straight
311	734790806	16GS-30FDHORX	METRIC	-16	GS	1", M42X2.0, TUBE OD: 30mm, straight with O ring
312	734789096	16GS-30FDHORX45-60	METRIC	-16	GS	1", M42X2.0, TUBE OD: 30mm, 45 degree elbow with O ring, Drop Height: 60mm
313	734769006	16GS-30FDHORX45-38	METRIC	-16	GS	1", M42X2.0, TUBE OD: 30mm, 45 degree elbow with O ring, Drop Height: 38mm
314	734790776	16GS-30FDHORX90	METRIC	-16	GS	1", M42X2.0, TUBE OD: 30mm, 90 degree elbow with O ring
315	734791536	16GS-25FDHORX	METRIC	-16	GS	1", M36X2.0, TUBE OD: 25mm, straight with O ring

SPIRAL COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
316	734730556	16GS-16FFORX	ORFS	-16	GS	1" X 1 7/16-12, Straight
317	734731556	16GS-16FFORX45	ORFS	-16	GS	1" X 1 7/16-12, 45 degree elbow
318	734732556	16GS-16FFORX90	ORFS	-16	GS	1" X 1 7/16-12, 90 degree elbow
319	734730566	16GS-20FFORX	ORFS	-16	GS	1" X 1 11/16-12, straight
320	734723926	16GS-20MFFOR	ORFS	-16	GS	1" X 1 11/16-12, Male straight
321	734789026	16GS-16FFORX90-120 COUPLING	ORFS	-16	GS	1" X 1 7/16-12, 90 degree elbow, Drop height: 120mm
322	734793376	20GS-20FBSPORX	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP straight with O ring, 4 Wire Spiral
323	734795586	20GS-20HFBSPORX	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP straight with O ring with backup hex, 4 Wire Spiral
324	734793396	20GS-20FB-SPORX45-37.5	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP 45 degree elbow with O ring, 4 Wire Spiral
325	734793406	20GS-20FBSPORX90M	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP 90 degree elbow with O ring, 4 Wire Spiral
326	734789336	20GS-20FBSPPX	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP straight without O ring, 6 Wire Spiral
327	734789346	20GS-20FBSPX90	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP 90 degree elbow without O ring, 4 Wire Spiral
328	734789426	20GS-20FBSPX90-115	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP 90 degree elbow without O ring, Drop height: 115mm, 6 Wire Ferrule
329	734789706	20GS-20FBSPX90-100	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP 90 degree elbow without O ring, Drop height: 100mm, 4 Wire Spiral
330	734793526	20GS-20MBSPPSP	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP Male straight_JCB, 4 Wire Spiral
331	734793366	20GS-20MBSPP	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP Male straight, 6 Wire Ferrule
332	734789466	20GS-20FBSPORX-6W	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP straight with O ring, 6 Wire Spiral
333	734789746	20GS-20FBSPORX90-6W-WF	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP 90 degree elbow with O ring, 6 Wire Spiral
334	734760116	20GS-20HFBSPORX-6W	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP straight with O ring with backup hex, 6 Wire Spiral
335	734760086	20GS-20FBSPX90-100-WF-6W	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP 90 degree elbow without O ring, Drop height: 100mm, 6 Wire Spiral
336	734769126	20GS-20FBSPX-4W	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP Straight, without O ring, 4 Wire Ferrule
337	734769186	20GS-20FBSPX90-115-4W	BSPP	-20	GS	1 1/4" X 1 1/4" BSPP 90 degree elbow without O ring, Drop height: 115mm, 4 Wire Ferrule
338	734776236	20GS-20FJISX-4W	FJISX	-20	GS	1 1/4" X 1 1/4" JIS or C TYPE BSPP straight
339	734741646	20GS-20FL	FLANGE	-20	GS	1 1/4" X FLANGE OD: 50.80mm, straight, 4 Wire Spiral
340	734747646	20GS-20FL90S(PART-NO. G20314-2020)	FLANGE	-20	GS	1 1/4" X FLANGE OD: 50.80mm, 90 degree elbow, 4 Wire Spiral
341	734773566	20GS-20FL45S	FLANGE	-20	GS	1 1/4" X FLANGE OD: 50.80mm, 45 degree elbow, 4 Wire Spiral
342	734789676	20GS-20FL90-128	FLANGE	-20	GS	1 1/4" X FLANGE OD: 50.80mm, 90 degree elbow, Drop height: 128mm, 4 Wire Spiral
343	734789136	20GS-20FLH-6W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, straight, 6 Wire Spiral
344	734776136	20GS-20FLH90-120	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 90 degree elbow, 6 Wire Spiral, Drop height: 120mm
345	734776486	20GS-20FLH90-150	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 90 degree elbow, 6 Wire Spiral, Drop height: 150mm
346	734778436	20GS-20FLH90-200	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 90 degree elbow, 6 Wire Spiral, Drop height: 200mm
347	734748646	20GS-20FLH-4W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, straight, 4 Wire Spiral
348	734769016	20GS-20FLH90-180-4W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 90 degree elbow, 4 Wire Spiral, Drop height: 180mm
349	734775646	20GS-20FLH90M	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 90 degree elbow, 4 Wire Spiral, Drop height: Medium
350	734748636	20GS-16FLH	FLANGE	-20	GS	1 1/4" X FLANGE OD: 47.63mm, straight, 4 Wire Spiral
351	734774636	20GS-16FL90M	FLANGE	-20	GS	1 1/4" X FLANGE OD: 44.45mm, 90 degree elbow, , 4 Wire Spiral

SPIRAL COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
352	734778886	20GS-16FL90-215	FLANGE	-20	GS	1 1/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 215mm, 6 Wire Ferrule
353	734789016	20GS-16FL90-185	FLANGE	-20	GS	1 1/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 185mm, 6 Wire Ferrule
354	734789406	20GS-16FL90-150	FLANGE	-20	GS	1 1/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 150mm, 4 Wire Spiral
355	734789866	20GS-16FL90-120	FLANGE	-20	GS	1 1/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 120mm, 4 Wire Spiral
356	734762646	20GS-20FLC	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, straight, 4 Wire Spiral
357	734789186	20GS-20FLC-6W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, straight, 6 Wire Spiral
358	734776186	20GS-16FLH90-100	FLANGE	-20	GS	1 1/4" X FLANGE OD: 47.63mm, 90 degree elbow, Drop height: 100mm, 6 Wire Ferrule
359	734775636	20GS-16FLH90M	FLANGE	-20	GS	1 1/4" X FLANGE OD: 47.63mm, 90 degree elbow, Drop height: Medium, 6 Wire Ferrule
360	734748656	20GS-24FLH	FLANGE	-20	GS	1 1/4" X FLANGE OD: 63.50mm, straight, 4 Wire Spiral
361	734747656	20GS-24FL90S	FLANGE	-20	GS	1 1/4" X FLANGE OD: 60.33mm, 90 degree elbow, 4 Wire Spiral
362	734789166	20GS-20FLH90M - 6W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 90 degree elbow, 6 Wire Spiral, Drop height: Medium
363	734789476	20GS-20FL-6W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 50.80mm, straight, 6 Wire Spiral
364	734789666	20GS-20FL45-32-6W-WF	FLANGE	-20	GS	1 1/4" X FLANGE OD: 50.80mm, 45 degree elbow, 6 Wire Spiral
365	734789686	20GS-20FLH45-42-WF-4W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 45 degree elbow, 4 Wire Spiral
366	734789696	20GS-20FLH45-42-WF-6W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 45 degree elbow, 6 Wire Spiral
367	734789726	20GS-16FL90-150-6W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 150mm, 6 Wire Spiral
368	734789756	20GS-24FL90S-6W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 60.33mm, 90 degree elbow, 6 Wire Spiral
369	734789876	20GS-16FL90-120-WF-6W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 120mm, 6 Wire Spiral
370	734789936	20GS-20FLH90-120-WF-4W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 90 degree elbow, 4 Wire Spiral, Drop height: 120mm
371	734789946	20GS-20FLC45-37-6W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 45 degree elbow, 6 Wire Spiral
372	734790006	20GS-16FL90M-6W-WF	FLANGE	-20	GS	1 1/4" X FLANGE OD: 44.45mm, 90 degree elbow, 6 Wire Spiral
373	734790056	20GS-20FLH90-180-6W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 90 degree elbow, 6 Wire Spiral, Drop height: 180mm
374	734790086	20GS-20FLH90-150-4W-WF	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 90 degree elbow, 4 Wire Spiral, Drop height: 150mm
375	734790096	20GS-20FLH90-200-4W-WF	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 90 degree elbow, 4 Wire Spiral, Drop height: 200mm
376	734769216	20GS-16FL90-215-4W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 215mm, 4 Wire Ferrule
377	734769226	20GS-16FL90-185-4W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 44.45mm, 90 degree elbow, Drop height: 185mm, 4 Wire Ferrule
378	734769236	20GS-16FLH90-100-4W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 47.63mm, 90 degree elbow, Drop height: 100mm, 4 Wire Ferrule
379	734769246	20GS-16FLH90M-4W	FLANGE	-20	GS	1 1/4" X FLANGE OD: 47.63mm, 90 degree elbow, Drop height: Medium, 4 Wire Ferrule
380	734769256	20GS-20FL90-68-6W-WF	FLANGE	-20	GS	1 1/4" X FLANGE OD: 50.80mm, 90 degree elbow, 6 Wire Spiral
381	734760016	20GS-20FLH75-107	FLANGE	-20	GS	1 1/4" X FLANGE OD: 53.98mm, 75 degree elbow, 4 Wire Spiral, Drop height: 107mm
382	734724646	20GS-20FJX	JIC	-20	GS	1 1/4" X 1 5/8-12, Straight, 4 Wire Spiral

SPIRAL COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
383	734727646	20GS-20FJX90S	JIC	-20	GS	1 1/4" X 1 5/8-12, 90 degree elbow, 6 Wire Ferrule
384	734789516	20GS-20FJX45-27	JIC	-20	GS	1 1/4" X 1 5/8-12, 45 degree elbow, 6 Wire Ferrule
385	734789636	20GS-20FJX-6W	JIC	-20	GS	1 1/4" X 1 5/8-12, Straight, 6 Wire Spiral
386	734769196	20GS-20FJX90S-4W	JIC	-20	GS	1 1/4" X 1 5/8-12, 90 degree elbow, 4 Wire Ferrule
387	734769206	20GS-20FJX45-27-4W	JIC	-20	GS	1 1/4" X 1 5/8-12, 45 degree elbow, 4 Wire Ferrule
388	734789816	20GS-38FDHORX45-4W	METRIC	-20	GS	1 1/4", M52X2.0, Tube OD: 38mm, 45 elbow with O ring, 4 Wire Spiral
389	734789826	20GS-38FDHORX45-6W	METRIC	-20	GS	1 1/4", M52X2.0, Tube OD: 38mm, 45 elbow with O ring, 6 Wire Spiral
390	734793316	20GS-38FDHOR90	METRIC	-20	GS	1 1/4", M52X2.0, Tube OD: 38mm, 90 degree elbow with O ring, 4 Wire Spiral
391	734793306	20GS-38FDHORX	METRIC	-20	GS	1 1/4", M52X2.0, Tube OD: 38mm, straight with O ring, 4 Wire Spiral
392	734789486	20GS-38FDHORX-6W	METRIC	-20	GS	1 1/4", M52X2.0, Tube OD: 38mm, straight with O ring, 6 Wire Spiral
393	734730646	20GS-20FFORX-4W	ORFS	-20	GS	1 1/4" X 1 11/16-12, Straight, 4 Wire Spiral
394	734789416	20GS-20FFORX45-25.4	ORFS	-20	GS	1 1/4" X 1 11/16-12, 45 degree elbow, 6 Wire Spiral
395	734733646	20GS-20FFORX90M	ORFS	-20	GS	1 1/4" X 1 11/16-12, 90 degree elbow, 4 Wire Spiral
396	734789116	20GS-20FFORX -6W	ORFS	-20	GS	1 1/4" X 1 11/16-12, Straight, 6 Wire Spiral
397	734789126	20GS-20FFORX90M -6W	ORFS	-20	GS	1 1/4" X 1 11/16-12, 90 degree elbow, 6 Wire Spiral
398	734767066	24GSP-24FB-SPORX45-55	BSPP	-24	GSP	1 1/2" X 1 1/2" BSPP 45 degree elbow with O ring, 4 Wire Spiral
399	734789376	24GSP-24FB-SPORX90-111	BSPP	-24	GSP	1 1/2" X 1 1/2" BSPP 90 degree elbow with O ring , 4 Wire Spiral
400	734790496	24GSP-24FBSPORX	BSPP	-24	GSP	1 1/2" X 1 1/2" BSPP straight with O ring , 4 Wire Spiral
401	734790316	24GSP-24FL-4W	FLANGE	-24	GSP	1 1/2" X FLANGE OD: 60.3mm, Straight, For 4 Wire Spiral
402	73410225	24GSH-24FLH	FLANGE	-24	GSH	1 1/2", FLANGE OD: 63.50mm, straight, 6 Wire Spiral
403	73412114	24GSM-16FL90-170	FLANGE	-24	GSM	1 1/2", FLANGE OD: 44.45mm, 90 degree elbow, 6 Wire Spiral, Drop height: 170mm
404	73412115	24GSM-20FLH90-100	FLANGE	-24	GSM	1 1/2", FLANGE OD: 53.98mm, 90 degree elbow, 6 Wire Spiral, Drop height: 100mm
405	73412212	24GSM-16FL90-150	FLANGE	-24	GSM	1 1/2", FLANGE OD: 44.45mm, 90 degree elbow, 6 Wire Spiral, Drop height: 150mm
406	73412213	24GSM-16FLH90-100	FLANGE	-24	GSM	1 1/2", FLANGE OD: 47.63mm, 90 degree elbow, 6 Wire Spiral, Drop height: 100mm
407	73410701	24GSM-24FBSPORX	FLANGE	-24	GSM	1 1/2" X 1 1/2" BSPP straight with O ring , 6 Wire Spiral
408	734782456	24GSP-24FJX	JIC	-24	GSP	1 1/2" X 1 7/8-12, straight, 4 Wire Spiral
409	734784746	24GSP-24FJX90-89	JIC	-24	GSP	1 1/2" X 1 7/8-12, 90 degree elbow, 4 Wire Spiral
410	734789596	24GSP-42FD-LORX90-110	METRIC	-24	GSP	1 1/2", M52X2.0, Tube OD: 42mm, 90 degree elbow with O ring, 4 Wire Spiral, Drop height: 110mm
411	734795066	24GSP-38FDHORX	METRIC	-24	GSP	1 1/2", M52X2.0, Tube OD: 38mm, straight with O ring, 4 Wire Spiral
412	734767076	24GSP-42FDLORX-4W-WF	METRIC	-24	GSP	1 1/2", M52X2.0, Tube OD: 42mm, straight with O ring, 4 Wire Spiral
413	734767166	24GSP-42FDLORX45-50	METRIC	-24	GSP	1 1/2", M52X2.0, Tube OD: 42mm, 45 degree elbow with O ring, Drop height: 50mm, 4 Wire Braid,

BRAIDED COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
1	737200646	PCK0302NU	BSPP	-3	PCK	3/16" X 1/8"straight without O ring
2	737210356	PCK0302NU90S	BSPP	-3	PCK	3/16" X 1/8" 90 degree elbow without O ring
3	737217646	P0302MU	BSPP	-3	PCK	3/16" x 1/8, Male Straight
4	737214386	PCK0306FDLORX	METRIC	-3	PCK	3/16", M12 X 1.5, TUBE OD: 6MM, straight with O ring
5	737214396	PCK0306FDLORX90-35	METRIC	-3	PCK	3/16", M12 X 1.5, TUBE OD: 6MM, 90 degree elbow with O ring
6	737219376	PCK0312FDLORX90-32	METRIC	-3	PCK	1/4", M18 X 1.5, TUBE OD: 12MM, 90 degree elbow with O ring, Drop height: 32mm
7	737219546	PCK0308FDLORX	METRIC	-3	PCK	1/2", M26 X 1.5, TUBE OD: 18MM, Straight with O ring
8	737215596	PCK0412DBJ	BANJO	-4	PCK	1/4" X Banjo ID:12mm, Straight
9	737209836	PCK0404FBSPORX	BSPP	-4	PCK	1/4" X 1/4" BSPP straight with O ring
10	737209866	PCK0404FBSPORX45	BSPP	-4	PCK	1/4" X 1/4" BSPP 45 degree elbow with O ring
11	737209876	PCK0404FBSPORX90	BSPP	-4	PCK	1/4" X 1/4" BSPP 90 degree elbow with O ring
12	737213266	PCK0404FBSPORX90-29	BSPP	-4	PCK	1/4" X 1/4" BSPP 90 degree elbow with O ring drop height 29mm
13	737200656	PCK0404FBSPX	BSPP	-4	PCK	1/4" X 1/4" BSPP straight without O ring
14	737200746	PCK0404FBSPX45-11.5	BSPP	-4	PCK	1/4" X 1/4" BSPP 45 degree elbow without O ring
15	737200786	PCK0404FBSPX90-23.5	BSPP	-4	PCK	1/4" X 1/4" BSPP 90 degree elbow without O ring
16	737215206	PCK0404FBSPX90-29	BSPP	-4	PCK	1/4" X 1/4" BSPP 90 degree elbow without O ring drop height 29mm
17	737210186	PCK0406FBSPORX	BSPP	-4	PCK	1/4" X 3/8" BSPP straight with O ring
18	737200186	PCK0406FBSPORX90	BSPP	-4	PCK	1/4" X 3/8" BSPP 90 degree elbow with O ring
19	737216246	PCK0404BSPBJ	BSPP	-4	PCK	1/4" X 1/4 BANJO straight
20	737401076	P1T0404FBSPORX	BSPP	-4	P1T	1/4" X 1/4" BSPP straight with O ring for Pilot Line Hose
21	737401096	P1T0404FBSPORX90-23	BSPP	-4	P1T	1/4" X 1/4" BSPP 90 degree elbow with O ring for Pilot Line Hose
22	737401956	P1T0404FBSPORX90-29	BSPP	-4	P1T	1/4" X 1/4" BSPP 90 degree elbow with O ring drop height 29mm for Pilot Line Hose
23	737401996	P1T0404FBSPORX45-15	BSPP	-4	P1T	1/4" X 1/4" BSPP 45 degree elbow with O ring for Pilot Line Hose
24	737212146	PCK0404MTSP	BSPP	-4	PCK	1/4" X 1/4" Male taper
25	737215286	PCK0404HFBSPX	BSPP	-4	PCK	1/4" X 1/4" BSPP straight without O ring with Back up Hex option
26	720480906	4GB-4FJISX	FJISX	-4	GB	1/4" X 1/4" JIS or C TYPE BSPP straight
27	737213456	PCK0404FKX	FKX	-4	PCK	1/4"X M14 X 1.5, straight
28	737215346	PCK0404FKX90-38-WF	FKX	-4	PCK	1/4" X M14 X 1.5, 90 degree elbow
29	737210996	PCK0404FJX	JIC	-4	PCK	1/4" X 7/16-20, straight
30	737213336	PCK0404FJX90S	JIC	-4	PCK	1/4" X 7/16-20, 90 degree elbow
31	737213406	PCK0404FJX45S	JIC	-4	PCK	1/4" X 7/16-20 , 45 degree elbow
32	737211346	PCK0405FJX	JIC	-4	PCK	1/4" X 1/2-20, straight
33	737215546	PCK0405FJX90M	JIC	-4	PCK	1/4" X 1/2-20, 90 degree elbow
34	737215466	PCK0406FJX-NEW	JIC	-4	PCK	1/4" X 9/16-18, straight
35	737213286	PCK0406FJX90S	JIC	-4	PCK	1/4" X 9/16-18, 90 degree elbow
36	737213376	PCK0406FJX90L	JIC	-4	PCK	1/4" X 9/16-18, 90 degree elbow, Drop Height: Long
37	737213316	PCK0406FJX45S	JIC	-4	PCK	1/4" X 9/16-18, 45 degree elbow
38	737211016	PCK0404F-JXME90-028	JIC	-4	PCK	1/4" X 7/16-20, 90 degree elbow, Drop height: 28mm
39	737211256	PCK0406MJ	JIC	-4	PCK	1/4" X 9/16-18, Male straight
40	737401526	P1T0404FJX	JIC	-4	P1T	1/4" X 7/16-20, straight for pilot Line hoses
41	737401536	P1T0404FJX45S	JIC	-4	P1T	1/4" X 7/16-20, 45 degree elbow for pilot Line hoses
42	737401546	P1T0404FJX90S	JIC	-4	P1T	1/4" X 7/16-20, 90 degree elbow for pilot Line hoses
43	737401646	P1T0404FJX90L	JIC	-4	P1T	1/4" X 7/16-20, 90 degree elbow for pilot Line hoses, Dop height: Long

BRAIDED COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
44	737214666	PCK0404HJX	JIC	-4	PCK	1/4" X 7/16-20, straight with backup hex option
45	737215106	PCK0404HFJX90S	JIC	-4	PCK	1/4" X 7/16-20, 90 degree elbow with backup hex option
46	737215116	PCK0404HFJX45-10	JIC	-4	PCK	1/4" X 7/16-20, 45 degree elbow with backup hex option
47	737214116	PCK0406FDLX	METRIC	-4	PCK	1/4", M12 X 1.5, TUBE OD: 6MM, Straight without O ring
48	737214126	PCK0406FDLX90-25	METRIC	-4	PCK	1/4", M12 X 1.5, TUBE OD: 6MM, 90 degree elbow without O ring
49	737215216	PCK0406FDLX45-26	METRIC	-4	PCK	1/4", M12 X 1.5, TUBE OD: 6MM, 45 degree elbow without O ring
50	737218046	PCK0406FDLORX	METRIC	-4	PCK	1/4", M12 X 1.5, TUBE OD: 6MM, Straight with O ring
51	737216766	PCK0408FDLORX	METRIC	-4	PCK	1/4", M14 X 1.5, TUBE OD: 8MM, Straight with O ring
52	737213856	PCK0408FDLORX90-32	METRIC	-4	PCK	1/4", M14 X 1.5, TUBE OD: 8MM, 90 degree elbow with O ring
53	737214336	PCK0408FDLORX45	METRIC	-4	PCK	1/4", M14 X 1.5, TUBE OD: 8MM, 45 degree elbow with O ring
54	737214716	PCK0410FDHORX	METRIC	-4	PCK	1/4", M18 X 1.5, TUBE OD-10MM, Straight with O ring
55	737214726	PCK0410FDHORX90	METRIC	-4	PCK	1/4", M18 X 1.5, TUBE OD-10MM, 90 degree elbow with O ring
56	737218316	PCK0408FDHORX	METRIC	-4	PCK	1/4", M16 X 1.5-TUBE OD-8MM, straight with O ring
57	737218566	PCK0405FDLX	METRIC	-4	PCK	1/4", M10X1, TUBE OD-5MM, straight without O ring
58	737218606	PCK0405MDL	METRIC	-4	PCK	1/4", M10X1, TUBE OD-5MM, Male straight
59	720480126	4GB-14x1.5EXTENDED-MALE	METRIC	-4	GB	1/4", M14 X 1.5, Male Straight
60	737400866	P1T0408FDLORX90	METRIC	-4	P1T	1/4", M14 X 1.5, TUBE OD: 8MM, 90 degree elbow with O ring for Pilot Line Hoses
61	737402056	P1T0408FDLORX	METRIC	-4	P1T	1/4", M14 X 1.5, TUBE OD: 8MM, straight with O ring for Pilot Line Hoses
62	737402306	P1T0408FDLORX45	METRIC	-4	P1T	1/4", M14 X 1.5, TUBE OD: 8MM, 45 degree elbow with O ring for Pilot Line Hoses
63	737214476	PCK0408FDHORX90-WF	METRIC	-4	PCK	1/4", M16 X 1.5-TUBE OD-8MM, 90 degree elbow with O ring
64	737216776	PCK0410FDLORX-SP-WF	METRIC	-4	PCK	1/4", M16 X 1.5, TUBE OD: 10MM, Straight with O ring
65	737219306	PCK0410FDLORX90-36.5-WF	METRIC	-4	PCK	1/4", M16 X 1.5, TUBE OD: 10MM, 90 degree elbow with O ring
66	737219166	PCK0412FDLORX	METRIC	-4	PCK	1/4", M18 X 1.5, TUBE OD: 12MM, straight with O ring
67	737219216	PCK0408MDL	METRIC	-4	PCK	1/4", M14 X 1.5, TUBE OD: 8MM, Male Straight
68	737219236	PCK0412FDLORX45-18	METRIC	-4	PCK	1/4", M18 X 1.5, TUBE OD: 12MM, 45 degree elbow with O ring, Drop height: 18mm
69	737219246	PCK0412FDLORX90-36	METRIC	-4	PCK	1/4", M18 X 1.5, TUBE OD: 12MM, 90 degree elbow with O ring, Drop height: 36mm
70	737214466	PCK0404FFORX	ORFS	-4	PCK	1/4" X 9/16-18 straight
71	737211186	PCK0404FFORX45S	ORFS	-4	PCK	1/4" X 9/16-18 45 degree elbow
72	737211196	PCK0404FFORX90S	ORFS	-4	PCK	1/4" X 9/16-18 90 degree elbow
73	737211206	PCK0404FFORX90M-32	ORFS	-4	PCK	1/4" X 9/16-18 90 degree elbow, Drop Height:32mm
74	737216926	PCK0408FFORX	ORFS	-4	PCK	1/4" X 13/16-16 straight
75	737214656	PCK0408FFORX90S	ORFS	-4	PCK	1/4" X 13/16-16 elbow
76	737217506	PCK0404MFFOR	ORFS	-4	PCK	1/4" X 9/16-18 Male straight
77	720450066	4GB-4MFFORBKHD	ORFS	-4	GB	1/4" X 9/16-18 Male straight Bulhead
78	737214506	PCK0406FFORX	ORFS	-4	PCK	1/4" X 11/16-16 straight
79	737216566	PCK0406FFORX90-63	ORFS	-4	PCK	1/4" X 11/16-16 90 degree elbow, Drop Height:63mm
80	737216556	PCK0406FFORX90-35	ORFS	-4	PCK	1/4" X 11/16-16 90 degree elbow, Drop Height:35mm
81	737213436	PCK0406FFORX45-11	ORFS	-4	PCK	1/4" X 11/16-16 45 degree elbow
82	737214626	PCK0406FFORX90S-23	ORFS	-4	PCK	1/4" X 11/16-16 90 degree elbow
83	737401056	P1T0404FFORX90-26	ORFS	-4	P1T	1/4" X 9/16-18, 90 degree elbow for pilot line Hose

BRAIDED COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
84	737401266	P1T0404FFORX45-11	ORFS	-4	P1T	1/4" X 9/16-18 45 degree elbow for pilot line Hose
85	737402206	P1T0404FFORX	ORFS	-4	P1T	1/4" X 9/16-18 straight for pilot line Hose
86	737402266	P1T0406FFORX	ORFS	-4	P1T	1/4" X 11/16-16 straight for pilot line Hose
87	737219476	PCK0406MFFORXBKHDLN	ORFS	-4	PCK	1/4" X 11/16"-16 UNF Male Bulk head with Locknut
88	737215636	PCK0518DBJ	BANJO	-5	PCK	5/16" X Banjo ID:18mm, Straight
89	737216886	PCK0512DBJ	BANJO	-5	PCK	5/16" X Banjo ID:12mm, Straight
90	737213536	PCK0506FBSPORX	BSPP	-5	PCK	5/16" X 3/8" BSPP straight with O-ring
91	737215536	PCK0506BSPBJ	BSPP	-5	PCK	5/16" X 3/8" BSPP BANJO straight
92	737215606	PCK0508FJX	JIC	-5	PCK	5/16" X 3/4 - 16, straight
93	737215566	PCK0506FJX90L-WF	JIC	-5	PCK	5/16" X 9/16-18, 90 degree elbow, Drop height: Long
94	737215576	PCK0506FJX90M-WF	JIC	-5	PCK	5/16" X 9/16-18, 90 degree elbow, Drop height: Medium
95	737213656	PCK0506FJX-WF	JIC	-5	PCK	5/16" X 9/16-18, straight
96	737219766	PCK0505FJX90-34	JIC	-5	PCK	5/16" X 1/2-20, 90 degree elbow
97	737214686	PCK0510FDLX	METRIC	-5	PCK	5/16", M16 X 1.5, TUBE OD: 10MM, straight without O ring
98	737214976	PCK0510FDLX90-35	METRIC	-5	PCK	5/16", M16 X 1.5, TUBE OD: 10MM, 90 degree elbow without O ring
99	737202946	PCK0510FDLORX	METRIC	-5	PCK	5/16", M16 X 1.5, TUBE OD: 10MM, straight with O ring
100	737214006	PCK0510FDLORX90-50	METRIC	-5	PCK	5/16", M16 X 1.5, TUBE OD: 10MM, 90 degree elbow with O ring, Drop height:50mm
101	737215646	PCK0512FDLX	METRIC	-5	PCK	5/16", M18 X 1.5, TUBE OD: 12MM, straight without O ring
102	737215556	PCK0512FDLX90-36	METRIC	-5	PCK	5/16", M18 X 1.5, TUBE OD: 12MM, 90 degree elbow without O ring
103	737214406	PCK0512FDLORX	METRIC	-5	PCK	5/16", M18 X 1.5, TUBE OD: 12MM, straight with O ring
104	737214416	PCK0512FDLORX90-36	METRIC	-5	PCK	5/16", M18 X 1.5, TUBE OD: 12MM, 90 degree elbow with O ring
105	737214426	PCK0512FDLORX45-18	METRIC	-5	PCK	5/16", M18 X 1.5, TUBE OD: 12MM, 45 degree elbow with O ring
106	737218026	PCK0510FDHORX	METRIC	-5	PCK	5/16", M18 X 1.5, TUBE OD: 10MM, straight with O ring
107	737218036	PCK0512FDHORX	METRIC	-5	PCK	5/16", M20 X 1.5, TUBE OD: 12MM, straight with O ring
108	737219316	PCK0512FDHORX90-36-WF	METRIC	-5	PCK	5/16", M20 X 1.5, TUBE OD: 12MM, 90 degree elbow with O ring
109	737219356	PCK0510FDLORX90-36	METRIC	-5	PCK	5/16", M16 X 1.5, TUBE OD: 10MM, 90 degree elbow with O ring, Drop height:36mm
110	737219726	PCK0510FDHORX45-18	METRIC	-5	PCK	5/16", M18 X 1.5, TUBE OD: 10MM, 45 degree elbow with O ring, Drop height:18mm
111	737219736	PCK0510FDHORX90-36	METRIC	-5	PCK	5/16", M18 X 1.5, TUBE OD: 10MM, 90 degree elbow with O ring, Drop height:36mm
112	737219346	PCK0510FDLORX45-18	METRIC	-5	PCK	5/16", M16 X 1.5, TUBE OD: 10MM, 45 degree elbow with O ring, Drop height:18mm
113	737219826	PCK0508FDLORX	METRIC	-5	PCK	5/16", M26 X 1.5, TUBE OD: 18MM, Straight with O ring
114	737214546	PCK0506FFORX	ORFS	-5	PCK	5/16" X 11/16-16 straight
115	737214556	PCK0506FFORX45-11	ORFS	-5	PCK	5/16" X 11/16-16 45 degree elbow
116	737216576	PCK0506FFORX90-55	ORFS	-5	PCK	5/16" X 11/16-16 90 degree elbow, Drop height:55mm
117	737216586	PCK0506FFORX90-63	ORFS	-5	PCK	5/16" X 11/16-16 90 degree elbow, Drop height:63mm
118	737217356	PCK0506FFORX90	ORFS	-5	PCK	5/16" X 11/16-16 90 degree elbow
119	737214936	PCK0504FFORX	ORFS	-5	PCK	5/16" X 9/16-18 straight
120	737214916	PCK0504FFORX90S	ORFS	-5	PCK	5/16" X 9/16-18 90 degree elbow
121	737214596	PCK0616DBJ	BANJO	-6	PCK	3/8" X Banjo ID:16mm, Straight
122	737215266	PCK0614DBJ	BANJO	-6	PCK	3/8" X Banjo ID:14mm, Straight
123	737215616	PCK0610DBJ	BANJO	-6	PCK	3/8" X Banjo ID:10mm, Straight
124	737217136	PCK0618DBJ	BANJO	-6	PCK	3/8" X Banjo ID:18mm, Straight

BRAIDED COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
125	73515006	6GLP-12DBJ	BANJO	-6	GLP	3/8" X Banjo ID:12mm, Straight for yarn braid Hose
126	73515017	6GLP-14DBJ90-70, BAN-JOAT40DEGREE	BANJO	-6	GLP	3/8" X Banjo ID:14mm, 40 degree elbow, for yarn braid Hose, Drop Height: 70mm
127	73515020	6GLP-14DBJ90-70	BANJO	-6	GLP	3/8" X Banjo ID:14mm, 90 degree elbow, for yarn braid Hose, Drop Height: 70mm
128	73515021	6GLP-14DBJ90-70BAN-JOAT320DEGREE	BANJO	-6	GLP	3/8" X Banjo ID:14mm, 320 degree elbow, for yarn braid Hose, Drop Height: 70mm
129	73518001	6GLP1-14DBJ	BANJO	-6	GLP	3/8" X Banjo ID:14mm, Straight for yarn braid Hose
130	737200696	PCK0606FBSPX	BSPP	-6	PCK	3/8" X 3/8 " BSPP straight without O ring
131	737200756	PCK0606FBSPX45-15.5	BSPP	-6	PCK	3/8" X 3/8 " BSPP 45 degree elbow without O ring
132	737200816	PCK0606FBSPX90-32	BSPP	-6	PCK	3/8" X 3/8 " BSPP 90 degree elbow without O ring
133	737209846	PCK0606FBSPORX	BSPP	-6	PCK	3/8" X 3/8 " BSPP straight with O ring
134	737209886	PCK0606FBSPORX45	BSPP	-6	PCK	3/8" X 3/8 " BSPP 45 degree elbow with O ring
135	737209896	PCK0606FBSPORX90S	BSPP	-6	PCK	3/8" X 3/8 " BSPP 90 degree elbow with O ring
136	737217296	PCK0606FBSPORX90-55	BSPP	-6	PCK	3/8" X 3/8 " BSPP 90 degree elbow with O ring, Drop height :55mm
137	737217986	PCK0608FBSPORX90-37.5	BSPP	-6	PCK	3/8" X 1/2 " BSPP 90 degree elbow with O ring, Drop height :37mm
138	737218246	PCK0606FBSPORX60-23	BSPP	-6	PCK	3/8" X 3/8 " BSPP 60 degree elbow with O ring, Drop height :23mm
139	737200016	PCK0606MBSPPBKHD	BSPP	-6	PCK	3/8" X 3/8 " BSPP Male bulkhead
140	737215316	PCK0606MBSPPBKHD90-72	BSPP	-6	PCK	3/8" X 3/8 " BSPP Male bulkhead 90 degree elbow
141	737216236	PCK0606BSPBJ	BSPP	-6	PCK	3/8" X 3/8 " BANJO straight
142	73515007	6GLP-6FBSPORX	BSPP	-6	GLP	3/8" X 3/8 " BSPP straight with O ring for yarn braid Hose
143	73518002	6GLP1-6FBSPORX90	BSPP	-6	GLP	3/8" X 3/8 " BSPP elbow with O ring for yarn braid Hose
144	737401216	P1T0606FBSPORX	BSPP	-6	P1T	3/8" X 3/8 " BSPP straight with O ring for pilot line Hose
145	737401236	P1T0606FBSPORX90-STE-MASSEMBLY	BSPP	-6	P1T	3/8" X 3/8 " BSPP 90 degree elbow with O ring for pilot line Hose
146	737402286	P1T0606FBSPORX45-16	BSPP	-6	P1T	3/8" X 3/8 " BSPP 45 degree elbow with O ring for pilot line Hose
147	737210366	PCK0608FBSPORX-WF	BSPP	-6	PCK	3/8" X 1/2 " BSPP straight with O ring
148	737218836	PCK0608MBSPP	BSPP	-6	PCK	3/8" X 1/2" BSPP male Straight
149	720480536	6GB-6FJISX	FJISX	-6	GB	3/8" X 3/8" JIS or C TYPE BSPP straight
150	737215026	PCK0606FKX	FKX	-6	PCK	3/8"xM18 X 1.5, straight
151	737215336	PCK0606FKX90-28-WF	FKX	-6	PCK	3/8"xM18 X 1.5, 90 degree elbow
152	737215476	PCK0606FJX-NEW	JIC	-6	PCK	3/8" X 9/16-18, straight
153	737213346	PCK0606FJX90S	JIC	-6	PCK	3/8" X 9/16-18, 90 degree elbow
154	737213896	PCK0606FJX90M	JIC	-6	PCK	3/8" X 9/16-18, 90 degree elbow, Drop height: Medium
155	737214266	PCK0606FJX90L	JIC	-6	PCK	3/8" X 9/16-18, 90 degree elbow, Drop height: Long
156	737213356	PCK0606FJX45S	JIC	-6	PCK	3/8" X 9/16-18, 45 degree elbow
157	737211056	PCK0608FJX	JIC	-6	PCK	3/8" X 3/4-16, straight
158	737213416	PCK0608FJX45S	JIC	-6	PCK	3/8" X 3/4-16, 45 degree elbow
159	737213296	PCK0608FJX90S	JIC	-6	PCK	3/8" X 3/4-16, 90 degree elbow
160	737213446	PCK0610FJX	JIC	-6	PCK	3/8" X 7/8-14, straight
161	737402186	P1T0606FJX90-26	JIC	-6	P1T	3/8" X 9/16-18, 90 degree elbow, for pilot Line hoses
162	737402196	P1T0606FJX90L	JIC	-6	P1T	3/8" X 9/16-18, 90 degree elbow, Drop height: Longfor pilot Line hoses
163	737402216	P1T0605FJX	JIC	-6	P1T	3/8" X 1/2-20, straight for pilot Line hoses
164	737402296	P1T0606FJX-NEW	JIC	-6	P1T	3/8" X 9/16-18, straight for pilot Line hoses
165	73515019	6GLP-5FJX	JIC	-6	GLP	3/8" X 1/2-20, straight for yarn braid Hose

BRAIDED COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
166	737214956	PCK0610FDLX	METRIC	-6	PCK	3/8", M16 X 1.5, TUBE OD: 10MM, Straight without O ring
167	737214966	PCK0610FDLX90-35	METRIC	-6	PCK	3/8", M16 X 1.5, TUBE OD: 10MM, 90 degree elbow without O ring
168	737202956	PCK0610FDLORX	METRIC	-6	PCK	3/8", M16 X 1.5, TUBE OD: 10MM, Straight with O ring
169	737203046	PCK0610FDLORX90	METRIC	-6	PCK	3/8", M16 X 1.5, TUBE OD: 10MM, 90 degree elbow with O ring
170	737203636	PCK0612FDLX	METRIC	-6	PCK	3/8", M18 X 1.5, TUBE OD: 12MM, Straight without O ring
171	737203706	PCK0612FDLX90-36	METRIC	-6	PCK	3/8", M18 X 1.5, TUBE OD: 12MM, 90 degree elbow without O ring
172	737216806	PCK0612FDLORX	METRIC	-6	PCK	3/8", M18 X 1.5, TUBE OD: 12MM, Straight with O ring
173	737203186	PCK0612FDLORX90	METRIC	-6	PCK	3/8", M18 X 1.5, TUBE OD: 12MM, 90 degree elbow with O ring
174	737214356	PCK0612FDLORX45	METRIC	-6	PCK	3/8", M18 X 1.5, TUBE OD: 12MM, 45 degree elbow with O ring
175	737203226	PCK0612FDHORX	METRIC	-6	PCK	3/8", M20 X 1.5, TUBE OD: 12, Straight with O ring
176	737214256	PCK0612FDHORX90-39	METRIC	-6	PCK	3/8", M20 X 1.5, TUBE OD: 12, 90 degree elbow with O ring
177	737214676	PCK0615FDLORX	METRIC	-6	PCK	3/8", M22 X 1.5, TUBE OD: 15MM, Straight with O ring
178	737217976	PCK0615FDLORX90-42	METRIC	-6	PCK	3/8", M22 X 1.5, TUBE OD: 15MM, 90 degree elbow with O ring
179	737218236	PCK0610FDHORX	METRIC	-6	PCK	3/8", M18 X 1.5, TUBE OD: 10MM, Straight with O ring
180	737203176	PCK0610FDHORX90	METRIC	-6	PCK	3/8", M18 X 1.5, TUBE OD: 10MM, 90 degree elbow with O ring
181	737202626	PCK0610MDL	METRIC	-6	PCK	3/8" X M16 X 1.5, TUBE OD: 10MM, Male straight
182	73515031	6GLP-12FDLORX	METRIC	-6	GLP	3/8", M18 X 1.5, TUBE OD: 12MM, Straight with O ring for yarn braid Hose
183	737219696	PCK0616FDHORX90-47	METRIC	-6	PCK	3/8", M24 X 1.5 TUBE OD: 16MM, 90 degree elbow with O ring, Drop height:47mm
184	737219706	PCK0616FDHORX	METRIC	-6	PCK	3/8", M24 X 1.5 TUBE OD: 16MM, straight with O ring
185	737219186	PCK0612MDL	METRIC	-6	PCK	3/8" X M18 X 1.5, TUBE OD: 12MM, Male straight
186	737402326	P1T0612FDLORX90-37	METRIC	-6	P1T	3/8", M18 X 1.5, TUBE OD: 12MM, 90 degree elbow with O ring, Pilot line Hose
187	737219436	PCK0606FP	NPTF	-6	PCK	3/8" X 3/8"-18 NPTF
188	737214486	PCK0606FFORX	ORFS	-6	PCK	3/8" X 11/16-16, Straight
189	737204926	PCK0606MFFOR	ORFS	-6	PCK	3/8", 11/16-16, Male straight
190	737211216	PCK0606FFORX45-11	ORFS	-6	PCK	3/8", 11/16-16, 45 degree bend
191	737211236	PCK0606FFORX90L	ORFS	-6	PCK	3/8", 11/16-16, 90 degree bend, Drop Height: Long
192	737212176	PCK0606FFORX90M-38	ORFS	-6	PCK	3/8", 11/16-16, 90 degree bend, Drop Height: 38mm
193	737213686	PCK0606FFORX90-30	ORFS	-6	PCK	3/8", 11/16-16, 90 degree bend, Drop Height: 30mm
194	737213816	PCK0606FFORX90S	ORFS	-6	PCK	3/8", 11/16-16, 90 degree bend, Drop Height: Small
195	737214836	PCK0606MFFMMBKHD	ORFS	-6	PCK	3/8" X 11/16-16, Male Bulk head Straight
196	737216906	PCK0608FFORX-NEW	ORFS	-6	PCK	3/8"x 13/16-16, Straight
197	737217146	PCK0608FFORX45	ORFS	-6	PCK	3/8"x 13/16-16, 45 degree bend
198	737211476	PCK0608FFORX90S	ORFS	-6	PCK	3/8"x 13/16-16, 90 degree bend, Drop Height: Small
199	737212586	PCK0608FFORX90M	ORFS	-6	PCK	3/8"x 13/16-16, 90 degree bend, Drop Height: Medium
200	737212596	PCK0608FFORX90L-64	ORFS	-6	PCK	3/8"x 13/16-16, 90 degree bend, Drop Height: Long
201	737215756	PCK0608MFFOR-NEW	ORFS	-6	PCK	3/8"x 13/16-16, Male straight
202	737214316	PCK0604FFORX90-21-OLD	ORFS	-6	PCK	3/8"x 9/16-18, 90 degree bend
203	737401966	P1T0606FFORX90S	ORFS	-6	P1T	3/8", 11/16-16, 90 degree bend for Pilot Line hoses
204	737401976	P1T0606FFORX90M	ORFS	-6	P1T	3/8", 11/16-16, 90 degree bend for Pilot Line hoses, Drop height: Medium
205	737402026	P1T0606FFORX45-21	ORFS	-6	P1T	3/8", 11/16-16, 45 degree bend for pilot line Hose
206	737402256	P1T0606FFORX	ORFS	-6	P1T	3/8", 11/16-16, straight for pilot line Hose
207	737215626	PCK0818DBJ	BANJO	-8	PCK	1/2" X Banjo ID:18mm, Straight

BRAIDED COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
208	737200716	PCK0808FBSPX	BSPP	-8	PCK	1/2" X 1/2" BSPP straight without O ring
209	737200766	PCK0808FBSPX45-17	BSPP	-8	PCK	1/2" X 1/2" BSPP 45 degree elbow without O ring
210	737200846	PCK0808FBSPX90-37.5	BSPP	-8	PCK	1/2" X 1/2" BSPP 90 degree elbow without O ring
211	737209856	PCK0808FBSPORX	BSPP	-8	PCK	1/2" X 1/2" BSPP straight with O ring
212	737209906	PCK0808FBSPORX90	BSPP	-8	PCK	1/2" X 1/2" BSPP 90 degree elbow with O ring
213	737213196	PCK0808FBSPORX45	BSPP	-8	PCK	1/2" X 1/2" BSPP 45 degree elbow with O ring
214	737212136	PCK0808FBSPORX-90SP-50	BSPP	-8	PCK	1/2" X 1/2" BSPP 90 degree elbow with O ring, Drop height: 50mm
215	737214296	PCK0806FBSPORX	BSPP	-8	PCK	1/2" X 3/8" BSPP straight with O ring
216	737214086	PCK0806FBSPORX90-44	BSPP	-8	PCK	1/2" X 3/8" BSPP 90 degree elbow with O ring
217	737214456	PCK0808FBSPORX37-16	BSPP	-8	PCK	1/2" X 1/2" BSPP 37 degree elbow with O ring
218	737210236	PCK0810FBSPORX	BSPP	-8	PCK	1/2" X 5/8" BSPP straight with O ring
219	737210486	PCK0808MBSPPBKHD	BSPP	-8	PCK	1/2" X 1/2" BSPP male bulk head straight
220	737214876	PCK0808BSPBJ-AC	BSPP	-8	PCK	1/2" X 1/2" BANJO straight
221	737217566	PCK0812BSPBJ-SPL	BSPP	-8	PCK	1/2" X 3/4" BANJO straight
222	737219556	PCK0806BSPBJ	BSPP	-8	PCK	1/2" X 3/8" BANJO straight
223	720480546	8GB-8FJISX	FJISX	-8	GB	1/2" X 1/2" JIS or C TYPE BSPP straight
224	737215036	PCK0808FKX	FKX	-8	PCK	1/2" X M22 X 1.5, straight
225	737215076	PCK0808FKX90-37	FKX	-8	PCK	1/2" X M22 X 1.5, 90 degree elbow
226	737219156	PCK0812FL	FLANGE	-8	PCK	1/2" X FLANGE OD: 38.10MM, straight
227	737219176	PCK0812FL90-58	FLANGE	-8	PCK	1/2" X FLANGE OD: 38.10MM, 90 degree, Drop height:58mm
228	737211316	PCK0808FJX	JIC	-8	PCK	1/2" X 3/4-16, straight
229	737211326	PCK0808FJX45-16	JIC	-8	PCK	1/2" X 3/4-16, 45 degree elbow
230	737213906	PCK0808FJX90M	JIC	-8	PCK	1/2" X 3/4-16, 90 degree elbow
231	737211086	PCK0810FJXME	JIC	-8	PCK	1/2" X 7/8-14, straight
232	737213276	PCK0810FJX45S	JIC	-8	PCK	1/2" X 7/8-14, 45 degree elbow
233	737213306	PCK0810FJX90S	JIC	-8	PCK	1/2" X 7/8-14, 90 degree elbow
234	737213366	PCK0810FJX90L	JIC	-8	PCK	1/2" X 7/8-14, 90 degree elbow, Drop height:Long
235	737215686	PCK0806FJX90M-38	JIC	-8	PCK	1/2" X 9/16-18, 90 degree elbow, Drop height:38mm
236	737201626	PCK0810MJ	JIC	-8	PCK	1/2" X 7/8-14, Male straight
237	737215186	PCK0815FDLX90-45	METRIC	-8	PCK	1/2", M22x1.5, TUBE OD: 15, 90 degree elbow without O ring
238	737215196	PCK0815FDLX45-26	METRIC	-8	PCK	1/2", M22x1.5, TUBE OD: 15, 45 degree elbow without O ring
239	737215276	PCK0815FDLX	METRIC	-8	PCK	1/2", M22x1.5, TUBE OD: 15, Straight without O ring
240	737216786	PCK0815FDLORX	METRIC	-8	PCK	1/2", M22x1.5, TUBE OD: 15, Straight with O ring
241	737214376	PCK0815FDLORX45-22	METRIC	-8	PCK	1/2", M22x1.5, TUBE OD: 15, 45 degree elbow with O ring
242	737214366	PCK0815FDLORX90-44.5	METRIC	-8	PCK	1/2", M22x1.5, TUBE OD: 15, 90 degree elbow with O ring
243	737218186	PCK0815FDLORX90-80	METRIC	-8	PCK	1/2", M22x1.5, TUBE OD: 15, 90 degree elbow with O ring, Drop height:80mm
244	737218196	PCK0815FDLORX90-130	METRIC	-8	PCK	1/2", M22x1.5, TUBE OD: 15, 90 degree elbow with O ring, Drop height:130mm
245	737207706	PCK0816FDHORX	METRIC	-8	PCK	1/2", M24 X 1.5 TUBE OD: 16MM, Straight with O ring
246	737203396	PCK0816FDHORX90	METRIC	-8	PCK	1/2", M24 X 1.5 TUBE OD: 16MM, 90 degree elbow with O ring
247	737213676	PCK0816FDHORX90-90	METRIC	-8	PCK	1/2", M24 X 1.5 TUBE OD: 16MM, 90 degree elbow with O ring, Drop height:90mm
248	737213666	PCK0816FDHORX90-125	METRIC	-8	PCK	1/2", M24 X 1.5 TUBE OD: 16MM, 90 degree elbow with O ring, Drop height:125mm

BRAIDED COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
249	737214156	PCK0812FDLX	METRIC	-8	PCK	1/2", M18 X 1.5, TUBE OD: 12, straight without O ring
250	737214176	PCK0812FDLX90-48	METRIC	-8	PCK	1/2", M18 X 1.5, TUBE OD: 12, 90 degree elbow without O ring, Drop height:48mm
251	737215486	PCK0812FDLX90-36	METRIC	-8	PCK	1/2", M18 X 1.5, TUBE OD: 12, 90 degree elbow without O ring, Drop height:36mm
252	737215496	PCK0812FDLX90-90	METRIC	-8	PCK	1/2", M18 X 1.5, TUBE OD: 12, 90 degree elbow without O ring, Drop height:90mm
253	737215386	PCK0812FDHORX	METRIC	-8	PCK	1/2", M20 X 1.5 TUBE OD: 12, straight with O ring
254	737214706	PCK0812FDHORX45-18	METRIC	-8	PCK	1/2", M20 X 1.5 TUBE OD: 12, 45 degree elbow with O ring
255	737214866	PCK0812FDHORX90-36	METRIC	-8	PCK	1/2", M20 X 1.5 TUBE OD: 12, 90 degree elbow with O ring
256	73515026	8GLP-15FDLORX45-22	METRIC	-8	GLP	1/2", M22 X 1.5, TUBE OD: 15, 45 degree elbow with O ring for yarn braid Hose
257	73515027	8GLP-15FDLORX	METRIC	-8	GLP	1/2", M22 X 1.5, TUBE OD: 15, straight with O ring for yarn braid Hose
258	737219366	PCK0816FDH HORX45-24-WF	METRIC	-8	PCK	1/2", M24 X 1.5 TUBE OD: 16MM, 45 degree elbow with O ring
259	737219626	PCK0816FDHORX90-55	METRIC	-8	PCK	1/2", M24 X 1.5 TUBE OD: 16MM, 90 degree elbow with O ring, Drop height:55mm
260	737219846	PCK0818FDLORX	METRIC	-8	PCK	1/2", M26 X 1.5, TUBE OD: 18MM, Straight with O ring
261	737219196	PCK0815MDL	METRIC	-8	PCK	1/2", M22 X 1.5, TUBE OD: 15, Male straight
262	737219836	PCK0812FDLORX	METRIC	-8	PCK	1/2", M18 X 1.5, TUBE OD: 12MM, straight with O ring
263	737219106	PCK0808MP	NPTF	-8	PCK	1/2" X 1/2"-14 NPTF
264	737216916	PCK0808FFORX-NEW	ORFS	-8	PCK	1/2" X 13/16-16, straight
265	737211496	PCK0808FFORX90S	ORFS	-8	PCK	1/2" X 13/16-16, 90 degree elbow, Drop height:Small
266	737211506	PCK0808FFORX90M	ORFS	-8	PCK	1/2" X 13/16-16, 90 degree elbow, Drop height:Medium
267	737211736	PCK0808FFORX90L	ORFS	-8	PCK	1/2" X 13/16-16, 90 degree elbow, Drop height:Medium
268	737215326	PCK0808FFORX90-96	ORFS	-8	PCK	1/2" X 13/16-16, 90 degree elbow, Drop height:96mm
269	737214926	PCK0808FFORX90-186	ORFS	-8	PCK	1/2" X 13/16-16, 90 degree elbow, Drop height:186mm
270	737211486	PCK0808FFORX45M-15.5	ORFS	-8	PCK	1/2" X 13/16-16, 45 degree elbow
271	737209986	PCK0808MFFOR	ORFS	-8	PCK	1/2" X 13/16-16, Male Straight
272	737213556	PCK0808MFFORBKHD	ORFS	-8	PCK	1/2" X 13/16-16, Male Straight Bulkhead
273	737204276	PCK0806FFORX	ORFS	-8	PCK	1/2" x11/16-16, Straight
274	737217366	PCK0806FFORX90-75	ORFS	-8	PCK	1/2" x11/16-16, 90 degree elbow, Drop Height: 75mm
275	737204296	PCK0810FFORX	ORFS	-8	PCK	1/2" X 1-14, straight
276	737213806	PCK0810FFORX90-35	ORFS	-8	PCK	1/2" X 1-14, 90 degree elbow, Drop height:35mm
277	737215016	PCK0810FFORX90-46	ORFS	-8	PCK	1/2" X 1-14, 90 degree elbow, Drop height:46mm
278	737215826	PCK0810FFORX45-18	ORFS	-8	PCK	1/2" X 1-14, 45 degree elbow
279	737213796	PCK0810MFFOR90-50	ORFS	-8	PCK	1/2" X 1-14, Male 90 degree elbow
280	737214526	PCK0810MFFOR	ORFS	-8	PCK	1/2" X 1-14, Male straight
281	737204306	PCK0812FFORX	ORFS	-8	PCK	1/2" X 1 3/16-12, straight
282	737217306	P0806FFORX90M	ORFS	-8	PCK	1/2" x11/16-16, 90 degree elbow, Drop Height: 75mm
283	737219486	PCK0808MFFORBKHDLN	ORFS	-8	PCK	1/2" X 13/16-16, Male Straight Bulkhead with Locknut
284	737213496	PCK1018DBJ	BANJO	-10	PCK	5/8" X Banjo ID: 18mm, Straight
285	737215446	PCK1022DBJ	BANJO	-10	PCK	5/8" X Banjo ID: 22mm, Straight
286	737211686	PCK1010FBSPORX.	BSPP	-10	PCK	5/8" X 5/8" BSPP straight with O ring
287	737213156	PCK1010FBSPORX45	BSPP	-10	PCK	5/8" X 5/8" BSPP 45 degree elbow with O ring
288	737211646	PCK1010FBSPORX90	BSPP	-10	PCK	5/8" X 5/8" BSPP 90 degree elbow with O ring
289	737213246	PCK1010FBSPORX90-60	BSPP	-10	PCK	5/8" X 5/8" BSPP 90 degree elbow with O ring, Drop height: 60mm

BRAIDED COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
290	737213256	PCK1010FBSPORX90-120	BSPP	-10	PCK	5/8" X 5/8" BSPP 90 degree elbow with O ring, Drop height: 120mm
291	737213706	PCK1012FBSPORX	BSPP	-10	PCK	5/8" X 3/4" BSPP straight with O ring
292	737213716	PCK1012FBSPORX90	BSPP	-10	PCK	5/8" X 3/4" BSPP 90 degree elbow with O ring
293	737217826	PCK1012FBSPORX45-29	BSPP	-10	PCK	5/8" X 3/4" BSPP 45 degree bend with O ring
294	737215436	PCK1008FBSP_FIXED-PORT	BSPP	-10	PCK	5/8" X 1/2" BSPP straight, Fixed port
295	737215526	PCK1006BSPBJ	BSPP	-10	PCK	5/8" X 3/8 BANJO straight
296	737211666	PCK1010MBSPPBKHDSP	BSPP	-10	PCK	5/8" X 5/8" BSPP male straight bulhead
297	737211676	PCK1010FBSPORX 180	BSPP	-10	PCK	5/8" X 5/8" BSPP 180 degree bend with O ring
298	737216096	PCK1012FBSPX90	BSPP	-10	PCK	5/8" X 3/4" BSPP 90 degree bend without O ring
299	737217796	PCK1010FBSPORX 15	BSPP	-10	PCK	5/8" X 5/8" BSPP 15 degree elbow with O ring
300	737218116	PCK1008FBSPORX90-51.5	BSPP	-10	PCK	5/8" X 1/2" BSPP 90 degree bend with O ring
301	737215066	PCK1010FKX	FKX	-10	PCK	5/8" X M24 X 1.5, straight
302	737211116	PCK1010FJX	JIC	-10	PCK	5/8" X 7/8-14, straight
303	737211416	PCK1010FJX90M	JIC	-10	PCK	5/8" X 7/8-14, 90 degree elbow
304	737211406	PCK1010FJX45-22	JIC	-10	PCK	5/8" X 7/8-14, 45 degree elbow
305	737211126	PCK1012FJX	JIC	-10	PCK	5/8" X 1 1/16-12, straight
306	737215586	PCK1006FJX	JIC	-10	PCK	5/8" X 9/16-18
307	720409276	10GB-12FJX	JIC	-10	GB	5/8" X 1 1/16-12, straight
308	720481166	10GB-12FJX45	JIC	-10	GB	5/8" X 1 1/16-12, 45 degree elbow
309	720481176	10GB-12FJX90S	JIC	-10	GB	5/8" X 1 1/16-12, 90 degree elbow
310	737201646	PCK1010MJ	JIC	-10	PCK	5/8" X 7/8-14, Male straight
311	737214096	PCK1018FDLX	METRIC	-10	PCK	5/8", M26 X 1.5, TUBE OD: 18mm, Straight without O ring
312	737216056	PCK1018FDLX45-26	METRIC	-10	PCK	5/8", M26 X 1.5, TUBE OD: 18mm, 45 degree elbow without O ring
313	737214106	PCK1018FDLX90-54	METRIC	-10	PCK	5/8", M26 X 1.5, TUBE OD: 18mm, 90 degree elbow without O ring
314	737215226	PCK1018FDLX90-122	METRIC	-10	PCK	5/8", M26 X 1.5, TUBE OD: 18mm, 90 degree elbow without O ring, Drop height: 122
315	737216796	PCK1018FDLORX-SP	METRIC	-10	PCK	5/8", M26 X 1.5, TUBE OD: 18mm, Straight with O ring
316	737207746	PCK1018FDLORX45	METRIC	-10	PCK	5/8", M26 X 1.5, TUBE OD: 18mm, 45 degree elbow with O ring
317	737207806	PCK1018FDLORX90	METRIC	-10	PCK	5/8", M26 X 1.5, TUBE OD: 18mm, 90 degree elbow with O ring
318	737213996	PCK1018FDLORX90-67.5	METRIC	-10	PCK	5/8", M26 X 1.5, TUBE OD: 18mm, 90 degree elbow with O ring, Drop height: 67mm
319	737215246	PCK1016FDLLX90-90	METRIC	-10	PCK	5/8", M24 X 1.5, TUBE OD: 16mm, 90 degree elbow without O ring, Drop height: 90mm
320	737213646	PCK1022FDLORX	METRIC	-10	PCK	5/8", M30X 2.0, TUBE OD: 22mm, Straight with O ring
321	737219646	PCK1018FDLX90-137	METRIC	-10	PCK	5/8", M26 X 1.5, TUBE OD: 18mm, 90 degree elbow without O ring, Drop height: 137mm
322	737219686	PCK1016FDHORX90-48	METRIC	-10	PCK	5/8", M24 X 1.5 TUBE OD: 16mm, 90 degree elbow with O ring, Drop height: 48mm
323	737219716	PCK1016FDHORX	METRIC	-10	PCK	5/8", M24 X 1.5 TUBE OD: 16mm, straight with O ring
324	737219206	PCK1018MDL	METRIC	-10	PCK	5/8", M26 X 1.5, TUBE OD: 18mm, Male Straight
325	737204316	PCK1010FFORX	ORFS	-10	PCK	5/8" X 1-14, straight
326	737213846	PCK1010FFORX45S	ORFS	-10	PCK	5/8" X 1-14, Female 45 degree elbow
327	737213696	PCK1010FFORX90-34	ORFS	-10	PCK	5/8" X 1-14, 90 degree elbow
328	737212096	PCK1010FFORX90M-47	ORFS	-10	PCK	5/8" X 1-14, 90 degree elbow, Drop height: 47mm
329	737219466	PCK1010FFORX90-58	ORFS	-10	PCK	5/8" X 1-14, 90 degree elbow, Drop height: 58mm
330	737218256	PCK1010FFORX90-70	ORFS	-10	PCK	5/8" X 1-14, 90 degree elbow, Drop height: 70mm

BRAIDED COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
331	737217786	PCK1010MFFORBKH-D90LN-86	ORFS	-10	PCK	5/8" X 1-14, Male bulhead 90 degree elbow
332	737204326	PCK1012FFORX	ORFS	-10	PCK	5/8" X 1 3/16-12, straight
333	737213726	PCK1012FFORX90-42	ORFS	-10	PCK	5/8" X 1 3/16-12, 90 degree elbow, Drop height: 42
334	737215056	PCK1012FFORX90-52	ORFS	-10	PCK	5/8" X 1 3/16-12, 90 degree elbow, Drop height: 52
335	737213546	PCK1012FFORX90M-58	ORFS	-10	PCK	5/8" X 1 3/16-12, 90 degree elbow, Drop height: 58
336	737218266	PCK1012FFORX90-96	ORFS	-10	PCK	5/8" X 1 3/16-12, 90 degree elbow, Drop height: 96
337	737217846	PCK1012FFORX45-21	ORFS	-10	PCK	5/8" X 1 3/16-12, 45 degree elbow
338	737218006	PCK1008FFORX	ORFS	-10	PCK	5/8" X 13/16-16, straight
339	737216146	PCK1008FFORX90	ORFS	-10	PCK	5/8" X 13/16-16, 90 degree elbow
340	737214536	PCK1012MFFOR	ORFS	-10	PCK	5/8" X 1 3/16-12, Male straight
341	737218626	PCK1012MFFORB-KHD90-110	ORFS	-10	PCK	5/8" X 1 3/16-12, Male, 90 degree elbow, Drop Height: 110mm
342	737219496	PCK1008FFORX45-36	ORFS	-10	PCK	5/8" X 13/16-16, 45 degree elbow, Drop Height: 36mm
343	737213006	PCK1212FBSPORX	BSPP	-12	PCK	3/4" X 3/4" BSPP straight with O ring
344	737213026	PCK1212FBSPORX90-64	BSPP	-12	PCK	3/4" X 3/4" BSPP 90 degree elbow with O ring
345	720496126	12GB-12FBSPORX	BSPP	-12	GB	3/4" X 3/4" BSPP straight with O ring
346	720496136	12GB-12FBSPORX45X-BULK	BSPP	-12	GB	3/4" X 3/4" BSPP 45 degree elbow with O ring
347	720496146	12GB-12FBSPORX90-50.5	BSPP	-12	GB	3/4" X 3/4" BSPP 90 degree elbow with O ring
348	720480806	12GB-12FBSPORX90-90	BSPP	-12	GB	3/4" X 3/4" BSPP 90 degree elbow with O ring, Drop Height: 90mm
349	720480866	12GB-12FBSPORX60-33	BSPP	-12	GB	3/4" X 3/4" BSPP 60 degree elbow with O ring
350	737214636	PCK1212FBSPX	BSPP	-12	PCK	3/4" X 3/4" BSPP straight without O ring
351	737214736	PCK1212FBSPX90-52	BSPP	-12	PCK	3/4" X 3/4" BSPP 90 degree elbow without O ring
352	737214846	PCK1212FBSPX45	BSPP	-12	PCK	3/4" X 3/4" BSPP 45 degree elbow without O ring
353	737214886	PCK1212BSPBJ-AC	BSPP	-12	PCK	3/4" X 3/4" BANJO straight
354	737216226	PCK1212MBSPSP	BSPP	-12	PCK	3/4" X 3/4" Male straight
355	737215506	PCK1212FBSPX90BL	BSPP	-12	PCK	3/4" X 3/4" BSPP 90 degree block elbow without O ring
356	720480276	12GB-16FBSPORX60-50	BSPP	-12	GB	3/4" X 1" BSPP 60 degree elbow with O ring
357	720480256	12GB-16FBSPORX90-60	BSPP	-12	GB	3/4" X 1" BSPP 90 degree elbow with O ring, Drop Height: 60mm
358	720480846	12GB-16FBSPORX90-72	BSPP	-12	GB	3/4" X 1" BSPP 90 degree elbow with O ring, Drop Height: 72mm
359	720480266	12GB-16FBSPORX90-90	BSPP	-12	GB	3/4" X 1" BSPP 90 degree elbow with O ring, Drop Height: 90mm
360	720480326	12GB-12MBSPSP	BSPP	-12	GB	3/4" X 3/4" Male straight_JCB
361	720480526	12GB-12FJISX	FJISX	-12	GB	3/4" X 3/4" JIS or C TYPE BSPP straight
362	720480456	12GB-12FKX	FKX	-12	GB	3/4" X M30 X 1.5, straight
363	720425256	12GB-16FL	FLANGE	-12	GB	3/4" X FLANGE OD: 44.45MM, Straight
364	720429586	12GB-16FL90S	FLANGE	-12	GB	3/4" X FLANGE OD: 44.45MM, 90 degree elbow
365	720429536	12GB-12FL90M	FLANGE	-12	GB	3/4" X FLANGE OD: 38.1MM, 90 degree elbow
366	720482096	12GB-20FL90-75	FLANGE	-12	GB	3/4" X FLANGE OD: 50.80MM, 90 degree elbow, Wire Braid, Drop Height: 75mm
367	720482226	12GB-20FL	FLANGE	-12	GB	3/4" X FLANGE OD: 50.80 MM, Straight
368	720409326	12GB-12FJX	JIC	-12	GB	3/4" X 1 1/16-12, straight
369	720446426	12GB-12FJX45	JIC	-12	GB	3/4" X 1 1/16-12, 45 degree elbow
370	720471686	12GB-12FJXM-M3PD90S-048	JIC	-12	GB	3/4" X 1 1/16-12, 90 degree elbow, Drop Height:48
371	720481316	12GB-12FJX90-52	JIC	-12	GB	3/4" X 1 1/16-12, 90 degree elbow, Drop Height:52
372	737203446	PCK1222FDLORX	METRIC	-12	PCK	3/4", M30 X 2.0, TUBE OD: 22MM, straight with O ring

BRAIDED COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
373	737216116	PCK1222FDLORX90-62	METRIC	-12	PCK	3/4", M30 X 2.0, TUBE OD: 22MM, 90 degree elbow with O ring
374	720480816	12GB-22FDLORX45-30	METRIC	-12	GB	3/4", M30 X 2.0, TUBE OD: 22MM, 45 degree elbow with O ring
375	720480396	12GB-22FDLORX90-90	METRIC	-12	GB	3/4", M30 X 2.0, TUBE OD: 22MM, 90 degree elbow with O ring, Drop Height:90mm
376	720481886	12GB-22FDLORX45-65	METRIC	-12	GB	3/4", M30 X 2.0, TUBE OD: 22MM, 45 degree elbow with O ring, Drop Height:65mm
377	737215296	PCK1222FDLLX	METRIC	-12	PCK	3/4", M30 X 1.5, TUBE OD: 22MM, straight without O ring
378	737215236	PCK1222FDLLX90-57	METRIC	-12	PCK	3/4", M30 X 1.5, TUBE OD: 22MM, 90 degree elbow without O ring
379	737214986	PCK1228FDLLX	METRIC	-12	PCK	3/4", M38 X 1.5, TUBE OD: 28MM, straight without O ring
380	737214996	PCK1228FDLLX90-60	METRIC	-12	PCK	3/4", M38 X 1.5, TUBE OD: 28MM, 90 degree elbow without O ring
381	737203506	PCK1225FDHORX-WF	METRIC	-12	PCK	3/4", M36X 2.0, TUBE OD: 25MM, straight with O ring
382	720482306	12GB-18FDLORX	METRIC	-12	GB	3/4", M26 X 1.5, TUBE OD: 18MM, Straight with O ring
383	720482136	12GB-20FDHORX90-62	METRIC	-12	GB	3/4", M30 X 2.0, TUBE OD: 20MM, 90 degree elbow with O ring, Drop height:62mm
384	720482146	12GB-20FDHORX45-30	METRIC	-12	GB	3/4", M30 X 2.0, TUBE OD: 20MM, 45 degree elbow with O ring, Drop height:30mm
385	720482196	12GB-20FDHORX	METRIC	-12	GB	3/4", M30 X 2.0, TUBE OD: 20MM, straight with O ring
386	DOMC5885	3/4" NPT Reusable Coupling Brass	NPT	-12	NPT	3/4-14 Reusable coupling
387	737204336	PCK1212FFORX	ORFS	-12	PCK	3/4" X 1 3/16-12, straight
388	737216106	PCK1216FFORX90S	ORFS	-12	PCK	3/4" X 1 7/16-12, 90 degree elbow
389	720419256	12GB-12FFORX	ORFS	-12	GB	3/4" X 1 3/16-12, straight
390	720480356	12GB-12FFORX90	ORFS	-12	GB	3/4" X 1 3/16-12, 90 degree elbow
391	720424656	12GB-12FFORX90-58	ORFS	-12	GB	3/4" X 1 3/16-12, 90 degree elbow, Drop Height:58
392	720480246	12GB-12FFORX90-85	ORFS	-12	GB	3/4" X 1 3/16-12, 90 degree elbow, Drop Height:85
393	720480216	12GB-12MFFORBKHD	ORFS	-12	GB	3/4" X 1 3/16-12, Male Bulk head Straight
394	720480916	12GB-12FFORX90-160	ORFS	-12	GB	3/4" X 1 3/16-12, 90 degree elbow, Drop Height:160
395	720422226	12GB-12FFORX45	ORFS	-12	GB	3/4" X 1 3/16-12, 45 degree elbow
396	720416186	12GB-12MFFOR	ORFS	-12	GB	3/4" X 1 3/16-12, Male Straight
397	720419266	12GB-16FFORX	ORFS	-12	GB	3/4" X 1 7/16-12, Straight
398	720480826	12GB-10FFORX45-23	ORFS	-12	GB	3/4" X 1-14, 45 degree elbow
399	720481756	12GB-10FFORX90-47	ORFS	-12	GB	3/4" X 1-14, 90 degree elbow
400	720419246	12GB-10FFORX-WF	ORFS	-12	GB	3/4" X 1-14, straight
401	737218946	PCK1210FFORX45-25	ORFS	-12	PCK	3/4" X 1-14, Female, 45 degree elbow
402	737219266	PCK1210FFORX	ORFS	-12	PCK	3/4" X 1-14, Female, straight
403	737213016	PCK1616FBSPORX	BSPP	-16	PCK	1" X 1" BSPP straight with O ring
404	720496256	16GB-16FBSPORXStemASSY	BSPP	-16	GB	1" X 1" BSPP straight with O ring
405	720481256	16GB-16FBSPORX45-NEW	BSPP	-16	GB	1" X 1" BSPP 45 degree bend with O ring
406	720481266	16GB-16FBSPORX90-NEW	BSPP	-16	GB	1" X 1" BSPP 90 degree bend with O ring
407	720480336	16GB-16FBSPORX90-76	BSPP	-16	GB	1" X 1" BSPP 90 degree bend with O ring, Drop Height:76mm
408	720480926	16GB-16MBSPP	BSPP	-16	GB	1" X 1" BSPP male straight
409	737214646	PCK1616FBSPX	BSPP	-16	PCK	1" X 1" BSPP straight without O ring
410	737214746	PCK1616FBSPX90-60	BSPP	-16	PCK	1" X 1" BSPP 90 degree bend without O ring
411	737214856	PCK1616FBSPX45	BSPP	-16	PCK	1" X 1" BSPP 45 degree bend without O ring
412	737215126	PCK1616FBSPX90-66	BSPP	-16	PCK	1" X 1" BSPP 90 degree bend without O ring, Drop Height:66mm
413	737215146	PCK1616FBSPX90-80	BSPP	-16	PCK	1" X 1" BSPP 90 degree bend without O ring, Drop Height:80mm

BRAIDED COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
414	737215426	PCK1612HFBSPX	BSPP	-16	PCK	1" X 3/4" BSPP straight without O ring
415	720481866	16GB-20FBSPORX	BSPP	-16	GB	1" X 1 1/4" BSPP straight with O ring
416	73515009	16GL-16FBSPORX90	BSPP	-16	GL	1" X 1" BSPP 90 degree bend with O ring for Low Pressure Hose
417	737213036	PCK1616FB-SPORX90-60-WF	BSPP	-16	PCK	1" X 1" BSPP straight with O ring, 90 degree elbow
418	720480796	16GB-16FJISX	FJISX	-16	GB	1" X 1" JIS or C TYPE BSPP straight
419	720425306	16GB-16FL	FLANGE	-16	GB	1" X FLANGE OD: 44.45MM, Straight
420	720427396	16GB-16FL45S	FLANGE	-16	GB	1" X FLANGE OD: 44.45MM, 45 degree elbow
421	720429706	16GB-16FL90S	FLANGE	-16	GB	1" X FLANGE OD: 44.45MM, 90 degree elbow
422	737215456	PCK1616FJX90S	JIC	-16	PCK	1" X 1 5/16-12, 90 degree elbow
423	720409396	16GB-16FJX-WF	JIC	-16	GB	1" X 1 5/16-12, straight
424	737216046	PCK1616FJX_SPL	JIC	-16	PCK	1" X 1 5/16-12, straight
425	720446506	16GB-16FJX45	JIC	-16	GB	1" X 1 5/16-12, 45 degree elbow
426	720480446	16GB-16FJX90-66.5	JIC	-16	GB	1" X 1 5/16-12, 90 degree elbow, Drop Height:66.5mm
427	720409406	16GB-20FJX	JIC	-16	GB	1" X 1 5/8-12, straight
428	720482326	16GB-16FJX70-50	JIC	-16	GB	1" X 1 5/16-12, 70 degree elbow, Drop height: 50mm
429	720481746	16GB-28FDLORX-SP	METRIC	-16	GB	1", M36X 2.0, TUBE OD: 28MM, straight with O ring
430	720480736	16GB-28FDLORX45	METRIC	-16	GB	1", M36X 2.0, TUBE OD: 28MM, 45 degree elbow with O ring
431	720480836	16GB-28FDLORX90-70	METRIC	-16	GB	1", M36X 2.0, TUBE OD: 28MM, 90 degree elbow with O ring
432	720480946	16GB-22FDLORX	METRIC	-16	GB	1", M30 X 2.0, TUBE OD: 22MM, straight with O ring
433	720480956	16GB-22FDLORX90-58	METRIC	-16	GB	1", M30 X 2.0, TUBE OD: 22MM, 90 degree elbow with O ring
434	737214186	PCK1628FDLLX	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, straight without O ring
435	737214196	PCK1628FDLLX90-63	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 90 degree elbow without O ring
436	737214206	PCK1628FDLLX30-27	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 30 degree elbow without O ring
437	737214216	PCK1628FDLLX45-53	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 45 degree elbow without O ring
438	737215136	PCK1628FDLLX45-26	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 45 degree elbow without O ring
439	737215156	PCK1628FDLLX90-92	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 90 degree elbow without O ring, Drop Height:92mm
440	737215166	PCK1628FDLLX90-70	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 90 degree elbow without O ring, Drop Height:70mm
441	737215176	PCK1628FDLLX90-294	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 90 degree elbow without O ring, Drop Height:294mm
442	737215256	PCK1628FDLLX90-143	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 90 degree elbow without O ring, Drop Height:143mm
443	737215986	PCK1628FDLLX90-75_SPL	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 90 degree elbow without O ring, Drop Height:75mm
444	737216646	PCK1628FDLLX74-51	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 74 degree elbow without O ring
445	737217736	PCK1628FDLLX58-55	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 58 degree elbow without O ring
446	737217326	PCK1628FDLLX40-57 BEFORE SOCKET WELD	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 40 degree elbow without O ring
447	720481466	16GB-25FDHORX	METRIC	-16	GB	1", M36X 2.0, TUBE OD: 25MM, straight with O ring
448	720481476	16GB-25FDHORX90-64	METRIC	-16	GB	1", M36X 2.0, TUBE OD: 25MM, 90 degree elbow with O ring
449	737215976	P1628FDLLX57.5-62	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 57 degree elbow without O ring
450	737216976	P1628FDLLX90-110	METRIC	-16	PCK	1", M38 X 1.5, TUBE OD: 28MM, 90 degree elbow without O ring, Drop Height:110
451	737217346	PCK1622FDLX-WF	METRIC	-16	PCK	1", M30 X 2.0, TUBE OD: 22MM, Straight without O ring
452	720482206	16GB-30FDHORX-WF-2W	METRIC	-16	GB	1", M42X 2.0, TUBE OD: 30MM, straight with O ring

BRAIDED COUPLINGS



S. NO	AM CODE	DESCRIPTION	THREAD	HOSE SIZE	COUPLING TYPE	DESCRIPTION
453	DOMC5886	1" NPT Reusable Coupling Brass	NPT	-16	NPT	1- 11 1/2 Reusable coupling
454	720419306	16GB-16FFORX	ORFS	-16	GB	1" X 1 7/16-12, Straight
455	720422266	16GB-16FFORX45	ORFS	-16	GB	1" X 1 7/16-12, 45 degree elbow
456	720424756	16GB-16FFORX90M	ORFS	-16	GB	1" X 1 7/16-12, 90 degree elbow
457	720480496	16GB-16FFORX90-115	ORFS	-16	GB	1" X 1 7/16-12, 90 degree elbow, Drop Height:115mm
458	720424746	16GB-16FFORX90-56.1	ORFS	-16	GB	1" X 1 7/16-12, 90 degree elbow, Drop Height:56mm
459	720480436	16GB-12FFORX90-53	ORFS	-16	GB	1" X 1 3/16-12, 90 degree elbow, Drop Height:53mm
460	720481226	16GB-12FFORX90M	ORFS	-16	GB	1" X 1 3/16-12, 90 degree elbow
461	737216126	PCK1620FFORX90-64	ORFS	-16	PCK	1" X 1 11/16-12, 90 degree elbow
462	720481706	20GB-20FBSPORX-SP	BSPP	-20	GB	1 1/4" X 1 1/4" BSPP straight with O ring, Single Wire Braid
463	720481906	20GB-20FBSPX	BSPP	-20	GB	1 1/4" X 1 1/4" BSPP straight without O ring, Single Wire Braid
464	720481396	20GB-20FBSPORX90-90-SP-2WB	BSPP	-20	GB	1 1/4" X 1 1/4" BSPP 90 degree elbow, with O ring , Wire Braid
465	720482346	20GB-20FBSPORX45-45	BSPP	-20	GB	1 1/4" X 1 1/4" BSPP 45 degree elbow, with O ring , Wire Braid
466	720481796	20GB-20FJISX-2WB	FJISX	-20	GB	1 1/4" X 1 1/4" JIS or C TYPE BSPP straight
467	720481066	20GB-20FJX-2WB	JIC	-20	GB	1 1/4" X 1 5/8-12, Straight
468	720414596	20GB-20FJXMM90-089	JIC	-20	GB	1 1/4" X 1 5/8-12, 90 degree elbow
469	720480746	20GB-35FDLORX	METRIC	-20	GB	1 1/4", M45X 2.0, Tube OD: 35MM, straight with O ring
470	720480856	20GB-35FDLORX90-80	METRIC	-20	GB	1 1/4", M45X 2.0, Tube OD: 35MM, 90 degree elbow with O ring
471	720480756	20GB-35FDLORX45	METRIC	-20	GB	1 1/4", M45X 2.0, Tube OD: 35MM, 45 degree elbow with O ring
472	720481356	20GB-20FFORX90-68-2WB	ORFS	-20	GB	1 1/4" X 1 11/16-12, 90 degree elbow
473	720481376	20GB-20FFORX-2WB	ORFS	-20	GB	1 1/4" X 1 11/16-12, Straight
474	737213636	24C2-24FBSPX	BSPP	-24	C2	1 1/2" X 1 1/2" BSPP straight without O ring, Braided hose
475	734767116	24GSP-24FBSPORX45-55-2WB	BSPP	-24	GSP	1 1/2" X 1 1/2" BSPP 45 degree elbow with O ring, Wire Braid
476	730580056	24C2-24FL-WF	FLANGE	-24	C2	1 1/2" X FLANGE OD: 60.3MM, Straight, Braided hose
477	737213486	24C2-24FL90-89-WF	FLANGE	-24	C2	1 1/2" X FLANGE OD: 60.3MM, 90 degree elbow, Braided hose
478	737213586	24C2-24FL45M-WF	FLANGE	-24	C2	1 1/2" X FLANGE OD: 60.3MM, 45 degree elbow, Braided hose
479	734741726	24GSP-24FL-WF	FLANGE	-24	GSP	1 1/2" X FLANGE OD: 60.3MM, Straight, For Wire Braid
480	734789766	24GSP-24FJX-2WB	JIC	-24	GSP	1 1/2" X 1 7/8-12, straight, Wire Braid
481	734789966	24GSP-24FJX90-89-WB	JIC	-24	GSP	1 1/2" X 1 7/8-12, 90 degree elbow, Wire Braid
482	734767096	24GSP-38FDHORX-2W	METRIC	-24	GSP	1 1/2", M52X 2.0, Tube OD: 38MM, straight with O ring, Wire Braid
483	734767126	24GSP-42FDLORX90-110-2WB	METRIC	-24	GSP	1 1/2", M52X 2.0, Tube OD: 42MM, 90 degree elbow with O ring, Wire Braid, Drop height: 110mm
484	734790046	24GSP-42FDLORX-WB	METRIC	-24	GSP	1 1/2", M52X 2.0, Tube OD: 42MM, straight with O ring, Wire Braid

CHEMICAL RESISTANCE RATINGS FOR GATES HOSE POLYMERS, COUPLINGS AND ADAPTER MATERIALS

The Chemical Resistance Table lists the relative resistance of hose and coupling materials to more common chemicals. These ratings do not cover all possible variations of all factors, such as temperature, concentration, degradation or fluid contamination, etc. Testing under actual conditions is the best way to ensure chemical compatibility for critical applications.

For specific information, contact Gates Hose/Connector Product Application, Denver, Colorado 303-744-5070.

HOW TO USE THE CHEMICAL RESISTANCE TABLE

1. Chemicals are listed alphabetically.
2. Find the hose, coupling and adapter material type that has a resistance rating of “1” or “2” (See Rating Scale).
3. Find hose with compatible polymer(s) in the Gates Hydraulic Hose Selection Guide.
4. Look for compatible couplings for the selected hose by following the hose page references in the Selection Guide.

Rating Scale

“1”	Excellent resistance
“2”	Good resistance
“X”	Not recommended
“—”	Testing recommended

NOTE: O-rings used with couplings also must be considered for chemical compatibility with the fluid to be conveyed. This includes couplings containing internal o-rings; for example, MPX (Male Pipe Swivel). Gates standard o-ring is made of Nitrile. If o-rings other than Nitrile are required, contact Gates Hose/Connector Product Application.



CHEMICAL RESISTANCE



Rating Scale: 1 Excellent 2 Good resistance X Not recommended - Testing recommended [] Cover stock rating only; Rating for tube stock "X" * Use Gates fuel hose or contact Denver Product Application Department	Gates Hose Polymers							Couplings & Adapters			
	Polychloroprene Nitrile, HNBR, or XTF Nitrile + PVC CPE CSM Urethane PTFE Nylon MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass					
A											
Absorption Oil	2 1 2 1 2 - 1 1 2	-	-	-	-	1					
Acetaldehyde	X X X - X 1 1 2 1	1	1	1	1	1					
Acetamide	1 2 - - - X 1 - 1	-	-	-	-	-					
Acetic Acid, 5-20%	2 X 2 1 2 X 1 1 1	X	2	2	2	X					
Acetic Acid, 25%	2 X 2 1 2 - 1 X 1	X	2	2	2	X					
Acetic Acid, 30%	2 X - 1 - - 1 2 1	X	2	2	2	X					
Acetic Acid, 50%	2 X 2 1 - - 1 2 1	X	2	2	2	X					
Acetic Acid, 50% Boiling	X X - - - 1 X -	X	X	2	-	-					
Acetic Acid, 80%	X X - - - 1 X 1	X	2	2	2	X					
Acetic Acid, 80% Boiling	X X - - - 1 X -	X	X	2	X	X					
Acetic Acid, 100%	X X - - - 1 X X	X	X	2	X	X					
Acetic Acid, 100% Boiling	X X - - - X 1 X X	X	X	2	-	X					
Acetic Acid, 100% (Hot) Vapors	2 2 - - - - X X	X	X	2	2	X					
Acetic Acid, Air Free	- - - - - 1 -	-	X	X	-	-					
Acetic Acid, Anhydride	X X X 1 2 - 1 X X	X	2	2	2	X					
Acetic Acid, Areated	- - - - - 1 -	-	X	X	-	-					
Acetic Acid, Crude	X X - - - 1 1 -	X	2	1	2	X					
Acetic Acid, Glacial	X X X 1 X X 1 X X	X	2	2	2	-					
Acetone (Dimethylketone)	X X X 1 X X 1 1 1	1	1	1	1	1					
Acetonitrile (Methyl Cyanide)	2 X 2 1 2 - - 2	-	-	-	-	-					
Acetylene	2 2 1 1 - - 1 1 X	1	1	1	1	2					
Acrylonitrile (Vinyl Cyanide)	X X X 1 X - - 2	1	1	1	2	1					
Aero Lubriplate	1 1 - - - - -	-	1	1	1	1					
Aero-Safe 2300	X X - - - X - -	1	1	1	1	1					
Aeroshell Type 1A, 1AC, 4	2 1 - - - 1 - -	-	-	-	-	-					
Aeroshell 7AGrease	2 1 - - - X - -	1	1	1	1	-					
Aeroshell 17 Grease	2 1 - - - X - -	1	1	1	1	-					
Aeroshell 750	X 2 - - - X - -	1	1	1	1	-					
Air, Ambient	1 1 1 1 1 1 1 1 1 1	1	1	1	1	1					
Air, 150°F	1 1 1 1 1 1 1 1 1	1	1	1	1	1					
Air, 180°F	2 2 2 1 2 2 1 1 1	1	1	1	1	1					
Air, 200°F	X X X 1 X 2 1 2 1	1	1	1	1	1					
Aircraft Hyd. Oil AA	- 1 - - - - -	1	1	1	1	1					
Alcohol	1 1 - - - 1 - 1	1	1	1	1	1					
Alcohol, Amyl	2 2 - - - 1 1 2	-	2	1	2	-					
Alcohol, Benzyl	X X - 1 2 2 1 - 1	1	1	1	-	-					
Alcohol, Butyl	2 X 2 - 2 1 1 1 1	1	1	1	1	1					
Alcohol, Denatured	1 1 - - 1 - 1 1 1	1	1	1	1	1					
Alcohol, Diacetone	- X - 2 - 1 - -	-	1	1	1	1					
Alcohol, Ethyl (Ethanol)	1 1 1 1 1 2 1 1 1	1	1	1	1	2					
Alcohol, Furfural	2 X X 1 2 - 1 - 2	2	1	1	1	1					
Alcohol, Hexyl (Hexanol)	2 1 - - X - 1 - -	1	1	1	1	2					
Alcohol, Isobutyl	2 2 - - 1 - 1 1 1	1	1	1	1	2					
Alcohol, Isopropyl (Isopropanol)	2 2 2 - 2 2 1 1 1	1	1	1	1	2					
Alcohol, Methyl (100%) (Methanol)	1 1 1 1 1 - 1 1 1	1	1	1	1	2					
Alcohol, Methyl (6%)	1 1 1 - 1 - 1 1 1	1	1	1	1	2					
Alcohol, Octyl	2 2 - - - 1 1 -	1	1	1	1	-					
Alcohol, Propyl	1 1 - - - 1 X 1	2	1	1	1	1					
Alkazene	X X X - X X - -	1	1	-	-	-					
Aluminum Chloride	1 1 1 1 1 2 1 X X	X	2	2	X	X					
Aluminum Fluoride	1 1 1 1 1 2 1 X -	X	2	2	2	X					
Aluminum Hydroxide	1 1 1 1 1 - 1 1 1	-	1	1	-	1					
Aluminum Hydroxide, Saturated	1 1 - - - 1 1 1	-	1	1	-	1					
Aluminum Nitrate	1 1 1 1 1 2 1 - 1	X	1	1	2	-					
Aluminum Sulfate	1 1 1 1 1 X 1 1 -	X	X	2	X	X					
Alums (Ammonium or Potassium)	1 1 1 1 1 - 1 - 1	X	2	2	X	X					
Ammonia, Aqueous	1 2 1 - 1 - 1 1 1	-	1	1	-	X					
Ammonium Carbonate	2 X - - - - -	1	1	1	-	-					

Rating Scale: 1 Excellent 2 Good resistance X Not recommended - Testing recommended [] Cover stock rating only; Rating for tube stock "X" * Use Gates fuel hose or contact Denver Product Application Department	Gates Hose Polymers							Couplings & Adapters			
	Polychloroprene Nitrile, HNBR, or XTF Nitrile + PVC CPE CSM Urethane PTFE Nylon MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass					
Ammonium Chloride, 1%	X 2 1 1 1 1 1 1 -	X	2	2	X	X					
Ammonium Chloride, 10% Boiling	X X - - - - 1 X -	X	2	2	X	X					
Ammonium Chloride, 28% Boiling	X X - - - - 1 X -	X	2	2	X	X					
Ammonium Chloride, 50% Boiling	X X - - - - 1 X -	X	2	2	X	X					
Ammonium Hydroxide	2 2 2 1 1 X 1 1 1	2	1	1	-	X					
Ammonium Hydroxide, 3 Molar	1 X - - - 2 1 - 1	X	2	2	X	X					
Ammonium Hydroxide, Concentrated	1 X - 1 - X 1 1 1	X	2	2	X	X					
Ammonium Metaphosphate	2 2 2 - 2 - 1 - -	1	1	1	X	-					
Ammonium Nitrate, Fertilizer	1 2 1 1 1 1 1 X -	1	1	1	2	X					
Ammonium Nitrite	1 1 - - - - 1 -	2	1	1	X	-					
Ammonium Persulfate	X X X 1 - X - X -	X	2	2	X	X					
Ammonium Persulfate, 5%	1 X - - - - X - X	X	2	2	X	X					
Ammonium Persulfate, 10%	1 X - - - X - X	X	2	2	X	X					
Ammonium Phosphate (Mono, Di, Tri, Basic)	1 1 1 1 1 1 1 2 -	X	2	2	X	-					
Ammonium Sulfate	1 2 1 1 1 1 1 X -	X	X	2	X	X					
Ammonium Thiocyanate	1 1 - 1 1 - 1 - -	1	1	1	-	-					
Amyl Acetate	X X X 2 X 2 1 1 1	X	1	1	X	2					
Amyl Alcohol	2 2 2 1 - - 1 1 1	1	1	1	1	1					
Amyl Borate	2 2 2 - - - - 2	-	-	-	-	-					
Amyl Chloride	X - X 2 X - 1 2 -	-	1	1	-	-					
Amyl Chloronaphthalene	X X X - X - 1 - 2	-	1	1	-	-					
Amyl Naphthalene	X X X - X - 1 - 2	-	1	1	-	-					
Amyl Phenol	- - - - - 1 - -	-	1	1	-	-					
AN-0-3 Grade M	1 1 - - - - - -	-	-	-	-	-					
AN-0-6	1 1 - - - - - -	-	-	-	-	-					
AN-0-366	1 1 - - - - - -	-	-	-	-	-					
Anderol, L-774 (Diester)	X 2 - - - - 1 X -	-	-	-	-	-					
Anderol, L-826 (Diester)	X 2 - - - - 1 X -	-	-	-	-	-					
Anderol, L-829 (Diester)	X 2 - - - - 1 X -	-	-	-	-	-					
ANG-25 (Glycerol Ester)	2 2 - - - - 1 2 -	-	-	-	-	-					
ANG-25 (Diester Base, TG749)	X 2 - - - - 1 X -	1	1	1	1	-					
Aniline	X X X 2 X X 1 2 -	2	1	1	X	X					
Aniline Dyes	X X - 2 - - 1 X X	2	1	1	2	X					
Aniline Hydrochloride	X X - 2 - - 1 - -	X	1	1	-	-					
Animal Gelatin	1 1 - 1 - 1 - - -	-	1	1	-	-					
Animal Fats	2 1 - 1 - - 1 1 1	1	1	1	1	X					
Animal Oil (Lard Oil)	2 1 - 1 - - 1 - 1	1	1	1	1	-					
Antifreeze, Alcohol Base	2 2 2 2 2 - 1 - 1	1	1	1	1	-					
Antifreeze, Glycol Base	2 1 1 1 1 - 1 1 2	1	1	1	1	1					
Antimony Chloride, 50%	- 1 - - - - 1 X 2	X	X	X	-	-					
AN-VV-0-366B Hydraulic Fluid	1 - - - - - 2 1 -	-	-	-	-	-					
Aqua Regia (Concentrated)	X X X 2 X X 1 X -	X	X	X	X	-					
Arco A.T.F. Dexron	- 1 - - - - - X -	-	-	-	-	-					
Arco C2, 100	- 1 - - - - - - -	-	-	-	-	-					
Aromatic Fuel 30%, Mil.	- - - - - 1 - -	-	-	-	-	-					
Aromatic Fuel 50%	X 2 - - - - 1 - -	-	-	-	-	-					
Aromatic Hydrocarbons	X X - - X 2 1 - -	2	1	2	2	2					
Arsenic Acid	- - - 1 - - 1 - 2	2	-	1	2	-					
Askarel, Transformer Oil	X X X - X - 1 - 1	1	1	1	-	1					
Asphalt, Under 180°F	2 2 2 X X 1 1 - 2	1	1	1	1	2					
Asphalt, Cut Back	X 2 2 - X 1 1 1 X	1	1	1	2	2					
Asphalt, Topping	1 X - - - - 1 - X	1	1	1	-	-					
ASTM Oil No.	1 1 1 1 1 2 1 1 X	1	1	1	1	1					
ASTM Oil No.	2 2 1 - 2 - 1 1 1	1	1	1	1	1					
ASTM Oil No. 3	X 1 X X X - 1 1 1	1	1	1	1	1					
ASTM Oil No. 4	X 2 - - - - 1 - 1	1	1	1	1	-					

CHEMICAL RESISTANCE



Rating Scale: 1 Excellent 2 Good resistance X Not recommended - Testing recommended [] Cover stock rating only; Rating for tube stock "X" * Use Gates fuel hose or contact Denver Product Application Department	Gates Hose Polymers							Couplings & Adapters					
	Polychloroprene Nitrile, HNBR, or XTF	Nitrile + PVC	CPE	CSM	Urethane	PTFE	Nylon	MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass
ASTM Reference Fuel A	[2] 1	[1]	1	1	-	1	1	1	1	1	1	1	1
ASTM Reference Fuel B	[2] 1	[2]	2	X	-	1	-	1	1	1	1	1	1
ASTM Reference Fuel C	X	2	X	2	X	-	1	-	1	1	1	1	1
ATL-857	X	2	-	-	-	-	-	2	-	-	-	-	-
Atlantic Dominion F	2	1	-	-	-	-	-	-	-	-	-	-	-
Aurex 903R (Mobil)	2	1	-	-	-	-	-	-	-	-	-	-	-
Automatic Brake Fluid	2	X	-	-	-	1	-	1	1	1	1	1	-
Automatic Transmission Fluid - ATF	2	1	-	1	-	1	-	1	1	1	1	1	-
Aviation Gasoline, Mil.	-	2	-	-	-	-	-	-	1	1	1	1	1
B													
Baltic Types	-	1	-	-	-	1	-	-	-	-	-	-	-
100, 150, 200, 300, 500	-	1	-	-	-	1	-	-	-	-	-	-	-
Banvel, Concentrated (Ag Spray)	-	-	-	-	-	1	1	-	-	-	1	-	-
Bardol B	X	X	X	-	X	-	1	-	1	1	-	-	-
Barium Carbonate	1	1	1	1	1	-	1	1	2	1	1	X	1
Barium Chloride	X	1	1	1	1	1	1	1	X	2	2	X	2
Barium Chloride, 5%	X	1	-	-	-	1	X	1	2	1	1	X	-
Barium Chloride, Aqueous Solution (Hot)	X	1	-	-	-	1	X	-	2	2	2	X	-
Barium Hydroxide	1	1	1	1	1	X	1	1	1	X	1	X	X
Barium Sulfate	1	1	-	1	2	-	1	1	2	1	1	2	2
Barium Sulfate, Aqueous Solution (Hot)	X	-	-	-	-	1	X	1	2	1	1	2	-
Barium Sulfide	2	1	1	1	1	-	1	2	1	X	1	X	X
Bayol D	-	1	-	-	-	-	-	-	-	-	-	-	-
Bayol 35	-	1	-	-	-	-	-	-	-	-	-	-	-
Beet Sugar Liquors	X	1	1	1	1	X	1	-	2	2	2	2	X
Bellows 80-20 Hydraulic Oil	-	1	-	-	-	2	1	-	-	-	-	-	-
Benzaldehyde	X	X	X	2	X	1	1	1	1	1	1	1	1
Benzene, Benzol	X	X	X	X	X	2	1	2	1	1	1	1	1
Benzene Sulfonic Acid	X	-	-	-	-	1	-	1	X	-	2	X	-
Benzine, Petroleum Ether	X	2	X	1	-	2	1	-	1	1	1	1	1
Benzoic Acid 21°C (70°F)	X	X	X	1	-	1	-	1	1	1	1	1	1
Benzol	X	X	X	X	-	1	1	2	1	1	1	1	1
Benzyl Alcohol	X	X	-	1	-	1	X	1	1	1	1	1	-
Benzyl Benzoate	-	-	-	-	-	1	-	-	1	1	1	-	-
Benzyl Chloride	X	X	X	X	-	1	2	2	1	-	-	-	-
Bismuth Carbonate	X	-	-	-	-	1	-	-	1	1	1	-	-
Black Point 77	-	1	-	-	-	-	-	-	-	-	-	-	-
Black Sulfate Liquor	2	2	2	2	2	-	1	1	1	1	1	-	1
Blast Furnace Gas	X	X	X	-	X	1	-	-	1	1	1	2	1
Borax, Sodium Borate	X	2	2	1	1	1	X	-	2	1	1	X	2
Bordeaux Mixture	2	2	2	-	1	1	1	1	X	-	1	1	X
Boric Acid	1	1	1	-	1	1	X	1	X	2	2	1	X
Boron Fuels, HEF	X	X	-	-	-	-	-	-	-	-	-	-	-
Brake Fluid, Petroleum Base	2	1	2	1	X	-	1	-	1	1	1	-	1
Brake Fluid, Synthetic Base	X	X	X	1	X	-	1	-	1	1	1	1	1
Bray GG - 130	X	2	-	-	-	-	-	-	-	-	-	-	-
Brayco 719-r (VV-H-910)	2	X	-	-	-	-	-	-	-	-	-	-	-
Brayco 885 (MIL-L-6085A)	X	2	-	-	-	-	-	-	-	-	-	-	-
Brayco 910	2	2	-	-	-	-	-	-	-	-	-	-	-
Brine	1	1	1	1	-	1	1	1	2	1	1	-	2
Brom-113	X	2	-	-	-	-	-	-	-	-	-	-	-
Brom-114	2	2	-	-	-	-	-	-	-	-	-	-	-
Bromine, Dry	X	X	X	-	-	X	-	-	X	X	X	-	X
Bunker Oil	X	2	2	-	X	2	1	1	2	1	1	1	1
Butadiene	X	2	-	-	-	1	1	-	-	1	1	-	1
Butane	X	X	X	-	X	X	1	X	-	1	1	1	-

**Nitrile 150°F or less, no constant contact.

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	Polychloroprene Nitrile, HNBR, or XTF	Nitrile + PVC	CPE	CSM	Urethane	PTFE	Nylon	MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass
Butter Oil	2	-	-	-	-	1	-	-	1	1	1	1	1
Butyric Acid	X	-	-	1	-	-	1	X	1	X	1	1	2
Butyl Acetate	X	X	X	2	X	-	1	-	2	1	1	1	1
Butyl Alcohol	1	1	1	1	-	-	1	1	1	1	1	1	1
Butyl Amine	-	-	-	-	-	-	1	1	-	1	1	1	1
Butyl Carbitol	2	2	-	1	-	1	-	-	1	1	1	1	1
Butyl Mercaptan	-	-	-	-	-	-	1	-	-	-	1	1	1
Butyl Stearate	X	2	2	2	-	1	-	-	1	1	1	1	1
Butyraldehyde	X	X	-	2	-	-	1	-	-	-	-	-	1
C													
Calcium Acetate	X	X	X	1	X	-	1	-	2	2	2	X	1
Calcium Arsenate	-	-	-	-	-	1	1	1	-	-	-	-	-
Calcium Bisulfate	1	1	2	1	1	-	1	-	-	2	1	-	X
Calcium Bisulfide	1	1	2	1	1	1	1	-	-	2	2	X	X
Calcium Bisulfite	1	1	1	1	1	-	1	1	-	X	1	1	X
Calcium Carbonate	1	1	1	1	1	1	1	1	-	2	1	1	X
Calcium Chlorate	1	1	1	-	1	-	1	-	2	2	1	1	-
Calcium Chloride	1	1	1	1	1	1	1	1	X	2	1	X	-
Calcium Hydroxide	1	2	2	1	1	X	1	-	X	X	1	1	2
Calcium Hydroxide, 10% Boiling	-	2	-	-	-	-	1	X	X	-	2	1	X
Calcium Hydroxide, 20% Boiling	-	-	-	-	-	-	1	X	X	-	1	1	X
Calcium Hydroxide, 50% Boiling	-	-	-	-	-	-	1	X	X	-	X	2	X
Calcium Hypochlorite, 5% (Under 100°F)	X	2	X	1	2	-	1	X	X	X	X	2	X
Calcium Hypochlorite, 15% (Under 100°F)	X	-	X	1	2	-	1	X	X	-	X	2	X
Calcium Nitrate	1	1	1	1	1	-	1	1	-	X	2	2	X
Calcium Silicate	-	2	-	1	2	-	1	-	-	1	1	1	1
Calcium Sulfate	1	1	1	1	1	-	1	-	2	1	1	2	1
Calcium Sulfide	1	2	-	1	-	-	1	2	-	2	1	1	2
Caliche Liquors	1	2	-	1	1	1	1	-	1	1	1	-	-
Cane Sugar Liquors	1	1	2	1	-	-	1	-	-	1	1	1	2
Carbolic Acid, Phenol	X	X	X	1	X	X	1	X	-	X	1	1	2
Carbon Dioxide, Dry	2	1	1	1	1	1	1	-	-	1	1	1	1
Carbon Dioxide, Wet	2	1	1	1	1	-	1	-	1	1	1	1	1
Carbon Disulfide	X	X	-	2	X	2	1	1	1	2	1	1	2
Carbon Monoxide, Under 150°F (Hot)	2	2	2	1	1	-	1	2	1	1	1	1	1
Carbon Tetrachloride, 5%-10%	-	-	-	-	-	1	-	X	-	X	-	-	-
Carbon Tetrachloride, Pure	X	X	X	2	X	1	X	X	X	X	2	2	2
Carbonic Acid	1	1	1	1	1	X	1	-	1	X	1	1	2
Castor Oil	2	2	2	1	2	2	1	1	-	1	1	1	1
Caustic Soda, 20%	2	X	X	1	1	X	1	2	-	2	1	1	X
Caustic Soda, 50%	2	X	X	1	1	X	1	2	-	2	1	1	X
Cellosolve Acetate, Under 100°F	X	X	X	2	X	-	1	-	-	2	2	2	1
Cellosolve, Butyl, Under 100°F	X	X	X	-	X	-	1	-	-	2	2	2	2
Cellosolve, Union Carbide, Under 100°F	X	X	-	-	-	1	-	-	-	2	2	2	2
Cellugard, Cellugard 200	1	1	-	-	-	1	-	-	-	1	1	1	1
Cellulube 90, 150, 220, 300, 550	X	X	X	-	X	-	1	-	-	1	1	1	1
Cellulube 1000, 220A, ST220, A60	X	X	X	-	X	-	1	-	-	1	1	1	1
Cellutherm 2505A	X	2	-	-	-	-	-	-	-	-	-	-	-
Chevron Fr-10,13,20.8	-	-	-	-	-	1	-	-	-	1	1	1	-
Chlordane	X	X	X	-	X	-	1	1	-	-	-	-	-
Chlorinate Paraffin & Petroleum Oil	-	-	-	-	-	1	-	-	-	1	1	1	1
Chlorine Gas, Dry	NO HOSE AVAILABLE							2	X	X	-	2	-
Chlorine Gas, Wet	NO HOSE AVAILABLE							X	X	X	X	X	-
Chlorine Trifluoride	X	X	-	-	-	-	-	-	-	1	1	1	1

CHEMICAL RESISTANCE



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	Polychloroprene Nitrile, HNBR, or XTF Nitrile + PVC CPE CSM Urethane PTFE Nylon MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass							
Chemical Name													
Chlorine Water, 3% Chlorine	X X X	-	-	-	1	-	1	-	X	X	-	-	
Chlorine Water, 25% Chlorine	X X X	-	2	2	1	2	-	-	X	X	-	-	
Chloroacetic Acid (Under 100°F)	X X X	-	2	-	1	X	X	X	X	X	-	2	
Chlorobenzene	X X X	X	X	-	1	X	-	2	2	2	X	1	
Chlorobromo Methane	X X X	-	X	-	1	-	X	2	2	2	X	1	
Chloroform	X X X	X	X	-	1	X	2	2	1	1	X	1	
O-Chloronaphthalene	X X X	-	-	-	1	X	2	-	1	1	1	-	
Chlorosulfonic Acid	2	X	X	X	-	1	X	X	1	-	-	-	
Chlorotoluene	X X X	X	X	X	1	-	-	1	1	1	X	1	
Chlorox, Bleach	2	2	-	1	2	-	1	1	1	X	X	2	X
Chromic Acid, 5%	X	X	-	-	-	1	X	1	X	2	X	X	X
Chromic Acid, 10%	X	X	X	1	2	X	1	X	1	X	2	X	X
Chromic Acid, 25%	X	X	X	1	2	X	1	X	1	X	2	X	X
Chromic Acid, 50%	X	X	X	1	2	X	1	X	1	X	2	1	X
Chromic Acid, 100%	-	-	-	-	X	1	-	2	X	X	2	-	X
Circo Light Process Oil	1	1	-	-	-	1	-	-	1	1	1	1	-
Citgo FR Fluids	-	X	-	X	-	2	1	-	-	1	1	1	-
Citgo Glycol FR-20XD	-	1	-	-	2	1	-	-	1	1	1	-	1
Citgo Sentry (Under 100°F)	2	2	1	-	X	2	1	-	-	1	1	1	-
Citgo Tractor Hydraulic Fluid	-	1	-	-	-	2	1	-	-	1	1	1	-
Citric Acid, 5%	-	2	-	-	-	-	1	1	1	X	1	1	X
Citric Acid, 5% @150°F	-	2	-	-	-	-	1	X	1	X	1	2	X
Citric Acid, 15%	1	2	-	-	-	-	1	1	1	X	X	1	-
Citric Acid, 15% Boiling	1	2	-	-	-	-	1	X	-	X	2	1	X
Citric Acid, Concentrated Boiling	1	X	1	-	1	2	1	X	-	X	X	1	X
Coal Gas	1	X	1	-	1	-	1	-	-	-	-	-	-
Coal Tars	X	2	X	2	2	-	1	X	-	1	1	1	1
Cod Liver Oil	1	1	1	-	-	-	1	-	-	1	1	1	1
Coke Oven Gas (Under 100°F)	X	2	X	-	2	-	1	-	-	1	1	1	1
Condor 1000, 1002, 1004, 1006, 1008	-	2	-	-	-	-	-	-	-	-	-	-	-
Condor 1008, 1010, 1012, 1014, 1016	-	2	-	-	-	-	-	-	-	-	-	-	-
Convelex 10	X	X	-	-	-	-	-	-	-	-	-	-	-
Copper Arsenate, Cupric Arsenate	-	-	-	-	2	-	1	-	-	1	1	1	-
Copper Chloride, 1%	1	1	-	-	-	-	1	X	-	X	X	1	-
Copper Chloride, 5%	1	1	-	-	-	-	1	X	-	X	X	1	-
Copper Chloride, Cupric Chloride	2	2	2	2	2	1	1	2	-	X	X	1	-
Copper Cyanide, Cupric Cyanide	2	2	2	-	2	-	1	X	-	1	1	1	-
Copper Nitrate, 1% & 5%	1	1	-	-	-	-	1	1	-	X	1	1	X
Copper Nitrate, Cupric Nitrate	1	1	1	1	1	1	-	1	-	1	1	1	-
Copper Sulfate, Cupric Sulfate	1	1	1	1	1	1	1	1	-	X	1	1	X
Copper Sulfate, 10%	1	1	-	-	-	-	1	-	-	X	2	2	X
Copper Sulfate, 50%	1	1	-	-	-	-	1	-	-	-	2	2	-
Corn Oil	X	2	2	2	X	X	1	-	-	1	1	1	-
Corn Syrup	2	2	-	2	-	-	1	-	-	1	1	1	1
Cottonseed Oil	2	2	1	2	2	X	1	2	-	1	1	1	1
Creosote, Wood Or Coal Tar (Under 100F)	X	2	X	-	X	X	1	X	X	2	1	1	X
Cresol, Cresylic Acid (Under 100°F)	X	X	X	1	X	-	1	X	-	2	1	1	2
Cresylic Acid	X	X	-	-	-	-	1	X	-	1	1	1	-
Crude Petroleum Oil (Under 100°F)	X	X	2	2	2	2	1	-	-	X	X	2	1
Cutting Oil, Water Soluble	X	1	-	-	-	-	1	-	-	1	1	1	-
Cutting Oil, Sulfur Base	X	1	-	-	-	-	1	-	-	1	1	1	1

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	Polychloroprene Nitrile, HNBR, or XTF Nitrile + PVC CPE CSM Urethane PTFE Nylon MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass							
Chemical Name													
Cutting Oil	2	1	2	1	X	-	1	-	-	1	1	1	1
Cyclohexane	X	2	-	1	X	1	1	1	1	1	1	1	1
Cyclohexanone	X	X	X	2	X	1	1	1	1	-	1	1	2
Cymene	X	X	X	X	X	-	1	-	-	1	1	1	1
D													
Dasco FR150, FR200, FR200B, FR310	-	1	-	-	-	-	1	1	-	1	1	1	1
Dasco IFR	-	1	-	-	-	-	1	1	-	1	1	1	1
DC200, DC510, DC550, DC560	-	1	-	-	-	-	1	-	-	-	1	1	1
Decalin	X	2	-	2	X	-	1	1	2	-	-	-	1
Dectol R&O Oils	X	1	-	-	-	2	-	-	-	-	-	-	-
Denatured Alcohol	1	1	1	1	1	-	1	1	1	1	1	1	1
Developing Fluids, Photo	1	1	-	1	-	-	-	-	-	X	X	2	-
Developing Solutions, Hypos	2	-	-	1	2	-	1	-	-	-	1	1	-
Diacetone	X	X	X	1	X	-	1	1	-	1	1	1	1
Diacetone Alcohol	-	X	-	1	-	-	1	1	-	1	1	1	1
Dibenzel Ether	X	X	-	2	-	-	1	-	-	1	1	1	1
Dibutyl Ether	X	X	-	1	-	-	1	-	-	1	1	1	1
Dibutyl Phthalate (Under 120°F)	X	X	X	2	X	2	1	-	-	1	1	1	1
Dibutyl Sebacate	X	X	X	2	-	-	1	-	-	-	-	-	1
Dichlorobenzene	X	X	X	X	X	X	1	1	-	-	1	1	-
Dichloroethane	X	X	X	X	-	-	1	X	2	-	X	X	X
Diesel Oil, Fuel ASTM #2	[2]	1	[2]	2	X	1	1	1	1	1	1	1	1
Diester Lubricant MIL-7808	X	2	-	-	-	-	1	-	-	-	1	1	1
Diester Synthetic Lubricants	X	2	-	-	-	-	1	-	-	-	1	1	1
Diethylamine (Under 120°F)	2	2	-	2	X	-	1	1	-	1	1	1	1
Diethylene Glycol	1	1	1	1	1	1	1	1	1	1	1	1	1
Diethyl Ether	X	X	-	1	-	-	1	-	-	1	1	1	1
Diethyl Phthalate	-	X	-	2	-	-	1	-	-	-	1	1	-
Diethyl Sebacate	X	X	X	2	-	-	1	-	-	-	1	1	-
Diisobutylene	X	2	-	1	X	-	1	-	-	2	1	1	2
Diisobutyl Ketone	X	X	X	2	X	-	1	1	-	1	1	1	1
Diisopropyl Ketone	X	X	X	2	X	-	1	1	-	-	1	1	-
Dimethyl Aniline	X	X	X	2	X	-	1	-	-	-	-	-	-
Dimethyl Formamide (Under 120°F)	X	X	X	-	-	-	1	-	-	1	1	1	1
Dimethyl Phthalate	X	X	X	1	X	-	1	-	-	-	-	-	1
Diocetyl Phthalate	X	X	X	2	X	-	1	-	-	1	1	1	1
Diocetyl Sebacate	X	X	X	X	X	-	1	-	-	1	1	1	-
Dioxane	X	X	X	2	-	-	1	1	-	1	1	1	1
Dipentene	X	X	-	2	-	-	1	-	-	1	1	1	1
Dirco Oils	-	1	-	-	-	-	1	1	-	1	1	1	1
Dispersing Oil #10	X	X	-	-	-	-	1	-	-	1	1	1	-
Dowtherm A	X	X	X	2	X	X	1	-	-	1	1	1	1
Dowtherm E	X	X	-	2	-	-	1	-	-	1	1	1	1
DP47, 200 Flow - DOW	-	1	-	-	-	-	1	1	-	1	1	1	1
Duro FR-HD	-	1	-	-	-	-	X	1	1	-	1	1	1
Duro Oils	-	1	-	-	-	-	1	1	-	1	1	1	1
E													
Elco 28-EPLubricant	X	1	-	-	-	-	-	-	-	1	1	1	1
Enamels	-	-	-	-	-	-	1	1	-	-	-	-	1
Energol HL68	-	1	-	-	-	-	-	-	-	1	1	1	1
Energol HLPC 68	-	1	-	-	-	-	-	-	-	1	1	1	1
EPHydraulic Oils, Chevron	-	1	-	-	-	-	-	-	-	1	1	1	1
Epichlorohydrin (Under 120°F)	X	X	-	-	-	-	1	-	-	1	2	1	-
Esam-6 Fluid	2	-	-	-	-	-	-	-	-	-	-	-	-
Ethanol	1	1	-	1	-	X	1	1	1	X	1	1	-
Ethanolamine, Aminoethanol	2	2	-	1	X	X	1	1	1	1	1	1	1
Ethers (Under 120°F)	X	2	X	1	2	2	1	1	1	1	1	1	1

CHEMICAL RESISTANCE



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	Polychloroprene Nitrile, HNBR, or XTF	Nitrile + PVC	CPE	CSM	Urethane	PTFE	Nylon	MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass
Ethyl Acetate	X	X	X	2	X	2	1	1	1	1	1	2	2
Ethyl Acetoacetate	X	X	X	1	X	X	1	-	-	1	1	1	1
Ethyl Acrylate	X	X	X	2	X	X	1	-	-	1	1	1	1
Ethyl Alcohol	1	1	1	1	-	-	1	1	1	1	1	1	2
Ethyl Amine, Monoethylamine	X	X	X	1	X	X	1	-	-	2	1	1	2
Ethyl Benzene	X	X	X	2	X	1	1	-	-	1	1	1	1
Ethyl Bromide, Di	X	X	X	2	X	-	1	-	-	1	1	1	1
Ethyl Butyrate	X	X	X	-	-	1	-	-	-	1	1	1	-
Ethyl Cellulose	-	-	-	1	-	1	-	-	-	1	1	1	-
Ethyl Chloride	X	X	X	-	X	1	1	2	2	1	1	1	2
Ethyl Ether	X	X	X	-	1	-	X	-	2	1	1	1	1
Ethyl Mercaptan	X	X	X	-	X	X	1	-	2	-	-	-	-
Ethyl Oxalate	X	X	-	1	X	X	1	-	-	-	-	-	-
Ethyl Pentachlorobenzene	-	X	-	X	-	1	1	-	2	1	1	-	1
Ethyl Silicate	1	1	1	1	-	1	1	1	-	1	1	1	1
Ethylene Chloride	X	X	X	X	-	1	1	X	-	-	1	1	-
Ethylene Chlorohydrin, Under 100°F	X	X	X	-	-	X	1	X	-	1	1	2	X
Ethylene Diamine (Under 100°F)	2	2	2	1	X	X	1	-	-	-	-	-	1
Ethylene Dichloride	X	X	X	X	-	1	1	X	-	-	1	1	2
Ethylene Glycol	1	1	1	1	1	1	1	1	1	2	1	1	1
F													
Factovis 52	-	1	-	-	-	-	-	-	-	1	1	1	1
Fatty Acids	2	2	2	2	X	1	1	1	2	2	1	1	2
Ferric Chloride	-	-	-	1	2	-	1	1	-	X	X	X	X
Ferric Chloride, 1%	1	1	-	-	-	1	1	-	-	X	2	2	X
Ferric Chloride, 1% Boiling	-	2	-	-	-	-	1	1	-	X	X	X	X
Ferric Chloride, 5% Still	2	1	-	-	-	-	1	1	-	X	X	X	X
Ferric Chloride, 5% Agitated or Aerated	2	2	-	-	-	-	1	1	-	X	X	X	X
Ferric Chloride, 10%	2	1	-	-	-	-	1	1	-	X	X	X	X
Ferric Sulfate	2	2	2	1	2	-	1	1	1	X	1	1	X
Ferrous Chloride	1	1	-	1	2	-	1	-	-	X	1	2	-
Ferrous Nitrate	2	2	2	-	2	-	1	-	-	-	1	1	-
Ferrous Sulfate, Copper Gas	2	2	2	1	2	-	1	-	1	X	1	1	2
Ferrous Sulfate, 10%	1	1	-	-	-	-	1	1	1	X	2	2	X
Ferrous Sulfate, Saturated	1	-	-	-	-	-	1	1	1	-	2	2	X
Fire Resistant Hydraulic Fluid, Texaco	-	1	-	-	-	-	1	-	-	1	1	1	1
Firtec 290, MF	-	-	-	-	-	-	1	-	-	-	-	-	-
Fixing Solution, Photo	2	-	-	-	2	-	1	-	-	-	1	1	-
Fluoboric Acid	1	1	-	1	-	1	-	1	-	1	-	1	X
Fluoboric Acid, 65%	2	-	-	1	2	X	1	-	1	-	1	1	-
Fluosilicic Acid	2	1	-	-	-	-	1	-	1	X	X	X	1
Fluosilicic Acid, 50%	2	X	X	1	2	X	1	X	1	-	-	-	1
Formaldehyde	1	X	-	1	-	1	2	-	-	1	1	1	X
Formaldehyde, 37%	2	-	-	1	2	2	1	-	1	-	1	1	1
Formaldehyde, Hot	-	-	-	-	-	-	1	1	-	X	2	1	2
Formic Acid (Under 120°F)	1	X	1	1	2	X	1	2	1	X	2	1	2
Formic Acid, Dilute Hot	1	X	-	1	-	-	1	X	-	X	2	1	2
Freon 12 (Under 100°F) Use Freon Hose Only									2	1	1	1	1
Freon 114 Use Freon Hose Only									1	1	1	1	-
Fruit Juices										X	1	1	-
Fuel Oil	[2]	1	[1]	1	X	2	1	1	1	2	2	2	1
Fumaric Acid	2	X	-	-	-	X	1	-	1	-	1	1	-
Furan, Furfuran	X	X	X	1	-	-	1	-	1	1	1	1	1
Furan Resin	X	X	-	-	-	1	-	-	-	-	1	-	-
Furfural Alcohol, Ant Oil	2	X	X	1	2	-	1	1	2	2	1	1	1

**Nitrile 150°F or less, no constant contact.

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	Polychloroprene Nitrile, HNBR, or XTF	Nitrile + PVC	CPE	CSM	Urethane	PTFE	Nylon	MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass
Fusel Oil, Grain Oil	X	X	-	-	-	-	1	-	1	-	-	-	-
Fyrguard 150, 200	-	1	-	-	-	-	1	-	-	1	1	1	1
Fyrquel A60, 90, 100, 150, 220, 300, 500	X	X	-	-	-	-	1	-	-	1	-	-	1
Fyrquel 1000, 15R&O, 220R&O, 550R&O	X	X	-	-	-	-	1	-	-	1	-	-	1
G													
Gallic Acid (Under 100°F)	X	X	X	1	-	X	1	2	1	X	1	1	X
Gas, Natural	-	-	-	X	-	-	1	-	-	1	1	1	-
Gasohol	2	*	*	-	X	-	1	-	1	2	1	1	1
Gasoline, Aviation	X	-	2	-	-	-	1	-	1	-	1	1	1
Gasoline, Meter	X	*	-	-	-	-	1	X	1	1	1	1	X
Gasoline, Premium	[2]	*	*	-	X	X	1	-	1	2	1	1	1
Gasoline, Sour	X	X	-	-	-	-	1	-	-	2	1	1	X
Gasoline, Standard	[1]	*	*	2	X	X	1	-	1	2	1	1	1
Gasoline, Unleaded Under 50% Aromatics	X	*	X	-	X	X	1	-	1	2	1	1	1
Gelatin	1	1	-	-	-	-	1	1	-	X	1	1	-
Glauber's Salt	2	X	-	-	-	-	1	-	-	1	1	1	-
Glucose	1	1	1	-	1	1	1	1	-	2	1	1	1
Glue (Under 120°F)	2	2	2	-	1	1	1	2	-	1	1	1	2
Glycerine, Glycerol	1	1	1	1	1	1	1	1	-	2	1	1	2
Glycol FR Fluids	-	1	-	-	-	-	1	-	-	1	1	1	1
Glycols (Under 120°F)	1	1	1	1	1	1	1	1	2	2	1	1	1
Grease, Ester Base	-	-	-	-	-	-	1	1	-	1	1	1	1
Grease, Petroleum Base	2	1	2	-	2	1	1	1	2	1	1	1	1
Grease, Silicone Base	-	-	-	-	-	-	1	1	1	1	1	1	1
Green Sulfate Liquor, Under 100°F	2	2	1	2	1	-	1	-	1	1	1	1	-
Gulf FR Fluid G-200	-	1	-	-	-	-	X	1	-	-	1	1	1
Gulf FR Fluid P37, P40, P43, P45, P47	-	X	-	-	-	-	X	1	-	-	-	-	-
H													
Halowax Oil	X	X	X	-	X	-	1	-	1	-	-	-	-
Heptachlor, In Petroleum	-	2	X	-	-	-	1	-	-	-	-	-	-
Heptane (Under 100°F)	[2]	1	[2]	1	X	1	1	1	1	1	1	1	1
N-Hexaldehyde	2	X	2	-	-	-	1	-	1	1	1	1	1
Hexane (Under 120°F)	[2]	1	[2]	2	1	1	1	1	1	1	1	1	1
Hexene	[2]	2	-	1	-	-	1	-	1	1	1	1	-
Hexyl Alcohol	1	2	1	1	-	-	1	-	-	1	1	1	2
High Viscosity Lubricant, U4	2	1	-	-	-	-	1	-	-	-	-	-	-
High Viscosity Lubricant, H2	2	1	-	-	-	-	1	-	-	-	-	-	-
Hilo MS #1	X	X	-	-	-	-	-	-	-	-	-	-	-
Houghto-Safe 1010,1055 (Phos. Ester)	X	X	X	1	X	-	1	-	-	1	1	1	1
Houghto-Safe 1115, 1120, 1130 (Phos. Ester)	X	X	X	1	X	-	1	-	-	1	1	1	1
Houghto-Safe 271, 416, 520, 616 (Water/Glycol)	2	1	1	-	-	2	1	-	-	1	1	1	1
Houghto-Safe 620, 625, 640, 525 (Water/Glycol)	1	1	1	-	-	2	1	-	-	1	1	1	1
Houghto-Safe 5046, 5046W (Water/Oil Emulsion)	2	1	-	-	-	-	1	-	-	1	1	1	1
Hy-Chock Oil	-	1	-	-	-	-	1	1	-	1	1	1	-
Hydrafluid 760, Texaco and Houghton	-	1	-	-	-	-	1	1	-	1	1	1	-
Hydrafluid AZR&O, A, B, AA, C	-	1	-	-	-	-	1	1	-	1	1	1	-
Hydrasol A	-	1	-	-	-	-	1	1	-	1	1	1	-
Hydraulic Fluid, Phosphate Ester Base	X	X	X	1	-	X	1	1	-	1	1	1	-

CHEMICAL RESISTANCE



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	Polychloroprene Nitrile, HNBR, or XTF Nitrile + PVC CPE CSM Urethane PTFE Nylon MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass						
Chemical Name												
Hydraulic Fluid, Std. Petroleum Oils	2 1 2 1 2 2 1 1 -	1	1	1	1	1						
Hydraulic Fluid, Water Glycol Base	1 1 1 - - 1 1 1 -	1	1	1	1	1						
Hydraulic Fluid HF - 18, HF - 20	- 1 - - - 2 1 1 -	1	1	1	1	1						
Hydraulic Fluid HF - 31	- - - - - 1 1 -	1	1	1	1	1						
Hydraulic Oils, Petroleum	2 1 - - - 1 1 -	1	1	1	1	1						
Hydraulic Oils, Synthetic	- X - - - 1 - -	1	1	1	1	1						
Hydraulic Safety Fluid 200 & 300, Texaco	- 1 - - - 1 1 - -	1	1	1	1	1						
Hydrazine	X X X - - 2 1 - -	-	-	-	-	-						
Hydro-Drive Oil, Houghton	- 1 - - - 2 1 - -	-	-	-	-	-						
Hydrobromic Acid	X X - - - 1 X 1	1	1	1	X	-						
Hydrobromic Acid, 37%	X X X 1 2 X 1 X 1	1	1	1	X	-						
Hydrochloric Acid	2 X - - - 1 X 1	X	X	X	X	X						
Hydrochloric Acid, 3 Molar	2 X - - - 1 X 1	X	X	X	X	X						
Hydrochloric Acid, Concentrated	X X - - - 1 X 1	X	X	X	X	X						
Hydrochloric Acid, 15%	X X X 1 2 X 1 X 1	X	X	X	X	X						
Hydrochloric Acid, 37%	X - X 1 2 X 1 X 1	X	X	X	X	X						
Hydrocyanic Acid, 20% Under 100°F	X X X - 2 X 1 1 1	X	1	1	1	X						
Hydrocyanic Acid, 98%	- - - - - 1 - 1	-	-	-	-	-						
Hydrofluoric Acid, 10%	2 2 X 1 1 X 1 X 1	X	X	X	X	X						
Hydrofluoric Acid, 20% (Under 120°F)	2 X X 1 2 X 1 X 1	X	X	X	X	X						
Hydrofluoric Acid, 48% (Under 120°F)	2 X X 1 2 X 1 X 1	X	X	X	X	X						
Hydrofluoric Acid, 70%	- X X - 2 X 1 X X	X	X	X	X	X						
Hydrofluoric Acid, Concentrated	X X X 1 2 X 1 X X	X	X	X	X	X						
Hydrofluoric Acid, Anhydrous	- X - - - 1 - -	-	-	-	-	-						
Hydrofluosilicic	X X X X - 1 X 1	X	X	X	X	1						
Hydrogen	1 1 - 1 - 1 - X	X	X	X	1	-						
Hydrogen Chloride Gas	- - - 1 - - 1 - -	-	1	1	-	-						
Hydrogen Cyanide Gas	- - - - - - - -	-	-	-	1	-						
Hydrogen Fluoride (Under 100°F)	- X - - - 1 - -	2	2	1	-	-						
Hydrogen Peroxide, Dilute	1 2 - - - 1 1 1	1	-	1	-	X						
Hydrogen Peroxide, 10%	X 1 X 1 2 X 1 X 1	X	2	1	1	X						
Hydrogen Peroxide, 30%	X 2 X 1 2 X 1 X 1	X	2	1	1	X						
Hydrogen Peroxide, 70%	X X X 1 - X 1 X 1	X	2	1	1	X						
Hydrogen Peroxide, 90%	X X - - - 1 - 1	X	2	1	-	X						
Hydrogen Sulfide	2 X - - - 1 1 X	2	2	1	-	X						
Hydrogen Sulfide Aqueous Solution	2 X - - - 1 - -	X	-	-	X	-						
Hydrogen Sulfide, Gas	- - - - - - - X	-	-	-	-	-						
Hydrolube, Water Glycol	2 1 - - - X 1 - 1	1	1	1	-	1						
Hydrolubric Oil, Houghton	- 2 - - - 2 1 1 -	-	-	-	-	-						
Hydroquinone	X - - - X - 1 - -	-	1	1	2	-						
Hykil No.6 (33%); Water (67%)	- 2 - - - 1 - -	1	-	-	-	-						
Hypochlorous Acid (Under 120°F)	X X X - 2 - 1 1 1	2	2	2	X	-						
Hypoid Grease (Parapoid 10-C)	- 1 - - - 1 - -	-	-	-	-	-						
I												
Imol, Imol S150, S220, S300, S500	- 1 - - - 2 1 1 -	1	1	1	1	-						
Industron 53	- 1 - - - 1 - -	-	-	-	-	-						
Ink (Printers)	1 1 - - - 1 1 -	2	2	1	-	2						
Ink Oil	- 2 - - - 1 - -	1	1	1	-	1						
Insulating Oil (Transformer)	2 1 2 - X - 1 - -	1	1	1	-	1						

**Nitrile 150°F or less, no constant contact.

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	Polychloroprene Nitrile, HNBR, or XTF Nitrile + PVC CPE CSM Urethane PTFE Nylon MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass						
Chemical Name												
Isobutyl Alcohol	2 2 2 1 - - 1 1 1	1	1	1	1	2						
Iodine (Under 100°F)	X X - 1 2 X 1 1 -	2	2	2	X	-						
Iodine, In Alcohol	2 - - - - X 1 - 1	-	-	-	X	-						
Iodine Pentafluoride	X X - - - 1 - -	X	2	2	X	-						
Isooctane	1 1 2 2 1 2 1 1 -	1	1	1	2	1						
Isooctyl Thioglucolate	- - - - - 1 1 -	-	-	-	-	-						
Isobutane - WET	X X - - - X 1 X -	X	1	1	2	1						
Isopropyl Acetate	X X X - X 2 1 1 1	2	2	1	X	1						
Isopropyl Alcohol (Isopropanol)	2 2 2 1 2 2 1 1 1	1	1	1	1	2						
Isopropyl Ether	X X X - - - 1 1 1	1	1	1	1	1						
J												
Fuel JP-3 (Under 100°F)	[2] 1 [2] - X 2 1 1 -	1	1	1	2	1						
Jet Fuel JP-4 (Under 100°F)	[X] 1 [2] - X - 1 1 -	1	1	1	2	1						
Jet Fuel JP-5	X 1 X - X - 1 1 -	2	1	1	2	1						
Jet Fuel JP-6	X 1 X - X - 1 1 -	2	1	1	2	1						
Jet Fuel JP-X	2 1 X - X - 1 1 -	2	1	1	2	1						
K												
Kerosene	X 1 [2] 1 X - 1 1 -	1	1	1	1	1						
Ketchup	1 1 - - - 1 1 -	-	1	1	-	-						
Ketones	X X X - X X 1 1 1	1	1	1	2	1						
L												
Lacquer Solvents	X X X - X 2 1 1 1	X	2	1	1	1						
Lacquers	X X X - X - 1 1 -	X	X	1	1	1						
Lactic Acid	1 X X - 1 X 1 - 1	X	2	1	X	2						
Lactic Acid (5%)	2 1 - - - 1 1 1 -	X	2	1	1	X						
Lactic Acid (5% Boiling)	X X - - - 1 - -	X	2	1	2	X						
Lactic Acid (10% Boiling)	X X - - - 1 - -	X	2	1	X	X						
Lactol	2 2 2 - - - 1 - -	1	1	1	1	1						
Lard	2 1 - 1 - 1 1 1 1	1	1	1	1	X						
Lasso (Ag Spray)	- - - - - 1 1 -	-	1	1	-	-						
Latex	1 1 - - X - 1 1 1	1	1	1	1	1						
Lead Acetate	X X - 1 2 1 1 - -	2	2	2	X	1						
Lead Arsenate	2 2 - - - 1 - -	1	1	1	-	-						
Lead Nitrate	2 2 - - 1 1 1 - 1	1	2	2	-	-						
Lead Sulfate	1 1 - 1 2 - 1 - -	1	1	1	-	-						
Lead, Tetraethyl (Under 100°F)	X 2 X - X - 1 2 -	-	-	-	-	-						
Lead, Tetramethyl	X 2 X - X 1 1 - -	-	-	-	-	-						
Lecithin	2 X - - - - 1 - -	-	1	1	-	-						
Ligroin (Petroleum Ether, Under 120°F)	X 1 - - - X - 1 - -	2	1	1	X	-						
Lime (Chlorinated, Free Chlorine 20%)	- 1 - 1 - 1 - - 1	-	-	2	-	-						
Lime Bleach (Under 100°F)	X 2 X - X - - - -	X	2	1	-	-						
Lime Sulphur	1 X - - - - 2 1 1	2	1	1	X	X						
Lime Sulfur (Under 135°F)	1 X X - 2 - 2 1 1	2	1	1	X	X						
Lindane (Ag Spray)	- - - - - 1 1 -	-	1	1	-	-						
Linoleic Acid	X 2 X - - - 1 - 1	X	2	1	1	-						
Linseed Oil	X 1 - - - - 1 1 X	1	1	1	2	2						
Linseed Oil (Boiled)	2 2 1 1 1 1 1 - -	2	1	1	1	2						
Lubricating Oil (SAE 10, 20, 30, 40, 50)	2 2 - - - - 1 1 -	1	1	1	1	1						
Lubricating Oils (Diester, Under 135°F)	X 2 X - - - X 1 1 -	1	1	1	1	1						
M												
Machine Oil (Under 135°F)	1 1 2 - 2 - 1 1 -	1	1	1	1	1						
Magnesium Carbonate	1 1 1 - 1 1 1 - -	2	2	2	1	-						
Magnesium Chloride	1 1 1 1 1 1 1 1 1	X	2	1	X	2						
Magnesium Hydroxide	2 2 2 1 1 X 1 - -	1	1	1	X	X						
Magnesium Nitrate	2 2 2 - 1 - 1 - -	2	2	2	X	1						

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	Polychloroprene Nitrile, HNBR, or XTF Nitrile + PVC	CPE	CSM	Urethane	PTFE	Nylon	MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass
Magnesium Sulfate	2	2	2	1	1	1	1	1	2	2	2	2
Malathion (Ag Spray Dilute)	-	2	-	-	-	-	1	1	1	1	1	-
Maleic Acid	2	X	-	-	-	-	1	-	1	-	-	-
Malic Acid	-	-	-	-	-	-	1	-	1	-	-	-
Manganese Salts	-	1	1	-	1	-	1	-	-	-	-	-
Maxmul (Penzoil Hydraulic Fluid)	2	1	2	-	-	-	1	-	-	1	-	-
Mercuric Chloride	1	2	2	1	1	2	1	X	-	X	1	X
Mercuric Cyanide	1	2	2	-	1	-	-	-	-	2	2	X
Mercurous Nitrate (Under 120°F)	1	2	2	-	1	-	1	-	1	1	1	X
Mercury	1	2	2	1	1	2	1	1	1	1	1	X
Mesityl Oxide	X	X	X	2	X	X	1	-	1	1	1	1
Methane	2	1	-	-	-	-	1	-	-	1	1	-
Methoxychlor (Insecticide)	-	-	-	-	-	-	1	X	-	1	1	-
Methyl Acetate	X	X	X	1	X	-	1	-	-	1	1	1
Methyl Acrylate	X	X	X	-	X	-	1	-	-	1	1	1
Methyl Alcohol	1	1	1	1	-	-	1	1	1	1	1	2
Methyl Amine (25% Aqueous Solution)	2	X	-	-	-	-	1	-	1	1	1	-
Methyl Amine (60%)	2	2	-	-	-	-	1	2	1	1	1	2
Methyl Amine (99%)	X	X	-	-	-	-	1	-	1	1	1	X
Methyl Bromide	X	X	X	-	X	X	1	1	-	1	1	1
Methyl Butyl Ketone (MBK)	X	X	X	2	X	-	1	-	-	1	1	1
Methyl Cellosolve (Under 100°F)	2	X	-	1	X	-	1	-	-	2	2	2
Methyl Chloride	X	X	X	X	X	-	1	1	-	1	1	1
Methyl Ethyl Ketone (MEK)	X	X	X	2	X	X	1	1	1	1	1	2
Methyl Formate	2	X	X	-	X	-	1	-	-	2	1	1
Methyl Isobutyl Ketone (MIBK, 100°F)	X	X	X	2	X	X	1	1	-	1	1	1
Methyl Isopropyl Ketone	X	X	X	2	X	X	1	1	-	1	1	1
Methyl Methacrylate	X	X	X	2	2	-	1	-	-	2	2	-
Methyl Salicylate	2	2	2	-	-	-	1	-	-	1	1	1
Methyl Sulfate (Dimethyl, Under 100°F)	X	X	X	-	X	1	1	1	-	1	1	-
Methylene Chloride	X	X	X	X	X	-	1	X	2	1	1	X
Methylene Dichloride	X	X	X	-	-	-	1	1	-	1	1	X
Mineral Oil (Under 120°F)	1	1	1	1	1	1	1	1	1	1	1	2
Mineral Spirits	-	1	2	-	X	-	1	-	-	1	1	2
Mobile Therm 603	-	1	-	-	-	-	1	-	-	1	1	1
Molasses (Under 120°F)	2	2	2	-	1	1	1	-	-	2	1	2
Monochlorobenzene	X	X	X	X	X	X	1	-	-	1	1	X
Monoethanolamine	X	2	-	1	X	-	1	-	1	1	1	2
Morpholine (Pure Additive)	-	-	-	-	-	-	1	-	-	-	1	-
Motor Oils (Under 135°F)	2	1	2	1	2	2	1	1	-	1	1	1
Mould Oil	-	-	-	-	-	-	1	-	*	1	1	-
Muriatic Acid (Hydrochloric)	X	X	X	1	2	X	1	X	1	X	X	X
Mustard	1	2	1	-	1	-	1	-	-	X	1	2
N												
Naphtha (Low Aromatic Content)	X	2	X	1	X	-	1	1	-	2	1	1
Naphthalene (Tar Camphor)	X	X	X	1	X	-	1	1	-	1	1	1
Naphthalene	X	X	X	-	X	-	1	-	-	1	1	1
Naphthenic Acid	-	2	-	-	-	-	1	-	-	-	2	1
Natural Gas	-	-	-	-	-	-	1	-	X	1	1	2
Nickel Acetate solution (in water or alcohol)	-	-	-	-	-	-	1	-	1	1	1	1
Nickel Chloride	2	2	2	1	2	-	1	1	-	1	1	1
Nickel Nitrate	2	2	2	1	2	-	1	1	-	2	2	X
Nickel Plating Solution	-	2	-	-	2	X	1	-	-	-	1	1

**Nitrile 150°F or less, no constant contact.

Rating Scale: 1 Excellent 2 Good resistance X Not recommended - Testing recommended [] Cover stock rating only; Rating for tube stock "X" * Use Gates fuel hose or contact Denver Product Application Department	Gates Hose Polymers							Couplings & Adapters				
	Polychloroprene Nitrile, HNBR, or XTF Nitrile + PVC	CPE	CSM	Urethane	PTFE	Nylon	MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass
Nickel Salts	2	-	1	-	-	-	1	-	-	-	-	-
Nicotine Salts	-	-	-	-	-	-	1	1	-	-	1	X
Nitric Acid	X	X	-	-	-	-	1	-	-	-	X	1
Nitric Acid, 3 Molar	X	X	-	-	-	-	1	-	1	-	X	1
Nitric Acid, Concentrated (Boiling)	X	X	-	-	-	-	1	X	X	X	2	2
Nitric Acid, Inhibited Red Fuming (IRFNA)	X	X	-	-	-	-	1	-	X	X	1	1
Nitric Acid, Red Fuming (RNFA)	X	X	X	-	X	X	1	X	X	X	2	2
Nitric Acid, 5% To 10%	X	X	X	1	2	X	1	X	1	X	2	2
Nitric Acid, 20%	X	X	X	1	2	X	1	X	1	X	2	2
Nitric Acid, 50% (Boiling)	X	X	X	X	X	X	1	X	X	X	2	2
Nitric Acid, 65% (Boiling)	X	X	X	X	X	X	1	X	X	X	2	2
Nitric Acid & Hydrochloric Acid	-	X	-	-	-	-	1	-	X	X	X	X
Nitrobenzene (Under 100°F)	X	X	X	2	X	X	1	2	-	-	1	1
Nitroethane	X	X	X	1	2	-	1	-	-	1	1	1
Nitrogen	1	1	2	1	1	1	1	1	1	X	1	1
Nitrogen Oxide Up To 50% (Under 100°F)	1	1	2	1	1	-	1	1	-	1	1	-
Nitromethane	X	X	X	-	-	-	1	1	-	1	1	1
Nitropropane	X	X	X	-	-	-	1	1	-	1	1	1
Nyac 20 (WG), 30 (WG)	-	1	-	-	-	-	1	-	-	1	1	1
Nyac FR Fluid	-	1	-	-	-	-	1	-	-	1	1	1
Nyac FR200 Fluid	-	1	-	-	-	-	1	-	-	1	1	1
N-Octane	X	2	-	1	X	-	-	-	-	1	1	1
O												
Octyl Alcohol	2	2	2	1	-	-	1	1	-	1	1	2
Oils, Crude	X	2	-	-	-	-	1	-	-	1	-	-
Oil (SAE, Under 100°F)	1	1	1	1	2	1	1	1	-	1	1	1
Oleic Acid (Under 120°F)	2	2	2	1	2	1	1	-	2	2	2	1
Oleum	X	X	X	X	X	-	1	X	X	-	-	1
Olive Oil	X	2	2	2	X	-	1	-	1	2	1	1
OS 45 Type III (OS45)	1	2	-	-	-	-	1	-	-	-	-	-
OS 45 Type IV (OS45-1)	1	2	-	-	-	-	1	-	-	-	-	-
OS 70	1	2	-	-	-	-	1	-	-	-	-	-
Oxalic Acid (5%, Hot And Cold)	2	2	-	-	-	-	1	2	-	X	2	1
Oxalic Acid (10%)	2	2	-	-	-	-	1	2	1	X	2	1
Oxalic Acid (10% Boiling)	X	X	-	-	-	-	1	-	-	X	X	X
Oxalic Acid	X	X	X	1	2	X	1	X	-	X	2	1
Oxygen, Gaseous	-	-	-	-	-	-	1	-	-	1	1	1
Ozone (Dry)	2	X	2	1	2	1	1	2	2	1	1	1
Ozone (Wet)	-	X	-	-	-	-	1	-	2	X	2	1
P												
Paint	X	-	-	-	X	X	1	2	1	-	1	1
Paint Solvents (Oil Base)	X	X	-	-	X	X	1	2	-	-	1	1
Paints (Oil Base)	-	1	-	-	1	-	1	1	-	-	-	-
Paint Thinner, Duco	2	1	-	-	-	-	1	1	-	2	2	1
Palmitic Acid	2	2	2	1	X	1	1	1	1	2	2	1
Palm Oil	2	1	2	-	2	-	1	-	-	1	1	1
Paraffin (Petroleum)	2	1	2	1	X	-	1	1	1	2	1	1
Paraformaldehyde	2	2	2	-	2	2	1	-	-	1	1	1
Peanut Oil (Less Than 100°F)	2	1	2	-	-	-	1	-	-	1	1	1
Pentasol	2	2	2	-	2	-	1	1	2	1	1	1
Perchloric Acid	X	X	-	-	2	X	1	X	1	X	2	1
Perchloroethylene (Tetrachloroethylene)	X	X	X	2	X	-	1	2	1	1	1	1
Petroleum Ether	X	2	-	1	-	-	1	-	-	2	1	1
Petroleum Oil (Crude)	2	1	-	-	-	-	1	-	1	-	-	-
Petroleum Oil (Below 250°F)	2	1	-	-	-	-	1	-	X	-	-	-

CHEMICAL RESISTANCE



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	Polychloroprene Nitrile, HNBR, or XTF Nitrile + PVC CPE CSM Urethane PTFE Nylon MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Chemical Name					
Petroleum Oil (Above 250°F)	X	X	-	-	-	1	-	X	-	-	-	-
Petroleum Oils (Under 100°F)	2	1	2	-	2	2	1	-	1	1	1	1
Petroleum Oils (Refined)	2	1	2	-	2	2	1	1	1	1	1	1
Petroleum Oils (Sour)	2	2	-	-	X	2	1	-	1	2	1	1
Phenol (Carbolic Acid)	X	X	X	1	X	X	1	X	-	2	1	1
Phenol (70/30 Water)	X	X	-	-	-	1	-	-	-	1	1	1
Phenol (85/15 Water)	X	X	-	-	-	1	-	-	-	1	1	1
Phorone (Diisopropylidene Acetone)	X	X	-	-	X	X	1	-	-	1	1	1
Phosphate Esters (Concentrated)	X	X	-	X	X	X	1	2	1	-	-	-
Phosphate Esters (3 Molar)	X	X	-	2	2	X	1	2	1	-	-	-
Phosphate Esters (Dilute)	X	X	-	1	1	X	1	2	1	-	-	-
Phosphoric Acid	2	2	-	-	-	1	-	1	-	2	-	-
Phosphoric Acid (3 Molar)	X	X	-	-	-	1	-	1	-	-	-	-
Phosphoric Acid (Concentrated)	X	X	-	-	-	1	-	2	-	-	-	-
Phosphoric Acid (1%)	2	-	-	-	-	1	-	1	-	1	1	-
Phosphoric Acid (5%)	2	X	-	-	-	1	-	1	-	1	1	-
Phosphoric Acid (10%)	2	X	-	-	-	1	-	1	-	X	-	1
Phosphoric Acid (10% Hot)	2	X	-	-	-	1	-	-	-	X	-	1
Phosphoric Acid (50%)	2	2	2	1	1	X	1	X	1	X	2	1
Phosphoric Acid (50% Hot)	2	X	-	-	-	1	-	-	-	X	X	2
Phosphoric Acid (85%)	2	X	-	-	-	1	-	-	-	X	X	X
Phosphoric Acid (85% Hot)	2	X	-	-	-	1	-	-	-	X	X	X
Phosphoric Acid (Aerated)	-	-	-	-	-	1	-	-	-	X	-	2
Phosphoric Acid Air Free	-	-	-	-	-	1	-	1	-	X	-	X
Photographic Developers	1	1	-	-	-	1	-	-	-	X	1	1
Photographic, Emulsions	-	-	-	-	-	1	-	-	-	-	-	-
Photographic, Fixing Solutions	2	-	-	-	2	-	1	-	-	-	1	1
Phthalic Acid	-	-	-	-	-	-	-	-	-	2	2	1
Picric Acid (Water Solution 100°F)	2	2	2	-	2	-	1	X	2	X	1	1
Pinene	X	2	-	2	-	-	1	-	-	1	1	1
Pine Oil	X	2	-	2	X	-	1	1	-	1	1	1
Piperazine Hydrochloride Solution (34%)	-	2	-	-	-	-	1	-	-	-	-	-
Pitch	2	1	-	-	2	2	1	1	X	-	-	-
Plating Solutions (Chrome)	X	X	-	-	-	X	1	X	-	-	X	X
Plating Solutions (Other)	-	1	-	-	-	-	1	-	-	-	-	-
Polyester Resin	-	-	-	-	-	-	-	2	-	-	-	-
Polyurethane Foam (Under 125°F)	-	-	-	-	-	-	1	-	-	-	-	-
Potassium Acetate	2	2	-	1	2	X	1	-	-	2	1	1
Potassium Bicarbonate	1	1	-	-	1	-	1	1	-	1	2	1
Potassium Bisulfite	-	1	-	-	-	-	1	1	-	-	-	-
Potassium Bromate	-	-	-	-	-	-	1	-	-	-	-	-
Potassium Bromide	1	1	-	-	1	2	1	1	-	X	X	2
Potassium Carbonate (Potash)	1	1	1	1	1	2	1	1	-	2	1	X
Potassium Chlorate	1	1	-	-	-	2	1	1	-	2	2	2
Potassium Chloride (1% To 5%)	1	1	-	1	-	2	1	1	1	1	2	X
Potassium Chloride (Boiling)	-	-	-	-	-	1	-	X	-	2	2	X
Potassium Cyanide	1	1	-	1	-	-	1	1	-	2	1	X
Potassium Dichromate	1	1	-	1	-	-	1	2	-	1	2	2
Potassium Ferrocyanide	-	-	-	-	-	-	1	-	-	2	1	2
Potassium Fluoride	-	-	-	-	-	-	1	-	-	-	-	-
Potassium Hydroxide	2	2	-	-	-	-	1	-	-	1	1	-
Potassium Hydroxide (5%)	1	1	-	-	-	-	1	1	1	2	2	X
Potassium Hydroxide (27% Boiling)	-	-	-	-	-	-	1	-	X	2	2	X

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	Polychloroprene Nitrile, HNBR, or XTF Nitrile + PVC CPE CSM Urethane PTFE Nylon MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	Chemical Name					
Potassium Hydroxide (30%, Caustic Potash)	-	-	-	1	-	-	1	-	-	-	-	-
Potassium Hydroxide (50% Boiling)	-	-	-	-	-	-	1	-	X	2	2	X
Potassium Hydroxide (70%) Potassium Hydroxide (70% Hot)	-	1	-	-	-	-	1	-	-	-	-	X
Potassium Iodide	1	1	-	-	1	-	1	1	-	1	2	2
Potassium Nitrate	1	1	-	1	-	1	1	1	-	1	1	2
Potassium Nitrate (1% To 5%)	1	1	-	-	-	-	1	-	-	1	1	1
Potassium Permanganate (50% Boiling)	1	2	-	-	-	-	1	2	-	1	2	2
Potassium Permanganate (5%)	1	1	-	-	-	-	1	1	-	1	1	1
Potassium Persulfate	-	-	-	-	-	-	1	-	-	-	-	-
Potassium Phosphate	1	-	-	1	-	1	-	1	-	X	2	X
Potassium Sulfate	1	1	-	1	-	1	1	1	-	1	2	1
Potassium Sulfate - 1% & 5%	1	1	-	-	-	-	1	1	1	1	1	1
Potassium Sulfide	1	1	-	-	-	-	1	-	-	2	2	2
Potassium Sulfite	1	1	-	1	-	-	1	-	-	1	1	1
Potassium Thiosulfate	1	-	-	1	-	1	-	1	-	-	-	-
Primatol A, S, P (Ag Spray)	-	-	-	-	-	-	1	-	-	-	-	-
Propane Gas	X	X	-	-	-	X	1	-	X	1	1	1
Propionic Acid	X	X	-	-	-	-	1	-	1	1	-	2
Propyl Acetate	X	X	-	2	-	-	1	-	1	1	-	-
Propyl Alcohol	1	1	2	1	-	X	1	1	1	1	1	2
Propylene (Liquid Or Gas, Ambient)	X	X	-	1	-	-	1	2	-	1	1	1
Propylene Dichloride	-	-	-	-	-	-	1	-	-	1	2	1
Propylene Glycol	1	1	-	1	1	1	1	2	1	1	1	-
Propylene Oxide	X	X	-	-	-	-	-	-	-	2	1	2
Purina Insecticide	X	X	-	-	-	-	1	2	-	1	1	1
Puropale RX Oils	-	1	-	-	-	2	1	1	-	1	1	1
Pyranol, Transformer Oil	2	1	-	-	-	-	1	-	-	1	1	1
Pydraul	X	X	-	-	-	-	1	-	-	-	-	-
Pydraul 10E, 29E-LT, 30E, 60, 65E, 115E	X	X	-	2	-	-	1	-	-	1	1	1
Pydraul 135	-	X	-	2	-	-	1	2	-	1	1	1
Pydraul 150	X	X	X	2	X	2	1	2	-	1	1	1
Pydraul 280	X	X	X	2	X	2	1	2	-	1	1	1
Pydraul 312	X	X	X	2	-	2	1	1	-	1	1	1
Pydraul 50E	-	-	-	2	-	2	1	1	-	1	1	1
Pydraul 540	X	X	X	2	X	X	1	X	-	1	1	1
Pydraul 625	X	X	X	2	X	2	1	2	-	1	1	1
Pydraul A-200	X	X	X	2	X	X	1	2	-	1	1	1
Pydraul F-9	X	X	X	2	X	2	1	1	-	1	1	1
Pyridine (50%)	X	X	-	-	X	1	1	-	-	1	1	1
Pyrogard 160, 230, 630	-	-	-	-	-	-	1	-	-	1	1	1
Pyrogard 51, 53, 55	-	X	-	-	-	-	1	-	-	1	1	1
Pyrogard C, D	-	1	-	-	-	2	1	1	-	1	1	1
Q												
Quench Oil	2	2	-	-	-	-	1	-	-	-	1	1
Quintolubric 822	2	1	-	-	-	-	1	-	-	1	1	1
R												
Ramrod (Ag Spray)	-	-	-	-	-	-	1	1	-	1	1	1
Rando Oils	-	1	-	-	-	-	2	1	1	-	1	1
Rape Seed Oil	2	X	-	-	X	-	1	2	1	1	1	1
Red Oil (Comm. Oleic Acid, MIL-H-5606)	2	2	2	1	2	-	1	1	2	2	2	1
Refined Wax (Petroleum)	2	1	2	-	-	-	2	1	1	-	1	1
Regal Oils R&O	-	1	-	-	-	-	2	1	1	-	1	1
Richfield Weed Killer	X	2	-	-	X	-	1	-	-	-	-	-

CHEMICAL RESISTANCE



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	Polychloroprene Nitrile, HNBR, or XTF	Nitrile + PVC	CPE	CSM	Urethane	PTFE	Nylon	MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	
Round Up	2	2	-	-	-	1	1	-	2	1	1	1	1	
RSC Futerra	-	-	1	-	-	-	-	-	-	-	-	-	-	
RSC Envirolastic 146	-	-	1	-	-	-	-	-	-	-	-	-	-	
Rubilene Oils	-	1	-	-	2	1	1	-	-	-	-	-	-	
S														
Salicylic Acid	1	X	-	-	-	1	1	1	1	1	1	2	-	
Salt Water (Sea Water)	2	2	2	-	2	1	1	1	-	2	1	1	X	2
Santosafe W-G15, W-G20, W-G30	-	1	-	-	-	2	1	1	-	1	1	1	1	1
Santo Safe 300	X	X	-	-	-	1	-	-	1	1	1	1	-	-
Sevin	-	-	-	-	-	1	1	-	-	-	-	-	-	-
Sewage	2	2	2	1	2	-	1	1	X	1	1	2	2	1
SFR Fluid B (Shell)	-	X	-	-	-	1	-	-	-	-	-	-	-	-
SFR Fluid C (Shell)	-	X	-	-	-	1	-	-	-	-	-	-	-	-
Shellac	2	1	-	-	-	1	1	X	1	1	1	1	-	-
Shellac (Bleached)	2	1	-	-	-	1	1	X	1	1	1	1	2	-
Shellac (Orange)	2	1	-	-	-	1	1	X	1	1	1	1	2	-
Silicone Greases	2	2	2	-	2	-	1	1	-	1	1	1	1	1
Silicone Oils	2	2	2	-	2	-	1	1	-	1	1	1	1	1
Silver Cyanide	1	-	-	-	-	1	-	-	1	1	1	X	-	-
Silver Nitrate	1	1	1	1	1	1	1	-	2	1	1	1	2	-
Skydrol 500A& 7000	X	X	X	2	X	-	1	1	-	1	1	1	-	-
Soap Oil	X	X	-	X	-	1	-	2	1	1	1	-	-	-
Soap Solutions	2	1	2	1	1	1	1	1	1	1	1	1	1	1
Soda Ash (Sodium Carbonate)	1	1	1	1	1	1	1	-	1	1	1	X	2	-
Soda Water	-	-	-	-	1	1	1	-	-	-	-	-	-	-
Sodium Acetate	X	X	X	1	X	2	1	1	-	1	1	1	1	1
Sodium Benzoate	-	-	-	-	1	1	-	-	-	-	-	-	-	-
Sodium Bicarbonate	1	1	1	1	1	1	1	1	-	2	1	1	2	2
Sodium Bisulfate (Niter Cake)	1	1	1	1	1	1	1	1	X	2	1	X	X	-
Sodium Bisulfite	1	1	1	1	1	1	1	1	-	2	1	1	2	-
Sodium Borate	1	1	1	1	1	1	1	1	-	1	1	1	-	-
Sodium Carbonate	1	1	1	1	1	1	1	1	-	2	2	X	2	-
Sodium Chlorate	2	1	-	-	1	1	1	1	-	2	2	X	-	-
Sodium Chloride	1	1	1	1	1	1	1	1	2	2	1	X	X	-
Sodium Chloride - 2%	1	1	-	-	-	1	1	1	2	2	1	X	X	-
Sodium Chloride - 5%	1	1	-	-	-	1	1	1	2	2	1	X	X	-
Sodium Chloride - 5% @ 150°F	1	1	-	-	-	1	1	1	-	2	1	-	X	-
Sodium Chloride Saturated	1	1	-	-	-	1	1	1	-	1	1	X	-	-
Sodium Chloride Saturated (Boiling)	-	-	-	-	-	1	-	X	-	2	1	X	-	-
Sodium Chloride Slurry	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Sodium Cyanide	1	1	1	1	1	1	1	1	-	2	1	X	X	-
Sodium Dichromate	2	1	-	1	2	1	1	1	-	-	-	-	-	-
Sodium Ferricyanide	-	-	-	-	-	1	-	-	2	2	2	-	-	-
Sodium Ferrocyanide	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Sodium Fluoride	-	1	-	-	-	1	-	1	2	2	2	-	-	-
Sodium Fluoride (5%)	-	1	-	-	-	1	1	1	2	2	2	-	-	-
Sodium Fluoride (70%)	-	-	-	-	-	1	-	1	-	-	2	-	-	-
Sodium Hydrosulfide	1	X	-	-	-	1	-	-	-	-	-	-	-	-
Sodium Hydrosulfite	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Sodium Hydroxide	2	2	-	-	-	1	-	1	-	2	-	-	X	-
Sodium Hydroxide (3 Molar)	2	2	-	-	-	1	-	1	-	-	-	-	X	-
Sodium Hydroxide (10%)	-	-	-	1	-	1	-	1	-	-	-	-	-	-
Sodium Hydroxide (20% Cold)	1	2	-	-	-	1	1	1	1	1	1	X	X	-
Sodium Hydroxide (20% Hot)	1	X	-	-	-	1	-	-	2	1	1	X	X	-
Sodium Hydroxide (40%)	1	2	2	1	1	-	1	2	1	2	1	X	X	-
Sodium Hydroxide (50% Cold)	2	X	X	1	1	-	1	2	1	2	2	X	X	-
Sodium Hydroxide (50% Hot)	-	-	-	1	2	-	1	X	-	X	2	2	X	X
Sodium Hydroxide (60%)	2	X	X	1	2	-	1	X	2	X	2	X	X	-

**Nitrile 150°F or less, no constant contact.

Rating Scale: 1 Excellent 2 Good resistance X Not recommended - Testing recommended [] Cover stock rating only; Rating for tube stock "X" * Use Gates fuel hose or contact Denver Product Application Department	Gates Hose Polymers							Couplings & Adapters						
	Polychloroprene Nitrile, HNBR, or XTF	Nitrile + PVC	CPE	CSM	Urethane	PTFE	Nylon	MegaTuff	Carbon Steel	Stainless Steel 304	Stainless Steel 316	Aluminum	Brass	
Sodium Hydroxide (70% Cold)	1	2	-	-	-	-	1	-	2	-	-	2	X	X
Sodium Hydroxide (70% Hot)	-	-	-	-	-	-	1	-	X	-	-	-	-	-
Sodium Hydroxide (80% Hot)	1	X	-	-	-	-	1	-	X	X	X	X	X	X
Sodium Hypochlorite	1	X	-	-	-	-	1	-	1	X	X	X	X	-
Sodium Hypochlorite, 5%	-	X	X	1	1	X	1	1	1	X	X	2	X	X
Sodium Hypochlorite, 20%	X	X	X	1	1	X	1	2	1	X	X	2	X	X
Sodium Hyposulfate	X	-	-	-	-	1	-	-	-	X	1	1	X	-
Sodium Metaphosphate	2	2	2	1	2	-	1	1	-	X	1	1	1	X
Sodium Nitrate	X	X	-	1	2	1	1	1	-	1	2	2	2	2
Sodium Perborate	X	X	-	-	X	-	1	2	-	X	1	1	1	X
Sodium Peroxide (Sodium Dioxide)	1	2	1	2	1	-	1	X	2	X	1	1	1	X
Sodium Phosphate	X	1	-	1	-	1	1	1	-	2	1	1	X	X
Sodium Phosphate (Mono)	1	1	-	-	-	1	-	-	-	-	-	-	-	-
Sodium Phosphate (Dibasic)	2	1	-	-	-	1	-	-	-	-	-	-	-	-
Sodium Phosphate (Tribasic)	2	1	-	-	-	1	-	-	2	2	2	-	-	-
Sodium Silicate	1	1	-	1	1	2	1	1	-	1	1	1	-	1
Sodium Silicate (Hot)	1	1	-	-	-	1	-	-	2	2	2	X	X	-
Sodium Sulfate	1	1	-	1	1	1	1	1	-	2	1	1	-	2
Sodium Sulfide	1	1	-	1	1	1	1	1	-	X	X	2	X	X
Sodium Sulfide, Saturated	1	1	-	-	-	1	1	1	-	2	2	1	X	X
Sodium Sulfite	2	2	2	1	2	1	1	2	-	1	1	1	-	X
Sodium Sulfite, 5%	1	1	-	-	-	1	-	-	-	1	1	1	1	-
Sodium Sulfite, 10% @ 150°F	1	1	-	-	-	1	-	-	2	2	2	2	-	-
Sodium Thiosulfate (HPO, An tich ior)	1	1	1	1	1	1	1	1	-	X	1	1	2	X
Sodium Triphosphosphate (STPP)	-	-	-	-	-	1	-	-	-	-	1	1	X	X
Solnus Oils	-	1	-	-	-	2	1	1	-	1	1	1	1	1
Sour Crude Oil	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Soybean Oil	2	2	2	-	2	-	1	1	1	1	1	1	-	-
Spent Acid	-	-	-	2	-	1	-	2	-	1	1	-	-	-
Stannic Chloride	X	2	2	1	X	-	1	X	-	X	X	X	X	X
Stannic Chloride, 50%	X	1	-	-	-	1	-	-	-	X	X	X	X	-
Stannous Chloride (Under 150°F)	1	1	-	1	1	-	1	X	-	-	X	2	X	-
Stannous Chloride, 15%	1	1	-	-	-	1	-	-	-	X	X	-	X	-
Starch	2	2	-	1	1	1	1	1	-	X	1	1	1	-
Steam	USE STEAM HOSE													
Stearic Acid	2	2	2	1	2	1	1	1	1	X	2	1	X	X
Stearin	-	-	-	-	-	1	1	2	-	-	-	-	-	-
Stoddard Solvent	2	2	X	1	-	X	1	1	-	2	1	1	1	1
Styrene (Vinyl Benzene)	X	X	-	-	-	1	1	1	-	1	1	1	1	1
Styrene (Monomer)	-	X	-	2	-	-	1	2	-	2	X	2	X	2
Sucrose Solutions	1	1	1	-	1	-	1	-	-	1	1	1	-	-
Sulfamic Acid (10%, Under 170°F)	-	-	-	1	2	-	1	-	1	-	-	-	-	-
Sulfate Black Liquor	1	1	-	-	-	1	1	1	-	2	2	2	X	-
Sulfate Green Liquor	1	1	-	-	-	1	1	1	-	2	2	2	X	-
Sulfur	-	-	-	-	-	-	-	X	-	-	-	-	-	-
Sulfur (Molten)	X	X	-	-	-	-	-	X	-	-	-	-	-	-
Sulfur Chloride	X	X	X	-	2	-	1	2	-	X	X	2	X	X
Sulfur Dioxide (Moist)	2	X	-	-	2	-	1	1	1	-	2	1	1	X
Sulfur Dioxide (Dry)	X	X	X	-	2	-	1	X	1	2	1	1	1	1
Sulfur Dioxide (Liquid)	2	X	-	-	2	-	1	-	-	-	-	-	-	-
Sulfur Hexafluoride (Gas)	1	2	-	-	2	-	1	X	-	-	-	-	-	-
Sulfur Trioxide (Dry)	X	X	X	X	X	-	1	1	-	2	2	2	2	X
Sulfuric Acid, 85%	X	X	-	-	-	1	-	1	-	X	2	1	X	-
Sulfuric Acid, 3 Molar	X	X	-	-	-	1	-	1	-	-	-	-	-	-

CHEMICAL RESISTANCE



Rating Scale: 1 Excellent 2 Good resistance X Not recommended - Testing recommended [] Cover stock rating only; Rating for tube stock "X" * Use Gates fuel hose or contact Denver Product Application Department	Gates Hose Polymers							Couplings & Adapters							
	Polychloroprene Nitrile, HNBR, or XTF Nitrile + PVC CPE CSM Urethane PTFE Nylon MegaTuff	Carbon Steel Stainless Steel 304 Stainless Steel 316 Aluminum Brass													
Chemical Name															
Sulfuric Acid, Aerated, No Velocity	-	-	-	-	-	-	1	-	1	2	2	2	X	-	
Sulfuric Acid, Air Free No Velocity	-	-	-	-	-	-	1	-	1	X	X	2	X	-	
Sulfuric Acid, Concentrated	X	X	-	-	-	-	1	-	1	-	1	1	-	-	
Sulfuric Acid, Fuming, Oleum	X	-	-	-	-	-	1	-	1	2	1	1	2	-	
Sulfuric Acid (10%)	1	2	2	1	1	-	1	X	X	-	X	2	X	X	
Sulfuric Acid (30%)	1	-	-	1	1	-	1	X	1	X	X	2	X	X	
Sulfuric Acid (50%)	2	X	X	1	1	-	1	X	1	X	X	2	X	X	
Sulfuric Acid (75%)	X	X	X	-	2	-	1	X	1	X	X	2	X	X	
Sulfuric Acid (93%)	X	X	X	-	X	-	1	X	1	2	X	2	X	X	
Sulfuric Acid (98%)	X	X	X	X	X	-	1	X	1	2	X	2	X	X	
Sulfurous Acid	2	2	-	-	-	-	1	X	1	X	X	2	2	-	
Sulfurous Acid (10%)	-	X	-	1	1	-	1	-	1	-	X	2	1	X	
Sulfurous Acid (75%)	X	X	X	1	1	-	1	X	1	X	X	2	X	X	
Sun R&O Oils	-	1	-	-	-	-	2	1	1	-	1	1	1	1	
SunSAFE (Fire Resist. Hydr. Fluid)	2	1	-	-	-	-	2	1	1	-	1	1	1	-	
Suntac HPOils	-	1	-	-	-	-	2	1	1	-	1	-	1	1	
Suntac WR Oils	-	1	-	-	-	-	2	1	1	-	1	-	1	1	
Sunvis Oils 700, 800, 900	-	1	-	-	-	-	2	1	1	-	1	1	1	-	
Super Hydraulic Oils (Conoco)	-	1	-	-	-	-	2	1	1	-	1	1	1	1	
Sutan Plus, Herbicide	X	X	X	1	-	-	-	-	-	1	1	1	1	-	
Sutazine Plus, Herbicide	X	X	-	1	-	-	-	-	-	1	X	1	1	-	
Synthetic Oil (Citgo)	-	-	-	-	-	-	2	-	1	-	1	1	1	-	
Syrup	2	1	2	-	-	-	-	1	1	-	-	1	1	1	
T															
Tall Oil (Under 150°F)	2	2	2	-	X	-	1	-	-	2	X	2	X	-	
Tallow	2	2	2	-	-	-	1	1	-	2	2	2	1	2	
Tannic Acid (10%)	2	X	-	1	2	-	1	X	1	2	1	1	2	X	
Tar And Tar Oil	2	-	-	-	-	-	2	1	1	-	1	1	1	2	
Tar (Bituminous, Under 100°F)	2	2	2	X	-	-	1	-	1	1	1	1	2	-	
Tartaric Acid	2	2	2	1	1	-	1	1	1	X	2	2	2	X	
Tellus Oils	-	1	-	-	-	-	2	1	1	-	1	1	1	1	
Tenol Oils	-	1	-	-	-	-	2	1	1	-	1	1	1	-	
Tergitol	-	-	-	-	-	-	1	-	-	2	1	1	-	2	
Terpineol	X	2	-	1	2	-	-	-	-	-	-	-	-	-	
Terresstic	-	1	-	-	-	-	-	1	-	1	1	1	-	-	
Tetraethyl Lead	2	2	-	-	-	-	1	2	-	-	-	-	-	-	
Tetraethyl Lead Blend	X	2	-	-	-	-	1	-	-	-	-	-	-	-	
Tetrahydrofuran (THF)	X	X	-	X	2	1	1	-	-	2	-	-	-	-	
Tetralin	X	X	-	-	X	-	1	2	-	1	1	1	1	-	
Thiopen	X	X	-	-	-	-	1	-	-	-	-	-	-	-	
Titanium Tetrachloride	X	X	X	-	-	-	1	-	-	1	2	2	X	X	
Toluene (Toluol)	X	X	X	X	X	-	1	1	2	1	1	1	1	1	
Toluene Diisocyanate (Under 150°F)	X	-	-	-	-	-	1	-	1	1	1	1	-	-	
Transformer Oil (Askarel Types)	X	X	X	1	X	-	1	-	2	1	1	1	1	-	
Transformer Oil (Petroleum Type)	2	1	2	1	X	2	1	1	-	1	1	1	1	1	
Transmission Fluid, Type A	2	1	2	1	2	-	1	2	-	1	1	1	1	1	
Tributoxyethyl Phosphate	X	X	X	X	X	-	1	2	X	1	-	-	X	-	
Tributyl Phosphate	X	X	X	2	X	-	1	-	X	1	-	-	X	-	
Trichloroethylene	X	X	X	2	X	-	1	2	X	X	2	1	X	1	
Trichloromonofluoroethane (Freon 17)	Use Freon Hose							1	1	1	X	-	-	-	-
Trichlorotrifluoroethane (Freon 113)	Use Freon Hose							1	1	1	X	-	-	-	-
Tricresyl Phosphate	X	X	X	1	X	-	1	1	X	1	2	2	X	-	

**Nitrile 150°F or less, no constant contact.

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	Polychloroprene Nitrile, HNBR, or XTF Nitrile + PVC CPE CSM Urethane PTFE Nylon MegaTuff	Carbon Steel Stainless Steel 304 Stainless Steel 316 Aluminum Brass													
Chemical Name															
Triethanolamine (TEA)	2	2	-	1	2	-	1	1	1	-	1	1	1	1	
Tripolyphosphate (STPP)	X	1	-	-	-	-	1	-	-	-	2	1	X	-	
Tung Oil	2	2	-	-	2	-	1	1	1	-	1	1	1	1	
Turpentine	X	2	-	2	X	1	1	1	1	1	X	1	1	2	
Type I Fuel (MIL-S-3136) ASTM Fuel A	2	1	-	-	-	-	1	-	-	-	1	1	1	1	
Type II Fuel (MIL-S-3136)	X	2	-	-	-	-	1	-	-	-	1	1	1	1	
Type III Fuel (MIL-S-3136) ASTM Fuel B	X	1	-	-	-	-	1	-	-	-	1	1	1	1	
U															
Ucon Hydrolube Types 150CP, 200CP	-	1	-	-	-	-	2	1	1	-	1	1	1	1	
Ucon Hydrolube Types 275CP, 300CP, 550CP	-	-	-	-	-	-	1	-	-	-	-	-	-	-	
Ucon M1	-	1	-	-	-	-	2	1	1	-	1	1	1	1	
Union ATF Dexron	-	1	-	-	-	-	2	1	1	-	1	1	1	-	
Union ATF Type F	-	1	-	-	-	-	2	1	1	-	1	1	1	1	
Union C-2 Fluid	-	1	-	-	-	-	2	1	1	-	1	1	1	-	
Union C-POil	-	1	-	-	-	-	2	1	1	-	1	1	1	1	
Union Hydraulic Oil AW	-	1	-	-	-	-	2	1	1	-	1	1	1	1	
Union Hydraulic Tractor Fluid	-	1	-	-	-	-	2	1	1	-	1	1	1	1	
Urea Solution	1	2	-	1	1	2	1	1	1	1	1	1	1	2	
V															
Varnish	X	X	X	-	X	-	1	1	1	-	2	1	1	1	2
Vegetable Oils	2	1	2	1	-	2	1	1	1	1	1	1	1	1	2
Vegetable Oil (Hot)	-	-	-	-	-	-	1	1	-	-	2	2	2	1	2
Versilube	1	1	-	-	-	-	1	-	-	-	1	1	1	1	-
Versilube F-50, F-44	2	2	2	-	2	2	1	1	1	-	1	1	1	1	X
Vinegar	2	X	X	2	X	-	1	1	-	-	X	2	1	X	X
Vinyl Acetate	X	X	X	1	X	-	1	-	X	-	2	1	2	1	2
Vinyl Chloride (Chloroethylene, Monomer)	X	X	X	X	X	-	1	-	-	-	2	1	1	2	X
Vitrea Oils	X	X	X	-	-	-	2	1	1	-	1	1	1	-	-
W															
Water	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1
Water, Acid Mine	2	X	-	-	-	-	1	1	-	-	X	2	2	X	X
Water, Brine	2	2	-	-	1	1	1	1	1	-	X	2	2	-	-
Water Deionized, (DeminerIALIZED)	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-
Water, Distilled	2	1	-	-	1	1	1	1	1	1	X	1	1	1	1
Water, Fresh	1	1	-	-	-	-	1	1	1	1	X	1	1	1	X
Water In Oil Emulsions	-	-	-	-	-	-	2	1	1	-	-	-	-	-	-
Water, Potable (FDA Tube Only)	Use FDAHose Only							-	-	-	-	-	-	-	-
Water, Salt	2	1	-	-	-	-	1	1	-	-	X	2	2	X	X
White & Bagley No. 2190 Cutting Oil	2	1	-	-	-	-	1	-	-	-	-	-	-	-	-
Wines	2	1	1	1	1	-	1	1	1	-	2	2	2	1	-
Wood Oil	2	1	-	1	2	1	1	1	1	-	1	1	1	1	-
X															
Xylene	X	1	-	X	-	2	1	X	2	-	2	2	2	-	-
Z															
Zeric	-	1	-	-	-	-	2	1	2	1	-	-	-	-	-
Zinc Acetate	2	X	-	-	X	-	1	2	1	-	1	1	1	1	1
Zinc Chloride Solutions	1	1	1	1	1	-	1	1	1	1	X	2	1	X	X
Zinc Chromate	-	-	-	1	1	-	1	-	1	-	1	1	1	-	-
Zinc Hydrate	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-
Zinc Sulfate Solutions	2	2	2	1	2	-	1	2	1	2	X	2	1	X	X

NOTES



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NOTES



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CHENNAI OFFICE

3rd Floor, Smartworks, Bharati Vilas, 26B, Jawaharlal
Nehru Salai, Ekkatuthangal, Guindy Industrial Estate
Chennai - 600032

GATES INDIA FACILITIES

LALRU

Chandigarh Ambala Highway, Lalru, Punjab - 141 104

PUNE

Plot No. K-8, Near Hyundai Company-Khalumbre, Pune
Maharashtra - 410501(india)

FARIDABAD

Plot No.133-134, Sector 59, Phase 2, Faridabad 121 006

CHENNAI

Plot No. F 19, Sipcot Industrial Park, Pondur A, Sriperumbudur,
Kancheepuram Dist. Tamilnadu 602 105