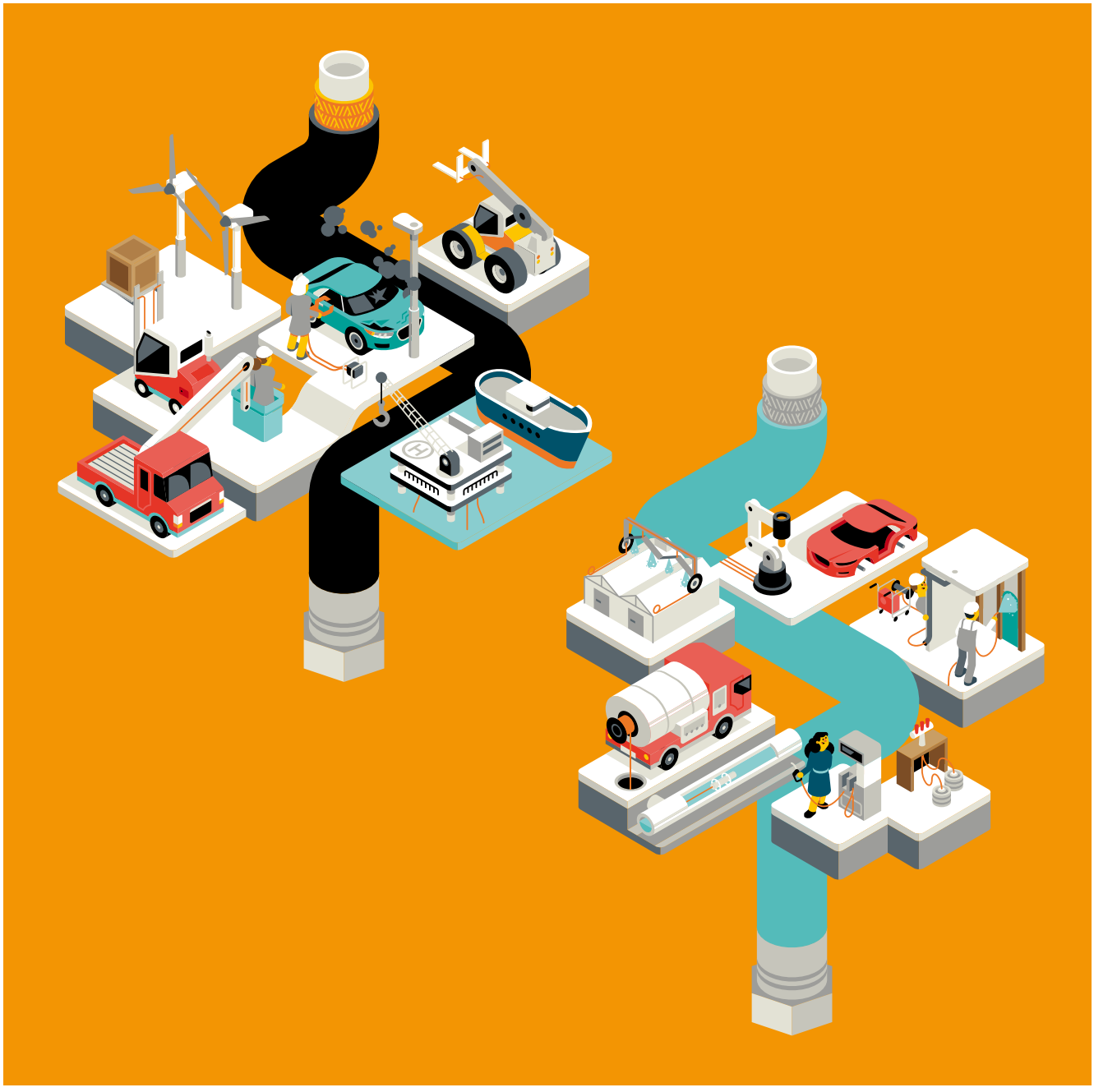
HYD/IND

THERMOPLASTIC HOSES

HYDRAULIC AND INDUSTRIAL APPLICATIONS



TRANSFER OIL

Pure Fluid Attitude

Fluid power transmission is a dynamic
and challenging industry.
And we genuinely love to be part of it.

From the early days of our history, the hydraulic industry has changed significantly, requiring products to adapt to new necessities, coping with higher pressures and reaching new boundaries. Transfer Oil grew together with the fluid power transmission industry in a very similar way, providing a great understanding of the needs of the market, anticipating products, all this with a distinctive capability to change and improve.

In a nutshell, Pure Fluid Attitude.

General Index

Transfer Oil Independent since 1979

Transfer Oil is today one of the most representative manufacturing players in the high pressure thermoplastic hose industry.

The company was founded in 1979 not far from the city of Parma, in Italy, the UNESCO creative city of Gastronomy. Since its beginning, Transfer Oil produced reinforced thermoplastic hoses manufactured from the finest raw materials sourced from leading suppliers of premium engineering polymers and fibers. Transfer Oil products are the choice of the most significant distributors in our industry as well as renowned OEMs that can take great advantage of Transfer Oil direct product design capability, in house hose analysis and qualification.

With applications ranging from hydraulic systems, gas and fluid handling up to refrigeration and air conditioning, Transfer Oil products are used in several different industries.

Being qualified to assemble and proof test Ultra High Pressure products up to 6.000 bar / 90.000 psi, Transfer Oil is today the only independent hose manufacturer capable to offer to the market products covering virtually every pressure range that a thermoplastic hose can reach with the technology known today.

With a distinctive dedication for high technology, Transfer Oil products are manufactured in state of the art facilities where health and safety, environment and quality are taken to the highest level. In our newest manufacturing facility the energy produced through the solar panels installed on its roof is enough to cover about one fifth of the entire plant annual energy consumption. Furthermore, thanks to an uncommon floor heating system – made of over 40 thousands meters of tubes integrated in the concrete floor – we can grant unmatched comfort for our people and, since no ventilation is required, we dramatically limited dust particles circulation resulting in an healthier environment and higher quality products.

Health & Safety is the first and most important product in our range, and it is not a coincidence that our products are trusted parts in very critical equipment. But safety is a top priority also in our plants where, for example, we introduced product manipulators eliminating heavy lifting operations for our people, allowing them to work in a safer, effortless and more ergonomic conditions.

Care for people and for the environment, an experienced team and an unrivalled range of products.

This is Transfer Oil, in a nutshell, Pure Fluid Attitude.

Transfer Oil is today a trendsetter in the manufacture of innovative, reliable and top quality products ranging from medium to ultra-high pressure applications covering all industry sectors.

Over these years, Transfer Oil acquired a level of expertise and a proven track record that together with passion, insight and inspiration of its management, brought the company to the forefront of international markets.

Transfer Oil products are sold over 65 countries in five continents thanks to a network of highly qualified customers and direct sales through its assembling and logistic hub in Singapore.

Transfer Oil response to an ever growing, complex and specialised market, was to create dedicated product segments individually focusing on product range capable of dealing with the needs of increasingly demanding fluid transfer applications.

TO HYDRAULIC

Hydraulic system solution - thermoplastic hose products and fittings designed and developed for markets like earth moving, marine, off-shore, agriculture and covering a wide variety of applications such as power steering, aerial platforms, rescue tools, cranes, fork lifts, pilot controls lines, waste disposal trucks, truck's lifting platforms, lubrication systems, mining. All supported by relevant and stringent international certifications.

TO INDUSTRIAL

Fluid handling solution - thermoplastic and PTFE hose products and fittings designed and developed for markets like pharmaceutical, petrochemical, water and water treatment, chemical, food & beverages and covering a wide variety of applications such as sewer cleaning, injection moulding, paint spray, CNG transfer (CSA approved product and assembler) air breathing, air cylinder filling, beverage dispensing, indoor fogging and spraying. All supported by relevant and stringent international certifications.

TO UHP

Ultra High Pressure fluid handling solution – multispiral thermoplastic hose products and fittings designed and developed for applications ranging from 700 bar/10000 psi to 4000 bar/58000 psi and complying to the colour coding guideline set by the WJTA association. This state of the art product find its main application where extreme pressure is a must such as waterjet cutting, tube and pipe cleaning, surface preparation and paint removal, hydro demolition and waterblasting.

In a nutshell, Pure Fluid Attitude

Milestones

— 1979

Ferdinando Ferrari founded Transfer Oil as a thermoplastic hose manufacturer for the hydraulics industry. In under two years, TO had expanded within Europe and began exporting.

— 1984

Beginning cleaning-industry hose designs was a great growth opportunity. Additionally, within 6 years we introduced to production the first thermoplastic-hose system replacing copper tubes.

— 1992

As demand increased we started expanding our manufacturing grounds. TO production site quickly expanded to 16,000 sqm.

— 2003

TO introduced ecology hoses for sewer-cleaning applications as well as a revolutionary-bonding system increasing the lifetime of a hose.
We then launched our hydraulic and Industrial divisions. Within 4 years we were selling to over 55 countries on 5 continents.

— 2008

Hydraulic and industrial divisions reached 280 hose products grouped into 50 families.

— 2011

Transfer Oil's products are sold in over 65 countries in 5 Continents.

— 2012

Construction of a new 5.000 m2 (16.700 sq ft) annexed plant. On the roof is installed a photovoltaic /solar system capable of generating one-fith of the factory's annual power demand.

— 2013

We launched our UHP division, a range of thermoplastic multi-spiral hoses for ultra high pressure applications. Transfer Oil then gained ISO14001 environmental management certification.

— 2015

TO Occupational Health and Safety Management System obtained OHSAS 18001 certification.

— 2016

We proudly established Transfer Oil Asia Pte. Ltd. in Sinagapore, and released our Smart Factory 2017 project within our logistics division.

The Quality System

Our goal is to utilise our research and development capabilities in order to generate distinctive value through new, improved products.

RESEARCH AND DEVELOPMENT

Our customers come to Transfer Oil for our technical experience, ability and expertise whether the challenge is developing a new product, enhancing an existing product, or finding a bespoke product solution.

Highly qualified and experienced staff use the latest techniques, software, test equipment and analysis tools to generate product solutions tailored to meet individual customer and market requirements.

We have various test capabilities available from burst testing up to 10000 bar to impulse and cycle testing to 3800 bar to mass spectrometry permeation testing to fractions of a gram per year to name but a few, to verify and validate the hose products demanded in the many markets we serve.

Working closely with the commercial department and understanding customer needs, new products are generated from individual customer demands for modification of present technology for specific application area, to market demands for creation of totally new and challenging technology and applications such as UHP.

Our extensive range of products is the result of many research achievements not just in the field of UHP but also continuing in other applications areas such as Hydraulic, Industrial, Alternative fuels, Air Conditioning and refrigeration, to name just a few.

With decades of new product activity Transfer Oil learns from past experience and follows a path of continuous investment, improvement and enhancement of new products and specialist services from the Research and Development department.

QUALITY

Quality is at the heart of Transfer Oil philosophy to provide the best product and services to the market. From rigorous checks and tests of raw materials and parts at arrival, to verification, test and approval of every stage in the product manufacturing process, to final approval and release of manufactured products.

At each and every stage the verification and approval of the Quality department is mandatory on all production. From dimensional laser and infra-red analysis at goods in to pressure testing and permeation testing of final product, every step of the process is under the close scrutiny and control of the Quality department.

Quality certification, as requested, is generated and provided to our customers in a timely and reliable manner. Enquiries and concerns from our customers are responded to quickly and effectively.

Transfer Oil has a long history of being at the forefront of Quality Assurance being one of the first companies in our Industry to achieve ISO 9001 certification in 1993 and since that time continuously improving and developing Quality systems within the company with computerized and paperless systems and analytical techniques.

Transfer Oil obtains world renowned third party quality certifications and approvals for its products from well-known organizations such as DNV, ABS, MSHA and CSA.

Going beyond Quality, Transfer OIL has also heavily invested in, and achieved, ISO 14001 certification for its Environmental Management System and also OHSAS 18001 certification for its Occupational Health and Safety Management System. A company that takes seriously the world we live in and the safety of its employees.

Company and Product Certification

COMPANY CERTIFICATION

ISO 9001:2008
One of the first companies in our industry to achieve certification of its Quality Management System in accordance with the internationally recognised standard ISO 9001.

ISO 14001:2004
Environmental Management System in accordance with environmental standard ISO 14001.

A very significant and voluntary step that Transfer Oil decided to undertake.

This commitment, respect and protection of the environment is a guarantee of added value to services and products that Transfer Oil SpA proudly offers and exports all over the world.

BS OHSAS 18001:2007
Occupational Health and Safety Management System in accordance with the British Standard OHSAS 18001.

International practices to manage organically and systematically all issues concerning safety and health in the workplace to ensure compliance with current legislation.

PRODUCT CERTIFICATION

DNV type approval flexible hoses for CO_2 systems
Obtained in 2014. Specific type approval for Fire Extinguishing hose system.

MSHA
Mine Safety and Health Administration. Obtained in 2014. Synonymous of high quality and safety standard, due to the demanding level of flame resistant characteristics required.

CSA
Type approval for CNG gas applications. Obtained in 2016. The products are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and US Standards).

ABS
American Bureau of Shipping type approval for use in Marine and Offshore Applications. Obtained in 2016.

DNV GL
Type approval for use in Marine and Off Shore Applications. Obtained in 2016.
Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Logistic & Packaging

Customer service is one of the key components in our logistics and packaging division.

The vast amount of thermoplastic hoses, the large active customer base spread over five continents, as well as an enormous amount of raw materials, fittings, accessories handled, checked, stored, transformed and shipped everyday, makes logistics a strategic activity for Transfer Oil. We at Transfer Oil take all aspects of logistics seriously.

In house logistics, the ability of receiving, checking and storing considerable amount of raw materials - different kind of polymers, fibres and steel wire that will be transformed by our machines day in and day out, into top quality finished or semi-finished product.
To perform all these activities and at the same time maintaining traceability of storage, quantity and characteristics of each component requires great organisation, methodology and procedures. At any moment in time, Transfer Oil is capable of determining the availability of a product or the progress of a component through production process.

With a click, customers can check at any moment stock availability for hoses, fittings and ferrules. Transfer Oil applies the same attention to outside logistics, as this allows optimisation of transport activities, an aspect that is appreciated by our customers.

Transfer Oil hoses can be customised and packed according to customers requisites, in coils of different size and lengths, or despatched on wooden reels when longer lengths is a must. Fittings, ferrules, accessories and hose assemblies are packaged in boxes and tagged with unmistakable identification no.

With reel packaging, Transfer Oil has the ability to ship long lengths safer, optimising volume being shipped vs. consignment quantity. When reels are not required, Transfer Oil provides corrugated cardboard packaging which thanks to features like sturdiness, versatility, light weight and total recyclability, provides adequate protection to bulk product.

Continuous research and improvements of our packaging formats lead us to the introduction of octagonal cardboard boxes aimed to optimise shipment of hose assemblies.

Logistic & Packaging

PACKAGING INFO

Pallets
Transfer Oil hoses and fittings are packed in stackable carton boxes, on EUR pallet (80 x 120) Some products, such as bulky hose reels, or bulky coils, may not fit and are therefore not shipped in these carton boxes.

Twin multiline
Most of our hoses are available also in twin version or multi-line version, also combined with different hose sizes or types.
It is also possible to join hoses to electrical and optical cables.

Coils
Products packed in coils. Depending on hose size and weight, coils can be of various lengths. Upon special request is also possible to supply fixed length coils. Requests for fixed lengths, or any other length limitations, are subject to extra charge**.**

Stainless Hose Assembly
We can supply products as factory made assemblies with stainless steel fittings. For all applications requiring an increased resistance to fluid transport of aggressive substances and/ or protection to corrosive environment.

Reel
This icon, identifies the supplyof hose reels. When long lengths are required, or for hose assembly plants / workshops, or when coil sizes make handling operations difficult, Transfer Oil recommend hose reel packaging.

Hose Assembly
We can supply products as factory made assemblies. Hose assemblies made in TO's manufacturing plant are supplied in 50 pieces packs, with protection caps, and – on demand – also with imprinted ferrules containing generic or customer specific branding.

CUSTOMIZED HOSE ASSEMBLIES

The rated working pressure of the application and the flow rate should always be used to determine the correct ID hose selection. Operation within the recommended rated working pressure, will maximize service life before replacement is required. When new, the hose will meet or exceed the minimum burst pressure stated in the hose data sheet. The temperature range specified refers to the recommended temperature limits of fluids being conveyed or ambient temperatures. Exceeding these limits can result in degradation of material compounds, reduced hose service life and premature hose failure.

When ordering hose assemblies, be sure the following information is included:

- Quantity of assemblies required.
- Hose Catalog part number and description
- First coupling thread and end style.
- Second coupling thread and end style.
- Overall length of assembly.
- Hose assembly customization through accessories (protection jacket bend restrictor, hose arrestor, catch ring)

Key List TO Hydraulic

GENERAL

Hose reels
Tight bend radii for use on hose reels and in constricted environments

Servo controls
Compact and lightweight suitable for hydraulic and pneumatic pilot control lines

Machine tools
Hydraulic applications requiring high mechanical protection properties as machine tools

Earth moving
General hydraulic applications requiring additional mechanical protection, suitable for construction and agricultural equipment.

Hydraulic system for agricoltural equipment
Slim construction ideal for agricultural equipment, agricultural trailers brake systems

Low temperature environment
For equipment operating in cold environments while maintaining a high level of flexibility

High voltage wind generator
Applications requiring high electrical insulation or non-conductivity in high voltage environment- Proximity to electrical power lines

Pressure test equipment
Pressure test equipment and test points. General mini hydraulic equipment using capillary hoses in confined spaces

MARINE

Off–shore applications
Off-shore and sub-sea high pressure systems

Marine hydraulic
Marine, vessels, yachts and off-shore equipment

Umbilicals
Off-shore equipments like ROVs (remotely operated vehicles) tethered underwater robots used in the off-shore industry

Seismic Airgun
Off-shore equipment such as seismic airgun

LIFTING EQ

Scissor lifts
Lifting equipment such as scissor lift. Bonded construction and lightweight

Tower cranes
Lighter more flexible and more compact than traditional R1 hoses. hydraulic applications with increased resistance to abrasion.

Cherry pickers
Hydraulic equipment for vehicle-mounted aerial devices

MOBILE

Automotive roof
General mini hydraulic equipment using capillary hoses in confined spaces such as automotive roof opening systems

Truck platform
Suitable design for tail lifts or lift-gates. High performance and lightweight are the key features

Forklift
Forklift handling. Made with special polyester cover resistant to low temp. and meteorological harsh conditions. Tight bend radii without cover wrinkling

Bicycles disk brakes
Bicycle braking systems. Where compactness and high performance of the hose is a must

Loader cranes
Hoisting and handling equipments, general hydraulic applications requiring high mechanical protection

Telehandlers
Telescopic handler with hydraulic telescopic boom crane

Cabin lift
Hydraulic cabin lifting systems for trucks

VERY HIGH PRESSURE

Rescue tooling
High and very high pressure hoses for rescue and safety equipment

Jacking applications
High and very high pressure systems and pumps such as jacking and rerailing equipment

Bolt Tensioning
Very high pressure hoses for bolt tensioning tools

Key List TO Industrial

GENERAL

Automation
Low pressure air and water line suitable for high flexing applications. Free of paint affecting substances

Low temperature
Retains greater flexibility at operating temperatures up to -55°C to 100°C
Low temperature resistance of cover increases lifetime of these hoses.

High temperature
High temperature and aggressive chemical applications

Push on
Easy and fast to assemble. Used in workshops for compressed air and general industrial, maintenance as well as automotive applications.
Push on assembly without crimping

Greasing applications
High pressure greasing and lubrication applications of industrial vehicles and handheld or automatic greasing distribution equipment

GAS

Steam
Polytetrafluoroethylene suitable for steam applications. Resistance to high temperatures

Natural gas refuelling
High pressure hose suitable for CNG refuelling applications featuring conductive inner tube to dissipate static electric build up

Fire extinguishing
Off-shore and industrial CO_2 fire extinguishing installations. Connection between bottles, valves and manifolds for CO_2. Main fire extinguishing systems

High pressure industrial gases
Suitable for many industrial gases. Hoses should not be used with explosive gases such as pure oxygen or hydrogen

Air cylinder filling
Specifically suitable for filling breathing air cylinders in Mobile and stationary or Cascade systems. Flavour free materials eliminates contamination risk

Beverage dispensing
High pressure hose specifically suitable for gases (also mixed gases) used in fixed and mobile beverage dispensing units. Flavour free inner tube suitable for food applications eliminates contamination risk of the gas and/or beverage with plastic material

WATER

Water Jetting
Modern water jetting equipment for cleaning sewer lines

Automatic misting
General industrial water equipment such as Misting and spraying equipment

Water delivery
High pressure pumping installations where high pressure is needed to reach higher altitude

Green house cleaning
Greenhouse cleaning equipment used in high humidity environments. Low Friction Cover

Sewer Cleaning
Modern sewer cleaning vehicles and applications requiring long lengths, high working pressure and low pressure drop up to 250 bar.

Pro Power Washer
High pressure service hose suitable for connection between water pump and washing gun. Rugged construction for HD application and prolonged lifetime

CHEMICAL

Air less paint spray
Polyamide PA6 or PA12 construction. High pressure Airless paint spray system

Solvent and aggressive chemicals
Polyamide PA6, or PA12 construction. Paint spray and solvent applications with increased resistance to abrasion mechanical strength

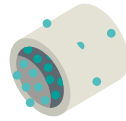
Pu foam
Polyamide PA12 construction particularly indicated for two parts PU foams injection systems (isocyanate and polyols) and very aggressive chemicals applications

Why Use Thermoplastic Hoses?

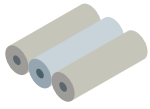
Chemical Resistance
Materials constituting Transfer Oil hoses are chemically resistant to a very wide range of fluids such as oils, solvents and gasses. Moreover there are special product able to withstand highly aggressive chemicals

Abrasion
Polyurethane or Polyester based elastomers are highly resistant to abrasion ensuring extended service life compared to standard rubber hoses

UV / Ozone & Seawater 4 Resistance
Standard cover materials used in TO hoses have remarkable resistance to ultraviolet radiation and ozone compared to rubber based elastomers. Transfer Oil also provides specific cover material (MARINER versions) for resistance in seawater environments



Permeation Resistance
Compared to rubber hoses, materials constituting inner tubes of Transfer Oil hoses have generally lower permeability rate for gasses



Twin Multiline
Thermoplastic hose can be bonded together as simple twin-line or in a variety of combinations of hose of differing pressures, tubes for electrical conduits or in certain applications with electrical cables

Cleanliness
Cleaner handling in the workshop. Yarn braided hoses can be cut/prepared without the need for high powered cutting equipment in some cases simple hand or blade cutting equipment can be used. Clean inner tube reduce the contamination in hydraulic systems

Small ID
The benefits of having reduced pressure loss allows the customer to use a smaller hose ID for the same application, reducing costs and the entire weight of the system

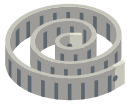
Compact OD
Reduced diameters allows the use of higher capacity hose reels and routing past obstructions in application

Low Weight
Lightweight, can be between 30-50% of conventional rubber hose

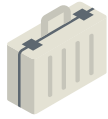
Reduced Bend Radii
This ensures easier routing in restricted or small constricted areas

Eco Hydraulic
Transfer Oil thermoplastic hose are compatible with many eco-fluids and biodegradable fluids

Longer Shelf Life
Will not degrade when stored under correct conditions



Long Length
The production of thermoplastic hoses is mandrel free and high load capacity braiders can make continuous long length of hose without any interruption on tube, braids or cover



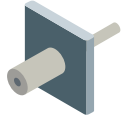
Hose and Fitting System
Transfer Oil fittings have been designed and tested in order to reach the best performance with Transfer Oil hoses. Available in carbon steel and stainless steel

Highest Pressure
Transfer Oil hoses have a wide range of working pressure from 20 to 4000 bar, covering low, high, very high (VHP) and ultra high (UHP) pressure range

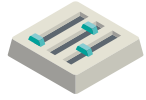
Minimal Volumetric Expansion
Due to lower elongation properties of reinforcing yarn braids, we have reduced pressure loss, and faster response time of hydraulic circuits, reduced oil / fluid requirement

Temperature Range
Standard hydraulic hoses have a temperature range of -40 °C to +100 °C (-40 °F to +212 °F), limited to +70 °C (+158 °F) for air and water based fluids. TO also developed special products which have an increased temperature range. CPLT hoses can be used down to -55°C a nd for PTFE hoses the temperature range is from -60°C to +260°C

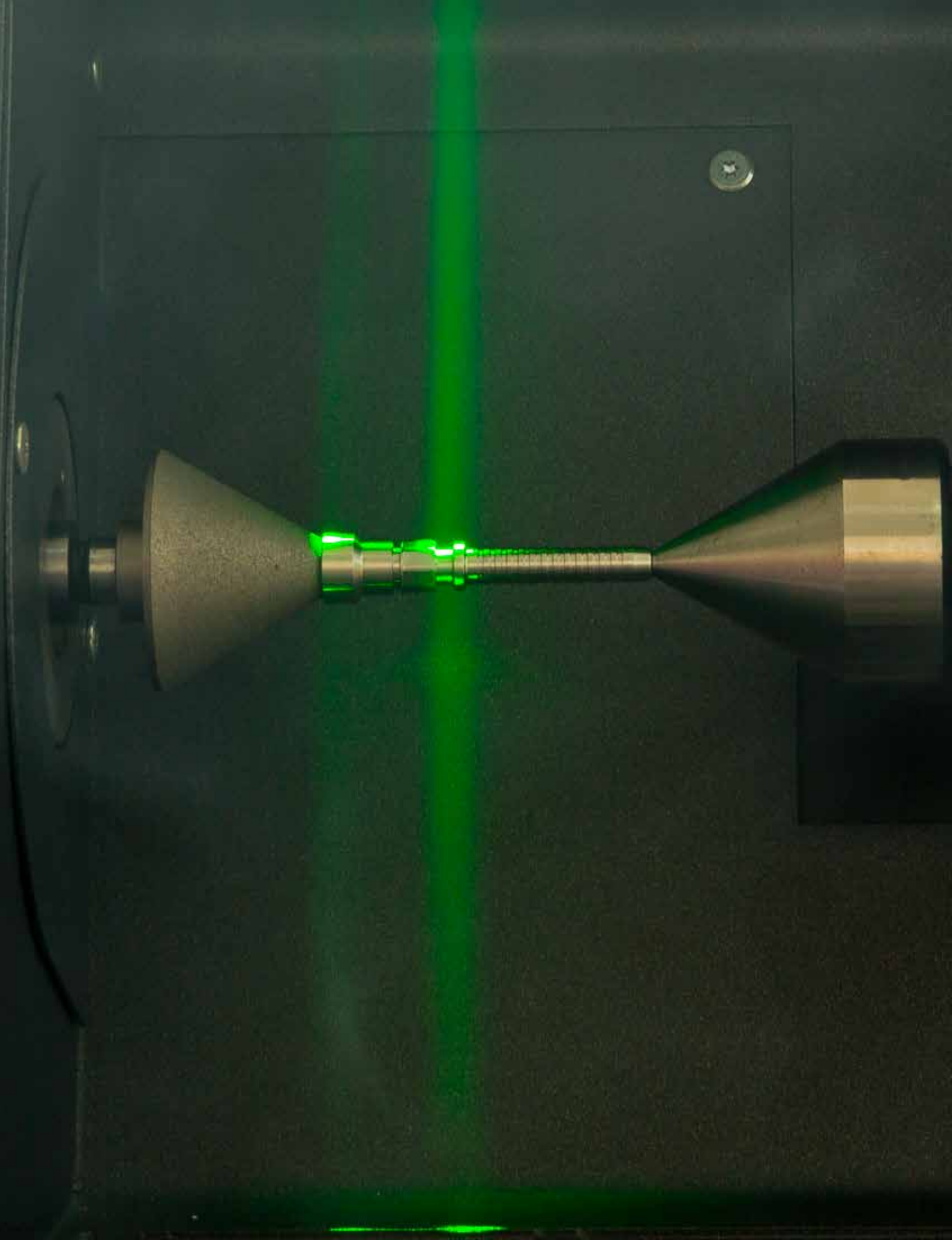
Non Conductive
In high voltage environments (e.g. near electrical power lines) or for some specific hydraulic applications the importance to have a non-conductive hose is crucial for safety reasons. Transfer Oil provides a large number of non-conductive hoses, which meet standards SAE J517/J343 and ISO 3949 for non- conductivity



Extruded Outer Covers
which are Polyurethane or Polyester based elastomers. Available in a wide variety of colours, all cover materials are UV stabilised and are highly resistant to abrasion ensuring extended service life. Cover variations include properties that are resistant to a wide range of fluids, chemicals and extremities of temperature and atmospheric conditions



Customization
Transfer Oil thermoplastic hoses can be customized in terms of color of the hose cover, branding and the choice of different packaging. Black or white ink jetting provides a cost effective way to provide special branding including logos. Twin or multiline products can be made if requested



Selection For Reliable Hose Assemblies

For the correct selection of hose and hose fitting for assemblies, all the following criteria should be considered. Whilst hose products have a stated maximum working pressure, minimum bend radius and maximum operating temperature, using a hose assembly at the extreme limits of all these limitations should be avoided.

APPLICATION

Transfer Oil lists many hoses according to specific applications making the correct selection a simple process for certain hose destined for stated applications such as Hydraulic, Paint Spray, Breathing air, Sewer jetting etc. For all hose assemblies, all the following criteria need to be considered paying particular attention when hose is required for a non-standard application not specifically stated.

BORE SIZE

The selection of inside diameter will depend on where the hose assembly is to be used. In a Hydraulic or Jetting system the power transmission varies with pressure and rate of flow.

Pressure drop needs to be kept to a minimum and excessive fluid velocity and heat generation can damage hose assemblies. Please refer to the Hose Sizing Nomogram in this catalogue for selection of correct bore size.

MAXIMUM WORKING PRESSURE

The maximum pressure in the system, including pressure peaks, spikes or surges, must be equal to, or less then, the stated maximum working pressure of the hose assembly. Minimum burst pressures are stated values for reference only.

Safety factor between working pressure and burst pressure depends on the application, 4.1 generally for Hydraulic and other applications and 2.5 to 1 generally for water jetting application only. Do not assume maximum working pressure of a water jetting hose can be used in a Hydraulic or other application. The maximum working pressure of an assembly is the pressure rating of the least capable part of the assembly. If the fitting connection is rated lower than the hose then that is the maximum working pressure of the assembly. Pressure rating of thread types of end connectors must be checked.

TEMPERATURE

Each hose has limitations for maximum and minimum temperatures of use. These should not be exceeded. Attention should be paid to separate limitations concerning water and water based media and air. For continuous flexing and bending at reduced sub-zero temperatures, even if temperature is within the stated temperature limitations, such as Forklift applications in cold stores, then special LOW TEMP products should be used.

MEDIA COMPATIBILITY

The hose materials must be chemically compatible with the intended media for tube and environment for cover of the hose. Where applications are stated such as Hydraulic hose,Paint Spray hose, Water jetting hose etc. the materials would usually be compatible with the media and environment within the temperature limitations stated. For other media please refer to the Chemical Compatibility table in this catalogue. Note Chemical compatibility is at ambient temperatures. Higher temperatures and mixtures of chemicals need to be treated separately. Environment needs to be taken into consideration and whilst the standard hose covers have good environmental resistance there are MARINER, OFFSHORE MASTER products available for more extreme circumstances.

Hose assembles to be permanently immersed in media need to have chemical compatibility with cover material confirmed. Do not assume tube and cover materials of a hose have the same properties. Hoses for use with high pressure gas must be pinpricked. For use of hose with inflammable or explosive gasses the electrical properties of the hose assembly need to be considered. For the hose assembly the media compatibility of the metallic end connections need also to be confirmed.

HOSE AND FITTINGS

For a reliable and functioning hose assembly the hose must be assembled with ferrule and insert approved for the particular hose type and swaging procedure according to instructions for the particular hose type. Transfer Oil cannot take any responsibility for hose assemblies not produced with Transfer Oil hose and fittings and not swaged according to Transfer Oil procedures.

Technical Information

DASH SIZES

Dash sizes are commonly used to designate hose ID.

Nominal hose ID or tubing OD		Dash number	Nominal DN size
inch	mm		
5/64	2.0	-	2
1/8	3.2	-2	3
5/32	4.0	-	4
3/16	4.8	-3	5
1/4	6.3	-4	6
5/16	7.9	-5	8
3/8	9.5	-6	10
1/2	12.7	-8	12
5/8	15.9	-10	16
3/4	19.1	-12	20
1	25.4	-16	25
1-1/4	31.8	-20	32
1-1/2	38.1	-24	40
2	50.8	-32	50

UNIT CONVERSIONS & FORMULAS

Length	
1 in	25.4 mm
1 in	0.254 m
1 ft	0.3048 m
1 mm	0.394 in
1 m	39.37 in
1 m	3.281 ft
Volume	
1 gal (US)	3.785 l
1 gal (UK)	4.546 l
1 l	0.2642 gal
Weight	
1 lb	0.454 kg
1 kg	2.205 lb
Pressure	
1 psi	0.6895 bar
1 bar	14.503 psi
1 Mpa	10 bar
Flow	
1 gpm	3.785 1pm
1 1pm	0.2642 gpm
Force	
1 lb	4.448 N
1 N	0.2248 lb
Torque	
1 lb ft	1.3567 Nm
1 N-m	0.737 lb ft
Power	
1 hp	0.7457 kW
1 kW	1.341 hp
Air Flow	
1 cfm	0.47195 1/s
1 1/s	2.1189 cfm

Flow Capacity

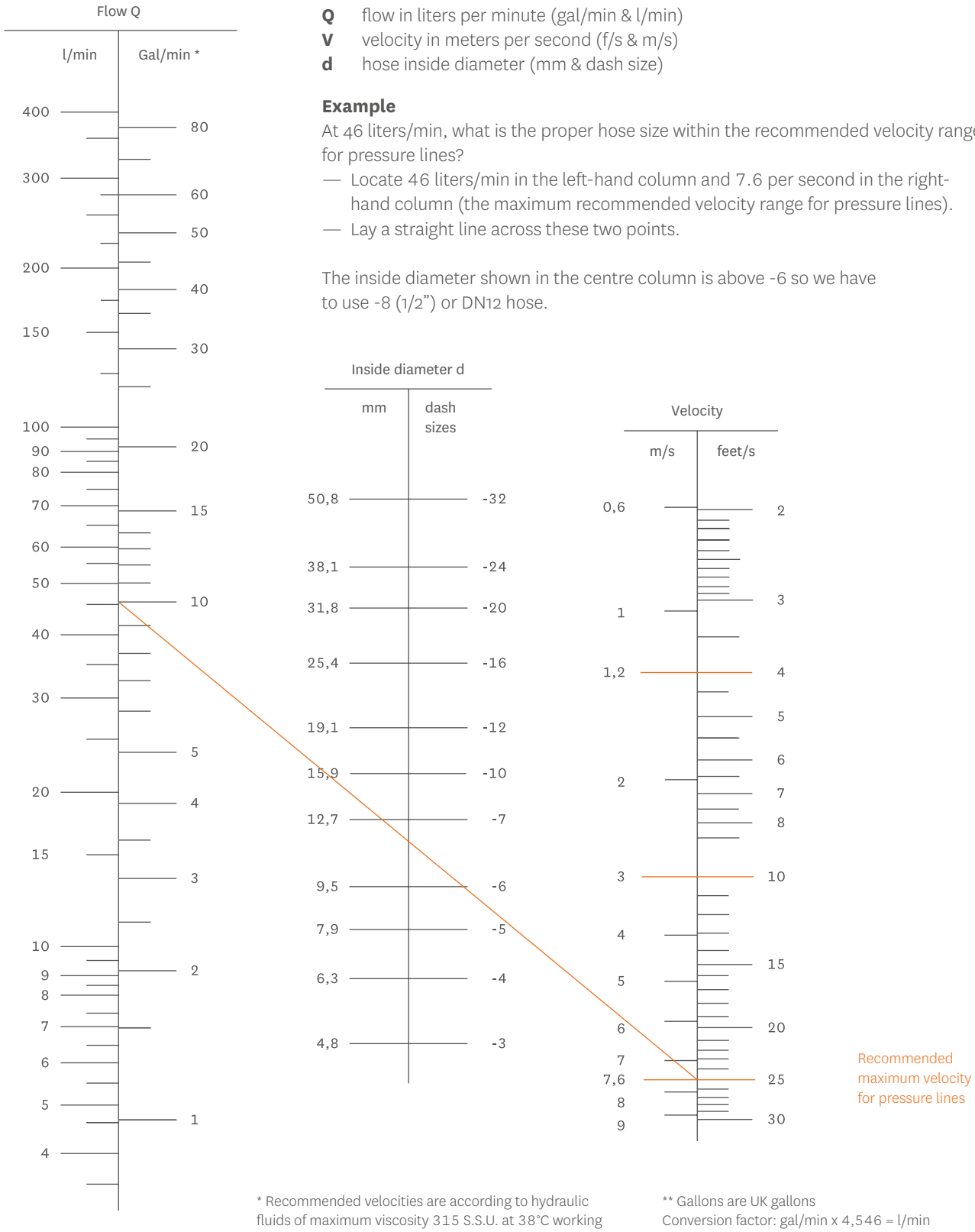
The chart below is provided as an aid in the determination of the correct hose size.

Q flow in liters per minute (gal/min & l/min)
V velocity in meters per second (f/s & m/s)
d hose inside diameter (mm & dash size)

Example
At 46 liters/min, what is the proper hose size within the recommended velocity range for pressure lines?

— Locate 46 liters/min in the left-hand column and 7.6 per second in the right-hand column (the maximum recommended velocity range for pressure lines).
— Lay a straight line across these two points.

The inside diameter shown in the centre column is above -6 so we have to use -8 (1/2") or DN12 hose.



* Recommended velocities are according to hydraulic fluids of maximum viscosity 315 S.S.U. at 38°C working at room temperature within 18° and 68°C.

** Gallons are UK gallons
Conversion factor: gal/min x 4,546 = l/min
feet/s x 0,3048 = m/s

Thermoplastic Hose Installation Factors

CORRECT ASSEMBLY INSTALLATION

Satisfactory performance and appearance depend upon proper hose installation.

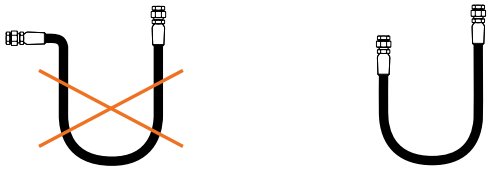
Excessive length destroys the trim appearance of an installation and adds unnecessarily to the cost of the equipment.

Hose assemblies of insufficient length to permit adequate flexing, expansion or contraction will cause poor power transmission and shorten the life of the hose.

The diagrams below offer suggestions for proper hose installations to obtain the maximum in performance and economy.

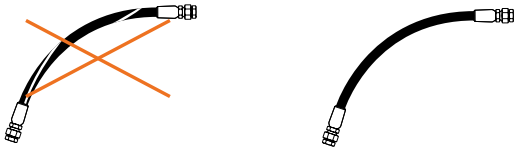
Since hose may change in length under the surge of high pressure, provide sufficient slack for expansion and contraction.

Hose should exit coupling in a straight position rather than side loaded. The minimum bend radius must not be exceeded to avoid kinking of hose and flow restriction.



Where the radius falls below the required minimum, an angle adapter should be used to avoid sharp bends in hose.

Avoid sharp twist or bend in hose by using proper angle adapters.



Hose is weakened when installed in twisted position. Also, pressure pulses in twisted hose tend to fatigue wire and loosen fitting connections. Design so that machine motion produces bending rather than torsion.

Thermoplastic Hose Installation Factors

The specifications and particular conditions of use also determine the limits for the correct use of Transfer Oil products. Accordingly, Transfer Oil can neither declare nor guarantee that any item will be suitable for a given application: it is the business of users to apply their knowledge of the relevant details and carry out such tests as may be needed to ensure the selection of the item best suited for the particular requirements, eliminating risks to themselves, to the product, and to third parties.

Users are strongly advised in their own interest, before making any final decision on the item, to consult the full range of information supplied in the Transfer Oil technical literature, catalogues, website and appendixes. To eliminate any element of doubt, the Transfer Oil sales department will obviously be at the customer's disposal to provide further information and respond to any request for clarification.

Important note for users

Hose and UHP hose assemblies require caution in use not only to provide long service life but also to guard against potentially dangerous failure. Serious injury, death and destruction of property can result from the rupture or blowing-apart of a hydraulic hose | UHP hose assembly that is damaged, worn out, badly assembled or installed incorrectly. Users should follow good maintenance practices. Avoid expensive downtime by establishing a program of inspection, testing and replacement of hose assemblies before failure occurs; taking into account factors including: severity of application, frequency of equipment use, past performance of hose assemblies. Document your maintenance, inspections and testing.

Only properly trained persons should inspect, test or service hose assemblies and this training should be updated regularly. Users should carefully observe the precautions listed below as well as following closely our recommendations for the selection of hose and couplings. In addition, care should be taken not to go below the minimum bend radius listed for each hose size and type. Maximum operating pressure should not exceed the pressures listed. Instruction for assembling fittings to different hoses should be followed carefully to ensure the safe performance of the complete assembly.

By following the recommendations on hose assembly routing and installation, improved safety and longer service life of any hose installation will result. Hydraulic fluid and water under pressure can be potentially dangerous! An explosive burst or stream of escaping fluid can cause damage to equipment as well as serious injury to persons nearby.

Salient information

Highly pressurized fluid escaping from a small pinhole can be almost invisible and, yet, exert extreme force capable of penetrating the skin and other body tissues, causing possible severe injury.

Hot fluids or chemicals can cause severe burns. Pressurized fluids, if released uncontrolled, can exert a tremendous explosive force.Some hydraulic fluids are highly flammable.

Precautions

Wear safety glasses and proper protection clothes. Do not use your hands to check for leaks. Do not touch a pressurized water or hydraulic hose assembly 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. Stay out of hazardous areas while testing hose assemblies under pressure. Use proper safety protection. If an injury or reaction occurs, get medical attention right away. Use only non conductive thermoplastic hoses where electrical conductivity is not desired: for instance, equipment working on electric power lines.

TRANSFER OIL hose and fitting are designed, engineered and tested to be used together in an assembly. The use of TRANSFER OIL fittings on other manufactures hose or the use of TRANSFER OIL hose with other manufactures fittings may result in the production of unreliable or unsafe assemblies. UHP hose and hydraulic hose (and hose assemblies) has a limited life dependent on service conditions to which it is applied. Subjecting hose (and hose assemblies) to conditions more severe than the recommended limits significantly reduce service life. Exposure to combinations of recommended limits (i.e. continuous use at maximum rated working pressure, maximum recommended operating temperature and minimum bend radius) will also reduce service life.

WARNING!

Failure to follow proper selection, installation and maintenance procedures may result in premature failures, bodily injury, and damage to property.

Pressure

After determining the system pressure for an hydraulic system, hose selection must be made so that the recommended maximum operating pressure specified by a given hose, is equal or greater than the maximum system pressure.

Continuous use at maximum temperatures together with

maximum pressures should always be avoided.Continuous use at or near the maximum temperature rating will cause a deterioration of physical properties of the tube and cover of most hose. This deterioration will reduce the service life of the hose.

Pressure surges which exceed the maximum working pressure (pressure relief valve setting) affect the service life of system components, including a hose assembly and therefore need to be taken into consideration. Hoses used for suction lines must be selected to ensure the hose will withstand the negative pressure of the system.

Burst pressure
These are test values only and apply to hose assemblies that have not been used and have been assembled for less than 30 days.

High pressure gas
High pressure gaseous systems especially over 15 bar or 250 psi are very hazardous and should be adequately protected from external shock and mechanical or chemical damage. They should also be suitably protected to prevent whiplash action in the event of failure.

Transfer Oil Thermoplastic hose is not recommended for high pressure pure oxygen charging applications.

Temperature
Care must be taken to ensure that the operating temperature of the fluid being conveyed and ambient temperatures do not exceed the limitations of the hose. Special care must be taken when routing near hot manifolds or molten metal.

Fluid compatibility
Hose selection must assure compatibility of the hose tube, cover, reinforcement, and fittings with the fluid used. Additional caution must be observed in hose selection for gaseous applications. Some fire resistant fluids require the same hose as petroleum oil. Some use a special hose.

Permeation
Permeation (that is, seepage through the hose) will occur from inside the hose to outside when hose is used with gases, liquid and gas fuels, solvents and other media, and refrigerants (including but not limited to such materials such as helium, fuel oil, natural gas or freon). This permeation may result in high concentrations of vapours which are potentially flammable, explosive, or toxic, and in loss of fluid.

Even though the fluid compatibilty is acceptable, you must take into account the fact that permeation will occur and could be hazardous.

Permeation of moisture from outside the hose to inside the hose will also occur. If this moisture permeation would have detrimental effects (particularly but not limited to refrigeration and air conditioning systems), incorporation of sufficient drying capacity in the system or other appropriate system safeguards should be selected and used.

Routing
Attention must be given to optimum routing to minimise inherent problems. Restrain, protect or guide hose with the use of clamps if necessary to minimise risk or damage due to excessive flexing, whipping or contact with other moving parts or corrosives. Determine hose lengths and configurations that will result in proper routing and protection from abrasion, snagging or kinking and provide leak resistant connections. Care must be taken to ensure that the hose and fittings are either compatible with or protected from the environment to which they are exposed.

Environmental conditions including but not limited to ultraviolet light, heat, ozone, moisture, water, salt water, chemicals, and air pollutants can cause degradation and premature failure and, therefore, must be considered.

Refrigerant gases
Special care should be taken when working with refrigeration systems. Sudden escape of refrigerant gases can cause blindness if the escaping gases contact the eye and can cause freezing or other severe injuries if it contacts any other part of the body.

Atomic radiation
Atomic radiation affects all materials used in hose assemblies. Since the long-term effects may be unknown, do not expose hose assemblies to atomic radiation.

Mechanical loads
External forces can significantly reduce hose life. Mechanical loads which must be considered include excessive flexing, twist, kinking, tensile or side loads, bend radius, and vibration.

Use of swivel type fittings or adaptors may be required to ensure no twist is put into the hose. Unusual applications may require special testing prior to hose selection.

External pressure
In certain applications, such as in autoclaves or under water, the external environmental pressures may exceed the fluid pressure inside the hose. In these applications, consider the external pressures, and, if necessary, consult the manufacturers.

Abrasion
While a hose is designed with a reasonable level of abrasion resistance, care must be taken to protect the hose from

excessive abrasion which can result in erosion, snagging, and cutting of the hose cover. Exposure of the reinforcement will significantly accelerate hose failure.

Proper end fitting
Care must be taken to ensure proper compatibility exists between the hose and coupling selected based on the manufacturer's recommendations.

Hose-assembly fabrication
Persons fabricating hose assemblies should be trained in the proper use of equipment and materials. The manufacturers' instructions must be followed. Properly assembled fittings are vital to the integrity of a hose assembly. Improperly assembled fittings can separate from the hose and may cause serious injury or property damage from whipping hose, or from fire or explosion of vapour expelled from the hose.

Length
When establishing proper hose length, motion absorption, hose length changes due to pressure, as well as hose and machine tolerances must be considered.

Specifications and standards
When selecting hose and fittings, government, industry and manufacturer's specifications and recommendations must be reviewed as applicable.

Electrical conductivity
Certain applications require that a hose be non-conductive to prevent electrical current flow. Other applications require the hose to be sufficiently conductive to drain off static electricity.

Extreme care must be exercised when selecting hose and fittings for these or any other applications in which electrical conductivity or non-conductivity is a factor. For application that require hose to be electrically non-conductive, including but not limited to applications near high voltage electric lines, only special non-conductive hose can be used.

The manufacturer of the equipment in which the non-conductive hose is to be used must be consulted to be certain that the hose and fittings that are selected are proper for the application.

Do not use any TRANSFER OIL hose or fitting for any application requiring non-conductive hose, including but not limited to applications near high voltage electric lines, unless:

— the application is expressly approved in the TRANSFER OIL technical publication for the product
— the hose is both orange in colour and marked "non-conductive" (see non-conductive hoses)
— the manufacturer of the equipment on which the hose is to be used specifically approves the particular TRANSFER OIL hose and fitting for such use.

The electrical conductivity or non-conductivity of hose and fittings is dependant upon many factors and may be susceptible to change. These factors include but are not limited to the various materials used to make the hose and the fittings, manufacturing methods, how the fittings contact the hose, age and amount of deterioration of damage or others changes, moisture content of the hose at a particular time, and other factors.

Static-electric discharge
Fluid passing through hose can generate static electricity resulting in static-electric discharge. This may create sparks that can puncture hose. If this potential exists, select hose with sufficient conductivity to carry the static-electric charge to the ground.

Minimum bend radius
Installation of a hose at less than the minimum listed bend radius may significantly reduce the hose life. Particular attention must be given to avoid sharp bending at the hose/fitting juncture.

Twist angle and orientation
Hose installations must be such that relative motion of machine components does not produce twisting.

Securement
In many applications, it may be necessary to restrain, protect, or guide the hose to protect it from damage by unnecessary flexing, pressure surges, a contact with other mechanical components. Care must be taken to ensure such restraints do not introduce additional stress or wear points.

Proper connection of ports
Proper physical installation of the hose requires a correctly installed port connection while ensuring that no twist or torque is transferred to the hose.

External damage
Proper installation is not complete without ensuring that tensile loads, side loads, kinking, flattening, potential abrasion, thread damage, or damage to sealing surfaces are corrected or eliminated.

Unintended uses
Hose assemblies are primarily designed for the internal forces of conducted fluids. Do not pull hose or use it for purposes that may apply external forces for which the hose or fittings were not designed.

Cutting of thermoplastic hoses with steel braid reinforcement

We recommend the use of slotted circular saw blades as a suitable tool for cutting thermoplastic hoses. The use of jagged or toothed blades may cause a cut of poor quality, causing a significant flaring, with consequent difficulties in inserting the ferrule. Blades need to be kept sharp at all times.

Storage

Reference for Storage and Maintenance should be made to ISO 8331 Rubber and plastics hose and hose assemblies - Guide to selection, storage, use and maintenance.

Hoses should be stored inside, not outside, and on a shelf, not on the floor. Hoses should be stored away from sunlight, strong artificial light or strong heat sources. Hoses should not be stored in contact with, or close to, certain products, or their vapours, particularly solvents, oils, greases, acids, disinfectants.

If the hose assembly is to be cleaned before use than water only is to be recommended. Use of chemical cleaners may affect the product depending on the type used.

Hose should be stored in the original packaging until required. Introduce a continuing maintenance program. Frequency should be determined by the severity of the application and risk potential. A maintenance program must be established and followed to include the following as a minimum.

Visual inspection hose/fitting

Any of the following conditions require immediate shut down and replacement of the hose assembly:

— Damaged, cut or abraded cover (any reinforcement exposed).
— Hard, stiff, heat cracked, or charred hose.
— Cracked, damaged, or badly corroded fittings.
— Leaks at the fitting or in the hose.
— Kinked, crushed, flattened or twisted hose.
— Blistered, soft, degraded, or loose cover.

Visual inspection all other

Any of the following conditions require immediate shut down and replacement of the hose assembly:

— Leaking port conditions.
— Clamp, guards, shields.
— System fluid level, fluid type and any air entrapment.
— Remove excess dirt build - up.

Replacement intervals and Storage

Specific replacement intervals must be considered based on previous service life, government or industry recommendations, or when failures could result in unacceptable downtime, damage, or injury risk.

Chemical Compatibility

Notes on the chemical resistance table

The fluid resistance tables are simplified rating tabulations based on immersion tests at ambient temperature 25°C. Higher temperatures tend to reduce ratings. Since final selection depends on pressure, fluid and ambient temperature and other factors, no performance guarantee is expressed or implied. The indications do not imply any compliance with standards and regulations and do not refer to possible changes of colour, taste or smell. For food and drinking water specially approved materials have to be used. For fluids not listed or for advice on particular applications, please consult Transfer Oil. Hose applications for these fluids must take into account legal and insurance regulations.

The chemical resistance indicated does not express or imply approval by certain institutions. For gas applications, the cover should be pin-pricked. Chemical resistance does not imply low permeation rates. The indication of chemical resistance does not imply any special food compatibility; it refers only to the chemical resistance of the material.

Classification code

A The fluid has a minimum or absent effect
B The fluid has a weak or moderate effect
C The fluid has a serious effect
– Not available

Chemical product	Polyester	Polyamide 6	Polyamide 12	Polyurethane
Acetaldehyde	-	B	A	C
Acetic Acid 10%	A	C	B	C
Acetone	B	A	A	C
Acetylene	A	-	-	-
Ammonia 10%	-	A	A	C
Ammonium Carbonate 10%	-	B	-	
Ammonium Chloride 10%	A	A	A	-
Ammonium Hydroxide	-	-	-	C
Ammonium Sulfate	B	-	-	-
Amyl Acetate	B	A	B	C
Amyl Alcohol	A	A	A	C
Aniline	C	B	B	C
Antimony Chloride 10%	-	C	-	-
Astm Fuel A	A	A	A	-
Astm Fuel B	A	A	A	-
Astm Fuel C	B	-		-
Astm Oil N. 1	A	A	A	B
Astm Oil N. 3	A	B	B	-
Atrazine	A	-	-	-
Barium Chloride 10%	-	C	-	A
Barium Sulfate 10%	-	A	-	A
Beer	A	A	A	A
Benzene	B	A	A	C
Benzoic Acid 10%	-	B	B	-
Borax Solutions	A	A	A	A
Boric Acid 10%	A	B	A	A
Bromine (Anhydrous)	C	C	C	C
Bromine Water 25%	-	A	-	-
Butane	A	A	A	A
Butyric Acid, 10%	-	C	B	-

Chemical product	Polyester	Polyamide 6	Polyamide 12	Polyurethane
Butyl Acetate	B	A	A	C
Butyl Alcohol	-	A	A	C
Calcium Chloride 5%	A	A	A	A
Calcium Hypochlorite 5%	A	C	-	C
Calcium Thiocyanate	-	C	-	-
Carbon Dioxide	A	A	A	A
Carbon Disulfide	B	A	A	-
Carbon Monoxide	A		-	A
Carbon Tetrachloride	B	A	B	C
Carbonic Acid 10%	A	A	-	A
Chlorine (Dry)	C	C	C	C
Chlorine (Wet)	C	C	C	C
Chloroacetic Acid 10%	C	C	C	C
Chlorobenzene	C	A	C	C
Chloroform	C	C	C	-
Chlorosulfonic Acid	C	C	C	C
Chromic Acid 10%	C	C	C	C
Citric Acid Solutions	A	B	-	B
Copper Chloride 10%	A	C	-	A
Copper Cyanide	-	-	-	A
Copper Sulfate Solutions	A	-	-	A
Cottonseed Oil	A	A	-	A
Cresol	-	C	-	C
Cyclohexane	A	A	A	B
Dibutyl Phthalate	A	A	A	C
Diethyl Sebacate	A	-	-	B
Dioctyl Phthalate	A	-	-	B
Ethanolamine	-	-	-	C
Ethyl Acetate	B	A	A	C
Ethyl Alcohol	A	A	A	B

Chemical product	Polyester	Polyamide 6	Polyamide 12	Polyurethane
Ethylene Chloride	C	A	B	B
Ethylene Glycol	A	A	A	B
Ethylene Oxide	A	-	-	C
Ferric Chloride Solutions	-	C	-	A
Fluorine	C	C	C	C
Formaldehyde, 40%	B	B	B	C
Formic Acid	B	C	C	C
Freon R 407C	A	A	-	C
Freon R134a	A	A	-	-
Gasoline	B	A	A	-
Glycerin	A	A	A	B
Glycolic Acid	-	C	-	-
Hexane	A	A	A	B
Hydrazine	C	-	-	C
Hydrochloric Acid 10%	B	C	C	C
Hydrogen	A	A	A	A
Hydrogen Peroxide 5%	-	C	B	-
Hydrogen Sulfide 5%	A	C	C	-
Isooctane	A	A	A	B
Isopropyl Alcohol	A	A	B	-
Lactic Acid 10%	-	B	A	-
Linseed Oil	A	A	A	-
Mercury	A	A	A	A
Methyl Alcohol	A	A	A	C
Methyl Chloride	C	C	C	C
Methyl Ethyl Ketone	B	A	A	C
Methylene Chloride	C	B	C	C
Mineral Oil	A	A	A	A
Naptha	A	A	A	C
Napthalene	B	A	A	B
Nitric Acid 10%	B	C	C	C
Nitric Acid 30%	C	C	C	C
Nitrobenzene	C	B	B	C
Nitromethane	-	A	A	-
Oil Fiat Tutela Lhm	A	-	-	-
Oil Kluber Summit Hy Syn Fg 22	A	-	-	-
Oil Panolin 9632	A	-	-	-
Oil Panolin Hlp Synth	A	-	-	-
Oil Pentosin Super Dot 4	-	A	A	-
Oleic Acid	A	A	A	B
Oleum 20-25%	C	C	C	C
Palmitic Acid	A	A	-	A
Perchloric Acid 10%	-	C	-	-
Perchloroethylene	C	A	A	C

Chemical product	Polyester	Polyamide 6	Polyamide 12	Polyurethane
Petrol	B	A	A	B
Phenol	C	C	C	C
Phosphoric Acid 10%	-	C	-	
Phosphoric Acid 50%	-	C	-	
Potassium Carbonate 20%	-	A	-	-
Potassium Carbonate 20%	-	A	-	-
Potassium Chloride 90%	-	A	-	A
Potassium Hydroxide 10%	B	B	B	C
Potassium Permanganate 5%	C	C	C	C
Potassium Thiocyanate	-	C	-	-
Pydraul 312	A	A	A	C
Sea Water	A	A	A	A
Shell Brake Fluid Dot4		A	A	-
Silicone Oils	A	A	A	A
Skydrol 500B	A	A	-	C
Soap Solution	A	A	A	A
Sodium Acetate 60%	-	A	-	C
Sodium Bicarbonate	-	A	A	-
Sodium Carbonate	-	A	A	-
Sodium Chloride 10%	A	A	A	A
Sodium Hydroxide 10%	A	A	A	B
Sodium Hydroxide 20%	A	A	A	B
Sodium Hydroxide 50%	B	C	C	C
Sodium Hypolchlorite 5%	A	C	B	C
Sodium Nitrate 5%	-	A	-	-
Sodium Sulfate 90%	-	A	-	A
Sodium Sulfide	-	A	-	-
Steam (100°C)	C	C	C	C
Sulfur Dioxide	-	C	-	-
Sulfuric Acid > 50%	C	C	-	C
Sulfuric Acid 10%	A	C	B	C
Sulfuric Acid 20 - 50%	A	C	B	C
Sulfurous Acid, 10%	B	C	-	C
Tannic Acid 10%	A	-	-	A
Tetrafluoro Propane	-	C		-
Tetrahydrofuran	B	A	-	C
Toluene	B	A	A	C
Trichloroethylene	C	B	B	C
Triethanolamine	C	-	-	C
Trisodium Phosphate	A	-	-	-
Water	A	A	A	A
Xylene	B	A	A	C
Zinc Chloride 10%	A	B	A	-

Assembling Instructions

Transfer Oil is aware that hose and fittings are two semimanufactured elements of a finished product: the “hose assembly”. The quality level of the “hose assembly” equals the LOWEST level among those declared for the hose, for the fittings and for the coupling. The choice of optimum fittings is therefore a primary condition for the use of any hose assembly. Following pages shows the fittings and ferrules categories, with dimensions, and the compatible hose diameters.

Assembling procedure
Transfer Oil provides the necessary instructions for any problems relating to the hose assembly procedure.

Crimped assembly
The crimped assembly is obtained by the permanent deformation of a metal ferrule inserted into the hose end. The deformation presses the hose wall against the hose and insert so assuring the tightness of the coupling.

How to get a crimped assembly
Referring to the following pictures, we can show the most important operating procedures necessary to obtain a correctly crimped (or swaged) assembly.

— Cut the hose to the right length taking care of making a perfectly perpendicular cut.
Different instruments can be used:
Yarn braided hose cutter (1a)blade cutters (1b), proper shears (1c), etc.
— Remove burrs and / or other residuals from the cut surface.
— The cut must be clean without excessively melting or crushing the hose.
— Blades or cutting wheels should be kept sharp at all times.

1a.

1b.

1c.

2.

Mark the ferrule length on the hose. This is particularly of importance when utilising single piece couplings but is also suggested good practice with two piece fittings.

3.

Insert the ferrule onto the hose, verifying the position of the mark as for point 2.

4.

Push the insert into the hose end. If necessary lubricating oil compatible with the expected application can be used. Shoulder of the ferrule must coincide with the locking collar position of the insert.

5.

Choose the most suitable dies for the crimp OD specified according to the machine manufacturers instructions. Set to achieve the specified crimp diameter and place the end with the assembled fittings among the dies taking care to position it so that the whole ferrule length can be crimped. Crimp the hose until the deformation has achieved the specified diameter.

6.

Check that the achieved OD conforms to the specified crimp diameter.

7.

Using a suitable bore collapse gauge ensure minimum collapse of the insert from its original internal dimension has been achieved, and that the gauge stops within the tail of the insert and not at the insert collar.

8.

Using a suitably smaller bore collapse gauge than in step 8, ensure there has not been excessive collapse of the insert and that the gauge is free to travel through the entire insert bore. In the event that the ideal bore collapse has not been achieved than the crimp OD should be adjusted accordingly.

HYDRAULIC

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066 R7 ANTIABRASION		DN4 - DN25 1/8"-1" -2/-16	70-210 bar 1000-3000 psi	Construction and agricultural equip. / Agricultural brake sys. Forklift Trucks / Articulating and telescopic booms / Aerial platforms / Scissor lifts / Cranes / General hyd. / Industrial gases	44
062 R7 LFC ANTIABRASION		DN5 - DN12 3/16"-1/2" -3/-8	140-210 bar 2000-3000 psi	Construction and agricultural equip. / Agricultural brake sys.Forklift Trucks / Articulating and telescopic booms / Aerial platforms / Scissor lifts / Cranes / General hyd. / Industrial gases	45
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053 R7 YACHTING		DN5 - DN12 3/16"-1/2" -3/-8	140-210 bar 2000-3000 psi	Marine and off-shore equipment / General hydraulic, steering and movement systems on pleasure boats and yachts Hydraulic gangways	48
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HOSE		SPECIFICATION		APPLICATIONS	
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SAE 100R8					
075 R8 ANTIABRASION		DN4 - DN25 1/8"-1" -2/-16	140-420 bar 2000-6000 psi	Construction and agricultural equipment/Forklift trucks/Articulating and telescopic booms/Aerial platforms/Safety and rescue equipment/Scissor lifts/Cranes/General hyd./Ind. gases	55
126 R8 NON CONDUCTIVE		DN5 - DN25 3/16"-1" -3/-16	140-350 bar 2000-5000 psi	High voltage equipment/Safety and rescue equipment/Aerial platforms/Cranes/Equipment requiring electrical high insulation	56
054 R8 MARINER		DN4 - DN25 1/8"-1" -2/-16	140-420 bar 2000-6000 psi	Marine and off-shore equipment/Boats/Cranes/Marine transport systems	57
055 R8 YACHTING		DN5 - DN12 3/16"-1/2" -3/-8	245-350 bar 3500-5000 psi	Marine and off-shore equipment/Boats/Yachting equipment	58
076 R8 EXTRA TOUGH		DN5 - DN12 3/16"-1/2" -3/-8	245-350 bar 3500-5000 psi	Heavy duty construction and agricultural equip./Rescue and safety equipment/High pressure systems and pumps/Bolt tensioning tools/Jacking and rerailing equipment/Ind. gases	59
HR8					
108 HR8 HYBRID REINFORCEMENT		DN6 - DN12 1/4"-1/2" -4/-8	250-350 bar 3600-5000 psi	General hydraulic apps. requiring high mechanical protection properties of hose and braid, combined with high pressure/Construction equipment Hoisting and handling equipment/Machine tools	60

Visual Index

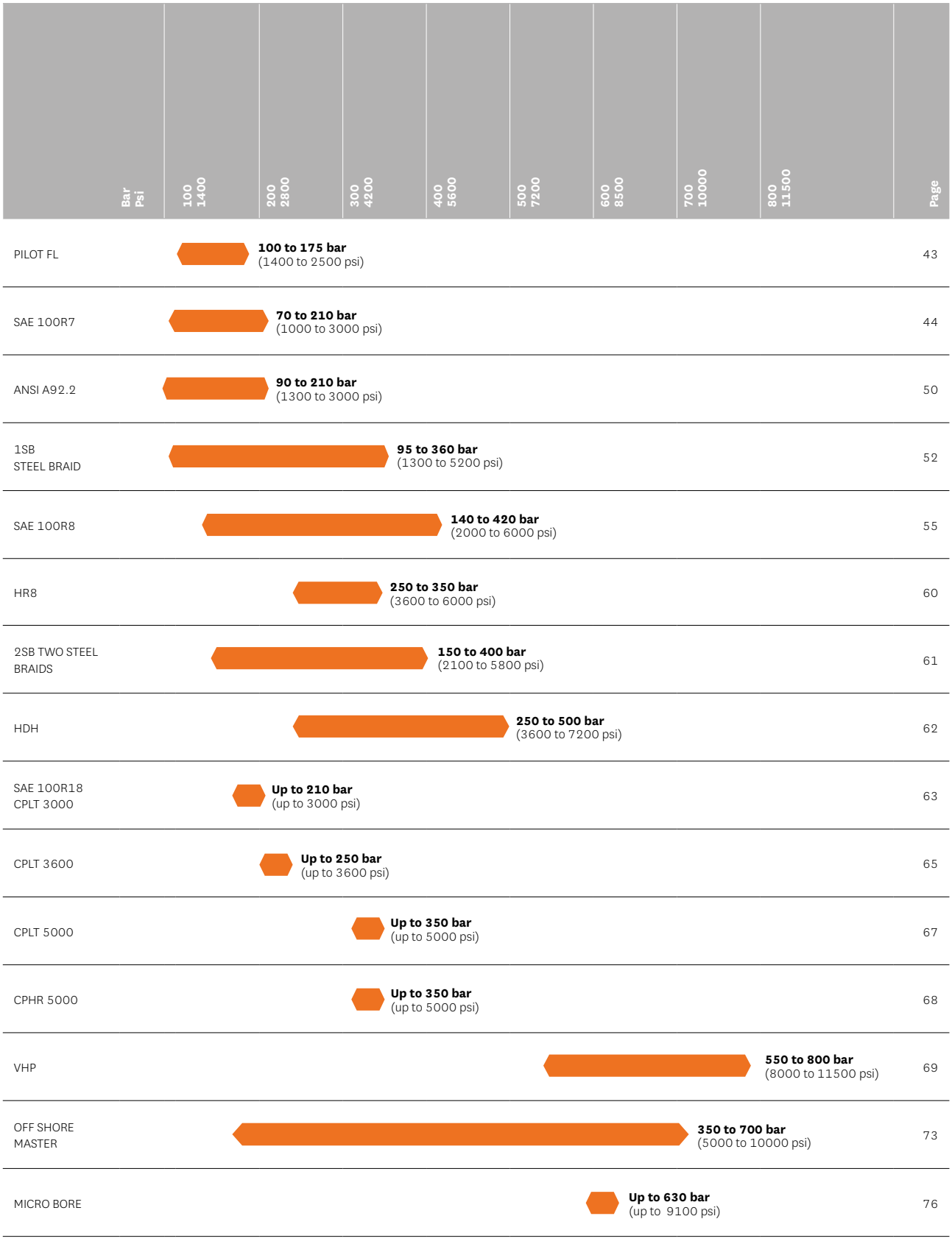
HOSE		SPECIFICATION		APPLICATIONS	
		ID	WP		Page
2SB TWO STEEL BRAIDS					
085 2SB ANTIABRASION		DN6 - DN20 1/4"-3/4" -4/-12	150-400 bar 2100-5800 psi	General hydraulic apps. requiring high mechanical protection properties of hose and braid combined with high pressure: construction equipment Hoisting and handling equipments / Machine tools	61
HDH					
150 HDH STEEL ARMOURED		DN6 - DN20 1/4"-3/4" -4/-12	250-500 bar 3600-7200 psi	General hydraulic apps. requiring high mechanical protection properties of hose and braid combined with high pressure: construction equipment Hoisting and handling equipments / Machine tools	62
SAE 100R18 CPLT 3000					
125 R18 CPLT 3000 LOW TEMPERATURE		DN5 - DN16 3/16"-5/8" -3/-10	up to 210 bar 3000 psi	Forklift handling / All industrial and agricultural applications exposed to low temperatures or cyclic and quick temperature changes	63
155 R18 CPLT 3600 NC LOW TEMP. NON COND.		DN5 - DN16 3/16"-5/8" -3/-10	up to 210 bar 3000 psi	High voltage equipment / Aerial platforms / All industrial and hydraulic applications exposed to low temperatures or cyclic and quick temperature changes	64
CPLT 3600					
153 CPLT 3600 LOW TEMPERATURE		DN5 - DN10 3/16"-3/8" -3/-6	up to 250 bar 3600 psi	Forklift handling / All industrial and agricultural applications exposed to low temperatures or cyclic and quick temperature changes	65
156 CPLT 3600 NC LOW TEMP. NON COND.		DN5 - DN10 3/16"-3/8" -3/-6	up to 250 bar 3600 psi	High voltage equipment / Aerial platforms / All industrial and hydraulic applications exposed to low temperatures or cyclic and quick temperature changes	66
CPLT 5000					
154 CPLT 5000 LOW TEMPERATURE		DN5 - DN12 3/16"-1/2" -3/-8	up to 350 bar 5000 psi	General hydraulic applications requiring high mechanical protection properties of hose and braid in cold environments combined with high pressure: construction equipment / Hoisting and handling equipments / Machine tools	67
CPHR 5000					
109 CPHR 5000 HYBRID REINFORC.		DN6 - DN12 1/4"-1/2" -4/-8	up to 350 bar 5000 psi	General hydraulic applications requiring high mechanical protection properties of hose and braid, combined with high pressure: construction equipment / Hoisting and handling equipment / Machine tools	68

HOSE		SPECIFICATION		APPLICATIONS	
		ID	WP		Page
VHP					
041 VHP 10000		DN6 - DN10 1/4"-3/8" -4/-6	up to700 bar 10000 psi	Rescue and safety equipment / High pressure systems and pumps / Bolt tensioning tools / Jacking and rerailing equipment	69
046 VHP NON CONDUCTIVE		DN4 - DN10 1/8"-3/8" -2/-6	550-700 bar 8000-10000 psi	Rescue and safety equipment / High pressure systems and pumps / Jacking and rerailing equipment / Equipment requiring electrical high insulation	70
040 VHP 10000 MARINER		DN6 - DN12 1/4"-1/2" -4/-8	up to 700 bar 10000 psi	Off-shore and sub-sea high pressure systems / Pumps and valves / Bolt tensioning tools / Jacking and rerailing equipment	71
080 VHP EXTRA		DN6 1/4" -4	up to 800 bar 11500 psi	Rescue and safety equipment / High pressure systems and pumps / Bolt tensioning tools / Jacking and rerailing equipment	72
OFF SHORE MASTER					
168 OFF SHORE MASTER 3K		DN20 - DN25 3/4" - 1" -12/-16	up to 210 bar 3000 psi	Marine and off-shore equipment / ROVs (remotely operated vehicles) / BOP valves / Methanol injection / Seismic air gun systems	73
060 OFF SHORE MASTER 5K		DN5 - DN25 3/16"-1" -3/-16	up to 350 bar 5000 psi	Marine and off-shore equipment / ROVs (remotely operated vehicles) / BOP valves / Methanol injection / Seismic air gun systems	74
169 OFF SHORE MASTER 10K		DN6 1/4" -4	up to 700 bar 10000 psi	Marine and off-shore equipment / ROVs (remotely operated vehicles) / BOP valves / Methanol injection / Seismic air gun systems	75
MICRO BORE					
089 MICRO BORE		DN2 - DN4 5/64"-5/32" -2	up to 630 bar 9100 psi	Pressure test equipment and test points / General mini hydraulic equip. using capillary hoses in confined areas / Automotive roof opening systems Bicycle braking systems	76

Hose family Selection by applications

	AUTOMOTIVE ROOF OPENING	AERIAL DEVICES	BICYCLE DISK BRAKES	BOLT TENSIONING	CABIN LIFT	COMPACT DESIGN	DIAGNOSTIC TEST EQUIPMENT	EARTH MOVING EQUIPMENT	FORKLIFT	GENERAL HYDRAULIC*	HIGH VOLTAGE WIND TURBINES	INDUSTRIAL GASES	JACKING APPLICATIONS	LOW TEMPERATURES	MACHINE TOOLS	MARINE & OFF-SHORE	MINING	RESCUE TOOLING	SERVOCONTROLS	TELEHANDLERS	UMBILICALS
PILOT FL						●													●		
SAE 100R7		●			●	●		●	●	●	●	●				●				●	
ANSI A92.2		●			●	●		●	●	●	●	●								●	
1SB STEEL BRAID		●			●	●		●	●	●		●	●		●	●	●			●	
SAE 100R8		●		●	●	●		●	●	●	●	●	●		●	●	●	●		●	●
HR8				●						●			●		●		●	●		●	
2SB TWO STEEL										●			●		●		●			●	
HDH				●				●		●			●		●		●			●	
SAE 100R18 CPLT 3000		●				●		●	●	●	●	●		●						●	
CPLT 3600		●				●		●	●	●	●	●		●						●	
CPLT 5000				●		●		●		●			●	●			●	●		●	
CPHR 5000				●						●			●		●		●	●		●	
VHP				●							●		●					●			
OFF SHORE MASTER																●					●
MICRO BORE	●		●				●										●				

Hose family Selection by pressure rating



Hose family Selection by working pressure and ID

	SIZE											Page
	DN	2	3	4	5	6	8	10	12	16	20	25	
	inch	5/64"	1/8"	5/32"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	
	dash	-	-2	-	-3	-4	-5	-6	-8	-10	-12	-16	
PILOT FL													
092 PILOT FL	bar			175	150	140	120	110	100				43
	psi			2500	2100	2000	1700	1500	1400				
SAE 100R7													
066 - R7 ANTIABRASION	bar			210	210	210	190	160	140	105	90	70	44
	psi			3000	3000	3000	2700	2300	2000	1500	1300	1000	
062 - R7 LFC ANTIABRASION	bar				210	210	190	160	140				45
	psi				3000	3000	2700	2300	2000				
095 - R7 NON CONDUCTIVE	bar				210	210	190	160	140	105	90	70	46
	psi				3000	3000	2700	2300	2000	1500	1300	1000	
052 - R7 MARINER	bar			210	210	210	190	160	140	105	90	70	47
	psi			3000	3000	3000	2700	2300	2000	1500	1300	1000	
053 - R7 YACHTING	bar				210	210	190	160	140				48
	psi				3000	3000	2700	2300	2000				
097 - R7 EXTRA TOUGH	bar				210	210		160	140				49
	psi				3000	3000		2300	2000				
ANSI A92.2													
166 - A92.2 ANTIABRASION	bar			210	210	210	210	210	180	140	120	90	50
	psi			3000	3000	3000	3000	3000	2600	2000	1700	1300	
195 - A92.2 NON CONDUCITVE	bar				210	210	210	210	180	140	120	90	51
	psi				3000	3000	3000	3000	2600	2000	1700	1300	
1SB - STEEL BRAID													
087 - 1SB ANTIABRASION	bar				360	310	250	225	190	140	115	95	52
	psi				5200	4500	3600	3200	2700	2000	1600	1300	
056 - 1SB MARINER	bar				360	310	250	225	190	140	115	95	53
	psi				5200	4500	3600	3200	2700	2000	1600	1300	
058 - 1SB YACHTING	bar				360	310	250	225	190				54
	psi				5200	4500	3600	3200	2700				
SAE 100R8													
075 - R8 ANTIABRASION	bar			420	350	350	300	280	245	200	165	140	55
	psi			6000	5000	5000	4300	4000	3500	2900	2300	2000	
126 - R8 NON CONDUCTIVE	bar				350	350	300	280	245	200	165	140	56
	psi				5000	5000	4300	4000	3500	2900	2300	2000	
054 - R8 MARINER	bar			420	350	350	300	280	245	200	165	140	57
	psi			6000	5000	5000	4300	4000	3500	2900	2300	2000	
055 - R8 YACHTING	bar				350	350	300	280	245				58
	psi				5000	5000	4300	4000	3500				
076 - R8 EXTRA TOUGH	bar				350	350	300	280	245				59
	psi				5000	5000	4300	4000	3500				
HR8													
108 - HR8 HYBRID REINFORCEMENT	bar					350		280	250				60
	psi					5000		4000	3600				

	SIZE												Page
	DN	2	3	4	5	6	8	10	12	16	20	25	
	inch	5/64"	1/8"	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	
	dash	-	-2	-2	-3	-4	-5	-6	-8	-10	-12	-16	
2SB TWO STEEL BRAIDS													
085 2SB ANTIABRASION	bar					400	400	330	260	220	150		61
	psi					5800	5800	4700	3700	3100	2100		
HDH													
150 HDH STEEL ARMOURED	bar					500		420	350		250		62
	psi					7200		6000	5000		3600		
SAE 100R18 CPLT 3000													
125 R18 CPLT 3000 LOW TEMPERATURE	bar				210	210	210	210	210	210			63
	psi				3000	3000	3000	3000	3000	3000			
155 R18 CPLT 3000 NC LOW TEMP. NON COND.	bar				210	210	210	210	210	210			64
	psi				3000	3000	3000	3000	3000	3000			
CPLT 3600													
153 CPLT 3600 LOW TEMPERATURE	bar				250	250	250	250					65
	psi				3600	3600	3600	3600					
156 CPLT 3600 NC LOW TEMP. NON COND.	bar				250	250	250	250					66
	psi				3600	3600	3600	3600					
CPLT 5000													
154 CPLT 5000 LOW TEMPERATURE	bar				350	350		350	350				67
	psi				5000	5000		5000	5000				
CPHR 5000													
109 CPHR 5000 HYBRID REINFORC.	bar					350		350	350				68
	psi					5000		5000	5000				
VHP													
041 VHP 10000	bar					700		700					69
	psi					10000		10000					
046 VHP NON CONDUCTIVE	bar			700	700	700		550					70
	psi			10000	10000	10000		8000					
040 VHP 10000 MARINER	bar					700		700	700				71
	psi					10000		10000	10000				
080 VHP EXTRA	bar					800							72
	psi					11500							
OFF SHORE MASTER													
168 OFF SHORE MASTER 3K	bar										210	210	73
	psi										3000	3000	
060 OFF SHORE MASTER 5K	bar				350	350		350	350		350	350	74
	psi				5000	5000		5000	5000		5000	5000	
169 OFF SHORE MASTER 10K	bar					700							75
	psi					10000							
MICRO BORE													
089 MICRO BORE	bar	630	630	630									76
	psi	9100	9100	9100									

Thermoplastic Hose Characteristic chart

HOSE	CORE TUBE	REINFORCEMENT MATERIAL	HOSE COVER	PINPRICKING	TWIN-LINE OR MULTILINE
MEDIUM PRESSURE					
092 PILOT FL	polyester	synthetic fiber	anti-grip polyurethane	•	•
066 R7 ANTIABRASION	polyester	synthetic fiber	polyurethane	•	•
062 R7 LFC ANTIABRASION	polyester	synthetic fiber	LFC polyurethane	•	•
095 R7 NON CONDUCTIVE	polyester	synthetic fiber	polyurethane		•
052 R7 MARINER	polyester	synthetic fiber	polyurethane	•	•
053 R7 YACHTING	polyester	synthetic fiber	polyurethane	•	•
097 R7 EXTRA TOUGH	polyester	synthetic fiber	polyurethane	•	•
166 A92.2 ANTIABRASION	polyester	synthetic fiber	polyurethane	•	•
195 A92.2 NON CONDUCTIVE	polyester	synthetic fiber	polyurethane		•
HIGH PRESSURE					
087 1SB ANTIABRASION	polyester	steel wire	polyurethane		•
056 1SB MARINER	polyester	steel wire	polyurethane		•
058 1SB YACHTING	polyester	steel wire	polyurethane		•
075 R8 ANTIABRASION	polyester	aramid	polyurethane	•	•
126 R8 NON CONDUCTIVE	polyester	aramid	polyurethane		•
054 R8 MARINER	polyester	aramid	polyurethane	•	•
055 R8 YACHTING	polyester	aramid	polyurethane	•	•
076 R8 EXTRA TOUGH	polyester	aramid	polyurethane	•	•
108 HR8 HYBRID REINFORCEMENT	polyester	aramid + steel wire	polyurethane		•
085 2SB ANTIABRASION	polyester	2 braids of steel wire	polyurethane		•
150 HDH STEEL ARMOURED	polyester	aramid + steel wire	polyurethane		•
CONSTANT PRESSURE					
125 R18 CPLT 3000 LOW TEMPERATURE	polyester	synthetic fiber	special polyester	•	•
155 R18 CPLT 3000 NC LOW TEMP. NON COND.	polyester	synthetic fiber	special polyester		•
153 CPLT 3600 LOW TEMPERATURE	polyester	synthetic fiber	special polyester	•	•
156 CPLT 3600 NC LOW TEMP. NON COND.	polyester	synthetic fiber	special polyester		•
154 CPLT 5000 LOW TEMPERATURE	polyester	aramid + steel wire	special polyester		•
109 CPHR 5000 HYBRID REINFORCEMENT	polyester	aramid + steel wire	polyurethane		•
VERY HIGH PRESSURE					
041 VHP 10000	polyester	aramid + steel wire	polyurethane		•
046 VHP NON CONDUCTIVE	polyester	aramid	polyurethane		•
040 VHP 10000 MARINER	polyester	aramid + steel wire	polyurethane		•
080 VHP EXTRA	polyester	aramid + steel wire	polyurethane		•
SPECIALITIES					
168 OFF SHORE MASTER 3K	polyamide*	aramid	polyurethane		•
060 OFF SHORE MASTER 5K	polyamide*	aramid	polyurethane		•
169 OFF SHORE MASTER 10K	polyamide*	aramid	polyurethane		•
089 MICRO BORE	polyester	aramid	anti-grip polyurethane	•	•

*PA11 Rilsan® BESNO P40 TLO

092 PILOT FL

Compact lightweight hose for servo control applications
From 100 to 175 bar (1400 to 2500 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One braid of synthetic fiber

Cover
Anti-grip polyurethane, black, pinpricked, white ink-jet branding

Applications
- Servo control
- Pilot lines
- General low pressure hydraulics

Features
- Lightweight
- Compact design
- High flexibility
- Low grip cover
- Low volumetric expansion

Description
Low pressure service hose suitable for hydraulic applications where there is a requirement for increased resistance to abrasion and limited grip cover at the same time. For use with petroleum synthetic or water based hydraulic fluids in hydraulic systems. Suitable for hydraulic and pneumatic pilot control lines.

Temperature range
-40 °C to 100 °C
(-40 °F to 212 °F)
Limited to 70 °C (158 °F)
for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0920	-2	1/8"	4	4,00	0,157	7,10	0,280	175	2500	700	10000	4:1	20	0,79	30	0,020	SAB101	SAB801
0921	-3	3/16"	5	5,00	0,197	8,50	0,335	150	2100	600	8400	4:1	25	0,98	45	0,030	SA1111	SA1811
0922	-4	1/4"	6	6,50	0,256	10,60	0,417	140	2000	560	8000	4:1	40	1,57	60	0,040	SA1121	SA1821
0923	-5	5/16"	8	8,10	0,319	12,50	0,492	120	1700	480	6800	4:1	45	1,77	85	0,057	SA1131	SA1841
0924	-6	3/8"	10	9,70	0,382	14,40	0,567	110	1500	440	6000	4:1	50	1,97	105	0,071	SA1141	SA1841
0925	-8	1/2"	12	13,00	0,512	19,10	0,752	100	1400	400	5600	4:1	70	2,76	175	0,118	SA1151	SA1851

066 R7 Antiabrasion

Thermoplastic hose for hydraulic applications
From 70 to 210 bar (1000 to 3000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of synthetic fiber

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
- Construction and agricultural equipment
- Agricultural brake systems
- Forklift Trucks
- Articulating and telescopic booms
- Aerial platforms
- Scissor lifts
- Cranes
- General hydraulics
- Industrial gases

Features
- Lighter, more flexible and more compact than traditional R1 hoses
- Bonded construction
- Abrasion resistant
- Limited change in length
- Pinpricked cover

Description
Meets or exceeds SAE 100R7. Medium pressure hose suitable for hydraulic applications with increased resistance to abrasion. For use with petroleum, synthetic or water based hydraulic fluids in hydraulic systems. Suitable for general fluid power transmissions like earthmoving, agricultural machinery and forklift trucks. Also suitable for many industrial gases (check for compatibility).

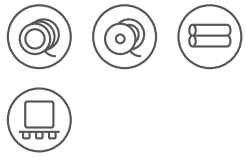
Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar / -700 mm Hg
-13,5 psi / -27,5 inch Hg

Specifications
SAE 100R7 / EN855-R7 / ISO3949-R7

APPLICATIONS

PACKAGING



CERTIFICATION

U.S. Department of Labor MSHA Mine Safety & Health Administration

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0660	-2	1/8"	4	4,00	0,157	8,30	0,327	210	3000	840	12000	4:1	25	0,98	45	0,030	SAB101	SAB801
0661	-3	3/16"	5	5,00	0,197	9,60	0,378	210	3000	840	12000	4:1	25	0,98	60	0,040	SAB111	SAB811
0662	-4	1/4"	6	6,50	0,256	12,20	0,480	210	3000	840	12000	4:1	35	1,38	100	0,067	SAB121	SAB821
0663	-5	5/16"	8	8,10	0,319	14,30	0,563	190	2700	760	10800	4:1	45	1,77	130	0,087	SAB131	SAB831
0664	-6	3/8"	10	9,70	0,382	16,00	0,630	160	2300	640	9200	4:1	55	2,17	145	0,097	SAB141	SAB841
0665	-8	1/2"	12	13,00	0,512	20,30	0,799	140	2000	560	8000	4:1	75	2,95	220	0,148	SAB151	SAB851
0666	-10	5/8"	16	16,30	0,642	23,70	0,933	105	1500	420	6000	4:1	110	4,33	280	0,188	SAB161	SAB861
0667	-12	3/4"	20	19,50	0,768	27,10	1,067	90	1300	360	5200	4:1	140	5,51	335	0,225	SAB171	SAB871
0668	-16	1"	25	25,90	1,020	34,00	1,339	70	1000	280	4000	4:1	190	7,48	455	0,306	SAB181	SAB881

062 R7 LFC Antiabrasion

Thermoplastic hose for hydraulic applications
From 140 to 210 bar (2000 to 3000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of synthetic fiber

Cover
LFC Polyurethane, mat black, pinpricked, white ink-jet branding

Applications
- Construction and agricultural equipment
- Agricultural brake systems
- Forklift Trucks
- Articulating and telescopic booms
- Aerial platforms
- Scissor lifts
- Cranes
- General hydraulics
- Industrial gases

Features
- Lighter more flexible and more compact than traditional R1 hoses
- Low friction cover LFC
- Bonded construction
- Abrasion resistant
- Limited change in length
- Pinpricked cover

Description
Meets or exceeds SAE 100R7. Medium pressure hose suitable for hydraulic applications with increased resistance to abrasion. Due to the anti-grip cover (LFC - Low Friction Cover)hoses can slide easily simplifying installation specially in hose bundles. Suitable for general fluid power transmissions like earthmoving agricultural machinery and forklift trucks. Also suitable for many industrial gases (check for compatibility).

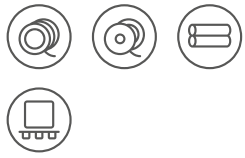
Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar / -700 mm Hg
-13,5 psi / -27,5 inch Hg

Specifications
SAE 100R7 / EN855-R7 / ISO3949-R7

APPLICATIONS

PACKAGING



Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0621	-3	3/16"	5	5,00	0,197	9,60	0,378	210	3000	840	12000	4:1	25	0,98	59	0,040	SAB111	SAB811
0622	-4	1/4"	6	6,50	0,256	12,20	0,480	210	3000	840	12000	4:1	35	1,38	93	0,063	SAB121	SAB821
0623	-5	5/16"	8	8,10	0,319	14,30	0,563	190	2700	760	10800	4:1	45	1,77	124	0,083	SAB131	SAB831
0624	-6	3/8"	10	9,70	0,382	16,00	0,630	160	2300	640	9200	4:1	55	2,17	145	0,097	SAB141	SAB841
0625	-8	1/2"	12	13,00	0,512	20,30	0,799	140	2000	560	8000	4:1	75	2,95	215	0,144	SAB151	SAB851

095 R7 Non conductive

Thermoplastic non-conductive hose for hydraulic applications
From 70 to 210 bar (1000 to 3000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of synthetic fiber

Cover
Polyurethane, orange, non pinpricked, black ink-jet branding

Applications
- High voltage equipment
- Safety and rescue equipment
- Aerial platforms
- Cranes
- Equipment requiring electrical high insulation

Features
- Lightweight
- Flexible
- Compact
- Orange cover
- Non pinpricked
- Bonded construction
- Abrasion resistant

Description
Meets or exceeds SAE 100R7. Medium pressure hose suitable for petroleum or synthetic based hydraulic fluids used in hydraulic applications requiring electrical high insulation or non-conductivity in high voltage environment e.g. near electrical power lines.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for water based fluids

Vacuum rating
-0,93 bar / -700 mm Hg
-13,5 psi / -27,5 inch Hg

Specifications
SAE 100R7 / EN855-R7 / ISO3949-R7

Hoses meet standards SAE J517/J343 and EN855 for non conductivity where maximum electrical leakage shall not exceed 50µA when a 152 mm sample is subject to 37.5 KV for 5 minutes equivalent to 250 KV/meter.

APPLICATIONS

PACKAGING

CERTIFICATION

U.S. Department of Labor MSHA Mine Safety & Health Administration

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0951	-3	3/16"	5	5,00	0,197	9,60	0,378	210	3000	840	12000	4:1	25	0,98	60	0,040	SAB111	SAB811
0952	-4	1/4"	6	6,50	0,256	12,20	0,480	210	3000	840	12000	4:1	35	1,38	100	0,067	SAB121	SAB821
0953	-5	5/16"	8	8,10	0,319	14,30	0,563	190	2700	760	10800	4:1	45	1,77	130	0,087	SAB131	SAB831
0954	-6	3/8"	10	9,70	0,382	16,00	0,630	160	2300	640	9200	4:1	55	2,17	150	0,101	SAB141	SAB841
0955	-8	1/2"	12	13,00	0,512	20,30	0,799	140	2000	560	8000	4:1	75	2,95	220	0,148	SAB151	SAB851
0956	-10	5/8"	16	16,30	0,642	23,70	0,933	105	1500	420	6000	4:1	110	4,33	280	0,188	SAB161	SAB861
0957	-12	3/4"	20	19,50	0,768	27,10	1,067	90	1300	360	5200	4:1	140	5,51	335	0,225	SAB171	SAB871
0958	-16	1"	25	25,90	1,020	34,00	1,339	70	1000	280	4000	4:1	190	7,48	455	0,306	SAB181	SAB881

052 R7 Mariner

Thermoplastic hose for marine hydraulic applications
From 70 to 210 bar (1000 to 3000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of synthetic fiber

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
- Marine and off-shore equipment
- Boats
- Cranes
- Marine transport systems

Features
- Lightweight
- Flexible
- Compact
- Bonded construction
- Abrasion resistant
- Pinpricked cover

Description
Meets or exceeds SAE 100R7. Medium pressure hose suitable for petroleum, synthetic or water based hydraulic fluids used in applications requiring increased resistance to seawater and saline environment. Is also recommended for general on-shore equipment working in high humidity environment.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar / -700 mm Hg
-13,5 psi / -27,5 inch Hg

Specifications
SAE 100R7 / EN855-R7 / ISO3949-R7

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0520	-2	1/8"	4	4,00	0,157	8,30	0,327	210	3000	840	12000	4:1	25	0,98	45	0,030	SAB101	SAB801
0521	-3	3/16"	5	5,00	0,197	9,60	0,378	210	3000	840	12000	4:1	25	0,98	60	0,040	SAB111	SAB811
0522	-4	1/4"	6	6,50	0,256	12,20	0,480	210	3000	840	12000	4:1	35	1,38	100	0,067	SAB121	SAB821
0523	-5	5/16"	8	8,10	0,319	14,30	0,563	190	2700	760	10800	4:1	45	1,77	130	0,087	SAB131	SAB831
0524	-6	3/8"	10	9,70	0,382	16,00	0,630	160	2300	640	9200	4:1	55	2,17	145	0,097	SAB141	SAB841
0525	-8	1/2"	12	13,00	0,512	20,30	0,799	140	2000	560	8000	4:1	75	2,95	215	0,144	SAB151	SAB851
0526	-10	5/8"	16	16,30	0,642	23,70	0,933	105	1500	420	6000	4:1	110	4,33	275	0,185	SAB161	SAB861
0527	-12	3/4"	20	19,50	0,768	27,10	1,067	90	1300	360	5200	4:1	140	5,51	330	0,222	SAB171	SAB871
0528	-16	1"	25	25,90	1,020	34,00	1,339	70	1000	280	4000	4:1	190	7,48	445	0,299	SAB181	SAB881

053 R7 Yachting

Thermoplastic hose with white cover for marine and yachting high pressure hydraulic applications
From 140 to 210 bar (2000 to 3000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of synthetic fiber

Cover
Polyurethane, white, pinpricked, black ink-jet branding

Applications
- Marine and off-shore equipment
- General hydraulic
- steering and movement systems on pleasure boats and yachts
- Hydraulic gangways

Features
- Lightweight
- Flexible
- Compact
- Bonded construction
- Abrasion resistant
- White pinpricked cover

Description
Meets or exceeds SAE 100R7. Medium pressure hose suitable for petroleum, synthetic or water based hydraulic fluids used in applications requiring increased resistance to seawater and saline environment. The white cover with UV protection makes it the ideal choice for pleasure boats and yachting equipment.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
SAE 100R7/EN855-R7/ ISO3949-R7

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0531	-3	3/16"	5	5,00	0,197	9,60	0,378	210	3000	840	12000	4:1	25	0,98	60	0,040	SAB111	SAB811
0532	-4	1/4"	6	6,50	0,256	12,20	0,480	210	3000	840	12000	4:1	35	1,38	100	0,067	SAB121	SAB821
0533	-5	5/16"	8	8,10	0,319	14,30	0,563	190	2700	760	10800	4:1	45	1,77	130	0,087	SAB131	SAB831
0534	-6	3/8"	10	9,70	0,382	16,00	0,630	160	2300	640	9200	4:1	55	2,17	145	0,097	SAB141	SAB841
0535	-8	1/2"	12	13,00	0,512	20,30	0,799	140	2000	560	8000	4:1	75	2,95	215	0,144	SAB151	SAB851

097 R7 Extra tough

Thermoplastic hose extremely wear resistant for hydraulic applications
From 140 to 210 bar (2000 to 3000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of synthetic fiber

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
- Heavy duty construction and agricultural equipment
- Cranes
- General hydraulics
- Industrial gases

Features
- Extremely wear and abrasion resistant
- High flexibility
- Increased cover thickness
- Bonded construction
- Limited change in length
- Pinpricked cover

Description
Meets or exceeds SAE 100R7. Medium pressure hose suitable for hydraulic applications requiring extreme wear and abrasion resistance. For use with petroleum or synthetic or water based hydraulic fluids in hydraulic systems. Suitable for general fluid power transmissions like earthmoving or agricultural machinery and all applications where a hose must be protected against possible external damage. Also suitable for many industrial gases (check for compatibility).

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
SAE 100R7/EN855-R7/ ISO3949-R7

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0971	-3	3/16"	5	5,00	0,197	10,40	0,409	210	3000	840	12000	4:1	25	0,98	75	0,050	SAB111	SAB811
0972	-4	1/4"	6	6,50	0,256	12,90	0,508	210	3000	840	12000	4:1	35	1,38	115	0,077	SAB121	SAB821
0974	-6	3/8"	10	9,70	0,382	16,60	0,654	160	2300	640	9200	4:1	55	2,17	165	0,111	SAB141	SAB841
0975	-8	1/2"	12	13,00	0,512	21,40	0,843	140	2000	560	8000	4:1	75	2,95	265	0,178	SA5151	SA5851

166 A92.2 Antiabrasion

Thermoplastic hose for hydraulic applications
From 90 to 210 bar (1300 to 3000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of synthetic fiber

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
- Mobile equipment
- Articulating and telescopic booms
- Aerial platforms
- Scissor lifts
- Cranes
- General hydraulics

Features
- Lighter more flexible and more compact than traditional R1 hoses
- Bonded construction
- Abrasion resistant
- Limited change in length
- Pinpricked cover

Description
Complies with ANSI A92.2 for vehicle-mounted aerial devices. Medium pressure hose suitable for hydraulic applications with increased resistance to abrasion.
For use with petroleum, synthetic or water based hydraulic fluids in hydraulic systems. Suitable for general fluid power transmissions such as mobile equipment.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

WARNING!
3:1 Safety Factor is acceptable if eventual hose failure will not result in movement of aerial device. SAE standards require 4:1 Design Factor One

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1660	-2	1/8"	4	4,00	0,157	8,30	0,327	210	3000	840	12000	4:1	25	0,98	45	0,030	SAB101	SAB801
1661	-3	3/16"	5	5,00	0,197	9,60	0,378	210	3000	840	12000	4:1	25	0,98	60	0,040	SAB111	SAB811
1662	-4	1/4"	6	6,50	0,256	12,20	0,480	210	3000	840	12000	4:1	35	1,38	100	0,067	SAB121	SAB821
1663	-5	5/16"	8	8,10	0,319	14,30	0,563	210	3000	760	10800	3.5:1	45	1,77	130	0,087	SAB131	SAB831
1664	-6	3/8"	10	9,70	0,382	16,00	0,630	210	3000	640	9200	3:1	55	2,17	150	0,101	SAB141	SAB841
1665	-8	1/2"	12	13,00	0,512	20,30	0,799	180	2600	560	8000	3:1	75	2,95	220	0,148	SAB151	SAB851
1666	-10	5/8"	16	16,30	0,642	23,70	0,933	140	2000	420	6000	3:1	110	4,33	280	0,188	SAB161	SAB861
1667	-12	3/4"	20	19,50	0,768	27,10	1,067	120	1700	360	5200	3:1	140	5,51	335	0,225	SAB171	SAB871
1668	-16	1"	25	25,90	1,020	34,00	1,339	90	1300	280	4000	3:1	190	7,48	455	0,306	SAB181	SAB881

195 A92.2 Non conductive

Thermoplastic non-conductive hose for hydraulic applications
From 90 to 210 bar (1300 to 3000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of synthetic fiber

Cover
Polyurethane, orange, non pinpricked, black ink-jet branding

Applications
- High voltage equipment
- Aerial platforms
- Cranes
- Equipment requiring electrical high insulation

Features
- Lightweight
- Flexible
- Compact
- Orange cover
- Non pinpricked
- Bonded construction
- Abrasion resistant

Description
Complies with ANSI A92.2 for vehicle-mounted aerial devices. Medium pressure hose suitable for petroleum or synthetic based hydraulic fluids used in hydraulic applications requiring electrical high insulation or non-conductivity in high voltage environment e.g. near electrical power lines.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
Hoses meet standards SAE J517/J343 and EN855 for non conductivity where maximum electrical leakage shall not exceed 50µA when a 152 mm sample is subject to 37.5 KV for 5 minutes equivalent to 250 KV/meter

WARNING!
3:1 Safety Factor is acceptable if eventual hose failure will not result in movement of aerial device. SAE standards require 4:1 Design Factor One

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1951	-3	3/16"	5	5,00	0,197	9,60	0,378	210	3000	840	12000	4:1	25	0,98	60	0,040	SAB111	SAB811
1952	-4	1/4"	6	6,50	0,256	12,20	0,480	210	3000	840	12000	4:1	35	1,38	100	0,067	SAB121	SAB821
1953	-5	5/16"	8	8,10	0,319	14,30	0,563	210	3000	760	10800	3.5:1	45	1,77	130	0,087	SAB131	SAB831
1954	-6	3/8"	10	9,70	0,382	16,00	0,630	210	3000	640	9200	3:1	55	2,17	150	0,101	SAB141	SAB841
1955	-8	1/2"	12	13,00	0,512	20,30	0,799	180	2600	560	8000	3:1	75	2,95	220	0,148	SAB151	SAB851
1956	-10	5/8"	16	16,30	0,642	23,70	0,933	140	2000	420	6000	3:1	110	4,33	280	0,188	SAB161	SAB861
1957	-12	3/4"	20	19,50	0,768	27,10	1,067	120	1700	360	5200	3:1	140	5,51	335	0,225	SAB171	SAB871
1958	-16	1"	25	25,90	1,020	34,00	1,339	90	1300	280	4000	3:1	190	7,48	455	0,306	SAB181	SAB881

087 1SB Steel braid antiabrasion

Thermoplastic hose with steel reinforcement for hydraulic applications
From 95 to 360 bar (1300 to 5200 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One braid of steel wire

Cover
Polyurethane, black, non pinpricked, white ink-jet branding

Applications
- General hydraulic applications requiring additional mechanical protection
- Construction and agricultural equipment
- Agricultural brake systems
- Hoisting and handling application
- Industrial machines

Features
- Slimline construction for compact installation and flexibility
- Lightweight
- Steel braid offers low volumetric expansion and optimum change in length characteristics
- Abrasion resistant

Description
High pressure hose suitable for petroleum, synthetic or water based hydraulic fluids in hydraulic systems. Suitable for general fluid power transmissions like earthmoving, agricultural machinery, forklift trucks and other high pressure equipment. Steel braid offers increased mechanical protection compared to yarn braided hoses.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
SAE 100R1. Meets or exceeds pressure specifications of EN 853 1ST, EN 853 1SN and EN 857 1SC

APPLICATIONS

PACKAGING

CERTIFICATION

U.S. Department of Labor MSHA Mine Safety & Health Administration

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0871	-3	3/16"	5	5,00	0,197	9,70	0,382	360	5200	1440	20800	4:1	30	1,18	125	0,084	SAB111	SAB811
0872	-4	1/4"	6	6,50	0,256	11,70	0,461	310	4500	1240	18000	4:1	40	1,57	165	0,111	SAB121	SAB821
0873	-5	5/16"	8	8,10	0,319	13,20	0,520	250	3600	1000	14400	4:1	55	2,17	190	0,128	SAB131	SAB831
0874	-6	3/8"	10	9,80	0,386	15,50	0,610	225	3200	900	12800	4:1	65	2,56	230	0,155	SAB141	SAB841
0875	-8	1/2"	12	13,00	0,512	18,80	0,740	190	2700	760	10800	4:1	85	3,35	300	0,202	SAB151	SAB851
0876	-10	5/8"	16	16,30	0,642	22,00	0,866	140	2000	560	8000	4:1	115	4,53	335	0,225	SAB161	SAB861
0877	-12	3/4"	20	19,50	0,768	25,80	1,016	115	1600	460	6400	4:1	145	5,71	460	0,309	SAB171	SAB871
0878	-16	1"	25	25,80	1,016	33,40	1,315	95	1300	380	5200	4:1	180	7,09	640	0,430	SAB181	SAB881

056 1SB Steel braid mariner

Thermoplastic hose with steel reinforcement for marine hydraulic applications
From 95 to 300 bar (1300 to 4300 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One braid of steel wire

Cover
Polyurethane, black, non pinpricked, white ink-jet branding

Applications
- Marine and off-shore equipment
- Boats
- Cranes
- Marine transport systems.

Features
- Slimline construction for compact installation and flexibility
- Lightweight
- Steel braid offers low volumetric expansion and optimum change in length characteristics
- Abrasion resistant

Description
High pressure hose suitable for petroleum, synthetic or water based hydraulic fluids used in applications requiring increased resistance to seawater and saline environment. Is also recommended for general on-shore equipment working in high humidity environment. Steel braid offers increased mechanical protection compared to yarn braided hoses.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar / -700 mm Hg
-13,5 psi / -27,5 inch Hg

Specifications
SAE 100R1. Meets or exceeds pressure specifications of EN 853 1ST, EN 853 1SN and EN 857 1SC

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0561	-3	3/16"	5	5,00	0,197	9,70	0,382	360	5200	1440	20800	4:1	30	1,18	125	0,084	SAB111	SAB811
0562	-4	1/4"	6	6,50	0,256	11,70	0,461	310	4500	1240	18000	4:1	40	1,57	165	0,111	SAB121	SAB821
0563	-5	5/16"	8	8,10	0,319	13,20	0,520	250	3600	1000	14400	4:1	55	2,17	190	0,128	SAB131	SAB831
0564	-6	3/8"	10	9,80	0,386	15,50	0,610	225	3200	900	12800	4:1	65	2,56	230	0,155	SAB141	SAB841
0565	-8	1/2"	12	13,00	0,512	18,80	0,740	190	2700	760	10800	4:1	85	3,35	300	0,202	SAB151	SAB851
0566	-10	5/8"	16	16,30	0,642	22,00	0,866	140	2000	560	8000	4:1	115	4,53	330	0,222	SAB161	SAB861
0567	-12	3/4"	20	19,50	0,768	25,80	1,016	115	1600	460	6400	4:1	145	5,71	460	0,309	SAB171	SAB871
0568	-16	1"	25	25,80	1,016	33,40	1,315	95	1300	380	5200	4:1	180	7,09	640	0,430	SAB181	SAB881

058 1SB Steel braid yachting

Thermoplastic hose with white cover for marine and yachting high pressure hydraulic applications
From 190 to 360 bar (2700 to 5200 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One braid of steel wire

Cover
Polyurethane, white, non pinpricked, black ink-jet branding

Applications
- Marine and off-shore equipment
- General hydraulic, steering and movement systems on pleasure boats and yachts
- Hydraulic gangways

Features
- Slimline construction for compact installation and flexibility
- Lightweight
- Steel braid offers low volumetric expansion and optimum change in length characteristics
- Abrasion resistant

Description
High pressure hose suitable for petroleum, synthetic or water based hydraulic fluids used in applications requiring increased resistance to seawater and saline environment. Steel braid offers increased mechanical protection compared to yarn braided hoses. The white cover with UV protection makes it the ideal choice for pleasure boats and yachting equipment.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
SAE 100R1. Meets or exceeds pressure specifications of EN 853 1ST, EN 853 1SN and EN 857 1SC

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0581	-3	3/16"	5	5,00	0,197	9,70	0,382	360	5200	1440	20800	4:1	30	1,18	125	0,084	SAB111	SAB811
0582	-4	1/4"	6	6,50	0,256	11,70	0,461	310	4500	1240	18000	4:1	40	1,57	160	0,108	SAB121	SAB821
0583	-5	5/16"	8	8,10	0,319	13,20	0,520	250	3600	1000	14400	4:1	55	2,17	190	0,128	SAB131	SAB831
0584	-6	3/8"	10	9,80	0,386	15,50	0,610	225	3200	900	12800	4:1	65	2,56	230	0,155	SAB141	SAB841
0585	-8	1/2"	12	13,00	0,512	18,80	0,740	190	2700	760	10800	4:1	85	3,35	300	0,202	SAB151	SAB851

075 R8 Antiabrasion

Thermoplastic hose for high pressure hydraulic applications
From 140 to 420 bar (2000 to 6000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of aramid fiber

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
- Construction and agricultural equipment
- Forklift trucks
- Articulating and telescopic booms
- Aerial platforms
- Safety and rescue equipment
- Scissor lifts
- Cranes
- General hydraulics
- Industrial gases

Features
- Aramid reinforcement for high pressure performance
- Compact and lightweight
- Bonded construction
- Abrasion resistant
- Extremely low change in length
- Pinpricked cover

Description
Meets or exceeds SAE 100R8. Compact high pressure hose suitable for hydraulic applications with increased resistance to abrasion and very low expansion. For use with petroleum, synthetic or water based hydraulic fluids in hydraulic systems. Suitable for general fluid power transmissions like earthmoving, agricultural machinery, forklift trucks and other high pressure equipment. Also suitable for many industrial gases (check for compatibility).

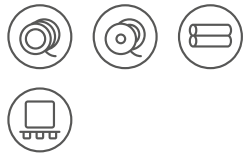
Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
SAE 100R8/EN855-R8/ ISO3949-R8

APPLICATIONS

PACKAGING



CERTIFICATION

U.S. Department of Labor MSHA Mine Safety & Health Administration

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0750	-2	1/8"	4	4,00	0,157	8,00	0,315	420	6000	1680	24000	4:1	25	0,98	45	0,030	SAB101	SAB801
0751	-3	3/16"	5	5,00	0,197	8,90	0,350	350	5000	1400	20000	4:1	30	1,18	50	0,034	SAB111	SAB811
0752	-4	1/4"	6	6,50	0,256	11,50	0,453	350	5000	1400	20000	4:1	50	1,97	85	0,057	SAB121	SAB821
0753	-5	5/16"	8	8,10	0,319	13,40	0,528	300	4300	1200	17200	4:1	55	2,17	105	0,071	SAB131	SAB831
0754	-6	3/8"	10	9,70	0,382	15,50	0,610	280	4000	1120	16000	4:1	60	2,36	135	0,091	SAB141	SAB841
0755	-8	1/2"	12	13,00	0,512	19,90	0,783	245	3500	980	14000	4:1	80	3,15	200	0,134	SAB151	SAB851
0756	-10	5/8"	16	16,30	0,642	23,40	0,921	200	2900	800	11600	4:1	125	4,92	250	0,168	SAB161	SAB861
0757	-12	3/4"	20	19,50	0,768	27,10	1,067	165	2300	660	9200	4:1	150	5,91	320	0,215	SAB171	SAB871
0758	-16	1"	25	25,90	1,020	34,20	1,346	140	2000	560	8000	4:1	200	7,87	440	0,296	SAB181	SAB881

126 R8 Non conductive

Thermoplastic non-conductive hose for high pressure hydraulic applications
From 140 to 350 bar (2000 to 5000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of aramid fiber

Cover
Polyurethane, orange, non pinpricked, black ink-jet branding

Applications
- High voltage equipment
- Safety and rescue equipment
- Aerial platforms
- Cranes
- Equipment requiring electrical high insulation

Features
- Aramid reinforcement for high pressure performance
- Lightweight
- Flexible
- Compact
- Bonded construction
- Orange cover
- Non pinpricked
- Abrasion resistant

Description
Meets or exceeds SAE 100R8. High pressure hose suitable for petroleum or synthetic based hydraulic fluids used in hydraulic applications requiring electrical high insulation or non-conductivity in high voltage environment e.g. near electrical power lines.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
SAE 100R8/EN855-R8/ISO3949-R8. Hoses meet standards SAE J517/J343 and EN855 for non conductivity where maximum electrical leakage shall not exceed 50µA when a 152 mm sample is subject to 37.5 KV for 5 minutes equivalent to 250 KV/meter

APPLICATIONS

PACKAGING

CERTIFICATION

U.S. Department of Labor MSHA Mine Safety & Health Administration

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1261	-3	3/16"	5	5,00	0,197	8,90	0,350	350	5000	1400	20000	4:1	30	1,18	50	0,034	SAB111	SAB811
1262	-4	1/4"	6	6,50	0,256	11,50	0,453	350	5000	1400	20000	4:1	50	1,97	85	0,057	SAB121	SAB821
1263	-5	5/16"	8	8,10	0,319	13,40	0,528	300	4300	1200	17200	4:1	55	2,17	105	0,071	SAB131	SAB831
1264	-6	3/8"	10	9,70	0,382	15,50	0,610	280	4000	1120	16000	4:1	60	2,36	135	0,091	SAB141	SAB841
1265	-8	1/2"	12	13,00	0,512	19,90	0,783	245	3500	980	14000	4:1	80	3,15	205	0,138	SAB151	SAB851
1266	-10	5/8"	16	16,30	0,642	23,40	0,921	200	2900	800	11600	4:1	125	4,92	250	0,168	SAB161	SAB861
1267	-12	3/4"	20	19,50	0,768	27,10	1,067	165	2300	660	9200	4:1	150	5,91	320	0,215	SAB171	SAB871
1268	-16	1"	25	25,90	1,020	34,20	1,346	140	2000	560	8000	4:1	200	7,87	440	0,296	SAB181	SAB881

054 R8 Mariner

Thermoplastic hose for marine high pressure hydraulic applications
From 140 to 420 bar (2000 to 6000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of aramid fiber

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
- Marine and off-shore equipment
- Boats
- Cranes
- Marine transport systems

Features
- Aramid reinforcement for high pressure performance
- Lightweight
- Flexible
- Compact
- Bonded construction
- Abrasion resistant
- Pinpricked cover

Description
Meets or exceeds SAE 100R8. High pressure hose suitable for petroleum, synthetic or water based hydraulic fluids used in applications requiring increased resistance to seawater and saline environment. Is also recommended for general on-shore equipment working in high humidity environment.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
0,93 bar / 700 mm Hg / 13,5 psi / 27,5 inch Hg

Specifications
SAE 100R8 / EN855-R8 / ISO3949-R8

APPLICATIONS

PACKAGING

CERTIFICATION

ABS DNV·GL

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0540	-2	1/8"	4	4,00	0,157	8,00	0,315	420	6000	1680	24000	4:1	25	0,98	45	0,030	SAB101	SAB801
0541	-3	3/16"	5	5,00	0,197	8,90	0,350	350	5000	1400	20000	4:1	30	1,18	50	0,034	SAB111	SAB811
0542	-4	1/4"	6	6,50	0,256	11,50	0,453	350	5000	1400	20000	4:1	50	1,97	80	0,053	SAB121	SAB821
0543	-5	5/16"	8	8,10	0,319	13,40	0,528	300	4300	1200	17200	4:1	55	2,17	105	0,071	SAB131	SAB831
0544	-6	3/8"	10	9,70	0,382	15,50	0,610	280	4000	1120	16000	4:1	60	2,36	130	0,087	SAB141	SAB841
0545	-8	1/2"	12	13,00	0,512	19,90	0,783	245	3500	980	14000	4:1	80	3,15	205	0,134	SAB151	SAB851
0546	-10	5/8"	16	16,30	0,642	23,40	0,921	200	2900	800	11600	4:1	125	4,92	245	0,168	SAB161	SAB861
0547	-12	3/4"	20	19,50	0,768	27,10	1,067	165	2300	660	9200	4:1	150	5,91	310	0,208	SAB171	SAB871
0548	-16	1"	25	25,90	1,020	34,20	1,346	140	2000	560	8000	4:1	200	7,87	440	0,296	SAB181	SAB881

055 R8 Yachting

Thermoplastic hose with white cover for marine and yachting high pressure hydraulic applications
From 245 to 350 bar (3500 to 5000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One braid of aramid fiber

Cover
Polyurethane, white, pinpricked, black ink-jet branding

Applications
- Marine and off-shore equipment
- Boats
- Yachting equipment

Features
- Aramid reinforcement for high pressure performance
- Lightweight
- Flexible
- Compact
- Bonded construction
- Abrasion resistant
- White pinpricked cover

Description
Meets or exceeds SAE 100R8. High pressure hose suitable for petroleum, synthetic or water based hydraulic fluids used in applications requiring increased resistance to seawater and saline environment. The white cover with UV protection makes it the ideal choice for pleasure boats and yachting equipment.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F)
for air and water based fluids

Vacuum rating
-0,93 bar / -700 mm Hg
-13,5 psi / -27,5 inch Hg

Specifications
SAE 100R8 / EN855-R8 / ISO3949-R8

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0551	-3	3/16"	5	5,00	0,197	8,90	0,350	350	5000	1400	20000	4:1	30	1,18	50	0,034	SAB111	SAB811
0552	-4	1/4"	6	6,50	0,256	11,50	0,453	350	5000	1400	20000	4:1	50	1,97	80	0,054	SAB121	SAB821
0553	-5	5/16"	8	8,10	0,319	13,40	0,528	300	4300	1200	17200	4:1	55	2,17	105	0,071	SAB131	SAB831
0554	-6	3/8"	10	9,70	0,382	15,50	0,610	280	4000	1120	16000	4:1	60	2,36	130	0,087	SAB141	SAB841
0555	-8	1/2"	12	13,00	0,512	19,90	0,783	245	3500	980	14000	4:1	80	3,15	205	0,138	SAB151	SAB851

076 R8 Extra tough

Thermoplastic hose extremely wear resistant for hydraulic applications
From 245 to 350 bar (3500 to 5000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One braid of aramid fiber

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
- Heavy duty construction and agricultural equipment
- Rescue and safety equipment
- High pressure systems and pumps
- Bolt tensioning tools
- Jacking and rerailing equipment
- Industrial gases

Features
- Extremely wear and abrasion resistant
- High flexibility
- Increased cover thickness
- Bonded construction
- Limited change in length
- Pinpricked cover

Description
Meets or exceeds SAE 100R8. High pressure hose suitable for hydraulic applications requiring extreme wear and abrasion resistance. For use with petroleum, synthetic or water based hydraulic fluids in hydraulic systems. Suitable for general fluid power transmissions like earthmoving, agricultural machinery, rescue and bolt tensioning tools and all applications where a hose must be protected against possible external damage. Also suitable for many industrial gases (check for compatibility).

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
SAE 100R8/EN855-R8/ISO3949-R8

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0761	-3	3/16"	5	5,00	0,197	9,60	0,378	350	5000	1400	20000	4:1	30	1,18	65	0,044	SAB111	SAB811
0762	-4	1/4"	6	6,50	0,256	12,10	0,476	350	5000	1400	20000	4:1	50	1,97	100	0,067	SAB121	SAB821
0763	-5	5/16"	8	8,10	0,319	14,00	0,551	300	4300	1200	17200	4:1	55	2,17	120	0,081	SAB131	SAB831
0764	-6	3/8"	10	9,70	0,382	16,20	0,638	280	4000	1120	16000	4:1	60	2,36	160	0,108	SAB141	SAB841
0765	-8	1/2"	12	13,00	0,512	20,90	0,823	245	3500	980	14000	4:1	80	3,15	250	0,168	SA5151	SA5851

108 HR8 Hybrid reinforcement

Thermoplastic hose with combined reinforcement for high pressure hydraulic applications
From 250 to 350 bar (3600 to 5000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One braid of aramid fiber plus one braid of steel wire

Cover
Polyurethane, black, non pinpricked, white ink-jet branding

Applications
— General hydraulic applications requiring high mechanical protection properties of hose and braid, combined with high pressure
— Construction equipment
— Hoisting and handling equipment
— Machine tools

Features
— Rugged construction for HD application and prolonged lifetime
— Combined reinforcement offers low volumetric expansion and optimum change in length characteristics
— Abrasion resistant

Description
High pressure hose suitable for petroleum, synthetic or water based hydraulic fluids in hydraulic systems. Suitable for general fluid power transmissions like earthmoving, forklift trucks, HD construction machinery, hoisting and handling equipment, high pressure equipment. Steel braid design offers very high mechanical strength which prolongs lifetimeof the hose in harsh conditions. Performance requirements to SAE 100R8.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F)
for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
Meets the pressure performance requirements of SAE 100R8/EN855-R8/ISO3949-R8

APPLICATIONS

PACKAGING

CERTIFICATION

U.S. Department of Labor MSHA Mine Safety & Health Administration

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1082	-4	1/4"	6	6,50	0,256	11,80	0,465	350	5000	1400	20000	4:1	50	1,97	165	0,111	SAC121	SAC821
1084	-6	3/8"	10	9,70	0,382	15,80	0,622	280	4000	1120	16000	4:1	60	2,36	230	0,155	SAC141	SAC841
1085	-8	1/2"	12	13,00	0,512	19,40	0,764	250	3600	1000	14400	4:1	80	3,15	315	0,212	SAC151	SAC851

085 2SB Two steel braids antiabrasion

Thermoplastic hose with double steel reinforcement for high pressure hydraulic applications
From 150 to 400 bar (2100 to 5800 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
Two braids of steel wire

Cover
Polyurethane, black, non pinpricked, white ink-jet branding

Applications
- General hydraulic applications requiring high mechanical protection properties of hose and braid combined with high pressure
- Construction equipment
- Hoisting and handling equipments
- Machine tools

Features
- Rugged construction for HD application and prolonged lifetime
- Two steel braid offers low volumetric expansion and optimum change in length characteristics
- Abrasion resistant

Description
High pressure hose suitable for petroleum synthetic, or water based hydraulic fluids in hydraulic systems. Suitable for general fluid power transmissions like earthmoving, forklift trucks, HD construction machinery, hoisting and handling equipment, high pressure equipment. Two steel braid design offers very high mechanical strength which prolongs lifetime of the hose in harsh conditions.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
Meets the pressure performance requirements of SAE 100R2

APPLICATIONS

PACKAGING

CERTIFICATION

U.S. Department of Labor MSHA Mine Safety & Health Administration

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0852	-4	1/4"	6	6,40	0,252	12,80	0,504	400	5.800	1.600	23.200	4:1	40	1,57	245	0,165	SAC121	SAC821
0853	-5	5/16"	8	8,10	0,319	14,80	0,583	400	5.800	1.600	23.200	4:1	50	1,97	315	0,212	SAC131	SAC831
0854	-6	3/8"	10	9,80	0,386	16,80	0,661	330	4.700	1.320	18.800	4:1	65	2,56	375	0,252	SAC141	SAC841
0855	-8	1/2"	12	13,00	0,512	20,20	0,795	260	3.700	1.040	14.800	4:1	85	3,35	460	0,309	SAC151	SAC851
0856	-10	5/8"	16	16,30	0,642	23,50	0,925	220	3.100	880	12.400	4:1	115	4,53	560	0,376	SAC161	SAC861
0857	-12	3/4"	20	19,50	0,768	27,80	1,094	150	2.100	600	8.400	4:1	170	6,69	715	0,481	SAC171	SAC871

150 HDH Heavy duty hydraulic steel armoured

Thermoplastic hose with combined reinforcement for high pressure hydraulic applications
From 350 to 500 bar (5000 to 7200 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of aramid fiber plus one braid of steel wire

Cover
Polyurethane, black, non pinpricked, white ink-jet branding

Applications
— General hydraulic applications requiring high mechanical protection properties of hose and braid combined with high pressure:
— Construction equipment
— Hoisting and handling equipment
— Machine tools

Features
— Rugged construction for HD application and prolonged lifetime
— Combined reinforcement offers low volumetric expansion and optimum change in length characteristics
— Abrasion resistant

Description
High pressure hose suitable for petroleum, synthetic, or water based hydraulic fluids in hydraulic systems. Suitable for general fluid power transmission like earthmoving, forklift trucks, HD construction machinery, hoisting and handling equipment, high pressure equipment. Steel braid design offers very high mechanical strength which prolongs lifetime of the hose in harsh conditions.

Temperature range
-40°C to +100°C (-40°F to +212°F), limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
Exceeds pressure performance requirements of SAE 100R8/EN855-R8/ ISO3949-R8

APPLICATIONS

PACKAGING

CERTIFICATION

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1502	-4	1/4"	6	6,50	0,256	12,60	0,496	500	7200	2000	28800	4:1	40	1,57	175	0,118	SAC121	SAC821
1504	-6	3/8"	10	9,70	0,382	16,90	0,665	420	6000	1680	24000	4:1	60	2,36	280	0,188	SAC141	SAC841
1505	-8	1/2"	12	13,00	0,512	20,30	0,799	350	5000	1400	20000	4:1	80	3,15	345	0,232	SAC151	SAC851
1507	-12	3/4"	20	19,50	0,768	28,50	1,122	250	3600	1000	14400	4:1	150	5,91	555	0,373	SA5171	SA5871

125 R18 CPLT 3000 Constant pressure low temp

Thermoplastic constant pressure hose with low temperature specifications (-55° C/-67°F) for hydraulic applications
Up to 210 bar (up to 3000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of synthetic fiber

Cover
Special polyester, black, pinpricked, white ink-jet branding

Applications
- Forklift handling
- All industrial and agricultural applications exposed to low temperatures or cyclic and quick temperature changes

Features
- 2 polyester braid construction from 1/4"-DN6 onwards
- Optimum bonding between the tube ,the braids and the cover
- Special polyester cover resistant to low temperatures and meteorological harsh conditions
- Tight bend radii without cover wrinkling

Description
Meets or exceeds SAE 100R18 specifications. Medium pressure hose suitable for petroleum or synthetic based hydraulic fluids in hydraulic systems of forklifts. Optimum bonding characteristics and special cover also make it the ideal hose for equipment operating in cold environments while maintaining a high level of flexibility.

Temperature range
-55°C to +100°C
(-67°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
SAE 100R18/ISO3949-R18

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1251	-3	3/16"	5	5,00	0,197	9,60	0,378	210	3000	840	12000	4:1	25	0,98	60	0,040	SAB111	SAB811
1252	-4	1/4"	6	6,50	0,256	12,20	0,480	210	3000	840	12000	4:1	35	1,38	100	0,067	SAB121	SAB821
1253	-5	5/16"	8	8,10	0,319	14,30	0,563	210	3000	840	12000	4:1	45	1,77	130	0,087	SAB131	SAB831
1254	-6	3/8"	10	9,70	0,382	16,60	0,654	210	3000	840	12000	4:1	45	1,77	165	0,111	SAB141	SAB841
1255	-8	1/2"	12	13,00	0,512	22,50	0,886	210	3000	840	12000	4:1	70	2,76	295	0,198	SA5151	SA5851
1256	-10	5/8"	16	16,30	0,642	26,10	1,028	210	3000	840	12000	4:1	100	3,94	370	0,249	SA5161	SA5861

155 R18 CPLT 3000 NC Constant pressure low temp non cond.

Thermoplastic non cond. pressure hose with low temperature specifications (-55° C/-67°F) for hydraulic applications
Up to 210 bar (up to 3600 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of synthetic fiber

Cover
Special polyester, orange, non pinpricked, black ink-jet branding

Applications
- High voltage equipment
- Aerial platforms
- All industrial and hydraulic applications exposed to low temperatures or cyclic and quick temperature changes

Features
- 2 polyester braid construction from 1/4""-DN6 onwards
- Optimum bonding between the tube the braids and cover
- Special polyester cover resistant to low temperatures and meteorological harsh conditions
- Tight bend radii without cover wrinkling

Description
Meets or exceeds SAE 100R18 specifications. Medium pressure hose suitable for petroleum or synthetic based hydraulic fluids in hydraulic systems requiring electrical high insulation or non-conductivity in high voltage environment. Optimum bonding characteristics and special cover also make it the ideal hose for equipment operating in cold environments while maintaining a high level of flexibility.

Temperature range
-55°C to +100°C
(-67°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
SAE 100R18/ISO3949-R18. Hoses meet standards SAE J517/J343 and EN855 for non conductivity where maximum electrical leakage shall not exceed 50µA when a 152 mm sample is subject to 37.5 KV for 5 minutes equivalent to 250 KV/meter

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1551	-3	3/16"	5	5,00	0,197	9,60	0,378	210	3000	840	12000	4:1	25	0,98	60	0,040	SAB111	SAB811
1552	-4	1/4"	6	6,50	0,256	12,20	0,480	210	3000	840	12000	4:1	35	1,38	100	0,067	SAB121	SAB821
1553	-5	5/16"	8	8,10	0,319	14,30	0,563	210	3000	840	12000	4:1	45	1,77	130	0,087	SAB131	SAB831
1554	-6	3/8"	10	9,70	0,382	16,60	0,654	210	3000	840	12000	4:1	45	1,77	165	0,111	SAB141	SAB841
1555	-8	1/2"	12	13,00	0,512	22,50	0,886	210	3000	840	12000	4:1	70	2,76	295	0,198	SA5151	SA5851
1556	-10	5/8"	16	16,30	0,642	26,10	1,028	210	3000	840	12000	4:1	100	3,94	370	0,249	SA5161	SA5861

153 CPLT 3600 Constant pressure low temp

Thermoplastic constant pressure hose with low temperature specifications (-55° C/-67°F) for hydraulic applications
Up to 250 bar (up to 3600 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of synthetic fiber

Cover
Special polyester, black, pinpricked, white ink-jet branding

Applications
- Forklift handling
- All industrial and agricultural applications exposed to low temperatures or cyclic and quick temperature changes

Features
- 2 polyester braid construction from 1/4"-DN6 onwards
- Optimum bonding between the tube, the braids and the cover
- Special polyester cover resistant to low temperatures and meteorological harsh conditions
- Tight bend radii without cover wrinkling

Description
Medium pressure hose suitable for petroleum or synthetic based hydraulic fluids in hydraulic systems of forklifts. Optimum bonding characteristics and special cover also make it the ideal hose for equipment operating in cold environments while maintaining a high level of flexibility.

Temperature range
-55°C to +100°C
(-67°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar / -700 mm Hg
-13,5 psi / -27,5 inch Hg

Specifications
Exceeds SAE 100R18 / ISO3949-R18

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1531	-3	3/16"	5	5,00	0,197	9,60	0,378	250	3600	1000	14400	4:1	25	0,98	60	0,040	SAB111	SAB811
1532	-4	1/4"	6	6,50	0,256	13,00	0,512	250	3600	1000	14400	4:1	35	1,38	115	0,077	SAB121	SAB821
1533	-5	5/16"	8	8,10	0,319	15,00	0,591	250	3600	1000	14400	4:1	45	1,77	145	0,097	SAB131	SAB831
1534	-6	3/8"	10	9,70	0,382	18,00	0,709	250	3600	1000	14400	4:1	55	2,17	205	0,138	SAC141	SAC841

156 CPLT 3600 NC Constant pressure low temp non cond.

Thermoplastic non cond. pressure hose with low temperature specifications (-55° C/-67°F) for hydraulic applications
Up to 250 bar (up to 3600 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of synthetic fiber

Cover
Special polyester, orange, non pinpricked, black ink-jet branding

Applications
- High voltage equipment
- Aerial platforms
- All industrial and hydraulic applications exposed to low temperatures or cyclic and quick temperature changes

Features
- 2 polyester braid construction from 1/4"-DN6 onwards
- Optimum bonding between the tube, the braids and cover
- Special polyester cover resistant to low temperatures and meteorological harsh conditions
- Tight bend radii without cover wrinkling

Description
Medium pressure hose suitable for petroleum or synthetic based hydraulic fluids in hydraulic systems requiring electrical high insulation or non-conductivity in high voltage environment. Optimum bonding characteristics and special cover also make it the ideal hose for equipment operating in cold environments while maintaining a high level of flexibility.

Temperature range
-55°C to +100°C
(-67°F to +212°F)
Limited to +70°C (+158°F)
for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
Exceeds SAE 100R18/ ISO3949-R18.
Hoses meet standards SAE J517/J343 and EN855 for non conductivity where maximum electrical leakage shall not exceed 50µA when a 152 mm sample is subject to 37.5 KV for 5 minutes equivalent to 250 KV/meter

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1561	-3	3/16"	5	5,00	0,197	9,60	0,378	250	3.600	1.000	14.400	4:1	25	0,98	60	0,040	SAB111	SAB811
1562	-4	1/4"	6	6,50	0,256	13,00	0,512	250	3.600	1.000	14.400	4:1	35	1,38	115	0,077	SAB121	SAB821
1563	-5	5/16"	8	8,10	0,319	15,00	0,591	250	3.600	1.000	14.400	4:1	45	1,77	145	0,097	SAB131	SAB831
1564	-6	3/8"	10	9,70	0,382	18,00	0,709	250	3.600	1.000	14.400	4:1	55	2,17	205	0,138	SAC141	SAC841

154 CPLT 5000 Constant pressure low temp

Thermoplastic constant pressure hose with low temperature specifications (-55° C/-67°F) for hydraulic applications
Up to 350 bar (up to 5000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
One or two braids of steel or aramid fiber plus one braid of steel wire

Cover
Special polyester, black, non pinpricked, white ink-jet branding

Applications
General hydraulic applications requiring high mechanical protection properties of hose and braid in cold environments combined with high pressure

- Construction equipment
- Hoisting and handling equipments
- Machine tools

Features
- Rugged construction for heavy duty application and prolonged lifetime
- Steel braid offers low volumetric expansion and optimum change in length characteristics
- Abrasion resistant

Description
High pressure hose suitable for petroleum, synthetic or water based hydraulic fluids in hydraulic systems. Suitable for general fluid power transmissions like earthmoving, forklift trucks, heavy duty construction machinery, hoisting and handling equipment, high pressure equipment. Steel braid design offers very high mechanical protection which prolongs lifetime of the hose in harsh conditions. Special cover also make it the ideal hose for equipment operating in cold environments while maintaining a high level of flexibility.

Temperature range
-55°C to +100°C
(-67°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar / -700 mm Hg
-13,5 psi / -27,5 inch Hg

Specifications
Exceeds SAE 100R18 / ISO3949-R18 pressure requirements

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1541	-3	3/16"	5	5,00	0,197	9,70	0,382	350	5000	1400	20000	4:1	30	1,18	125	0,084	SAB111	SAB811
1542	-4	1/4"	6	6,40	0,252	12,80	0,504	350	5000	1400	20000	4:1	40	1,57	245	0,165	SAC121	SAC821
1544	-6	3/8"	10	9,70	0,382	16,90	0,665	350	5000	1400	20000	4:1	60	2,36	280	0,188	SAC141	SAC841
1545	-8	1/2"	12	13,00	0,512	21,30	0,839	350	5000	1400	20000	4:1	80	3,15	390	0,262	SA5151	SA5851

109 CPHR 5000 Constant pressure hybrid reinforcement

Thermoplastic constant pressure hose with combined reinforcement for very high pressure hydraulic applications
Up to 350 bar (up to to 5000 psi)

FEATURES

Inner Tube
Polyester elastomer

Reinforcement
One braid of aramid fiber plus one braid of steel wire

Cover
Polyurethane, black, non pinpricked, white ink-jet branding

Applications
General hydraulic applications requiring high mechanical protection properties of hose and braid, combined with high pressure:
- construction equipment,
- hoisting and handling equipment
- machine tools

Features
- Rugged construction for HD application and prolonged lifetime
- Combined reinforcement offers low volumetric expansion and optimum change in length characteristics.
- Abrasion resistant

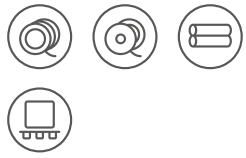
Description
High pressure hose suitable for petroleum, synthetic or water based hydraulic fluids in hydraulic systems. Suitable for general fluid power transmissions like earthmoving, forklift trucks, HD construction machinery, hoisting and handling equipment, high pressure equipment. Steel braid design offers very high mechanical strength which prolongs lifetime of the hose in harsh conditions.

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum Rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

APPLICATIONS

PACKAGING



CERTIFICATION

U.S. Department of Labor MSHA Mine Safety & Health Administration

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1092	-4	1/4"	6	6,50	0,256	11,80	0,465	350	5000	1400	20000	4:1	50	1,97	165	0,111	SAC121	SAC821
1094	-6	3/8"	10	9,70	0,382	16,20	0,638	350	5000	1400	20000	4:1	60	2,36	255	0,171	SAC141	SAC841
1095	-8	1/2"	12	13,00	0,512	20,30	0,799	350	5000	1400	20000	4:1	80	3,15	345	0,232	SAC151	SAC851

041 VHP 10000

Thermoplastic constant pressure hose for very high pressure hydraulic applications
Up to 700 bar (up to to 10000 psi)

FEATURES

Inner Tube
Polyester elastomer

Reinforcement
One or two braids of aramid fiber plus one braid of steel wire

Cover
Polyurethane, black, non pinpricked, white ink-jet branding

Applications
- Rescue and safety equipment
- High pressure systems and pumps
- Bolt tensioning tools
- Jacking and rerailing equipment

Features
- Combined Aramid Steel braid construction for compact design
- Lightweight and flexible
- Low bend radii for use on hose reels and in tight environments
- Antiabrasion cover

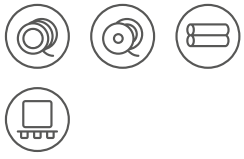
Description
Exceeds the former American Jacking Specifications IJ100 (1/4"). Very High Pressure hose suitable for petroleum, synthetic or water based hydraulic fluids in hydraulic systems. Combined Aramid Steel braid ensures longevity pressure performance and compact design.

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum Rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

APPLICATIONS

PACKAGING



MULTICOLOR

04R 04Y 04O 04B 04G

CERTIFICATION

ABS DNV·GL MSHA

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0412	-4	1/4"	6	6,60	0,260	12,70	0,500	700	10000	2800	40000	4:1	35	1,38	180	0,121	SAF121	SAF821
0414	-6	3/8"	10	9,80	0,386	18,70	0,736	700	10000	2800	40000	4:1	90	3,54	330	0,222	SAF141	SAF841

046 VHP Non conductive

Constant pressure thermoplastic non-conductive hose for very high pressure hydraulic applications
From 550 to 700 bar (8000 to 10000 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
Two braids of aramid fiber

Cover
Polyurethane, orange, non pinpricked, black ink-jet branding

Applications
- Rescue and safety equipment
- High pressure systems and pumps
- Jacking and rerailing equipment
- Equipment requiring electrical high insulation

Features
- Two aramid braids construction for compact design
- Lightweight and flexible
- Tight bend radii for use on hose reels and in tight environments
- Antiabrasion cover

Description
Exceeds the former American Jacking Specifications IJ100 (1/4"). Very High Pressure hose suitable for petroleum or synthetic based hydraulic fluids in hydraulic systems - Aramid braid ensures longevity as well as pressure performance and compact design. For applications requiring electrical high insulation or non-conductivity in high voltage environment e.g. near electrical power lines.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
Hoses meet standards SAE J517/J343 and EN855 for non conductivity where maximum electrical leakage shall not exceed 50µA when a 152 mm sample is subject to 37.5 KV for 5 minutes equivalent to 250 KV/meter

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0460	-2	1/8"	4	4,00	0,157	9,10	0,358	700	10000	2800	40000	4:1	25	0,98	60	0,040	SAF101	SAF801
0461	-3	3/16"	5	5,00	0,197	11,00	0,433	700	10000	2800	40000	4:1	30	1,18	95	0,064	SAF111	SAF811
0462	-4	1/4"	6	6,60	0,260	14,00	0,551	700	10000	2800	40000	4:1	35	1,38	145	0,097	SAF121	SAF821
0464	-6	3/8"	10	9,70	0,382	18,00	0,709	550	8000	2200	32000	4:1	70	2,76	200	0,134	SAF141	SAF841

040 VHP 10000 Mariner

Thermoplastic constant pressure hose for marine very high pressure hydraulic applications
Up to 700 bar (up to 10000 psi)

FEATURES

Inner tube
Polyester elastomer.

Reinforcement
Up to three braids of aramid fiber plus one braid of steel wire.

Cover
Polyurethane, black, non pinpricked, white ink-jet branding.

Applications
- Off-shore and sub-sea high pressure systems
- Pumps and valves
- Bolt tensioning tools
- Jacking and rerailing equipment.

Features
- Combined Aramid Steel braid construction for compact design
- Lightweight and flexible
- Low bend radii for use on hose reels and in constricted environments
- Antiabrasion cover.

Description
Exceeds the former American Jacking Specifications IJ100 (1/4"). Very High Pressure hose suitable for petroleum, synthetic or water based hydraulic fluids in hydraulic systems and applications requiring increased resistance to seawater and saline environment. It is also recommended for general on-shore equipment working in high humidity environment. Combined Aramid Steel braid ensures longevity pressure performance and compact design.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F)
for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

APPLICATIONS

PACKAGING

CERTIFICATION

ABS DNV·GL

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0402	-4	1/4"	6	6,60	0,260	12,70	0,500	700	10000	2800	40000	4:1	35	1,38	180	0,121	SAF121	SAF821
0404	-6	3/8"	10	9,80	0,386	18,70	0,736	700	10000	2800	40000	4:1	90	3,54	330	0,222	SAF141	SAF841
0405	-8	1/2"	12	13,00	0,512	24,50	0,965	700	10000	2450	35000	3,5:1	100	3,94	520	0,349	SAF151	SAF851

080 VHP Extra

Thermoplastic constant pressure hose for very high pressure hydraulic applications
Up to 800 bar (up to 11500 psi)

FEATURES

Inner tube
Polyester elastomer

Reinforcement
Two braids of aramid fiber plus one braid of steel wire

Cover
Polyurethane, black, non pinpricked, white ink-jet branding

Applications
- Rescue and safety equipment
- High pressure systems and pumps
- Bolt tensioning tools
- Jacking and rerailing equipment

Features
- Combined Aramid and Steel braid construction for compact design
- Lightweight and flexible
- Light bend radii for use on hose reels and in constricted environments
- Antiabrasion cover

Description
Exceeds the former American Jacking Specifications IJ100 (1/4"). Very High Pressure hose suitable for petroleum, synthetic or water based hydraulic fluids in hydraulic systems. Combined Aramid and Steel braid ensures longevity pressure performance and compact design.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

APPLICATIONS

PACKAGING

MULTICOLOR

08R 08Y 08O 08B 08G

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0802	-4	1/4"	6	6,60	0,260	14,40	0,567	800	11500	3200	46000	4:1	35	1,38	245	0,165	SAF121	SAF821

168 Off Shore Master 3K

Thermoplastic constant pressure hose for off-shore high pressure hydraulic applications
Up to 210 bar (up to 3000 psi)

FEATURES

Inner tube
Polyamide PA11 Rilsan®
BESNO P40 TLO

Reinforcement
Two braids of aramid fiber

Cover
Polyurethane, black,
non pinpricked,
white ink-jet branding

Applications
- Marine and off-shore equipment
- ROVs (remotely operated vehicles)
- BOP valves
- Methanol injection
- Seismic air gun systems

Features
- Aramid reinforcement for high pressure performance
- Lightweight
- Flexible
- Compact
- Bonded construction
- Abrasion resistant

Description
High pressure hose suitable for petroleum, synthetic or water based hydraulic fluids used in applications requiring increased resistance to seawater and saline environment. The size, pressure rating and special cover make this hose the optimal choice for off-shore equipment like ROVs (remotely operated vehicles) tethered underwater robots used in the off-shore industry. Specially designed hose can be manufactured upon request.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F)
for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
Hose manufactured to the applicable requirements of API17E/ISO 13628-5

APPLICATIONS

PACKAGING

CERTIFICATION

ABS DNV·GL

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1687	-12	3/4"	20	19,50	0,768	27,50	1,083	210	3000	840	12000	4:1	150	5,91	320	0,215	SAL171	SAL871
1688	-16	1"	25	25,90	1,020	35,50	1,476	210	3000	840	12000	4:1	250	9,84	530	0,356	SAL181	SAL881

060 Off Shore Master 5K

Thermoplastic constant pressure hose for off-shore high pressure hydraulic applications
Up to 350 bar (up to 5000 psi)

FEATURES

Inner tube
Polyamide PA11 Rilsan®
BESNO P40 TLO

Reinforcement
Two braids of aramid fiber

Cover
Polyurethane, black,
non pinpricked,
white ink-jet branding

Applications
- Marine and off-shore equipment
- ROVs (remotely operated vehicles)
- BOP valves
- Methanol injection
- Seismic air gun systems

Features
- Aramid reinforcement for high pressure performance
- Lightweight
- Flexible
- Compact
- Bonded construction
- Abrasion resistant

Description
High pressure hose suitable for petroleum, synthetic or water based hydraulic fluids used in applications requiring increased resistance to seawater and saline environment. The size, pressure rating and special cover make this hose the optimal choice for off-shore equipment like ROVs (remotely operated vehicles) tethered underwater robots used in the off-shore industry. Specially designed hose can be manufactured upon request.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F)
for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
Hose manufactured to the applicable requirements of API17E/ISO 13628-5.

APPLICATIONS

PACKAGING

CERTIFICATION

ABS DNV·GL

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0601	-3	3/16"	5	5,00	0,197	9,60	0,378	350	5000	1400	20000	4:1	30	1,18	60	0,040	SAF111	SAF811
0602	-4	1/4"	6	6,50	0,256	12,10	0,476	350	5000	1400	20000	4:1	50	1,97	90	0,060	SAF121	SAF821
0604	-6	3/8"	10	9,70	0,382	17,10	0,673	350	5000	1400	20000	4:1	60	2,36	170	0,114	SAF141	SAF841
0605	-8	1/2"	12	13,00	0,512	21,70	0,854	350	5000	1400	20000	4:1	80	3,15	250	0,168	SAF151	SAF851
0607	-12	3/4"	20	19,50	0,768	29,60	1,165	350	5000	1400	20000	4:1	150	5,91	400	0,269	SAF171	SAF871
0608	-16	1"	25	25,90	1,020	39,00	1,535	350	5000	1400	20000	4:1	250	9,84	705	0,474	SAF181	SAF881

169 Off Shore Master 10K

Thermoplastic constant pressure hose for off-shore high pressure hydraulic applications
Up to 700 bar (up to 10000 psi)

FEATURES

Inner tube
Polyamide PA11 Rilsan®
BESNO P40 TLO

Reinforcement
Up to three braids
of aramid fiber

Cover
Polyurethane, black,
non pinpricked,
white ink-jet branding.

Applications
- Marine and off-shore equipment
- ROVs (remotely operated vehicles)
- BOP valves
- Methanol injection
- Seismic air gun systems

Features
- Aramid reinforcement for high pressure performance
- Lightweight
- Flexible
- Compact
- Bonded construction
- Abrasion resistant

Description
High pressure hose suitable for petroleum, synthetic or water based hydraulic fluids used in applications requiring increased resistance to seawater and saline environment. The size, pressure rating and special cover make this hose the optimal choice for off-shore equipments like ROVs (remotely operated vehicles) tethered underwater robots used in the off-shore industry. Specially designed hose can be manufactured upon request.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F)
for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

Specifications
Hose manufactured to the applicable requirements of API17E/ISO 13628-5.

APPLICATIONS

PACKAGING

CERTIFICATION

ABS

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1692	-4	1/4"	6	6,50	0,256	14,00	0,551	700	10000	2800	40000	4:1	35	1,38	145	0,097	SAF121	SAF821

089 Micro Bore

Thermoplastic constant pressure micro bore hose for testing and hydraulic applications
Up to 630 bar (up to 9100 psi)

FEATURES

Inner tube
Polyester elastomer.

Reinforcement
One braid of aramid fiber

Cover
Anti-grip polyurethane, black, pinpricked, white ink-jet branding.

Applications
- Pressure test equipment and test points
- General mini hydraulic equipment using capillary hoses in confined areas
- Automotive roof opening systems
- Bicycle braking systems.

Features
- Aramid braid construction
- Very flexible and lightweight
- Kink resistance
- Anti sticky cover properties allows use of hose bundles for easy routing.

Description
High pressure hose suitable for petroleum, synthetic or water based hydraulic fluids in hydraulic mini systems: connections to pressure gauges or pressure switches and transducers. Hydraulic roof opening systems for convertible cars. Also suitable for gas transfer. Special fitting range also available. Also available as factory made assemblies. Please contact to our sales office for further details.

Temperature range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F)
for air and water based fluids

Vacuum rating
-0,93 bar/-700 mm Hg
-13,5 psi/-27,5 inch Hg

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
089A	-	5/64	2	2,00	0,079	5,00	0,197	630	9100	1900	27300	3:1	20	0,79	20	0,013	SAY1C1	-
089B	-2	1/8"	3	3,00	0,118	6,00	0,236	630	9100	1900	27300	3:1	30	1,18	25	0,017	SAY1G1	-
089C	-	5/32	4	4,00	0,157	8,00	0,315	630	9100	1900	27300	3:1	40	1,57	45	0,030	SAY1M1	-

Twin Hoses

Twin hose produced by TRANSFER OIL are a result of the joining of two or more hoses by means of a procedure that is unique in the industry and does not undermine the hose integrity.
The joining can be made between hose of the same size and specification or between different hose type and size. It is also possible to join electric cable and wires.
The use of twin hoses allows simplifying of application requirements: fluid flow, connections to hydraulic and electric supply etc.
This item is supplied in coils by TRANSFER OIL.

An additional operation is required for assembly involving splitting the twin hose.

TRANSFER OIL offers more solutions than the hoses shown here, personalised hose combinations of different types or diameters can also be produced.

PACKAGING

How to split a twin hose

- Fasten the hose in a suitable position for splitting.
- Hold a Polyester or Nylon multifilament yarn with both hands.
- Position the yarn at the start of the joined hoses.
- Start splitting the twin hose with an alternating movement taking care the yarn is kept in the middle of the joined hoses.
- Proceed with splitting the joined hose until the desired point has been reached.To avoid further separation of the join due to vibrations or other mechanical actions consolidate the hose with a reinforcing strip at the separation point.
- The twin hose is now ready for the assembly operation.

How to check if the split is correct

- Immediately after the separation of the hoses, check the cover integrity.
- If it has been accidentally cut and reinforcement is exposed it is necessary to eliminate this length of exposed reinforcement.
- Proper separation instructions are contained within the ”thermoplastic hose installation factors” section.

The picture shows the necessary operation to split the twin hose.

A very flexible tool for splitting twin hose, triple hose and hose with different dimensions and braiding structures

1.

Position the SXA001 hose splitter in a bench vice and grip firmly. Spread the rollers apart.

2.

Lubricate the top of the cutting blade with grease.

3.

Hold the hose with both hands and push downwards until the blade has completely penetrated between the hoses.

4.

Firmly support the hose keeping it parallel with the reference lines and held in position by the rollers.

5.

Lubricate the space between the two hoses with a small quantity of oil.

6.

Hold the hose and pull slowly being careful to keep the hose in a horizontal position.

7.

Always wear proper safety equipment.

063 R7 Antiabrasion Twin

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0630	-2	1/8"	4	4,00	0,157	8,30	0,327	210	3000	840	12000	4:1	25	0,98	90	0,060	SAB101	SAB801
0631	-3	3/16"	5	5,00	0,197	9,60	0,378	210	3000	840	12000	4:1	25	0,98	120	0,081	SAB111	SAB811
0632	-4	1/4"	6	6,50	0,256	12,20	0,480	210	3000	840	12000	4:1	35	1,38	200	0,134	SAB121	SAB821
0633	-5	5/16"	8	8,10	0,319	14,30	0,563	190	2700	760	10800	4:1	45	1,77	260	0,175	SAB131	SAB831
0634	-6	3/8"	10	9,70	0,382	16,00	0,630	160	2300	640	9200	4:1	55	2,17	290	0,195	SAB141	SAB841
0635	-8	1/2"	12	13,00	0,512	20,30	0,799	140	2000	560	8000	4:1	75	2,95	440	0,296	SAB151	SAB851
0636	-10	5/8"	16	16,30	0,642	23,70	0,933	105	1500	420	6000	4:1	110	4,33	560	0,376	SAB161	SAB861
0637	-12	3/4"	20	19,50	0,768	27,10	1,067	90	1300	360	5200	4:1	140	5,51	670	0,450	SAB171	SAB871
0638	-16	1"	25	25,90	1,020	34,00	1,339	70	1000	280	4000	4:1	190	7,48	910	0,612	SAB181	SAB881

088 1SB Steel Braid Antiabrasion Twin

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0881	-3	3/16"	5	5,00	0,197	9,70	0,382	360	5200	1440	20800	4:1	30	1,18	240	0,181	SAB111	SAB811
0882	-4	1/4"	6	6,40	0,252	11,60	0,457	310	4400	1240	18000	4:1	40	1,57	330	0,208	SAB121	SAB821
0883	-5	5/16"	8	8,10	0,319	13,20	0,520	250	3600	1000	14400	4:1	55	2,17	380	0,255	SAB131	SAB831
0884	-6	3/8"	10	9,80	0,386	15,50	0,610	225	3200	900	12800	4:1	65	2,56	460	0,309	SAB141	SAB841
0885	-8	1/2"	12	13,00	0,512	18,80	0,740	190	2700	760	10800	4:1	85	3,35	600	0,403	SAB151	SAB851
0886	-10	5/8"	16	16,30	0,642	22,00	0,866	140	2000	560	8000	4:1	115	4,53	670	0,450	SAB161	SAB861
0887	-12	3/4"	20	19,50	0,768	25,80	1,016	115	1600	460	6400	4:1	145	5,71	880	0,591	SAB171	SAB871
0888	-16	1"	25	25,80	1,016	33,00	1,299	95	1300	380	5200	4:1	180	7,09	1300	0,874	SAB181	SAB881

175 R8 Antiabrasion Twin

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1750	-2	1/8"	4	4,00	0,157	8,00	0,315	420	6000	1680	24000	4:1	25	0,98	90	0,060	SAB101	SAB801
1751	-3	3/16"	5	5,00	0,197	8,90	0,350	350	5000	1400	20000	4:1	30	1,18	100	0,068	SAB111	SAB811
1752	-4	1/4"	6	6,50	0,256	11,50	0,453	350	5000	1400	20000	4:1	50	1,97	170	0,114	SAB121	SAB821
1753	-5	5/16"	8	8,10	0,319	13,40	0,528	300	4300	1200	17200	4:1	55	2,17	210	0,141	SAB131	SAB831
1754	-6	3/8"	10	9,70	0,382	15,50	0,610	280	4000	1120	16000	4:1	60	2,36	270	0,181	SAB141	SAB841
1755	-8	1/2"	12	13,00	0,512	19,90	0,783	245	3500	980	14000	4:1	80	3,15	400	0,269	SAB151	SAB851
1756	-10	5/8"	16	16,30	0,642	23,40	0,921	200	2900	800	11600	4:1	125	4,92	500	0,336	SAB161	SAB861
1757	-12	3/4"	20	19,50	0,768	26,90	1,059	165	2300	660	9200	4:1	150	5,91	640	0,430	SAB171	SAB871
1758	-16	1"	25	25,90	1,020	34,20	1,346	140	2000	560	8000	4:1	200	7,87	870	0,585	SAB181	SAB881

082 2SB Two Steel Braids Antiabrasion Twin

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0822	-4	1/4"	6	6,40	0,252	12,80	0,504	400	5800	1600	23200	4:1	40	1,57	490	0,329	SAC121	SAC821
0823	-5	5/16"	8	8,10	0,319	14,80	0,583	400	5800	1600	23200	4:1	50	1,97	630	0,423	SAC131	SAC831
0824	-6	3/8"	10	9,80	0,386	16,80	0,661	330	4700	1320	18800	4:1	65	2,56	750	0,504	SAC141	SAC841
0825	-8	1/2"	12	13,00	0,512	20,20	0,795	260	3700	1040	14800	4:1	85	3,35	900	0,605	SAC151	SAC851
0826	-10	5/8"	16	16,30	0,642	23,50	0,925	220	3100	880	12400	4:1	115	4,53	1120	0,753	SAC161	SAC861
0827	-12	3/4"	20	19,50	0,768	27,50	1,083	150	2100	600	8400	4:1	170	6,69	1430	0,961	SAC171	SAC871

141 VHP 10000 Twin

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1412	-4	1/4"	6	6,60	0,260	12,70	0,500	700	10000	2800	40000	4:1	35	1,38	360	0,242	SAF121	SAF821
1414	-6	3/8"	10	9,80	0,386	18,70	0,736	700	10000	2800	40000	4:1	90	3,54	660	0,444	SAF141	SAF841

135 R18 CPLT 3000 Twin

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1351	-3	3/16"	5	5,00	0,197	9,60	0,378	210	3000	840	12000	4:1	25	0,98	120	0,081	SAB111	SAB811
1352	-4	1/4"	6	6,50	0,256	12,20	0,480	210	3000	840	12000	4:1	35	1,38	190	0,128	SAB121	SAB821
1353	-5	5/16"	8	8,10	0,319	14,30	0,563	210	3000	840	12000	4:1	45	1,77	260	0,175	SAB131	SAB831
1354	-6	3/8"	10	9,70	0,382	16,60	0,654	210	3000	840	12000	4:1	45	1,77	330	0,222	SAB141	SAB841
1355	-8	1/2"	12	13,00	0,512	22,50	0,886	210	3000	840	12000	4:1	70	2,76	590	0,397	SA5151	SA5851
1356	-10	5/8"	16	16,30	0,642	26,10	1,028	210	3000	840	12000	4:1	100	3,94	740	0,497	SA5161	SA5861

163 CPLT 3600 Constant Pressure Low Temp Twin

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1631	-3	3/16"	5	5,00	0,197	9,60	0,378	250	3600	1000	14400	4:1	25	0,98	120	0,081	SAB111	SAB811
1632	-4	1/4"	6	6,50	0,256	13,00	0,512	250	3600	1000	14400	4:1	35	1,38	225	0,155	SAB121	SAB821
1633	-5	5/16"	8	8,10	0,319	14,90	0,587	250	3600	1000	14400	4:1	45	1,77	285	0,195	SAB131	SAB831
1634	-6	3/8"	10	9,70	0,382	18,00	0,709	250	3600	1000	14400	4:1	55	2,17	405	0,276	SAC141	SAC841

INDUSTRIAL

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HOSE		SPECIFICATION		APPLICATIONS	
		ID	WP		Page
GREASING					
130 GREASING		DN4 5/32”	up to 400 bar 5800 psi	Manual and air-operated greasing guns / Central greasing and lubrication systems	93
PUSH ON					
106 PUSH ON		DN6 - DN20 1/4”-3/4” -4 / -12	up to 20 bar 290 psi	Low pressure air and water line / Free of paint affecting substances / LABS free	94
107 PUSH ON NON CONDUCTIVE		DN6 - DN20 1/4”-3/4” -4 / -12	up to 20 bar 290 psi	Low pressure air and water line / Free of paint affecting substances / LABS free	95
BEVERAGE DISPENSING					
140 BEVERAGE DISPENSING		DN6 1/4” -4	210-350 bar 3000-5000 psi	CO_2 for beverage dispensing / Nitrogen and mixed gases	96
AIR CYLINDER FILLING 6000					
120 AIR CYLINDER FILLING 6000		DN5 - DN6 3/16”-1/4” -3 / -4	up to 420 bar 6000 psi	Air compressors / Mobile and stationary units used for filling breathing air cylinders / Cascade systems	97
CO_2					
050 1SB CO_2 FIRE EXT. SYSTEMS		DN5 - DN16 3/16”-5/8” -3 / -10	140-300 bar 2000-4300 psi	Off-shore and industrial CO_2 fire extinguishing installations	98
FUEL					
15R CNG 5000 COMPRESSED NATURAL GAS HOSE		DN6 - DN25 1/4”-1” -4 / -12	up to 350 bar 5000 psi	Refueling hose for mobile and stationary units used to refill natural gas vehicles (NGV) tanks / CNG Transfer lines	99
184 LPG		DN5 - DN6	up to 30 bar 435 psi	Low pressure hose suitable for LPG applications	100

HOSE		SPECIFICATION		APPLICATIONS	
		ID	WP		Page
185 HYDROGEN REFUELLING		DN6	up to 700 bar 10000 psi	Very High Pressure hose suitable for hydrogen applications	101
HYDRO CHEMICALS					
084 1 SB HYDRO-CHEM		DN5 - DN25 3/16"-1" -3 / -16	95-360 bar 1300-5200 psi	Airless paint spray systems requiring additional mechanical strength of hose and/or electrical conductivity / Applications requiring high chemical resistance to solvents and aggressive fluids / Suitable also for hydraulic and fluid power applications	102
PAINT SPRAY & SOLVENTS					
098 R7 PAINT SPRAY & SOLVENTS		DN5 - DN12 3/16"-1/2" -3 / -8	140-210 bar 2000-3000 psi	Airless paint spray systems / Applications requiring high chemical resistance to solvents and aggressive fluids	103
157 CPPA 3600 PAINT SPRAY ANTISTATIC		DN5 - DN10 3/16"-3/8" -3 / -6	up to 250 bar 3600 psi	Airless paint spray systems / Applications requiring high chemical resistance to solvents and aggressive fluids	104
127 R8 PAINT SPRAY & SOLVENTS		DN5 - DN12 3/16"-1/2" -3 / -8	245-350 bar 3500-5000 psi	High pressure airless paint spray systems / Applications requiring high chemical resistance to solvents and aggressive fluids	105
158 R8 PAINT SPRAY ANTISTATIC		DN5 - DN10 3/16"-3/8" -3 / -6	280-350 bar 4000-5000 psi	High pressure airless paint spray systems / Applications requiring high chemical resistance to solvents and aggressive fluids	106
083 1SB PAINT SPRAY & SOLVENTS		DN5 - DN20 3/16"-3/4" -3 / -12	115-360 bar 1600-5200 psi	Airless paint spray systems requiring additional mechanical strength of hose and/or electrical conductivity / Applications requiring high chemical resistance to solvents and aggressive fluids	107
083BP 1SB PAINT SPRAY & SOLVENTS		DN5 - DN20 3/16"-3/4" -3 / -12	115-360 bar 1600-5200 psi	Airless paint spray systems requiring additional mechanical strength of hose and/or electrical conductivity / Applications requiring high chemical resistance to solvents and aggressive fluids	108
081 2SB PAINT SPRAY & SOLVENTS		DN6 - DN20 1/4"-3/4" -4 / -12	215-425 bar 3100-6100 psi	High pressure airless paint spray systems requiring very high mechanical strength of hose and/or electrical conductivity / Application requiring high chemical resistance to solvents and aggressive fluids	109

Visual Index

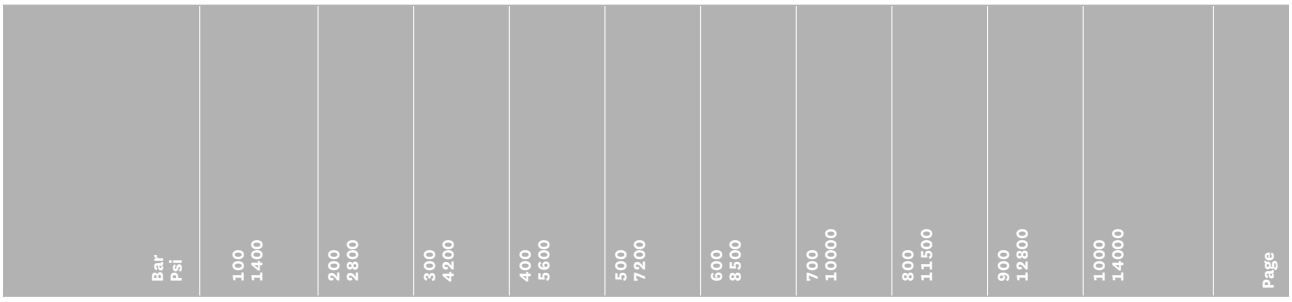
HOSE		SPECIFICATION		APPLICATIONS	
		ID	WP		Page
AGGRESSIVE CHEMICALS					
181 2SB AGGRESSIVE CHEMICALS		DN6 - DN25 1/4"-1" -4 / -16	190-425 bar 2700-6100 psi	High pressure aggressive chemicals systems requiring very high mechanical strength of hose and/or electrical conductivity / Applications requiring high chemical resistance to solvents and aggressive fluids such as two part polyurethane injection foams	110
049 HP AGGRESSIVE CHEMICALS		DN10 - DN12 3/8"-1/2" -6 / -8	450-550 bar 6500-8000 psi	High pressure aggressive chemicals systems requiring very high mechanical strength of hose and/or electrical conductivity / Applications requiring high chemical resistance to solvents and aggressive fluids such as two part polyurethane injection foams	111
048 VHP AGGRESSIVE CHEMICALS		DN6 - DN25 1/4"-1" -4 / -16	310-700 bar 4500-10000 psi	Very high pressure aggressive chemicals systems requiring very high mechanical strength of hose and/or electrical conductivity / Applications requiring high chemical resistance to solvents and aggressive fluids such as two part polyurethane injection foams	112
PTFE					
030 PTFE 1SSB STAINLESS STEEL BRAID		DN5 - DN25 3/16"-1" -3 / -16	75-205 bar 1000-2900 psi	Aggressive chemicals transfer systems / Compressed air and gases / High or low temperature fluid or gas transfer	113
031 PTFE 1SSB STAINLESS STEEL BRAID CONV.		DN10 - DN51 3/8"-2" -6 / -32	23-138 bar 300-2000 psi	Aggressive chemicals transfer systems / Compressed air and gases / High or low temperature fluid or gas transfer	114
POWER WASH					
07B POWER WASH STEEL		DN6 - DN10 1/4"-3/8" -4 / -6	210-280 bar 3000-4000 psi	Water cleaning applications such as professional power washers / Car-wash stations, including self-service car-wash stations	115
ECOLOGY SEWER CLEANING					
100 ECOLOGY 2500 NAM		DN12 - DN32 1/2"-1+1/4" -8 / -20	up to 175 bar 2500 psi	Standard sewer cleaning vehicles and applications / Cleaning equipment used in high humidity environments	116
101 ECOLOGY 200 EL		DN12 - DN32 1/2"-1+1/4" -8 / -20	up to 200 bar 2900 psi	Standard sewer cleaning vehicles and applications / Cleaning equipment used in high humidity environments	118

HOSE		SPECIFICATION		APPLICATIONS	
		ID	WP		Page
110 ECOLOGY 210 HD		DN20 - DN32 3/4"-1+1/4" -12 / -20	up to 210 bar 3000 psi	Standard sewer cleaning vehicles and applications / Cleaning equipment used in high humidity environments	120
113 ECOLOGY 250 HD		DN12 - DN32 1/2"-1+1/4" -8 / -20	up to 250 bar 3600 psi	Modern sewer cleaning vehicles and applications requiring long lengths high working pressure and low pressure drop / Equipment used in high humidity environments	122
117 ECOLOGY 2500 LT		DN5 - DN6 3/16"-1/4" -3 / -4	up to 175 bar 2500 psi	Compact sewer cleaning vehicles and equipment for cleaning smaller residential and commercial lines	124
118 ECOLOGY 3000 LT		DN10 - DN12 3/8"-1/2" -6 / -8	up to 210 bar 3000 psi	Compact sewer cleaning vehicles and equipment for cleaning smaller residential commercial and industrial lateral sewer lines used as connection to the main sewer line	126
119 ECOLOGY 4000 LT		DN5 - DN12 3/16"-1/2" -3 / -8	up to 280 bar 4000 psi	Compact sewer cleaning vehicles and equipment for cleaning smaller residential commercial and industrial lateral sewer lines used as connection to the main sewer line	128
HORTITECH					
133 HORTITECH LFC		DN6 - DN20 1/4"-3/4" -4 / -12	up to 90 bar 1300 psi	Matt low friction cover LFC resistant to hydrolysis moisture and microbiological attack / Bonded construction / Abrasion resistant / Lightweight / Limited change in length / Pinpricked cover	130
WATER DELIVERY					
129 WATER DELIVERY HOSE		DN12 - DN25 1/2"-1" -8 / -16	70-140 bar 1000-2000 psi	Water supply to remote and/or mountainous areas with a difference in altitude	132

Hose family Selection by applications

	AIR CYLINDER FILLING	AIRLESS PAINT SPRAY	AUTOMATIC MISTING	AUTOMATION	AUTOMOTIVE	BEVERAGE DISPENSING	FIRE EXSTINGUISHING SYSTEMS	GREASING APPLICATIONS	GREENHOUSE CLEANING MACHINES	HIGH PRESSURE INDUSTRIAL GASES	HIGH TEMPERATURES	HOBBY POWER-WASHER	HOSE REELS	LOW TEMPERATURE	POWER CHAINS	PRO POWER-WASHER	PU FOAM	PUSH-ON FITTINGS	NATURAL GAS REFILLING	SEWER CLEANING	SOLVENTS & AGGRESSIVE CHEMICALS	SPRINKLING / TEMPERATURE CONTROL	WATER DELIVERY	WATER JETTING	WATER JETTING TRAILERS
GREASING								●																	
PUSH ON				●	●													●							
BEVERAGE DISPENSING						●				●															
AIR CYLINDER FILLING 6000	●					●				●															
CO_2							●			●				●											
FUEL																			●						
HYDRO CHEM		●																			●				
PAINT SPRAY & SOLVENTS		●																			●				
AGGRESSIVE CHEMICALS																	●				●				
PTFE	●									●	●										●				
POWER WASH												●				●									●
ECOLOGY SEWER CLEANING													●			●				●				●	●
HORTITECH			●						●						●							●			
WATER DELIVERY																							●		

Hose family Selection by pressure rating



GREASING	**Up to 400 bar** (up to 5800 psi)	93
PUSH ON	**Up to 20 bar** (up to 290 psi)	94
BEVERAGE DISPENSING	**210 to 350 bar** (3000 to 5000 psi)	96
AIR CYLINDER FILLING 6000	**Up to 420 bar** (up to 6000 psi)	97
CO_2	**140 to 300 bar** (2000 to 4300 psi)	98
FUEL	**30 to 700 bar** (435 to 10000 psi)	102
HYDRO CHEM	**95 to 360 bar** (1300 to 5200 psi)	103
PAINT SPRAY & SOLVENTS	**115 to 425 bar** (1600 to 6100 psi)	110
AGGRESSIVE CHEMICALS	**190 to 700 bar** (2700 to 10000 psi)	113
PTFE	**23 to 205 bar** (300 to 2900 psi)	114
POWER WASH	**210 to 280 bar** (3000 to 4000 psi)	115
ECOLOGY SEWER CLEANING	**175 to 280 bar** (2500 to 4000 psi)	116
HORTITECH	**Up to 90 bar** (up to1300 psi)	132
WATER DELIVERY	**70 to 140 bar** 1000 to 2000 psi)	133

Hose family Selection by working pressure and ID

	SIZE												Page
	DN	4	5	6	8	10	12	16	20	25	32	38	51	
	inch	5/32"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1+1/4"	1+1/2"	2"	
	dash	-	-3	-4	-5	-6	-8	-10	-12	-16	-20	-24	-32	
GREASING														
130 GREASING	bar	400												93
	psi	5800												
PUSH ON														
106 PUSH ON	bar			20		20	20	20	20					94
	psi			290		290	290	290	290					
107 PUSH ON NON CONDUCTIVE	bar			20		20	20	20	20					95
	psi			290		290	290	290	290					
BEVERAGE DISPENSING														
140 BEVERAGE DISPENSING	bar			210-350										96
	psi			3000-5000										
AIR CYLINDER FILLING 6000														
120 AIR CYLINDER FILLING 6000	bar		420	420										97
	psi		6000	6000										
CO_2														
050 SB CO_2 FIRE EXTING. SYSTEMS	bar		300	275	212	212	175	140						98
	psi		4300	3900	3000	3000	2500	2000						
FUEL														
15R CNG 5000 COMPR. NAT. GAS HOSE	bar			350		350	350		350	350				99
	psi			5000		5000	5000		5000	5000				
184 LPG	bar		30	30										100
	psi		435	435										
185 HYDROGEN REFUELLING	bar			700										101
	psi			10000										
HYDRO CHEM														
084 1 SB HYDRO-CHEM	bar		360	310	250	225	190	140	115	95				102
	psi		5200	4500	3600	3200	2700	2000	1600	1300				
PAINT SPRAY & SOLVENTS														
098 R7 PAINT SPRAY & SOLVENTS	bar		210	210		160	140							103
	psi		3000	3000		2300	2000							
157 CPPA 3600 PAINT SPRAY ANTISTATIC	bar		250	250		250								104
	psi		3600	3600		3600								
127 R8 PAINT SPRAY & SOLVENTS	bar		350	350		280	245							105
	psi		5000	5000		4000	3500							
158 R8 PAINT SPRAY ANTISTATIC	bar		350	350		280								106
	psi		5000	5000		4000								
083 1SB PAINT SPRAY & SOLVENTS	bar		360	310		225	190		115					107
	psi		5200	4400		3200	2700		1600					
083BP 1SB PAINT SPRAY & SOLVENTS	bar		360	310		225	190		115					108
	psi		5200	4400		3200	2700		1600					
081 2SB PAINT SPRAY & SOLVENTS	bar			425		350	300		215					109
	psi			6100		5000	4300		3100					

	SIZE												Page
	DN	4	5	6	8	10	12	16	20	25	32	38	51	
	inch	5/32"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1+1/4"	1+1/2"	2"	
	dash	-	-3	-4	-5	-6	-8	-10	-12	-16	-20	-24	-32	
AGGRESSIVE CHEMICALS														
181 2SB AGGRESSIVE CHEMICALS	bar			425		350	300	250	215	190				110
	psi			6100		5000	4300	3600	3100	2700				
049 HP AGGRESSIVE CHEMICALS	bar					550	450							111
	psi					8000	6500							
048 VHP AGGRESSIVE CHEMICALS	bar			700	700	700	590	500	450	350				112
	psi			10000	10000	10000	8500	7200	6500	4500				
PTFE														
030 PTFE 1SSB STAINLESS STEEL BRAID	bar		205	180	170	155	120	85	75	75				113
	psi		2900	2600	2400	2200	1700	1200	1000	1000				
031 PTFE 1SSB STAIN. ST. BRAID CONV.	bar					138	103	83	69	46	34	30	23	114
	psi					2000	1400	1200	1000	600	400	400	300	
POWER WASH														
07B POWER WASH STEEL	bar			280	210	210								115
	psi			4000	3000	3000								
ECOLOGY SEWER CLEANING														
100 ECOLOGY 2500 NAM	bar						175	175	175	175	175			116
	psi						2500	2500	2500	2500	2500			
101 ECOLOGY 200 EL	bar						200	200	200	200	200			118
	psi						2900	2900	2900	2900	2900			
110 ECOLOGY 210 HD	bar								210	210	210			120
	psi								3000	3000	3000			
113 ECOLOGY 250 HD	bar						250		250	250	250			122
	psi						3600		3600	3600	3600			
117 ECOLOGY 2500 LT	bar		175	175										124
	psi		2500	2500										
118 ECOLOGY 3000 LT	bar					210	210							126
	psi					3000	3000							
119 ECOLOGY 4000 LT	bar		280	280		280	280							128
	psi		4000	4000		4000	4000							
HORTITECH														
133 HORTITECH LFC	bar			90		90	90	90	90					130
	psi			1300		1300	1300	1300	1300					
WATER DELIVERY														
128 WATER DELIVERY HOSE	bar						140	105	90	70				132
	psi						2000	1500	1300	1000				

Thermoplastic Hose Characteristic chart

HOSE	CORE TUBE	REINFORCEMENT MATERIAL	HOSE COVER	PINPRICKING	TWIN-LINE OR MULTILINE
INDUSTRIAL AUTOMATION					
130 GREASING	polyester	synthetic fiber	anti-grip polyurethane	•	
106 PUSH-ON	polyurethane	synthetic fiber	polyurethane		•
107 PUSH-ON NON CONDUCTIVE	polyurethane	synthetic fiber	polyurethane		•
GAS					
140A BEVERAGE DISPENSING	polyester	synthetic fiber	polyurethane	•	•
140B BEVERAGE DISPENSING	polyester	steel wire	polyurethane	•	•
140C BEVERAGE DISPENSING	polyester	aramid	polyurethane	•	•
120 AIR CYLINDER FILLING 6000	polyester	aramid	polyurethane	•	•
15R CNG 5000 COMPR. NAT. GAS HOSE	conductive PA + PA12	aramid + synthetic fiber	polyurethane	•	•
050 1SB CO_2 FIRE EXTINGUISHING SYSTEMS	polyester	steel wire	polyurethane	•	•
184 LPG	polyamide PA6	synthetic fiber	polyurethane	•	
185 HYDROGEN REFUELLING	conductive PA + PA12	aramid + steel wire	polyurethane	•	
CHEMICALS					
084 1 SB HYDRO-CHEM	polyamide PA6	steel wire	polyurethane		•
098 R7 PAINT SPRAY & SOLVENTS	polyamide PA6	synthetic fiber	polyurethane	•	•
157 CPPA 3600 PAINT SPRAY ANTISTATIC	conductive PA + PA6	synthetic fiber	polyurethane	•	•
127 R8 PAINT SPRAY & SOLVENTS	polyamide PA6	aramid	polyurethane	•	•
158 R8 PAINT SPRAY ANTISTATIC	conductive PA + PA6	aramid	polyurethane	•	•
083 1SB PAINT SPRAY & SOLVENTS	polyamide PA6	steel wire	polyurethane		•
083BP 1SB PAINT SPRAY & SOLVENTS	polyamide PA6	steel wire	polyurethane		•
081 2SB PAINT SPRAY & SOLVENTS	polyamide PA6	steel wire	polyurethane		•
181 2SB AGGRESSIVE CHEMICALS	polyamide PA12	steel wire	polyurethane		•
049 HP AGGRESSIVE CHEMICALS	polyamide PA12	aramid + steel wire	polyurethane		•
048 VHP AGGRESSIVE CHEMICALS	polyamide PA12	aramid + steel wire	polyurethane		•
030 PTFE 1 SSB STAINLESS STEEL BRAID	polytetrafluoroethylene	stainless steel 304	n/a		
031 PTFE 1 SSB ST. STEEL BRAID CONV.	polytetrafluoroethylene	stainless steel 304	n/a		
WATER					
07B POWER WASH STEEL	thermoplastic polymer	steel wire	thermoplastic polymer		
100 ECOLOGY 2500 NAM	thermoplastic polymer	synthetic fiber	polyurethane		
101 ECOLOGY 200 EL	thermoplastic polymer	synthetic fiber	polyurethane		
110 ECOLOGY 210 HD	thermoplastic polymer	synthetic fiber	polyurethane		
113 ECOLOGY 250 HD	thermoplastic polymer	synthetic fiber	polyurethane		
117 ECOLOGY 2500 LT	polyester	synthetic fiber	polyurethane	•	
118 ECOLOGY 3000 LT	polyester	synthetic fiber	polyurethane	•	
119 ECOLOGY 4000 LT	polyester	synthetic fiber	polyurethane		
133 HORTITECH LFC	polyester	synthetic fiber	LFC polyurethane	•	•
129 WATER DELIVERY HOSE	polyester	synthetic fiber	polyurethane	•	•

130 Greasing

Constant pressure thermoplastic hose for high pressure greasing applications
Up to 400 bar (5800 psi)

FEATURES

Inner Tube
Polyester

Reinforcement
One braid of synthetic fiber

Cover
Anti-grip polyurethane non pinpricked (*130C version is pinpricked)

Applications
- Manual and air-operated greasing guns
- Central greasing and lubrication systems

Features
- Polyester reinforcement for high pressure
- Extremely compact and Flexible
- Highly kink resistant
- Special anti sticky cover for easy installation and compact routing
- TPU cover guarantees anti-abrasion properties

Description
High pressure hose suitable for petroleum, synthetic or water based hydraulic fluids specifically designed for diverse greasing and lubrication applications of industrial vehicles and handheld or automatic greasing distribution equipment. Different versions to suit multiple fitting brands.

Temperature Range
-40°C to +60°C
(-40°F to +140°F)

Specifications
Meets requirements of DIN 1283

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
130A	-	5/32"	4	4	0,157	9,7	0,382	400	5800	1000	14500	2,5:1	35	1,378	70	0,047	SAA101	SAA801
130C	-	5/32"	4	4	0,157	8,30	0,327	400	5800	1000	14500	2,5:1	25	0,98	46	0,030	SAB101	SAB801

106 Push On

Thermoplastic constant pressure hose for low pressure air and water line
Up to 20 bar (290 psi)

FEATURES

Inner Tube
Polyurethane

Reinforcement
One braid of synthetic fiber

Cover
Polyurethane, black, white ink-jet branding

Applications
- Low pressure air and water line
- Free of paint affecting substances
- LABS free

Features
- Polyurethane tube and cover for high flexing giving long service life
- Antiabrasion cover for optimum wear resistance
- Push on fitting assembly without crimping

Description
Low pressure air and water line suitable for high flexing applications.
Available Black as standard, also available in Blue, Red, Green and Yellow.

Temperature Range
-40°C to +80°C
(-40°F to +176°F)

APPLICATIONS

PACKAGING

MULTICOLOR

10R 10Y 10B 10G

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1062	-4	1/4"	6	6,30	0,248	11,20	0,441	20	290	80	1160	4:1	30	1,181	75	0,050		
1064	-6	3/8"	10	9,50	0,374	15,00	0,591	20	290	80	1160	4:1	50	1,969	115	0,077	No ferrule needed.	
1065	-8	1/2"	12	12,70	0,500	19,10	0,752	20	290	80	1160	4:1	70	2,756	170	0,114	For more info check dedicated section at pages 187-189	
1066	-10	5/8"	16	16,20	0,638	23,00	0,906	20	290	80	1160	4:1	90	3,543	220	0,148		
1067	-12	3/4"	20	19,00	0,748	26,00	1,024	20	290	80	1160	4:1	110	4,331	265	0,178		

107 Push On Non conductive

Non conductive thermoplastic constant pressure hose for low pressure air and water line
Up to 20 bar (290 psi)

FEATURES

Inner Tube
Polyurethane

Reinforcement
One braid of synthetic fiber

Cover
Polyurethane, orange, black ink-jet branding

Applications
- Low pressure air and water line
- Free of paint affecting substances
- LABS free

Features
- Polyurethane tube and cover for high flexing giving long service life
- Antiabrasion cover for optimum wear resistance
- Push on fitting assembly without crimping

Description
Low pressure air and water line suitable for high flexing applications.

Temperature Range
-40°C to +80°C
(-40°F to +176°F)

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1072	-4	1/4"	6	6,30	0,248	11,20	0,441	20	290	80	1160	4:1	30	1,181	75	0,050		
1074	-6	3/8"	10	9,50	0,374	15,00	0,591	20	290	80	1160	4:1	50	1,969	115	0,077	No ferrule needed.	
1075	-8	1/2"	12	12,70	0,500	19,10	0,752	20	290	80	1160	4:1	70	2,756	170	0,114	For more info check dedicated section at pages 187-189	
1076	-10	5/8"	16	16,20	0,638	23,00	0,906	20	290	80	1160	4:1	90	3,543	220	0,148		
1077	-12	3/4"	20	19,00	0,748	26,00	1,024	20	290	80	1160	4:1	110	4,331	265	0,178		

140 Beverage Dispensing

Thermoplastic hose for high pressure drink distributing equipment
From 210 to 350 bar (3000 to 5000 psi)

FEATURES

Inner Tube
Polyester elastomer

Reinforcement
140A Two braids of synthetic fibre
140B One steel braid
140C One aramid braid

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
— CO_2 for beverage dispensing
— Nitrogen and mixed gases

Features
— Flavour free materials suitable for food applications
— Pinpricked cover for gas use

Description
High pressure hose specifically suitable for gases (also mixed gases) used in fixed and mobile beverage dispensing units. Flavour free inner tube suitable for food applications eliminates contamination risk of the gas and/or beverage with plastic material

Temperature Range
-40°C to +80°C
(-40°F to +176°F)

Specifications
— 140A: SAE 100R7/EN855-R7 ISO 3949-R7
— 140B: Meets or exceeds pressure specifications of EN853 1ST/EN853 1SN/EN857 1SC/SAE 100R1
— 140C: SAE 100R8/EN855-R8 ISO 3949-R8

The constituents of the hose liner material meets the requirements of FDA regulations under code 21 CFR and European Directive EU 10/2011.

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
140A	-4	1/4"	6	6,50	0,256	12,20	0,480	210	3000	840	12000	4:1	35	1,38	100	0,067	SAB121	SAB821
140B	-4	1/4"	6	6,50	0,256	11,70	0,461	300	4300	1200	17200	4:1	40	1,57	155	0,104	SAB121	SAB821
140C	-4	1/4"	6	6,50	0,256	11,50	0,453	350	5000	1400	20000	4:1	50	1,97	85	0,057	SAB121	SAB821

120 Air Cylinder Filling 6000

Constant pressure thermoplastic hose for air cylinder filling compressors
Up to 420 bar (6000 psi)

FEATURES

Inner Tube
Polyester elastomer.

Reinforcement
One braid of aramid fiber

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
- Air compressors
- Mobile and stationary units used for filling breathing air cylinders
- Cascade systems

Features
- Flavour free inner tube
- Flexible and lightweight
- Highly kink resistant
- Pin-pricked cover

Description
High pressure hose specifically suitable for filling air cylinders
Flavour free materials eliminates contamination risk
The aramid reinforcement increases lifetime of the hose while reducing the risks of injuries.

Temperature Range
-40°C to +80°C
(-40°F to +176°F)

Specifications
Complies with CGA G-7.1-2004 commodity specification for breathing air grade E, NFPA 1901. Exceeds the pressure performance requirements of SAE 100R8/EN855-R8/ISO3949-R8

The constituents of the hose liner material meets the requirements of FDA regulations under code 21 CFR and European Directive EU 10/2011.

Note
This hose should not be used with explosive gases such as pure oxygen or hydrogen.

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1201	-3	3/16"	5	5,00	0,197	9,60	0,378	420	6000	1680	24000	4:1	30	1,18	65	0,044	SAB111	SAB811
1202	-4	1/4"	6	6,50	0,256	12,10	0,476	420	6000	1680	24000	4:1	50	1,97	95	0,064	SAB121	SAB821

050 Steel Braid CO_2 Fire extinguishing systems

Thermoplastic hose MSHA approved for CO_2 fire extinguishing systems
From 140 to 300 bar (2000 to 4300 psi)

FEATURES

Inner Tube
Polyester elastomer.

Reinforcement
One braid of steel wire

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
— Off-shore and industrial CO_2 fire extinguishing installations

Features
— One steel braid design for increased mechanical and pressure resistance
— Operating temperatures from -60°C to 93°C
— Pinpricked cover

Description
Hose for use of connection between bottles, valves and manifolds for CO_2, main fire extinguishing systems.
The low temperature resistance of cover increases lifetime of these hoses.

Temperature Range
-60°C to +93°C
(-76°F to +199°F)

Specifications
Meets or exceeds pressure specifications of EN853 1ST /EN853 1SN/EN857 1SC /SAE 100R1.
DNV Type approval. Hose complies with Det Norske Veritas rules for classification of ships. DET NORSKE VERITAS standards for classification 2-9 NO 5-791.70

Only Transfer Oil or Transfer Oil authorized hose assembler who has the necessary qualification can perform the assembly of fittings onto flexible hoses type 050(X) as approved by DNV for carbon dioxide fire extinguishing. Certificate No. P-13309

APPLICATIONS

PACKAGING

CERTIFICATION

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0501	-3	3/16"	5	5,00	0,197	9,70	0,382	300	4300	1200	17200	4:1	30	1,18	125	0,084	SA3111	-
0502	-4	1/4"	6	6,50	0,256	11,70	0,461	275	3900	1100	15600	4:1	40	1,57	155	0,111	SA3122	-
0503	-5	5/16"	8	8,10	0,319	13,20	0,520	212	3000	850	12000	4:1	55	2,17	190	0,128	SA3132	-
0504	-6	3/8"	10	9,80	0,386	15,50	0,610	212	3000	850	12000	4:1	65	2,56	230	0,155	SA3141	-
0505	-8	1/2"	12	13,00	0,512	18,80	0,740	175	2500	700	10000	4:1	85	3,35	300	0,202	SA3152	-
0506	-10	5/8"	16	16,30	0,642	22,00	0,866	140	2000	560	8000	4:1	115	4,53	320	0,215	SA3162	-

15R CNG 5000 Compressed Natural Gas Hose

Thermoplastic antistatic hose for CNG refuelling applications
Up to 350 bar (5000 psi)

FEATURES

Inner Tube
Coextruded conductive polyamide and polyamide PA12

Reinforcement
One or two braids of aramid fiber plus one braid of synthetic fiber

Cover
Polyurethane, red, pinpricked, white ink-jet branding

Applications
- Refueling hose for mobile and stationary units used to refill natural gas vehicles (NGV) tanks
- CNG Transfer lines

Features
- Static charge dissipating thanks to the conductive inner tube
- Optimum bonding between tube braids and cover
- Non metallic design
- Lightweight and flexible
- Extra tough cover for abrasion

Description
High pressure hose suitable for CNG refuelling applications featuring conductive inner tube to dissipate static electric build up. Extra tough cover for abrasion water and micro biological resistance. Non metallic lightweight design for easy handling and manipulation. Rugged construction to give kink - crush - twist and pull resistance. Twin lines available with vent hose. Other colors available on request.

Temperature Range
-40°C to +70°C
(-40°F to +158°F)

Specifications
Hose meets applicable requirements of ISO 15500-17, SAE J517 100R8. Hoses certified ANSI/CSA NGV 4.2-2014 - CSA 12.52-2014. Hoses for natural gas dispensing systems

APPLICATIONS

PACKAGING

MULTICOLOR

159

CERTIFICATION

C US

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
15R2	-4	1/4"	6	6,50	0,256	13,70	0,539	350	5000	1400	20000	4:1	50	1,97	120	0,081	SAF121	SAF821
15R4	-6	3/8"	10	9,70	0,382	18,90	0,744	350	5000	1400	20000	4:1	70	2,76	220	0,148	SAF141	SAF841
15R5	-8	1/2"	12	13,00	0,512	22,50	0,886	350	5000	1400	20000	4:1	90	3,54	290	0,195	SAF151	SAF851
15R7	-12	3/4"	20	19,50	0,768	29,60	1,165	350	5000	1400	20000	4:1	180	7,09	400	0,269	SAF172	SAF872
15R8	-16	1"	25	25,90	1,020	39	1,535	350	5000	1400	20000	4:1	200	7,87	715	0,481	SAF181	SAF881

184 LPG

Thermoplastic hose for LPG applications
Up to 30 bar (435 psi)

FEATURES

Inner Tube
Polyamide PA6

Reinforcement
One braid of synthetic fiber

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
— Low pressure hose suitable for LPG applications

Features
— Polyamide 6 tube construction compatible with LPG
— Non metallic design with bonded construction
— Lightweight and flexible
— Antiabrasion cover for optimum wear resistance
— Pinpricked cover.

Description
Low pressure hose with black antiabrasion cover suitable for LPG applications. Non metallic lightweight design for easy handling and manipulation.

Temperature Range
-40°C to +125°C
(-40°F to +257°F)

Specifications
Hose meets applicable requirements of Regulation ECE/ONU n. 67/01.
Certificaton number E7 67R01 00951.25

APPLICATIONS

PACKAGING

CERTIFICATION

E 7

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1841	-3	3/16"	5	5	0,197	9,7	0,382	30	435	150	2175	5:1	25	0.984	60	0,040	SAB111	SAB811
1842	-4	1/4"	6	6,5	0,256	12,0	0,472	30	435	150	2175	5:1	35	1,378	90	0,060	SAB121	SAB821

185 Hydrogen Refuelling

Thermoplastic hose for Hydrogen refuelling applications
Up to 700 bar (10000 psi)

FEATURES

Inner Tube
Coextruded conductive polyamide and polyamide PA12

Reinforcement
One braid of aramid fiber plus one braid of steel wire

Cover
Polyurethane, turquoise, pinpricked, black ink-jet branding

Applications
— Very High Pressure hose suitable for hydrogen applications

Features
— Combined Aramid Steel braid construction for compact design
— Lightweight and flexible
— Low bend radii for use on hose reels and in tight environments
— Antiabrasion cover with water, micro biological, ultraviolet and ozone resistance
— Pinpricked cover.

Description
High pressure hose suitable for hydrogen refueling applications featuring metallic braid and special conductive inner tube to dissipate static electric build up. Extra tough cover for abrasion water and micro biological resistance. Rugged construction to give kink, crush, twist and pull resistance. Connection hose from dispenser to fuelling nozzle for gaseous compressed hydrogen. Use with hydrogen gas, high pressure, low-temperature (≥ -40°C).

Temperature Range
-40°C to +80°C
(-40°F to +176°F)

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1852	-4	1/4"	6	6,6	0,260	13,4	0,528	700	10000	2800	40000	4:1	35	1,378	200	0,134	SAF121	SAF821

084 1SB Hydro-chem

Thermoplastic hose MSHA approved with steel wire reinforcement for high pressure chemicals applications
From 95 to 360 bar (1300 to 5200 psi)

FEATURES

Inner Tube
Polyamide PA6

Reinforcement
One braid of steel wire

Cover
Polyurethane, black, non pinpricked, white ink-jet branding

Applications
- Airless paint spray systems requiring additional mechanical strength of hose and/or electrical conductivity
- Applications requiring high chemical resistance to solvents and aggressive fluids
- Suitable also for hydraulic and fluid power applications

Features
- Polyamide tube construction
- Steel braid for high pressure requirements and increased mechanical properties

Description
High pressure hose with black cover particularly designed for paint spray and solvent applications with increased resistance to abrasion, mechanical strength and providing electrical conductivity.

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70 °C (+158 °F) for air and water based fluids

Specifications
Meets or exceeds pressure specifications of EN853 1ST/EN853 1SN/EN857 1SC, SAE 100R1

APPLICATIONS

PACKAGING

CERTIFICATION

U.S. Department of Labor MSHA Mine Safety & Health Administration

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0841	-3	3/16"	5	5,00	0,197	9,70	0,382	360	5200	1440	20800	4:1	30	1,18	125	0,084	SAB111	SAB811
0842	-4	1/4"	6	6,50	0,256	11,70	0,461	310	4500	1240	18000	4:1	40	1,57	155	0,104	SAB121	SAB821
0843	-5	5/16"	8	8,10	0,319	13,20	0,520	250	3600	1000	14400	4:1	55	2,17	180	0,121	SAB131	SAB831
0844	-6	3/8"	10	9,80	0,386	15,50	0,610	225	3200	900	12800	4:1	65	2,56	230	0,155	SAB141	SAB841
0845	-8	1/2"	12	13,00	0,512	18,80	0,740	190	2700	760	10800	4:1	85	3,35	300	0,202	SAB151	SAB851
0846	-10	5/8"	16	16,30	0,642	22,00	0,866	140	2000	560	8000	4:1	115	4,53	335	0,225	SAB161	SAB861
0847	-12	3/4"	20	19,50	0,768	25,80	1,016	115	1600	460	6400	4:1	145	5,71	440	0,296	SAB171	SAB871
0848	-16	1"	25	25,80	1,016	33,40	1,315	95	1300	380	5200	4:1	180	7,09	640	0,430	SAB181	SAB881

098 R7 Paint spray & solvents

Thermoplastic hose for medium pressure paint spray and solvent applications
From 140 to 210 bar (2000 to 3000 psi)

FEATURES

Inner Tube
Polyamide PA6

Reinforcement
One or two braids of synthetic fiber

Cover
Polyurethane, blue, pinpricked, black ink-jet branding

Applications
- Airless paint spray systems
- Applications requiring high chemical resistance to solvents and aggressive fluids

Features
- Polyamide tube construction
- Yarn braid design for lightweight and high flexibility
- Blue pinpricked cover

Description
Medium pressure hose with blue cover particularly designed for paint spray and solvent applications with increased resistance to abrasion. Due to low dissipation rate of the tube the hose is also suitable for many industrial gases. Check compatibility list for overview of resistance to chemical substances and gases. This hose is not intended for use in static discharge applications.

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70 °C (+158 °F) for air and water based fluids

Specifications
SAE 100R7 / EN855 - R7 / ISO3949 -R7

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0981	-3	3/16"	5	5,00	0,197	9,60	0,378	210	3000	840	12000	4:1	25	0,98	60	0,040	SAB111	SAB811
0982	-4	1/4"	6	6,50	0,256	12,20	0,480	210	3000	840	12000	4:1	35	1,38	95	0,064	SAB121	SAB821
0984	-6	3/8"	10	9,70	0,382	16,00	0,630	160	2300	640	9200	4:1	55	2,17	140	0,094	SAB141	SAB841
0985	-8	1/2"	12	13,00	0,512	20,30	0,799	140	2000	560	8000	4:1	75	2,95	210	0,141	SAB151	SAB851

157 CPPA 3600 Constant pressure paint spray antistatic

Thermoplastic antistatic constant pressure hose for paint spray and solvent applications
Up to 250 bar (3600 psi)

FEATURES

Inner Tube
Coextruded conductive polyamide and polyamide PA6

Reinforcement
One or two braids of synthetic fiber

Cover
Polyurethane, blue, pinpricked, black ink-jet branding

Applications
- Airless paint spray systems
- Applications requiring high chemical resistance to solvents and aggressive fluids

Features
- Coextruded inner tube
- Conductive inner layer
- Yarn braid design for lightweight and high flexibility
- Blue pinpricked cover

Description
Medium pressure hose with blue cover particularly designed for paint spray and solvent applications with increased resistance to abrasion and anti-pulsation effect.
The inner conductive layer allow static charge dissipation without need of auxiliary systems. Due to low dissipation rate of the tube the hose is also suitable for many industrial gases. Check compatibility list for overview of resistance to chemical substances and gases. This hose is expressly intended for use in static discharge applications.

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Specifications
Exceeds SAE 100R7/EN855 -R7/ISO3949 -R7
Meets antistatic requirements of ISO 8031 for assemblies 100m (328 ft) or less

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1571	-3	3/16"	5	5,00	0,197	9,60	0,378	250	3600	1000	14400	4:1	25	0,98	60	0,040	SAB111	SAB811
1572	-4	1/4"	6	6,50	0,256	13,00	0,512	250	3600	1000	14400	4:1	35	1,38	110	0,074	SAB121	SAB821
1574	-6	3/8"	10	9,70	0,382	18,00	0,709	250	3600	1000	14400	4:1	55	2,17	210	0,141	SAC141	SAC841

127 R8 Paint spray & solvents

Thermoplastic hose for high pressure paint spray and solvent applications
From 245 to 350 bar (3500 to 5000 psi)

FEATURES

Inner Tube
Polyamide PA6

Reinforcement
One braid of aramid fiber.

Cover
Polyurethane, blue, pinpricked, black ink-jet branding

Applications
- High pressure airless paint spray systems
- Applications requiring high chemical resistance to solvents and aggressive fluids

Features
- Polyamide tube construction
- Aramid braid for high pressure requirements but still lightweight and highly flexible
- Blue pinpricked cover

Description
High pressure hose with blue cover particularly designed for paint spray and solvent applications with increased resistance to abrasion. Due to low dissipation rate of the tube the hose is also suitable for many industrial gases. Check compatibility list for overview of resistance to chemical substances and gases. This hose is not intended for use in static discharge applications.

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Specifications
Exceeds SAE 100R8 / EN855 -R8 / ISO3949 -R8

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1271	-3	3/16"	5	5,00	0,197	8,90	0,350	350	5000	1400	20000	4:1	30	1,18	50	0,034	SAB111	SAB811
1272	-4	1/4"	6	6,50	0,256	11,50	0,453	350	5000	1400	20000	4:1	50	1,97	80	0,054	SAB121	SAB821
1274	-6	3/8"	10	9,70	0,382	15,50	0,610	280	4000	1120	16000	4:1	60	2,36	130	0,087	SAB141	SAB841
1275	-8	1/2"	12	13,00	0,512	19,90	0,783	245	3500	980	14000	4:1	80	3,15	190	0,128	SAB151	SAB851

158 R8 Paint Spray Antistatic

Thermoplastic antistatic hose for high pressure paint spray and solvent applications
From 280 to 350 bar (4000 to 5000 psi)

FEATURES

Inner Tube
Coextruded conductive polyamide and polyamide PA6

Reinforcement
One braid of aramid fiber

Cover
Polyurethane, blue, pinpricked, black ink-jet branding

Applications
- High pressure airless paint spray systems
- Applications requiring high chemical resistance to solvents and aggressive fluids

Features
- Coextruded inner tube
- Conductive inner layer
- Aramid braid for high pressure requirements but still lightweight and highly flexible
- Blue pinpricked cover

Description
High pressure hose with blue cover particularly designed for paint spray and solvent applications with increased resistance to abrasion. The inner conductive layer allow static charge dissipation without need of auxiliary systems. Due to low dissipation rate of the tube the hose is also suitable for many industrial gases. Check compatibility list for overview of resistance to chemical substances and gases. This hose is intended for use in static discharge applications.

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F)
for air and water based fluids

Specifications
Exceeds SAE 100R8/EN855 -R8/ISO3949 -R8
Meets antistatic requirements of ISO 8031 for assemblies 100m (328 ft) or less

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1581	-3	3/16"	5	5,00	0,197	8,90	0,350	350	5000	1400	20000	4:1	30	1,18	50	0,034	SAB111	SAB811
1582	-4	1/4"	6	6,50	0,256	11,50	0,453	350	5000	1400	20000	4:1	50	1,97	80	0,054	SAB121	SAB821
1584	-6	3/8"	10	9,70	0,382	15,50	0,610	280	4000	1120	16000	4:1	60	2,36	130	0,087	SAB141	SAB841

083 1SB Steel Braid Paint spray & solvents

Thermoplastic hose for high pressure paint spray and solvent applications
From 115 to 360 bar (1600 to 5200 psi)

FEATURES

Inner Tube
Polyamide PA6

Reinforcement
One braid of steel wire

Cover
Polyurethane, blue, non pinpricked, black ink-jet branding

Applications
- Airless paint spray systems requiring additional mechanical strength of hose and/or electrical conductivity
- Applications requiring high chemical resistance to solvents and aggressive fluids

Features
- Polyamide tube construction
- Steel braid for high pressure requirements and increased mechanical properties flexible

Description
High pressure hose with blue cover particularly designed for paint spray and solvent applications with increased resistance to abrasion, mechanical strength and providing electrical conductivity. Check compatibility list for overview of resistance to chemical substances.

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Specifications
Meets or exceeds pressure specifications of EN853 1ST, EN853 1SN, EN857 1SC, SAE 100R1

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0831	-3	3/16"	5	5,00	0,197	9,70	0,382	360	5200	1440	20800	4:1	30	1,18	120	0,081	SAB111	SAB811
0832	-4	1/4"	6	6,50	0,256	11,70	0,461	310	4500	1240	18000	4:1	40	1,57	155	0,104	SAB121	SAB821
0834	-6	3/8"	10	9,80	0,386	15,50	0,610	225	3200	900	12800	4:1	65	2,56	230	0,155	SAB141	SAB841
0835	-8	1/2"	12	13,00	0,512	18,80	0,740	190	2700	760	10800	4:1	85	3,35	295	0,198	SAB151	SAB851
0837	-12	3/4"	20	19,50	0,768	25,80	1,016	115	1600	460	6400	4:1	145	5,71	425	0,286	SAB171	SAB871

083BP 1SB Steel Braid Paint spray & solvents

Thermoplastic conductive hose for high pressure paint spray and solvent applications
From 115 to 360 bar (1600 to 5200 psi)

FEATURES

Inner Tube
Polyamide PA6

Reinforcement
One braid of steel wire

Cover
Polyurethane, blue,
non pinpricked,
black ink-jet branding

Applications
— Airless paint spray systems requiring additional mechanical strength of hose and/or electrical conductivity
— Applications requiring high chemical resistance to solvents and aggressive fluids

Features
— Polyamide type 6 tube construction
— Steel braid for high pressure requirements and increased mechanical properties increasing lifetime of the hose
— Conductive
— Blue cover

Description
High pressure hose with blue cover particularly designed for paint spray and solvent applications with increased resistance to abrasion mechanical strength and providing electrical conductivity. Check compatibility list for overview of resistance to chemical substances

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F)
for air and water based fluids

WARNING!
These hoses have a special branding that indicates burst pressure only because these hoses can be used in applications not following the traditional 4:1 safety factors as recommended for general high pressure hoses.
Burst pressure for reference only. Use maximum working pressure in accordance with application safety factor.
It is the user's responsibility however to respect a sufficient pressure safety margin for the application to guarantee safe working conditions.

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0831BP	-3	3/16"	5	5,00	0,197	9,70	0,382	360	5200	1440	20800	4:1	30	1,18	120	0,081	SAB111	SAB811
0832BP	-4	1/4"	6	6,50	0,256	11,70	0,461	310	4500	1240	18000	4:1	40	1,57	155	0,104	SAB121	SAB821
0834BP	-6	3/8"	10	9,80	0,386	15,50	0,610	225	3200	900	12800	4:1	65	2,56	230	0,155	SAB141	SAB841
0835BP	-8	1/2"	12	13,00	0,512	18,80	0,740	190	2700	760	10800	4:1	85	3,35	295	0,198	SAB151	SAB851
0837BP	-12	3/4"	20	19,50	0,768	25,80	1,016	115	1600	460	6400	4:1	145	5,71	425	0,286	SAB171	SAB871

081 Two Steel Braids Paint spray & solvents

Thermoplastic hose for heavy duty high pressure paint spray and solvent applications
From 215 to 425 bar (3100 to 6100 psi)

FEATURES

Inner Tube
Polyamide PA6

Reinforcement
Two braids of steel wire

Cover
Polyurethane, blue, non pinpricked, black ink-jet branding

Applications
- High pressure Airless paint spray systems requiring very high mechanical strength of hose and/or electrical conductivity
- Application requiring high chemical resistance to solvents and aggressive fluids

Features
- Polyamide tube construction
- Two steel braids for high pressure requirements and increased mechanical properties

Description
Very high pressure hose with blue cover particularly designed for paint spray and solvent applications with increased resistance to abrasion mechanical strength yet lightweight and flexible. Check compatibility list for overview of resistance to chemical substances.

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Specifications
Meets or exceeds pressure specifications of SAE 100R2

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0812	-4	1/4"	6	6,40	0,252	12,80	0,504	425	6100	1700	24400	4:1	40	1,57	240	0,161	SAC121	SAC821
0814	-6	3/8"	10	9,80	0,386	16,80	0,661	350	5000	1400	20000	4:1	65	2,56	370	0,249	SAC141	SAC841
0815	-8	1/2"	12	13,00	0,512	20,20	0,795	300	4300	1200	17200	4:1	85	3,35	445	0,299	SAC151	SAC851
0817	-12	3/4"	20	19,50	0,768	27,80	1,094	215	3100	860	12400	4:1	170	6,69	700	0,470	SAC171	SAC871

181 2SB Two Steel Braids Aggressive chemicals

Thermoplastic conductive hose for heavy duty high pressure aggressive chemicals applications
From 190 to 425 bar (2700 to 6100 psi)

FEATURES

Inner Tube
Polyamide PA12

Reinforcement
Two braids of steel wire

Cover
Polyurethane, blue, non pinpricked, black ink-jet branding

Applications
- High pressure aggressive chemicals systems requiring very high mechanical strength of hose and/or electrical conductivity
- Applications requiring high chemical resistance to solvents and aggressive fluids such as two parts polyurethane injection foams

Features
- Polyamide 12 tube construction
- 2 steel braids for high pressure requirements and increased mechanical properties increasing lifetime of the hose under very harsh working conditions
- Conductive
- Blue cover

Description
High pressure hose with blue cover. Due to particularly low humidity absorption of the tube this hose is particularly intended for two parts PU foams injection systems (isocyanate and polyols) and very aggressive chemicals applications with increased resistance to abrasion, mechanical strength and providing electrical conductivity. Check compatibility list for overview of resistance to chemical substances.

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

Specifications
Meets or exceeds pressure specifications of SAE 100R2

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1812	-4	1/4"	6	6,40	0,252	12,80	0,504	425	6100	1700	24400	4:1	40	1,57	240	0,161	SAC121	SAC821
1814	-6	3/8"	10	9,80	0,386	16,80	0,661	350	5000	1400	20000	4:1	65	2,56	365	0,245	SAC141	SAC841
1815	-8	1/2"	12	13,00	0,512	20,20	0,795	300	4300	1200	17200	4:1	85	3,35	440	0,296	SAC151	SAC851
1816	-10	5/8"	16	16,30	0,642	23,50	0,925	250	3600	1000	14400	4:1	115	4,53	560	0,376	SAC161	SAC861
1817	-12	3/4"	20	19,50	0,768	27,80	1,094	215	3100	860	12400	4:1	170	6,69	675	0,454	SAC171	SAC871
1818	-16	1"	25	25,80	1,016	35,20	1,386	190	2700	760	10800	4:1	180	7,09	950	0,638	SAC181	SAC881

049 HP Aggressive chemicals

Thermoplastic conductive hose for heavy duty high pressure aggressive chemicals applications
From 450 to 550 bar (6500 to 8000 psi)

FEATURES

Inner Tube
Polyamide PA12

Reinforcement
One or two braids of aramid fiber plus one braid of steel wire

Cover
Polyurethane, black, non pinpricked, white ink-jet branding

Applications
- High pressure aggressive chemicals systems requiring very high mechanical strength of hose and/or electrical conductivity
- Applications requiring high chemical resistance to solvents and aggressive fluids such as two parts polyurethane injection foams

Features
- Polyamide 12 tube construction
- Combined reinforcement for high pressure requirements and increased mechanical properties increasing lifetime of the hose under very harsh working conditions
- Conductive

Description
High pressure hose with black cover. Due to particularly low humidity absorption of the tube this hose is particularly intended for two parts PU foams injection systems (isocyanate and polyols) and very aggressive chemicals applications with increased resistance to abrasion, mechanical strength and providing electrical conductivity. Check compatibility list for overview of resistance to chemical substances.

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0494	-6	3/8"	10	9,70	0,382	17,20	0,677	550	8000	2200	32000	4:1	60	2,36	280	0,188	SAF141	SAF841
0495	-8	1/2"	12	13,00	0,512	21,70	0,854	450	6500	1800	26000	4:1	80	3,15	390	0,262	SAF151	SAF851

048 VHP Aggressive chemicals

Thermoplastic conductive hose for very high pressure aggressive chemicals applications
From 310 to 700 bar (4500 to 10000 psi)

FEATURES

Inner Tube
Polyamide PA12

Reinforcement
One or two braids of aramid fiber plus one braid of steel wire

Cover
Polyurethane up to 1/2", Special Polyester for 5/8" and upwards. Black, non pinpricked, white ink-jet branding

Applications
- Very high pressure aggressive chemicals systems requiring very high mechanical strength of hose and/or electrical conductivity
- Applications requiring high chemical resistance to solvents and aggressive fluids such as two parts polyurethane injection foams

Features
- Polyamide 12 tube construction
- Combined reinforcement for high pressure requirements and increased mechanical properties increasing lifetime of the hose under very harsh working conditions
- Conductive

Description
High pressure hose with black cover. Due to particularly low humidity absorption of the tube this hose is particularly intended for two parts PU foams injection systems (isocyanate and polyols) and very aggressive chemicals applications with increased resistance to abrasion, mechanical strength and providing electrical conductivity. Check compatibility list for overview of resistance to chemical substances.

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F) for air and water based fluids

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0482	-4	1/4"	6	6,60	0,260	12,70	0,500	700	10000	2800	40000	4:1	35	1,38	180	0,121	SAF121	SAF821
0483	-5	5/16"	8	8,10	0,319	16,00	0,630	700	10000	2800	40000	4:1	60	2,36	270	0,181	SAF131	SAF831
0484	-6	3/8"	10	9,80	0,386	18,70	0,736	700	10000	2800	40000	4:1	90	3,54	320	0,215	SAF141	SAF841
0485	-8	1/2"	12	13,00	0,512	23,20	0,913	590	8500	2360	34000	4:1	100	3,94	460	0,309	SAF151	SAF851
0486	-10	5/8"	16	16,30	0,642	26,60	1,047	500	7200	2000	28800	4:1	160	6,30	570	0,383	SAF161	SAF861
0487	-12	3/4"	20	19,50	0,768	30,50	1,201	450	6500	1800	26000	4:1	180	7,09	650	0,437	SAF171	SAF871
0488	-16	1"	25	25,80	1,016	38,20	1,504	310	4500	1240	18000	4:1	250	9,84	950	0,638	SAF181	SAF881

030 PTFE 1SSB Stainless steel braid

PTFE hose for medium pressure
From 75 to 205 bar (1000 to 2900 psi)

FEATURES

Inner Tube
Polytetrafluoroethylene

Reinforcement
One braid of stainless AISI 304 wire

Cover
N/A

Applications
- Aggressive chemical transfer systems
- Compressed air and gases
- High or low temperature fluid or gas transfer.

Features
- Pure PTFE tube material: lightweight, resistant to almost all chemicals gases and solvents
- Stainless steel braid/cover cover to support medium pressure requirements
- Hose comes in random length coils

Description
Lightweight smoothbore hose for standard industrial use especially for high or low temperature and aggressive chemical applications: including some gases (there will be a level of gas permeation which should be taken into account). Care should be taken to ensure proper fitting and ferrule compatibility. Hose not suitable for continuous hydraulic impulse applications. Above 130°C (266°F) there will be a reduction in maximum working pressure: reduce maximum working pressure by 1% for each 2°C (3.6°F) above 130°C (266°F). Hose suitability must be checked when discharge of electrical static build up is required.

Temperature Range
-60°C to +260°C
(-76°F to +500°F)

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		Tube Thickness		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.
	dash	inch	DN	mm	inch	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	
0301	-3	3/16"	5	4,90	0,193	0,75	0,03	7,80	0,307	205	2900	820	11600	4:1	35	1,38	82	0,055	SAG111
0302	-4	1/4"	6	6,50	0,256	0,75	0,03	9,20	0,362	180	2600	720	10400	4:1	45	1,77	100	0,067	SAG121
0303	-5	5/16"	8	8,00	0,315	0,75	0,03	11,00	0,433	170	2400	680	9600	4:1	50	1,97	131	0,088	SAG131
0304	-6	3/8"	10	9,50	0,374	0,75	0,03	12,70	0,500	155	2200	620	8800	4:1	55	2,17	165	0,111	SAG141
0305	-8	1/2"	12	12,80	0,504	0,75	0,03	16,10	0,634	120	1700	480	6800	4:1	70	2,76	218	0,147	SAG151
0306	-10	5/8"	16	16,60	0,654	0,90	0,035	19,80	0,780	85	1200	340	4800	4:1	130	5,12	282	0,190	SAG161
0307	-12	3/4"	20	19,80	0,780	0,90	0,035	23,00	0,906	75	1000	300	4000	4:1	190	7,48	334	0,224	SAG171
0308	-16	1"	25	25,40	1,000	0,90	0,035	28,80	1,134	75	1000	300	4000	4:1	270	10,63	450	0,302	SAG181

031 PTFE 1SSB Stainless steel braid convoluted

Convoluted PTFE hose for medium pressure
From 23 to 138 bar (300 to 2000 psi)

FEATURES

Inner Tube
Polytetrafluoroethylene

Reinforcement
One braid of stainless AISI 304 wire

Cover
N/A

Applications
- Aggressive chemical transfer systems
- Compressed air and gases
- High or low temperature fluid or gas transfer

Features
- Pure PTFE tube material: lightweight resistant to almost all chemicals, gases and solvents
- Stainless steel braid/cover cover to support medium pressure requirements
- Hose comes in random length coils

Description
Lightweight convoluted hose for standard industrial use especially for high or low temperature and aggressive chemical applications: including some gases (there will be a level of gas permeation which should be taken into account). Care should be taken to ensure proper fitting and ferrule compatibility. Hose not suitable for continuous hydraulic impulse applications. Above 130°C (266°F) there will be a reduction in maximum working pressure: reduce maximum working pressure by 1% for each 2°C (3.6°F) above 130°C (266 °F). Hose suitability must be checked when discharge of electrical static build up is required

Temperature Range
-60°C to +260°C
(-76°F to +500°F)

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
0314	-6	3/8"	10	9,50	0,374	15,20	0,598	138	2000	414	6000	3:1	20	0,79	210	0,141	SAI141	SAI841
0315	-8	1/2"	12	12,80	0,504	18,80	0,740	103	1400	309	4200	3:1	25	0,98	280	0,188	SAI151	SAI851
0316	-10	5/8"	16	15,90	0,626	22,10	0,870	83	1200	249	3600	3:1	50	1,97	325	0,218	SAI161	SAI861
0317	-12	3/4"	20	19,00	0,748	24,60	0,969	69	1000	207	3000	3:1	65	2,56	395	0,265	SAI171	SAI871
0318	-16	1"	25	25,40	1,000	32,80	1,291	46	600	138	1800	3:1	90	3,54	550	0,370	SAI181	SAI881
0319	-20	1+1/4"	32	32,20	1,268	40,70	1,602	34	400	102	1200	3:1	125	4,92	690	0,464	SAI191	SAI891
031T	-24	1+1/2"	38	38,10	1,500	48,20	1,898	30	400	90	1200	3:1	150	5,91	890	0,598	SAI1T1	SAI8T1
031X	-32	2"	51	51,40	2,024	61,50	2,421	23	300	69	900	3:1	200	7,87	1240	0,833	SAI1X1	SAI8X1

07B Power Wash Steel

Thermoplastic hose with steel reinforcement for water cleaning applications
From 210 to 280 bar (3000 to 4000 psi)

FEATURES

Inner Tube
Thermoplastic polymer

Reinforcement
One braid steel wire

Cover
Thermoplastic polymer, blue, non pinpricked, black ink-jet branding

Applications
- Water cleaning applications such as professional power washers
- Car-wash stations, including self-service car-wash stations

Features
- Rugged construction for HD application and prolonged lifetime
- Lightweight
- Compact design
- High flexibility
- Abrasion resistant

Description
High pressure service hose suitable for connection between water pump and washing gun. The steel reinforcement makes this hose extremely resistant but still lightweight if compared with rubber alternatives. The construction and the pressure rating of this hose make this product the ideal choice for professional power washers or self-service car-wash stations. Also available as factory made assemblies: please contact our sales office for further details

Temperature Range
-20°C to +60°C
(-4°F to +140°F)

Note
Available as factory made assemblies with / or without box. Please contact our sales office for further details.

WARNING!
Not suitable for hot water or steam.
Max water temp 60°C / 140°F

APPLICATIONS

MULTICOLOR

● 079

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
07B2	-4	1/4"	6	6,50	0,256	11,90	0,469	280	4000	1120	16000	4:1	40	1,57	160	0,108	SAC121	SAC821
07B3	-5	5/16"	8	8,10	0,319	13,60	0,535	210	3000	840	12000	4:1	55	2,17	190	0,128	SAC131	SAC831
07B4	-6	3/8"	10	9,80	0,386	16,10	0,634	210	3000	840	12000	4:1	65	2,56	245	0,165	SAC141	SAC841

100 Ecology 2500 NAM Sewer cleaning hoses

Thermoplastic constant pressure hose for high pressure sewer cleaning applications
Up to 175 bar (2500 psi)

FEATURES

Inner Tube
Thermoplastic polymer

Reinforcement
Two or three braids of synthetic fiber

Cover
Polyurethane, orange, non pinpricked, black ink-jet branding

Applications
- Standard sewer cleaning vehicles and applications
- Cleaning equipment used in high humidity environments

Features
- Orange cover bonded to braid reinforcement for better wear resistance and longevity
- Available in long lengths
- Excellent crush and cut resistance
- Lightweight compared to rubber alternatives
- Cover resistant against micro-biological attack
- Reduced bend radius
- Fast operating speeds

Description
Standard sewer cleaning hose suitable for temperatures ranging from -40°C to 60°C (-40°F to 140°F). Hose specifically designed for working in humid conditions without degrading ensuring increased lifetime. Available with BSP and/or NPT fitting combinations. Other end terminations upon request. Not suitable for hydraulic applications. Factory made assemblies only: please contact our sales office for further details.

Temperature Range
-40°C to +60°C
(-40°F to +140°F)

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1005	-8	1/2"	12	13,00	0,512	21,80	0,858	175	2500	438	6250	2,5:1	75	2,95	280	0,188	SA5151	SA5851
1006	-10	5/8"	16	16,30	0,642	25,60	1,008	175	2500	438	6250	2,5:1	100	3,94	350	0,235	SA5161	SA5861
1007	-12	3/4"	20	19,60	0,772	29,60	1,165	175	2500	438	6250	2,5:1	120	4,72	440	0,296	SA5171	SA5871
1008	-16	1"	25	25,60	1,008	37,60	1,480	175	2500	438	6250	2,5:1	155	6,10	645	0,433	SA5181	SA5881
1009	-20	1+1/4"	32	32,40	1,276	46,00	1,811	175	2500	438	6250	2,5:1	240	9,45	890	0,598	SA5191	SA5891

ASSEMBLED HOSE PART NUMBER LIST

Part no.	Description	Fittings
EAEXXX	1/2" ECOLOGY 2500 NAM	1/2" M/F BSP
EAFXXX	1/2" ECOLOGY 2500 NAM	1/2" M/M NPT
EAQXXX	1/2" ECOLOGY 2500 NAM	1/2" M/F BSP - AISI A316L
EARXXX	1/2" ECOLOGY 2500 NAM	1/2" M/M NPT - AISI A316L
EYGXXX	5/8" ECOLOGY 2500 NAM	3/4" M/F BSP
EYHXXX	5/8" ECOLOGY 2500 NAM	3/4" M/M NPT
EYSXXX	5/8" ECOLOGY 2500 NAM	3/4" M/F BSP - AISI A316L
EYTXXX	5/8" ECOLOGY 2500 NAM	3/4" M/M NPT - AISI A316L
EBGXXX	3/4" ECOLOGY 2500 NAM	3/4" M/F BSP
EBHXXX	3/4" ECOLOGY 2500 NAM	3/4" M/M NPT
EBSXXX	3/4" ECOLOGY 2500 NAM	3/4" M/F BSP - AISI A316L
EBTXXX	3/4" ECOLOGY 2500 NAM	3/4" M/M NPT - AISI A316L
ECIXXX	1" ECOLOGY 2500 NAM	1" M/F BSP
ECJXXX	1" ECOLOGY 2500 NAM	1" M/M NPT
ECUXXX	1" ECOLOGY 2500 NAM	1" M/F BSP - AISI A316L
ECVXXX	1" ECOLOGY 2500 NAM	1" M/M NPT - AISI A316L
EDKXXX	1+1/4" ECOLOGY 2500 NAM	1+1/4" M/F BSP
EDLXXX	1+1/4" ECOLOGY 2500 NAM	1+1/4" M/M NPT
EDWXXX	1+1/4" ECOLOGY 2500 NAM	1+1/4" M/F BSP - AISI A316L
EDXXXX	1+1/4" ECOLOGY 2500 NAM	1+1/4" M/M NPT - AISI A316L

Part no.	Description	Fittings
FAEXXX	1/2" ECOLOGY 2500 NAM	1/2" M/F BSP
FAFXXX	1/2" ECOLOGY 2500 NAM	1/2" M/M NPT
FAQXXX	1/2" ECOLOGY 2500 NAM	1/2" M/F BSP - AISI A316L
FARXXX	1/2" ECOLOGY 2500 NAM	1/2" M/M NPT - AISI A316L
FYGXXX	5/8" ECOLOGY 2500 NAM	3/4" M/F BSP
FYHXXX	5/8" ECOLOGY 2500 NAM	3/4" M/M NPT
FYSXXX	5/8" ECOLOGY 2500 NAM	3/4" M/F BSP - AISI A316L
FYTXXX	5/8" ECOLOGY 2500 NAM	3/4" M/M NPT - AISI A316L
FBGXXX	3/4" ECOLOGY 2500 NAM	3/4" M/F BSP
FBHXXX	3/4" ECOLOGY 2500 NAM	3/4" M/M NPT
FBSXXX	3/4" ECOLOGY 2500 NAM	3/4" M/F BSP - AISI A316L
FBTXXX	3/4" ECOLOGY 2500 NAM	3/4" M/M NPT - AISI A316L
FCIXXX	1" ECOLOGY 2500 NAM	1" M/F BSP
FCJXXX	1" ECOLOGY 2500 NAM	1" M/M NPT
FCUXXX	1" ECOLOGY 2500 NAM	1" M/F BSP - AISI A316L
FCVXXX	1" ECOLOGY 2500 NAM	1" M/M NPT - AISI A316L
FDKXXX	1+1/4" ECOLOGY 2500 NAM	1+1/4" M/F BSP
FDLXXX	1+1/4" ECOLOGY 2500 NAM	1+1/4" M/M NPT
FDWXXX	1+1/4" ECOLOGY 2500 NAM	1+1/4" M/F BSP - AISI A316L
FDXXXX	1+1/4" ECOLOGY 2500 NAM	1+1/4" M/M NPT - AISI A316L

XXX = total length of the assembled hoses in meters (1mt = 3,28 ft)

101 Ecology 200 EL Sewer cleaning hoses

Thermoplastic constant pressure hose for high pressure sewer cleaning applications
Up to 200 bar (2900 psi)

FEATURES

Inner Tube
Thermoplastic polymer

Reinforcement
Two or three braids of synthetic fiber

Cover
Polyurethane, orange, non pinpricked, black ink-jet branding

Applications
- Standard sewer cleaning vehicles and applications
- Cleaning equipment used in high humidity environments

Features
- Orange cover bonded to braid reinforcement for better wear resistance and longevity
- Available in long lengths
- Excellent crush and cut resistance
- Lightweight compared to rubber alternatives
- Cover resistant against micro-biological attack
- Reduced bend radius
- Fast operating speeds

Description
Standard sewer cleaning hose suitable for temperatures ranging from -40°C to 60°C (-40°F to 140°F). Hose specifically designed for working in humid conditions without degrading ensuring increased lifetime. Available with BSP and/or NPT fitting combinations. Other end terminations upon request. Not suitable for hydraulic applications. Factory made assemblies only: please contact our sales office for further details.

Temperature Range
-40°C to +60°C
(-40°F to +140°F)

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1015	-8	1/2"	12	13,00	0,512	21,80	0,858	200	2900	500	7250	2,5:1	75	2,95	280	0,188	SA5151	SA5851
1016	-10	5/8"	16	16,30	0,642	25,60	1,008	200	2900	500	7250	2,5:1	100	3,94	350	0,235	SA5161	SA5861
1017	-12	3/4"	20	19,60	0,772	29,60	1,165	200	2900	500	7250	2,5:1	120	4,72	440	0,296	SA5171	SA5871
1018	-16	1"	25	25,60	1,008	37,60	1,480	200	2900	500	7250	2,5:1	155	6,10	610	0,410	SA5181	SA5881
1019	-20	1+1/4"	32	32,40	1,276	46,00	1,811	200	2900	500	7250	2,5:1	240	9,45	890	0,598	SA5191	SA5891

ASSEMBLED HOSE PART NUMBER LIST

Part no.	Description	Fittings
EEEXXX	1/2" ECOLOGY 200 EL	1/2" M/F BSP
EEFXXX	1/2" ECOLOGY 200 EL	1/2" M/M NPT
EEQXXX	1/2" ECOLOGY 200 EL	1/2" M/F BSP - AISI A316L
EERXXX	1/2" ECOLOGY 200 EL	1/2" M/M NPT - AISI A316L
EZGXXX	5/8" ECOLOGY 200 EL	3/4" M/F BSP
EZHXXX	5/8" ECOLOGY 200 EL	3/4" M/M NPT
EZSXXX	5/8" ECOLOGY 200 EL	3/4" M/F BSP - AISI A316L
EZTXXX	5/8" ECOLOGY 200 EL	3/4" M/M NPT - AISI A316L
EFGXXX	3/4" ECOLOGY 200 EL	3/4" M/F BSP
EFHXXX	3/4" ECOLOGY 200 EL	3/4" M/M NPT
EFSXXX	3/4" ECOLOGY 200 EL	3/4" M/F BSP - AISI A316L
EFTXXX	3/4" ECOLOGY 200 EL	3/4" M/M NPT - AISI A316L
EGIXXX	1" ECOLOGY 200 EL	1" M/F BSP
EGJXXX	1" ECOLOGY 200 EL	1" M/M NPT
EGUXXX	1" ECOLOGY 200 EL	1" M/F BSP - AISI A316L
EGVXXX	1" ECOLOGY 200 EL	1" M/M NPT - AISI A316L
EHKXXX	1+1/4" ECOLOGY 200 EL	1+1/4" M/F BSP
EHLXXX	1+1/4" ECOLOGY 200 EL	1+1/4" M/M NPT
EHWXXX	1+1/4" ECOLOGY 200 EL	1+1/4" M/F BSP - AISI A316L
EHXXXX	1+1/4" ECOLOGY 200 EL	1+1/4" M/M NPT - AISI A316L

Part no.	Description	Fittings
FEEXXX	1/2" ECOLOGY 200 EL	1/2" M/F BSP
FEFXXX	1/2" ECOLOGY 200 EL	1/2" M/M NPT
FEQXXX	1/2" ECOLOGY 200 EL	1/2" M/F BSP - AISI A316L
FERXXX	1/2" ECOLOGY 200 EL	1/2" M/M NPT - AISI A316L
FZGXXX	5/8" ECOLOGY 200 EL	3/4" M/F BSP
FZHXXX	5/8" ECOLOGY 200 EL	3/4" M/M NPT
FZSXXX	5/8" ECOLOGY 200 EL	3/4" M/F BSP - AISI A316L
FZTXXX	5/8" ECOLOGY 200 EL	3/4" M/M NPT - AISI A316L
FFGXXX	3/4" ECOLOGY 200 EL	3/4" M/F BSP
FFHXXX	3/4" ECOLOGY 200 EL	3/4" M/M NPT
FFSXXX	3/4" ECOLOGY 200 EL	3/4" M/F BSP - AISI A316L
FFTXXX	3/4" ECOLOGY 200 EL	3/4" M/M NPT - AISI A316L
FGIXXX	1" ECOLOGY 200 EL	1" M/F BSP
FGJXXX	1" ECOLOGY 200 EL	1" M/M NPT
FGUXXX	1" ECOLOGY 200 EL	1" M/F BSP - AISI A316L
FGVXXX	1" ECOLOGY 200 EL	1" M/M NPT - AISI A316L
FHKXXX	1+1/4" ECOLOGY 200 EL	1+1/4" M/F BSP
FHLXXX	1+1/4" ECOLOGY 200 EL	1+1/4" M/M NPT
FHWXXX	1+1/4" ECOLOGY 200 EL	1+1/4" M/F BSP - AISI A316L
FHXXXX	1+1/4" ECOLOGY 200 EL	1+1/4" M/M NPT - AISI A316L

XXX = total length of the assembled hoses in meters (1mt = 3,28 ft)

110 Ecology 210 HD Sewer cleaning hoses

Thermoplastic constant pressure hose for high pressure sewer cleaning applications
Up to 210 bar (3000 psi)

FEATURES

Inner Tube
Thermoplastic polymer

Reinforcement
One or two braids of synthetic fiber plus one special extra braid of synthetic fiber for cover integration

Cover
Polyurethane, blue, non pinpricked, black ink-jet branding

Applications
- Standard sewer cleaning vehicles and applications
- Cleaning equipment used in high humidity environments

Features
- Blue cover impregnated into braid reinforcement for optimum wear resistance and longevity
- Available in long lengths
- Excellent crush and cut resistance
- Lightweight compared to rubber alternatives
- Cover resistant against micro-biological attack
- Reduced bend radius
- Fast operating speeds

Description
Extremely wear resistant heavy duty sewer cleaning hose suitable for temperatures ranging from -40°C to 60°C (-40°F to 140°F). Hose specifically designed for working in humid conditions without degrading ensuring increased lifetime. Available with BSP and/or NPT fitting combinations. Other end terminations upon request Not suitable for hydraulic applications.Factory made assemblies only: please contact our sales office for further details.

Temperature Range
-40°C to +60°C
(-40°F to +140°F)

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1107	-12	3/4"	20	19,60	0,772	30,00	1,181	210	3000	525	7500	2,5:1	120	4,72	420	0,282	SA5171	SA5871
1108	-16	1"	25	25,60	1,008	38,30	1,508	210	3000	525	7500	2,5:1	155	6,10	740	0,497	SA5181	SA5881
1109	-20	1+1/4"	32	32,40	1,276	47,40	1,866	210	3000	525	7500	2,5:1	240	9,45	1040	0,699	SA5191	SA5891

ASSEMBLED HOSE PART NUMBER LIST

Part no.	Description	Fittings
EJGXXX	3/4" ECOLOGY 210 HD	3/4" M/F BSP
EJHXXX	3/4" ECOLOGY 210 HD	3/4" M/M NPT
EJSXXX	3/4" ECOLOGY 210 HD	3/4" M/F BSP - AISI A316L
EJTXXX	3/4" ECOLOGY 210 HD	3/4" M/M NPT - AISI A316L
EKIXXX	1" ECOLOGY 210 HD	1" M/F BSP
EKJXXX	1" ECOLOGY 210 HD	1" M/M NPT
EKUXXX	1" ECOLOGY 210 HD	1" M/F BSP - AISI A316L
EKVXXX	1" ECOLOGY 210 HD	1" M/M NPT - AISI A316L
ELKXXX	1+1/4" ECOLOGY 210 HD	1+1/4" M/F BSP
ELLXXX	1+1/4" ECOLOGY 210 HD	1+1/4" M/M NPT
ELWXXX	1+1/4" ECOLOGY 210 HD	1+1/4" M/F BSP - AISI A316L
ELXXXX	1+1/4" ECOLOGY 210 HD	1+1/4" M/M NPT - AISI A316L

Part no.	Description	Fittings
FJGXXX	3/4" ECOLOGY 210 HD	3/4" M/F BSP
FJHXXX	3/4" ECOLOGY 210 HD	3/4" M/M NPT
FJSXXX	3/4" ECOLOGY 210 HD	3/4" M/F BSP - AISI A316L
FJTXXX	3/4" ECOLOGY 210 HD	3/4" M/M NPT - AISI A316L
FKIXXX	1" ECOLOGY 210 HD	1" M/F BSP
FKJXXX	1" ECOLOGY 210 HD	1" M/M NPT
FKUXXX	1" ECOLOGY 210 HD	1" M/F BSP - AISI A316L
FKVXXX	1" ECOLOGY 210 HD	1" M/M NPT - AISI A316L
FLKXXX	1+1/4" ECOLOGY 210 HD	1+1/4" M/F BSP
FLLXXX	1+1/4" ECOLOGY 210 HD	1+1/4" M/M NPT
FLWXXX	1+1/4" ECOLOGY 210 HD	1+1/4" M/F BSP - AISI A316L
FLXXXX	1+1/4" ECOLOGY 210 HD	1+1/4" M/M NPT - AISI A316L

XXX = total length of the assembled hoses in meters (1mt = 3,28 ft)

113 Ecology 250 HD Sewer cleaning hoses

Thermoplastic constant pressure hose for high pressure sewer cleaning applications
Up to 250 bar (3600 psi)

FEATURES

Inner Tube
Thermoplastic polymer

Reinforcement
Two or three braids of synthetic fiber plus one special extra braid of synthetic fiber for cover integration

Cover
Polyurethane, red, non pinpricked, black ink-jet branding

Applications
- Modern sewer cleaning vehicles and applications requiring long lengths, high working pressure and low pressure drop
- Equipment used in high humidity environments

Features
- Red cover impregnated into braid reinforcement for optimum wear resistance and longevity
- Excellent crush and cut resistance
- Available in long lengths
- Even more lightweight
- Cover resistant against micro-biological attack
- Reduced bend radius
- Fast operating speeds
- Low pressure drop

Description
Heavy duty sewer cleaning hose suitable for 250 bar and temperatures ranging from -40°C to 60°C (-40°F to 140°F). Hose specifically designed for working in humid conditions without degrading ensuring increased lifetime. Available with BSP and/or NPT fitting combinations. Other end terminations upon request. Not suitable for hydraulic applications. Factory made assemblies only: please contact our sales office for further details.

Temperature Range
-40°C to +60°C
(-40°F to +140°F)

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1135	-8	1/2"	12	13,00	0,512	22,30	0,878	250	3600	625	9000	2,5:1	75	2,95	290	0,195	SA5151	SA5851
1137	-12	3/4"	20	19,60	0,772	30,30	1,193	250	3600	625	9000	2,5:1	120	4,72	500	0,336	SA5171	SA5871
1138	-16	1"	25	25,60	1,008	39,60	1,559	250	3600	625	9000	2,5:1	155	6,10	800	0,538	SA5181	SA5881
1139	-20	1+1/4"	32	32,40	1,276	49,60	1,953	250	3600	625	9000	2,5:1	240	9,45	1230	0,827	SA5191	SA5891

ASSEMBLED HOSE PART NUMBER LIST

Part no.	Description	Fittings
EMEXXX	1/2" ECOLOGY 250 HD	1/2" M/F BSP
EMFXXX	1/2" ECOLOGY 250 HD	1/2" M/M NPT
EMQXXX	1/2" ECOLOGY 250 HD	1/2" M/F BSP - AISI A316L
EMRXXX	1/2" ECOLOGY 250 HD	1/2" M/M NPT - AISI A316L
ENGXXX	3/4" ECOLOGY 250 HD	3/4" M/F BSP
ENHXXX	3/4" ECOLOGY 250 HD	3/4" M/M NPT
ENSXXX	3/4" ECOLOGY 250 HD	3/4" M/F BSP - AISI A316L
ENTXXX	3/4" ECOLOGY 250 HD	3/4" M/M NPT - AISI A316L
EOIXXX	1" ECOLOGY 250 HD	1" M/F BSP
EOJXXX	1" ECOLOGY 250 HD	1" M/M NPT
EOUXXX	1" ECOLOGY 250 HD	1" M/F BSP - AISI A316L
EOVXXX	1" ECOLOGY 250 HD	1" M/M NPT - AISI A316L
EPKXXX	1+1/4" ECOLOGY 250 HD	1+1/4" M/F BSP
EPLXXX	1+1/4" ECOLOGY 250 HD	1+1/4" M/M NPT
EPWXXX	1+1/4" ECOLOGY 250 HD	1+1/4" M/F BSP - AISI A316L
EPXXXX	1+1/4" ECOLOGY 250 HD	1+1/4" M/M NPT - AISI A316L

Part no.	Description	Fittings
FMEXXX	1/2" ECOLOGY 250 HD	1/2" M/F BSP
FMFXXX	1/2" ECOLOGY 250 HD	1/2" M/M NPT
FMQXXX	1/2" ECOLOGY 250 HD	1/2" M/F BSP - AISI A316L
FMRXXX	1/2" ECOLOGY 250 HD	1/2" M/M NPT - AISI A316L
FNGXXX	3/4" ECOLOGY 250 HD	3/4" M/F BSP
FNHXXX	3/4" ECOLOGY 250 HD	3/4" M/M NPT
FNSXXX	3/4" ECOLOGY 250 HD	3/4" M/F BSP - AISI A316L
FNTXXX	3/4" ECOLOGY 250 HD	3/4" M/M NPT - AISI A316L
FOIXXX	1" ECOLOGY 250 HD	1" M/F BSP
FOJXXX	1" ECOLOGY 250 HD	1" M/M NPT
FOUXXX	1" ECOLOGY 250 HD	1" M/F BSP - AISI A316L
FOVXXX	1" ECOLOGY 250 HD	1" M/M NPT - AISI A316L
FPKXXX	1+1/4" ECOLOGY 250 HD	1+1/4" M/F BSP
FPLXXX	1+1/4" ECOLOGY 250 HD	1+1/4" M/M NPT
FPWXXX	1+1/4" ECOLOGY 250 HD	1+1/4" M/F BSP - AISI A316L
FPXXXX	1+1/4" ECOLOGY 250 HD	1+1/4" M/M NPT - AISI A316L

XXX = total length of the assembled hoses in meters (1mt = 3,28 ft)

117 Ecology 2500 LT Lateral sewer cleaning hoses

Constant pressure thermoplastic hose for medium pressure lateral sewer cleaning applications
Up to 175 bar (2500 psi)

FEATURES

Inner Tube
Polyester elastomer

Reinforcement
One braid of synthetic fiber

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
— Compact sewer cleaning vehicles and equipment for cleaning smaller residential and commercial lines

Features
— Abrasion resistant
— Compact
— Lightweight and extremely flexible
— Kink resistant
— Polyester braid design
— Black cover resistant to humid working conditions to increase lifetime

Description
Hose suitable for lateral cleaning applications requiring medium high pressure performance and high flexibility for cleaning the smaller sewer pipes.Also available as factory made assemblies: please contact our sales office for further details.

Temperature Range
-40°C to +60°C
(-40°F to +140°F)

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1171	-3	3/16”	5	5,00	0,197	8,50	0,335	175	2500	440	6250	2,5:1	25	0,98	45	0,030	SA1111	SA1811
1172	-4	1/4”	6	6,50	0,256	10,60	0,417	175	2500	440	6250	2,5:1	40	1,57	60	0,040	SA1121	SA1821

ASSEMBLED HOSE PART NUMBER LIST

Part no.	Description	Fittings
EQAXXX	3/16" ECOLOGY 2500 LT	1/4" M/F BSP
EQBXXX	3/16" ECOLOGY 2500 LT	1/4" M/M NPT
EQMXXX	3/16" ECOLOGY 2500 LT	1/4" M/F BSP - AISI A316L
EQNXXX	3/16" ECOLOGY 2500 LT	1/4" M/M NPT - AISI A316L
ERAXXX	1/4" ECOLOGY 2500 LT	1/4" M/F BSP
ERBXXX	1/4" ECOLOGY 2500 LT	1/4" M/M NPT
ERMXXX	1/4" ECOLOGY 2500 LT	1/4" M/F BSP - AISI A316L
ERNXXX	1/4" ECOLOGY 2500 LT	1/4" M/M NPT - AISI A316L

Part no.	Description	Fittings
FQAXXX	3/16" ECOLOGY 2500 LT	1/4" M/F BSP
FQBXXX	3/16" ECOLOGY 2500 LT	1/4" M/M NPT
FQMXXX	3/16" ECOLOGY 2500 LT	1/4" M/F BSP - AISI A316L
FQNXXX	3/16" ECOLOGY 2500 LT	1/4" M/M NPT - AISI A316L
FRAXXX	1/4" ECOLOGY 2500 LT	1/4" M/F BSP
FRBXXX	1/4" ECOLOGY 2500 LT	1/4" M/M NPT
FRMXXX	1/4" ECOLOGY 2500 LT	1/4" M/F BSP - AISI A316L
FRNXXX	1/4" ECOLOGY 2500 LT	1/4" M/M NPT - AISI A316L

XXX = total length of the assembled hoses in meters (1mt = 3,28 ft)

118 Ecology 3000 LT Lateral sewer cleaning hoses

Constant pressure thermoplastic hose for high pressure lateral sewer cleaning applications
Up to 210 bar (3000 psi)

FEATURES

Inner Tube
Polyester elastomer

Reinforcement
Two braids of synthetic fiber

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
— Compact sewer cleaning vehicles and equipment for cleaning smaller residential, commercial and industrial lateral sewer lines used as connection to the main sewer line

Features
— Abrasion resistant
— Compact
— Lightweight and extremely flexible
— Kink resistant
— 2 polyester braid design
— Black cover resistant to humid working conditions to increase lifetime

Description
Hose suitable for lateral cleaning applications requiring high pressure performance and high flexibility for cleaning the smaller sewer pipes. Also available as factory made assemblies: please contact our sales office for further details.

Temperature Range
-40°C to +60°C
(-40°F to +140°F)

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1184	-6	3/8"	10	9,70	0,382	16,00	0,630	210	3000	525	7500	2,5:1	55	2,17	150	0,101	SAB141	SAB841
1185	-8	1/2"	12	13,00	0,512	20,30	0,799	210	3000	525	7500	2,5:1	75	2,95	220	0,148	SAB151	SAB851

ASSEMBLED HOSE PART NUMBER LIST

Part no.	Description	Fittings
ESCXXX	3/8" ECOLOGY 3000 LT	3/8" M/F BSP
ESDXXX	3/8" ECOLOGY 3000 LT	3/8" M/M NPT
ESOXXX	3/8" ECOLOGY 3000 LT	3/8" M/F BSP - AISI A316L
ESPXXX	3/8" ECOLOGY 3000 LT	3/8" M/M NPT - AISI A316L
ETEXXX	1/2" ECOLOGY 3000 LT	1/2" M/F BSP
ETFXXX	1/2" ECOLOGY 3000 LT	1/2" M/M NPT
ETQXXX	1/2" ECOLOGY 3000 LT	1/2" M/F BSP - AISI A316L
ETRXXX	1/2" ECOLOGY 3000 LT	1/2" M/M NPT - AISI A316L

Part no.	Description	Fittings
FSCXXX	3/8" ECOLOGY 3000 LT	3/8" M/F BSP
FSDXXX	3/8" ECOLOGY 3000 LT	3/8" M/M NPT
FSOXXX	3/8" ECOLOGY 3000 LT	3/8" M/F BSP - AISI A316L
FSPXXX	3/8" ECOLOGY 3000 LT	3/8" M/M NPT - AISI A316L
FTEXXX	1/2" ECOLOGY 3000 LT	1/2" M/F BSP
FTFXXX	1/2" ECOLOGY 3000 LT	1/2" M/M NPT
FTQXXX	1/2" ECOLOGY 3000 LT	1/2" M/F BSP - AISI A316L
FTRXXX	1/2" ECOLOGY 3000 LT	1/2" M/M NPT - AISI A316L

XXX = total length of the assembled hoses in meters (1mt = 3,28 ft)

119 Ecology 4000 LT Lateral sewer cleaning hoses

Constant pressure thermoplastic hose for very high pressure lateral sewer cleaning applications
Up to 280 bar (4000 psi)

FEATURES

Inner Tube
Polyester elastomer

Reinforcement
One or two braids of synthetic fiber

Cover
Polyurethane, lime green, black ink-jet branding

Applications
— Compact sewer cleaning vehicles and equipment for cleaning smaller residential, commercial and industrial lateral sewer lines used as connection to the main sewer line

Features
— Lightweight and extremely flexible
— Kink resistant
— Reinforced 2 polyester braid design
— Oversized lime green cover resistant to humid working conditions to increase lifetime and wear

Description
Hose suitable for lateral cleaning applications requiring very high pressure performance and high flexibility for cleaning the smaller sewer pipes.Also available as factory made assemblies: please contact our sales office for further details.

Temperature Range
-40°C to +60°C
(-40°F to +140°F)

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1191	-3	3/16"	5	5,00	0,197	10,40	0,409	280	4000	840	12000	3:1	25	0,98	75	0,050	SAB111	SAB811
1192	-4	1/4"	6	6,50	0,256	12,90	0,508	280	4000	840	12000	3:1	35	1,38	115	0,077	SAB121	SAB821
1194	-6	3/8"	10	9,70	0,382	17,50	0,689	280	4000	840	12000	3:1	45	1,77	190	0,128	SAC141	SAC841
1195	-8	1/2"	12	13,00	0,512	23,20	0,913	280	4000	840	12000	3:1	70	2,76	325	0,218	SA5151	SA5851

ASSEMBLED HOSE PART NUMBER LIST

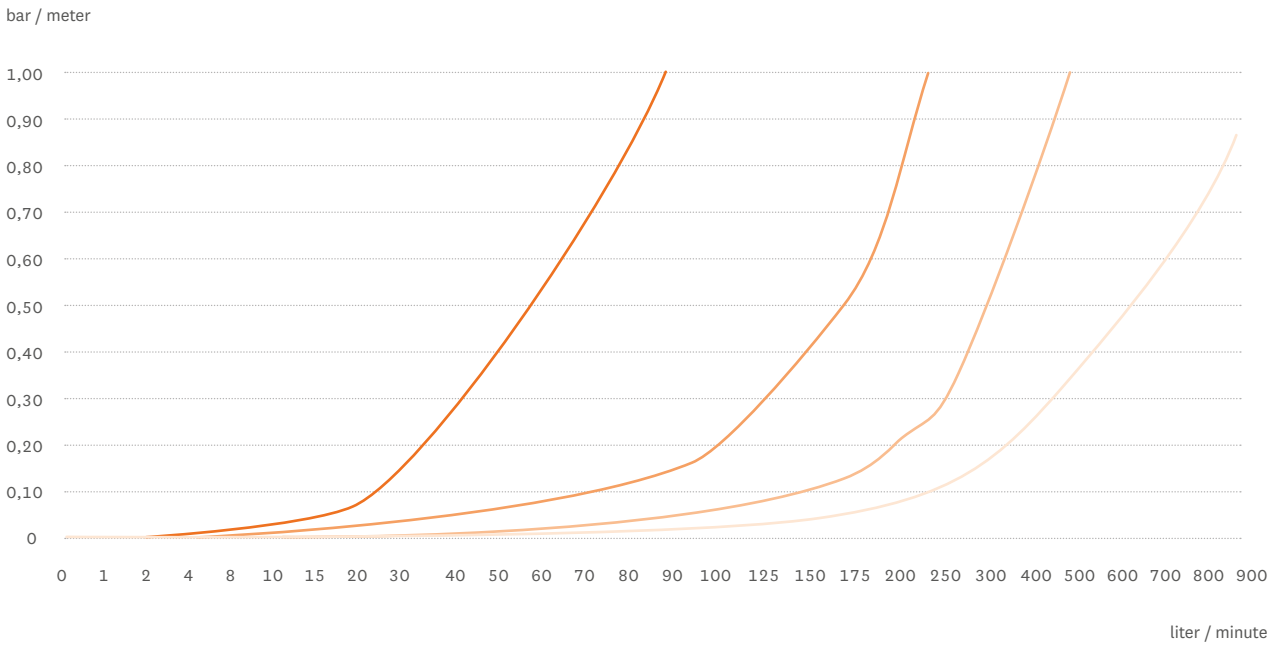
Part no.	Description	Fittings
EUAXXX	3/16" ECOLOGY 4000 LT	1/4" M/F BSP
EUBXXX	3/16" ECOLOGY 4000 LT	1/4" M/M NPT
EUMXXX	3/16" ECOLOGY 4000 LT	1/4" M/F BSP - AISI A316L
EUNXXX	3/16" ECOLOGY 4000 LT	1/4" M/M NPT - AISI A316L
EVAXXX	1/4" ECOLOGY 4000 LT	1/4" M/F BSP
EVBXXX	1/4" ECOLOGY 4000 LT	1/4" M/M NPT
EVMXXX	1/4" ECOLOGY 4000 LT	1/4" M/F BSP - AISI A316L
EVNXXX	1/4" ECOLOGY 4000 LT	1/4" M/M NPT - AISI A316L
EWCXXX	3/8" ECOLOGY 4000 LT	3/8" M/F BSP
EWDXXX	3/8" ECOLOGY 4000 LT	3/8" M/M NPT
EWOXXX	3/8" ECOLOGY 4000 LT	3/8" M/F BSP - AISI A316L
EWPXXX	3/8" ECOLOGY 4000 LT	3/8" M/M NPT - AISI A316L
EXEXXX	1/2" ECOLOGY 4000 LT	1/2" M/F BSP
EXFXXX	1/2" ECOLOGY 4000 LT	1/2" M/M NPT
EXQXXX	1/2" ECOLOGY 4000 LT	1/2" M/F BSP - AISI A316L
EXRXXX	1/2" ECOLOGY 4000 LT	1/2" M/M NPT - AISI A316L

Part no.	Description	Fittings
FUAXXX	3/16" ECOLOGY 4000 LT	1/4" M/F BSP
FUBXXX	3/16" ECOLOGY 4000 LT	1/4" M/M NPT
FUMXXX	3/16" ECOLOGY 4000 LT	1/4" M/F BSP - AISI A316L
FUNXXX	3/16" ECOLOGY 4000 LT	1/4" M/M NPT - AISI A316L
FVAXXX	1/4" ECOLOGY 4000 LT	1/4" M/F BSP
FVBXXX	1/4" ECOLOGY 4000 LT	1/4" M/M NPT
FVMXXX	1/4" ECOLOGY 4000 LT	1/4" M/F BSP - AISI A316L
FVNXXX	1/4" ECOLOGY 4000 LT	1/4" M/M NPT - AISI A316L
FWCXXX	3/8" ECOLOGY 4000 LT	3/8" M/F BSP
FWDXXX	3/8" ECOLOGY 4000 LT	3/8" M/M NPT
FWOXXX	3/8" ECOLOGY 4000 LT	3/8" M/F BSP - AISI A316L
FWPXXX	3/8" ECOLOGY 4000 LT	3/8" M/M NPT - AISI A316L
FXEXXX	1/2" ECOLOGY 4000 LT	1/2" M/F BSP
FXFXXX	1/2" ECOLOGY 4000 LT	1/2" M/M NPT
FXQXXX	1/2" ECOLOGY 4000 LT	1/2" M/F BSP - AISI A316L
FXRXXX	1/2" ECOLOGY 4000 LT	1/2" M/M NPT - AISI A316L

XXX = total length of the assembled hoses in meters (1mt = 3,28 ft)

Ecology Cleaning Hoses

PRESSURE DROP



Hose size

- 1/2”
- 3/4”
- 1”
- 1”+1/4”

Ecoleader Sewer Cleaning Leader hose

Increase the lifetime of the main high pressure sewer cleaning hose!

Transfer Oil ECOLEADER Sewer Leader Hoses are thermoplastic or rubber hose assemblies, factory made, from 1 meter to 20 meters long (from 4 feet to 66 feet long), fitted with male/female BSP or NPT/NPSM fittings.

ECOLEADER Sewer Leader Hoses are designed to have the same (or higher) high pressure working rating and minimum burst rating as the main high pressure sewer cleaning hose.

MAIN BENEFITS

- Increase the lifetime of the main high pressure sewer cleaning hose
- Increased maneuverability of the main pressure sewer cleaning hose
- Increased safety for the operator in the field

APPLICATIONS

		Construction	Color	Size	WP	BP
ECOLEADER 250 RS		Rubber core and cover with steel reinforcement	black	1/2" to 1"	250 bar 3600 psi	625 bar 9000 psi
ECOLOGY 2500 NAM		Thermoplastic core and cover with synthetic fiber reinforcement	orange	1/2" to 1+1/4"	175 bar 2500 psi	438 bar 6250 psi
ECOLOGY 200 EL		Thermoplastic core and cover with synthetic fiber reinforcement	orange	1/2" to 1+1/4"	200 bar 2900 psi	500 bar 7250 psi
ECOLOGY 210 HD		Thermoplastic core and cover with synthetic fiber reinforcement	blue	3/4" to 1+1/4"	210 bar 3000 psi	525 bar 7500 psi
ECOLOGY 250 HD		Thermoplastic core and cover with aramid fiber reinforcement	red	1/2" to 1+1/4"	250 bar 3600 psi	625 bar 9000 psi

133 Hortitech LFC

Thermoplastic hose for water and medium pressure marine hydraulic applications
Up to 90 bar (1300 psi)

FEATURES

Inner Tube
Polyester elastomer

Reinforcement
One braid of synthetic fiber

Cover
LFC Polyurethane

Applications
- Greenhouse cleaning
- Horticulture
- Water distribution
- Misting and spraying equipment
- Equipment used in high humidity environments
- General hydraulics
- Industrial gases

Features
- Matt low friction cover LFC resistant to hydrolysis, moisture and microbiological attack
- Bonded construction
- Abrasion resistant
- Lightweight
- Limited change in length
- Pinpricked cover

Description
Medium pressure hose with a matt black Low Friction type cover. Ideal for usage on applications where lightweight, flexibility and low friction properties are required. Typical examples are horticulture applications however the inner polyester tube and pinpricked cover make it also usable for medium pressure hydraulic (e.g. pilot) and industrial gas applications (check equipment safety factor requirements).

Temperature Range
-40°C to +100°C
(-40°F to +212°F)
Limited to +70°C (+158°F)
for air and water based fluids

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1332	-4	1/4"	6	6,50	0,256	10,60	0,417	90	1300	270	3900	3:1	40	1,57	60	0,040	SA1121	SA1821
1334	-6	3/8"	10	9,70	0,382	14,50	0,571	90	1300	270	3900	3:1	50	1,97	105	0,071	SA1141	SA1841
1335	-8	1/2"	12	13,00	0,512	18,50	0,728	90	1300	270	3900	3:1	80	3,15	155	0,104	SA1151	SA1851
1336	-10	5/8"	16	16,30	0,642	22,80	0,898	90	1300	270	3900	3:1	120	4,72	235	0,158	SA1161	SA1861
1337	-12	3/4"	20	19,6	0,772	27,5	1,083	90	1300	270	3900	3:1	180	7,08	330	0,222	SA1171	SA1871

129 Water Delivery Hose

Thermoplastic hose for water delivery applications in remote locations
From 70 to 140 bar (1000 to 2000 psi)

FEATURES

Inner Tube
Polyester elastomer.

Reinforcement
Two braids of synthetic fiber

Cover
Polyurethane, black, pinpricked, white ink-jet branding

Applications
— Water supply to remote and/or mountainous areas with a difference in altitude

Features
— Flavour free materials suitable for food applications
— Long lengths
— Lightweight compared to rubber hose alternatives

Description
Water delivery hose available in long lengths up to 300 meters / 1000 feet for high pressure pumping installations where high pressure is needed to reach higher altitude. The flavour free inner tube suitable for food applications eliminates possible contamination of drinking water and ensures longevity.

Temperature Range
-40°C to +60°C
(-40°F to +140°F)

Specifications
Meets or exceeds pressure specifications of SAE 100R7 / EN855-R7 / ISO 3949-R7.
The constituents of the hose liner material meets the requirements of FDA regulations under code 21 CFR and European Directive EU 10/2011

APPLICATIONS

PACKAGING

Part No.	Hose size			ID		OD		WP		BP		Safety factor	Bend radius		Weight		Ferrule part no.	
	dash	inch	DN	mm	inch	mm	inch	bar	psi	bar	psi		mm	inch	g/m	lbs/ft	carbon	stainless
1295	-8	1/2"	12	13,00	0,512	20,30	0,799	140	2000	560	8000	4:1	75	2,95	215	0,144	SAB151	SAB851
1296	-10	5/8"	16	16,30	0,642	23,70	0,933	105	1500	420	6000	4:1	110	4,33	275	0,185	SAB161	SAB861
1297	-12	3/4"	20	19,50	0,768	27,10	1,067	90	1300	360	5200	4:1	140	5,51	330	0,222	SAB171	SAB871
1298	-16	1"	25	25,90	1,020	34,00	1,339	70	1000	280	4000	4:1	190	7,48	445	0,299	SAB181	SAB881

FITTINGS

SXA001 Multiline Hose Splitter

A very flexible tool for splitting twin hose, triple hose and hose with different dimensions and braiding structures

Part No.	Max dimensions (mm)	Weight including blade
SXA001	210 x 240 x 150 h	3360 gr

1.

Position the SXA001 hose splitter in a bench vice and grip firmly. Spread the rollers apart.

2.

Lubricate the top of the cutting blade with grease.

3.

Hold the hose with both hands and push downwards until the blade has completely penetrated between the hoses.

4.

Firmly support the hose keeping it parallel with the reference lines and held in position by the rollers.

5.

Lubricate the space between the two hoses with a small quantity of oil.

6.

Hold the hose and pull slowly being careful to keep the hose in a horizontal position.

7.

Always wear proper safety equipment.

SXB001 Spare Blade

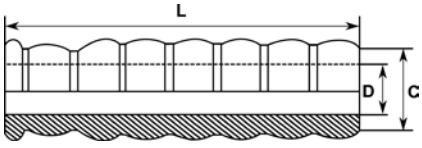
Spare blade for multiline hose splitter

Part No.	Description
SXB001	Spare Blade

SXC Go No Go Gauge

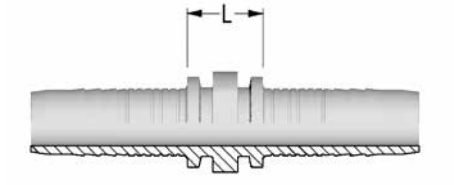
Part No.	Hose size		GO	NO GO
	DN	inch		
SXC801	4	1/8"	1,5	1,8
SXC811	5	3/16"	2,4	2,6
SXC821	6	1/4"	3,1	3,4
SXC831	8	5/16"	4,1	4,5
SXC841	10	3/8"	6,1	6,5
SXC851	12	1/2"	7,8	8,3
SXC852	12	1/2"	8	8,4
SXC861	16	5/8"	10,1	10,8
SXC871	20	3/4"	13,2	13,8
SXC872	20	3/4"	13	13,5
SXC873	20	3/4"	12,7	13,2
SXC881	25	1"	19	19,6
SXC882	25	1"	18,4	18,9

SRM Kink Protector



Part No.	Hose size		C	D	L
	DN	inch	mm	mm	mm
SRM921 BLACK	DN6	1/4"	29	16	118
SRM941 BLACK	DN10	3/8"	35	21	128
SRM922 BLUE	DN6	1/4"	29	16	118
SRM942 BLUE	DN10	3/8"	35	21	128

SN7 Hose Mender



Part No.	Description	Hose size	
		DN	inch
SN7122	1/4" HOSE MENDER C 1/4"	6	1/4"
SN7133	5/16" HOSE MENDER C 5/16"	8	5/16"
SN7144	3/8" HOSE MENDER C 3/8"	10	3/8"
SN7155	1/2" HOSE MENDER C 1/2"	12	1/2"
SN7166	5/8" HOSE MENDER C 5/8"	16	5/8"
SN7177	3/4" HOSE MENDER C 3/4"	20	3/4"
SN7188	1" HOSE MENDER C 1"	25	1"
SN7199	1+1/4" HOSE MENDER C 1+1/4"	32	1"+1/4

Range of Products

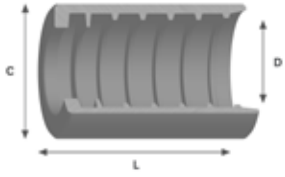
Following a major review of our product offering of TO Fittings & Ferrules we have made substantial investments into the redesign and testing of an all new ferrule range for our most popular Hose families, the SAE 100 R7, SAE100R8, etc.

We have extended the range of our Standard commercial fittings and ferrules and for our exclusive design of vhp inserts & ferrules we now include the most popular JIC and Metric configurations. All of the most popular Standard and VHP Insert and ferrule combinations will be made available as standard plated carbon steel and 316L stainless steel variants.

Ferrules and Inserts will be packed in Transfer Oil Boxes and will be supplied in stated box quantities only (or multiples of the box quantity). These major investments are all fully supported by an extensive stocking program for both standard and stainless steel variants that will ensure a speedy and reliable turnaround to complement our Hose availability.

Our Website Catalogue is fully updated with these important changes and additions.

SAB Crimping Ferrule TP-B



Carbon STEEL	AISI 316L STEEL	Description	Hoze Size		C	D	L
Part. No	Part. No		DN	inch	mm	mm	mm
SAB101	SAB801	1/8" FERRULE TP-B	4	1/8"	12	9	20
SAB111	SAB811	3/16" FERRULE TP-B	5	3/16"	15	11,2	25
SAB121	SAB821	1/4" FERRULE TP-B	6	1/4"	18	13,5	30
SAB131	SAB831	5/16" FERRULE TP-B	8	5/16"	21	16	30
SAB141	SAB841	3/8" FERRULE TP-B	10	3/8"	22	17	31
SAB151	SAB851	1/2" FERRULE TP-B	12	1/2"	26	20,5	34
SAB161	SAB861	5/8" FERRULE TP-B	16	5/8"	30	25,5	40
SAB171	SAB871	3/4" FERRULE TP-B	20	3/4"	33	28,5	42
SAB181	SAB881	1" FERRULE TP-B	25	1"	41	35,5	50

Ferrule selection by hose family

All ferrules are available both with standard and AISI 316L Steel

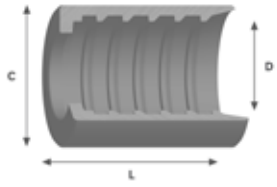
AISI 316L STEEL	SAB801	SAB811	SAB821	SAB831	SAB841	SAB851	SAB861	SAB871	SAB881	-
CARBON STEEL	SAB101	SAB111	SAB121	SAB131	SAB141	SAB151	SAB161	SAB171	SAB181	-
	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1+1/4"
HYDRAULIC										
092 PILOT FL	•									
066 R7 ANTIABRASION	•	•	•	•	•	•	•	•	•	
062 R7 LFC ANTIABRASION		•	•	•	•	•				
095 R7 NON CONDUCTIVE		•	•	•	•	•	•	•	•	
052 R7 MARINER	•	•	•	•	•	•	•	•	•	
053 R7 YACHTING		•	•	•	•	•				

Ferrule selection by hose family

All ferrules are available both with standard and AISI 316L Steel

	AISI 316L STEEL	SAB801	SAB811	SAB821	SAB831	SAB841	SAB851	SAB861	SAB871	SAB881	-
	CARBON STEEL	SAB101	SAB111	SAB121	SAB131	SAB141	SAB151	SAB161	SAB171	SAB181	-
		1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1+1/4"
097 R7 EXTRA TOUGH			•	•		•					
166 A92.2 ANTIABRASION		•	•	•	•	•	•	•	•	•	
195 A92.2 NON CONDUCTIVE			•	•	•	•	•	•	•	•	
075 R8 ANTIABRASION		•	•	•	•	•	•	•	•	•	
126 R8 NON CONDUCTIVE			•	•	•	•	•	•	•	•	
054 R8 MARINER		•	•	•	•	•	•	•	•	•	
055 R8 YACHTING			•	•	•	•	•				
076 R8 EXTRA TOUGH			•	•	•	•					
125 R18 CPLT 3000 LOW TEMPERATURE			•	•	•	•					
155 R18 CPLT 3000 NC LOW TEMP. NON COND.			•	•	•	•					
153 CPLT 3600 LOW TEMPERATURE			•	•	•						
156 CPLT 3600 NC LOW TEMP. NON COND.			•	•	•						
154 CPLT 5000 LOW TEMPERATURE			•								
087 1SB ANTIABRASION			•	•	•	•	•	•	•	•	
056 1SB MARINER			•	•	•	•	•	•	•	•	
058 1SB YACHTING			•	•	•	•	•				
INDUSTRIAL											
130A GREASING HOSE 4mm x 8mm		•									
130C GREASING HOSE 4mm x 8mm		•									
140A BEVERAGE DISPENSING 200 TEXILE REINFORCEMENT				•							
140B BEVERAGE DISPENSING 300 STEEL REINFORCEMENT				•							
140A BEVERAGE DISPENSING 350 ARAMID REINFORCEMENT				•							
120 AIR CYLINDER FILLING 6000			•	•							
050 SB CO_2 FIRE EXTINGUISHING SYSTEMS			•	•	•	•	•	•			
127 R8 PAINT SPRAY & SOLVENTS			•	•		•	•				
098 R7 PAINT SPRAY & SOLVENTS			•	•		•	•				
157 CPPA 3600 PAINT SPRAY ANTISTATIC			•	•							
158 R8 PAINT SPRAY ANTISTATIC			•	•		•					
083 1SB PAINT SPRAY & SOLVENTS			•	•		•	•		•		
083BP 1SB PAINT SPRAY & SOLVENTS			•	•		•	•		•		
031 PTFE 1 SSB ST. STEEL BRAID CONV.									•		
119 ECOLOGY 4000 LT			•	•							
118 ECOLOGY 3000 LT						•	•				
129 WATER DELIVERY HOSE							•	•	•	•	

SAC Crimping Ferrule TP-C



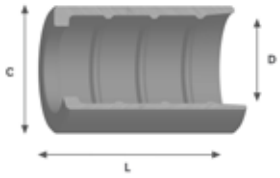
Carbon STEEL	AISI 316L STEEL	Description	Hoze Size		C	D	L
Part. No	Part. No		DN	inch	mm	mm	mm
SAC111	SAC811	3/16" FERRULE TP-C	5	3/16"	17	13	26,5
SAC121	SAC821	1/4" FERRULE TP-C	6	1/4"	20	14,7	31
SAC131	SAC831	5/16" FERRULE TP-C	8	5/16"	22	16	30
SAC141	SAC841	3/8" FERRULE TP-C	10	3/8"	24	18,5	31
SAC151	SAC851	1/2" FERRULE TP-C	12	1/2"	28,5	22	34
SAC161	SAC861	5/8" FERRULE TP-C	16	5/8"	32	25,2	40
SAC171	SAC871	3/4" FERRULE TP-C	20	3/4"	36	29	43
SAC181	SAC881	1" FERRULE TP-C	25	1"	43	37	50

Ferrule selection by hose family

All ferrules are available both with standard and AISI 316L steel

AISI 316L STEEL	SAC801	SAC811	SAC821	SAC831	SAC841	SAC851	SAC861	SAC871	SAC881	-
CARBON STEEL	SAC101	SAC111	SAC121	SAC131	SAC141	SAC151	SAC161	SAC171	SAC181	-
	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1+1/4"
HYDRAULIC										
085 2SB ANTIABRASION			•	•	•	•	•	•		
153 CPLT 3600 LOW TEMPERATURE					•					
156 CPLT 3600 NC LOW TEMP. NON COND.					•					
154X CPLT 5000 CONSTANT PRESSURE LOW TEMP			•		•					
150X HDH HEAVY DUTY HYDRAULIC STEEL ARMOURED			•		•	•				
108X HR8 HYBRID REINFORCEMENT			•		•	•				
109X CPHR 5000 CONSTANT PRESSURE HYBRID REINF.			•		•	•				
INDUSTRIAL										
157 CPPA 3600 CONSTANT PRESSURE PAINT SPRAY ANTISTATIC					•					
081X 2SB TWO STEEL BRAIDS PAINT SPRAY & SOLVENTS			•		•	•		•		
181X 2SB TWO STEEL BRAIDS AGGRESSIVE CHEMICALS			•		•	•	•	•	•	
119X ECOLOGY 4000 LT LATERAL SEWER CLEANING HOSE					•					
07BX POWER WASH STEEL			•	•	•					

SA1 Crimping Ferrule TP-1



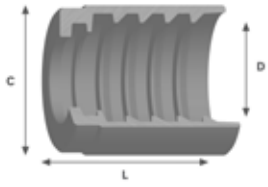
Carbon STEEL	AISI 316L STEEL	Description	Hoze Size		C	D	L
Part. No	Part. No		DN	inch	mm	mm	mm
SA1111	SA1811	3/16" FERRULE TP-1	5	3/16"	14	10,5	27
SA1121	SA1821	1/4" FERRULE TP-1	6	1/4"	17	13,5	29
SA1131	SA1831	5/16" FERRULE TP-1	8	5/16"	19	15,2	30
SA1141	SA1841	3/8" FERRULE TP-1	10	3/8"	21	16,8	31
SA1151	SA1851	1/2" FERRULE TP-1	12	1/2"	26	20,5	34
SA1161	SA1861	5/8" FERRULE TP-1	16	5/8"	29	24,5	40
SA1171	SA1871	3/4" FERRULE TP-1	20	3/4"	28,5	33	42
SA1181	SA1881	1" FERRULE TP-1	25	1"	40	34,5	50

Ferrule selection by hose family

All ferrules are available both with standard and AISI 316L steel

AISI 316L STEEL	SA1811	SA1821	SA1831	SA1841	SA1851	SA1861	SA1871	SA1881	-
CARBON STEEL	SA1111	SA1121	SA1131	SA1141	SA1151	SA1161	SA1171	SA1181	-
	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1+1/4"
HYDRAULIC									
092 PILOT FL	•	•	•	•	•				
INDUSTRIAL									
117 ECOLOGY 2500 LT	•	•							
133 HORTITECH		•		•	•	•	•		

SA5 Crimping Ferrule TP-5



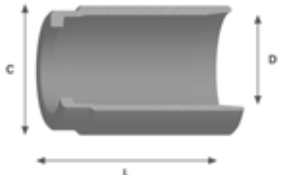
Carbon STEEL	AISI 316L STEEL	Description	Hoze Size		C	D	L
Part. No	Part. No		DN	inch	mm	mm	mm
SA5141	SA5841	3/8" FERRULE TP-5	10	3/8"	26	19,7	31
SA5151	SA5851	1/2" FERRULE TP-5	12	1/2"	30	24	34
SA5161	SA5861	5/8" FERRULE TP-5	16	5/8"	35	26,4	37
SA5171	SA5871	3/4" FERRULE TP-5	20	3/4"	39	30,8	43
SA5181	SA5881	1" FERRULE TP-5	25	1"	47	40,4	50
SA5191	SA5891	1+1/4" FERRULE TP-5	32	1+1/4"	58	50,5	58,5

Ferrule selection by hose family

All ferrules are available both with standard and AISI 316L steel

AISI 316L STEEL					SA5841	SA5851	SA5861	SA5871	SA5881	-
CARBON STEEL					SA5141	SA5151	SA5161	SA5171	SA5181	-
	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1+1/4"
HYDRAULIC										
150 HDH HEAVY DUTY								•		
097 R7 EXTRA TOUGH						•				
076 R8 EXTRA TOUGH						•	•			
125 R18 CPLT 3000 CONSTANT PRESSURE LOW TEMP						•	•			
155 R18 CPLT 3000 NC CONSTANT PRESSURE LOW TEMP NON COND.						•	•			
154 CPLT 5000 CONSTANT PRESSURE LOW TEMP						•				
INDUSTRIAL										
159X CNG 5000 COMPRESSED NATURAL GAS HOSE					•					
100 ECOLOGY 2500 NAM+						•	•	•	•	•
101 ECOLOGY 200 EL+						•	•	•	•	•
110 ECOLOGY 210 HD+								•	•	•
113 ECOLOGY 250 HD+						•		•	•	•
119 ECOLOGY 4000 LT LATERAL SEWER CLEANING HOSE						•				

SAG Crimping Ferrule 1SSB PTFE

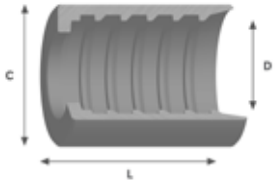


Carbon STEEL	Description	Hoze Size		C	D	L
Part. No		DN	inch	mm	mm	mm
SAG111	3/16" FERRULE 1SSB PTFE	5	3/16"	13	10,7	27
SAG121	1/4" FERRULE 1SSB PTFE	6	1/4"	17	14	29
SAG131	5/16" FERRULE 1SSB PTFE	8	5/16"	19	15,7	30
SAG141	3/8" FERRULE 1SSB PTFE	10	3/8"	21,5	18,4	31
SAG151	1/2" FERRULE 1SSB PTFE	12	1/2"	26	21,9	34
SAG161	5/8" FERRULE 1SSB PTFE	16	5/8"	29	26	40
SAG171	3/4" FERRULE 1SSB PTFE	20	3/4"	32	29	42
SAG181	1" FERRULE 1SSB PTFE	25	1"	40	36	50

Ferrule selection by industrial hose family

	CARBON STEEL		SAG111	SAG121	SAG131	SAG141	SAG151	SAG161	SAG171	SAG181	-
		1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1+1/4"
HYDRAULIC											
030 PTFE 1SSB			•	•	•	•	•	•	•	•	

SA3 Crimping Ferrule TP-3

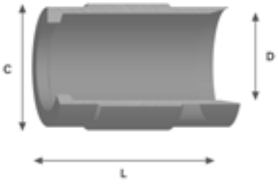


Carbon STEEL	Description	Hoze Size		C	D	L
Part. No		DN	inch	mm	mm	mm
SA3111	3/16" FERRULE TP-3 CO2	5	3/16"	15	10,5	26,7
SA3122	1/4" FERRULE TP-3 CO2	6	1/4"	17	13,5	29
SA3132	5/16" FERRULE TP-3 CO2	8	5/16"	19	15,2	30
SA3141	3/8" FERRULE TP-3 CO2	10	3/8"	21	16,8	31
SA3152	1/2" FERRULE TP-3 CO2	12	1/2"	25,5	20,8	34
SA3162	5/8" FERRULE TP-3 CO2	16	5/8"	32	25	37,5

Ferrule selection by Industrial hose family

	CARBON STEEL	SA3101	SA3111	SA3121	SA3131	SA3141	SA3151	SA3161	SA3171	SA3181	-
		1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1+1/4"
050 STEEL BRAID CO_2 FIRE EXT. SYSTEM			•	•	•	•	•	•			

SAI Crimping Ferrule 1SSB PTFE Convoluted



Carbon STEEL	AISI 316L STEEL	Description	Hoze Size		C	D	L
Part. No	Part. No		DN	inch	mm	mm	mm
SAI141	SAI841	3/8" FERRULE 1SSB PTFE CONV	10	3/8"	20	17	28,5
SAI151	SAI851	1/2" FERRULE 1SSB PTFE CONV	12	1/2"	24	20,5	30
SAI161	SAI861	5/8" FERRULE 1SSB PTFE CONV	16	5/8"	28	24,8	33,5
SAI171	SAI871	3/4" FERRULE 1SSB PTFE CONV	20	3/4"	32,5	29,6	38
SAI181	SAI881	1" FERRULE 1SSB PTFE CONV	25	1"	38,9	34,5	47
SAI191	SAI891	1+1/4" FERRULE 1SSB PTFE CONV	32	1+1/4"	50	41	53
SAI1T1	SAI8T1	1+1/2" FERRULE 1SSB PTFE CONV	39	1+1/2"	55	47	57
SAI1X1	SAI8X1	2" FERRULE 1SSB PTFE CONV	50	2"	68,7	61,5	70

Ferrule selection by Industrial hose family

All ferrules are available both with standard and AISI 316L steel

	AISI 316L STEEL	SAI841	SAI851	SAI861	SAI871	SAI881	SAI891	SAI8T1	SAI8X1
	CARBON STEEL	SAI101	SAI111	SAI121	SAI131	SAI141	SAI151	SAI1T1	SAI1X1
		3/8"	1/2"	5/8"	3/4"	1"	1+1/4"	1+1/2"	2"
031 PTFE 1SSB CONVOLUTED		•	•	•	•	•	•	•	•

Standard BSPP British Standard Pipe Parallel

Popular couplings British Standard Pipe (BSP) threads, also known as Whitworth threads.

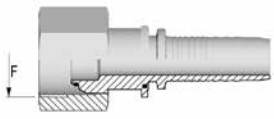
The BSPP (parallel) male will mate with a BSPP (parallel) female or a female port. Both the BSPP male and female have straight threads and a 30° seat.

The female swivel BSPP has a tapered nose which seals on the cone seat of the male.

The BSPP (parallel) connector is similar to, but not interchangeable with, the NPSM connector.

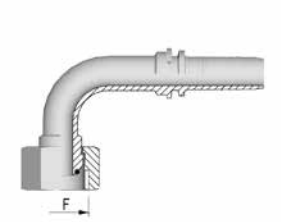
The thread pitch is different in most sizes, and the thread angle is 55° instead of the 60° angle found on NPSM threads.

SBH F-BSPP C Straight Female BSPP 60°



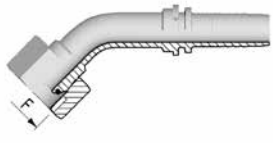
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SBH100	-	1/8" F-BSPP C 1/8"	20 pcs	4	1/8"	1/8"	28
SBH120	-	1/4" F-BSPP C 1/8"	20 pcs	4	1/8"	1/4"	19
SBH121	SBH821	1/4" F-BSPP C 3/16"	20 pcs	5	3/16"	1/4"	19
SBH122	SBH822	1/4" F-BSPP C 1/4"	20 pcs	6	1/4"	1/4"	19
SBH142	SBH842	3/8" F-BSPP C 1/4"	20 pcs	6	1/4"	3/8"	19
SBH152	-	1/2" F-BSPP C 1/4"	20 pcs	6	1/4"	1/2"	14
SBH143	SBH843	3/8" F-BSPP C 5/16"	20 pcs	8	5/16"	3/8"	19
SBH153	-	1/2" F-BSPP C 5/16"	20 pcs	8	5/16"	1/2"	14
SBH144	SBH844	3/8" F-BSPP C 3/8"	20 pcs	10	3/8"	3/8"	19
SBH154	SBH854	1/2" F-BSPP C 3/8"	20 pcs	10	3/8"	1/2"	14
SBH145	SBH845	3/8" F-BSPP C 1/2"	20 pcs	12	1/2"	3/8"	19
SBH155	SBH855	1/2" F-BSPP C 1/2"	20 pcs	12	1/2"	1/2"	14
SBH156	SBH856	1/2" F-BSPP C 5/8"	2 pcs	16	5/8"	1/2"	14
SBH166	SBH866	5/8" F-BSPP C 5/8"	2 pcs	16	5/8"	5/8"	14
SBH177	SBH877	3/4" F-BSPP C 3/4"	2 pcs	20	3/4"	3/4"	14
SBH188	SBH888	1" F-BSPP C 1"	2 pcs	25	1"	1"	11
SBH199	SBH899	1+1/4" F-BSPP C 1+1/4"	2 pcs	32	1+1/4"	1+1/4"	11

SCH F90-BSPP C Elbow Female BSPP 60°



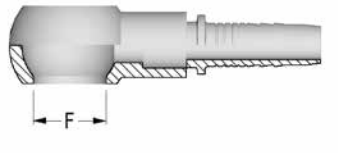
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SCH121	SCH821	1/4" F90-BSPP C 3/16"	20 pcs	5	3/16"	1/4"	19
SCH122	SCH822	1/4" F90-BSPP C 1/4"	20 pcs	6	1/4"	1/4"	19
SCH142	SCH842	3/8" F90-BSPP C 1/4"	20 pcs	6	1/4"	3/8"	19
SCH143	SCH843	3/8" F90-BSPP C 5/16"	20 pcs	8	5/16"	3/8"	19
SCH153	-	1/2" F90-BSPP C 5/16"	20 pcs	8	5/16"	1/2"	14
SCH144	SCH844	3/8" F90-BSPP C 3/8"	20 pcs	10	3/8"	3/8"	19
SCH154	SCH854	1/2" F90-BSPP C 3/8"	20 pcs	10	3/8"	1/2"	14
SCH145	-	3/8" F90-BSPP C 1/2"	20 pcs	12	1/2"	3/8"	19
SCH155	SCH855	1/2" F90-BSPP C 1/2"	20 pcs	12	1/2"	1/2"	14
SCH156	-	1/2" F90-BSPP C 5/8"	2 pcs	16	5/8"	1/2"	14
SCH166	SCH866	5/8" F90-BSPP C 5/8"	2 pcs	16	5/8"	5/8"	14
SCH177	SCH877	3/4" F90-BSPP C 3/4"	2 pcs	20	3/4"	3/4"	14
SCH188	SCH888	1" F90-BSPP C 1"	2 pcs	25	1"	1"	11
SCH199	SCH899	1+1/4" F90-BSPP C 1+1/4"	2 pcs	32	1+1/4"	1+1/4"	11

SCS SCS - F45-BSPP C 45° Female BSPP 60°



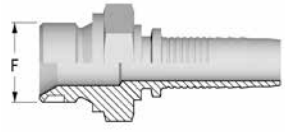
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SCS121	SCS821	1/4" F90-BSPP C 3/16"	20 pcs	5	3/16"	1/4"	19
SCS122	SCS822	1/4" F45-BSPP C 1/4"	20 pcs	6	1/4"	1/4"	19
SCS142	SCS842	3/8" F45-BSPP C 1/4"	20 pcs	6	1/4"	3/8"	19
SCS143	SCS843	3/8" F45-BSPP C 5/16"	20 pcs	8	5/16"	3/8"	19
SCS144	SCS844	3/8" F45-BSPP C 3/8"	20 pcs	10	3/8"	3/8"	19
SCS154	SCS854	1/2" F45-BSPP C 3/8"	20 pcs	10	3/8"	1/2"	14
SCS145	-	3/8" F45-BSPP C 1/2"	20 pcs	12	1/2"	3/8"	19
SCS155	SCS855	1/2" F45-BSPP C 1/2"	20 pcs	12	1/2"	1/2"	14
SCS177	SCS877	3/4" F45-BSPP C 3/4"	2 pcs	20	3/4"	3/4"	14
SCS188	SCS888	1" F45-BSPP C 1"	2 pcs	25	1"	1"	11
SCS199	SCS899	1+1/4" F45-BSPP C 1+1/4"	2 pcs	32	1"1/4	1"1/4	11

SEM B-BSPP C Banjo BSPP 60°



Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SEM121	-	1/4" B-BSPP C 3/16"	20 pcs	5	3/16"	1/4"	19
SEM122	SEM822	1/4" B-BSPP C 1/4"	20 pcs	6	1/4"	1/4"	19
SEM124	-	1/4" B-BSPP C 3/8"	20 pcs	6	1/4"	3/8"	19
SEM144	SEM844	3/8" B-BSPP C 3/8"	20 pcs	8	5/16"	3/8"	19
SEM154	SEM854	1/2" B-BSPP C 3/8"	20 pcs	10	3/8"	3/8"	19
SEM155	SEM855	1/2" B-BSPP C 1/2"	20 pcs	12	1/2"	3/8"	19

SDA M-BSPP C Parallel Male BSPP 60°



Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SDA100	-	1/8" M-BSPP C 1/8"	20 pcs	4	1/8"	1/8"	28
SDA120	-	1/4" M-BSPP C 1/8"	20 pcs	4	1/8"	1/4"	19
SDA121	-	1/4" M-BSPP C 3/16"	20 pcs	5	3/16"	1/4"	19
SDA122	SDA822	1/4" M-BSPP C 1/4"	20 pcs	6	1/4"	1/4"	19
SDA142	SDA842	3/8" M-BSPP C 1/4"	20 pcs	6	1/4"	3/8"	19
SDA152	-	1/2" M-BSPP C 1/4"	20 pcs	6	1/4"	1/2"	14
SDA143	SDA843	3/8" M-BSPP C 5/16"	20 pcs	8	5/16"	3/8"	19
SDA144	SDA844	3/8" M-BSPP C 3/8"	20 pcs	10	3/8"	3/8"	19
SDA154	SDA854	1/2" M-BSPP C 3/8"	20 pcs	10	3/8"	1/2"	14
SDA145	-	3/8" M-BSPP C 1/2"	20 pcs	12	1/2"	3/8"	19
SDA155	SDA855	1/2" M-BSPP C 1/2"	20 pcs	12	1/2"	1/2"	14
SDA166	SDA866	5/8" M-BSPP C 5/8"	2 pcs	16	5/8"	5/8"	14
SDA177	SDA877	3/4" M-BSPP C 3/4"	2 pcs	20	3/4"	3/4"	14
SDA188	SDA888	1" M-BSPP C 1"	2 pcs	25	1"	1"	11
SDA199	SDA899	1+1/4" M-BSPP C 1+1/4"	2 pcs	32	1"1/4	1"1/4	11

Standard BSPT British Standard Pipe Tapered

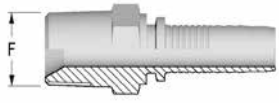
The BSPT (tapered) male will mate with a BSPT (tapered) female, or a BSPP (parallel) female.

The BSPT male has tapered threads. When mating with either the BSPT (tapered) female or the BSPP (parallel) female port, the seal is made on the threads accomplished by thread distortion.
A thread sealant is recommended.

The BSPT connector is similar to, but not interchangeable with, the NPT connector.

The thread pitch is different in most cases, and the thread angle is 55° instead of the 60° angle found on NPT threads.

SDG M-BSPT C Tapered Male BSPT 60°



Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SDG121	-	1/4" M-BSPT C 3/16"	20 pcs	5	3/16"	1/4"	19
SDG122	SDG822	1/4" M-BSPT C 1/4"	20 pcs	6	1/4"	1/4"	19
SDG142	SDG842	3/8" M-BSPT C 1/4"	20 pcs	6	1/4"	3/8"	19
SDG152	-	1/2" M-BSPT C 1/4"	20 pcs	6	1/4"	1/2"	14
SDG143	SDG843	3/8" M-BSPT C 5/16"	20 pcs	8	5/16"	3/8"	19
SDG144	SDG844	3/8" M-BSPT C 3/8"	20 pcs	10	3/8"	3/8"	19
SDG154	SDG854	1/2" M-BSPT C 3/8"	20 pcs	10	3/8"	1/2"	14
SDG145	SDG845	3/8" M-BSPT C 1/2"	20 pcs	12	1/2"	3/8"	19
SDG155	SDG855	1/2" M-BSPT C 1/2"	20 pcs	12	1/2"	1/2"	14

Standard NPT National Pipe Tapered Fuel

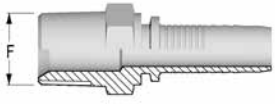
This is a dryseal thread, the National pipe tapered thread for fuels. This is used for both male and female ends. This connection is still widely used in fluid power systems, even through it is not recommended by the National Fluid Power Association (NFPA) for use in hydraulic applications.

The NPTF male will mate with the NPTF, NPSF or NPSM female. The NPTF male has tapered threads and a 30° inverted seat. The NPTF female has tapered threads and no seat.

The seal takes piace by deformation of the threads. The NPSM female has straight threads and a 30° inverted seat. The seal takes piace on the 30° seat. The NPTF connector is similar to, but not interchangeable with, the BSPT connector.

The thread pitch is different in most sizes. Also, the thread angle is 60° instead of the 55° angle found on BSPT threads.

SDE M-NPTF C NPTF Male



Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SDE100	-	1/8" M-NPT C 1/8"	20 pcs	4	1/8"	1/8"	27
SDE120	-	1/4" M-NPT C 1/8"	20 pcs	4	1/8"	1/4"	18
SDE122	SDE822	1/4" M-NPT C 1/4"	20 pcs	6	1/4"	1/4"	18
SDE144	SDE844	3/8" M-NPT C 3/8"	20 pcs	10	3/8"	3/8"	18
SDE155	SDE855	1/2" M-NPT C 1/2"	2 pcs	12	1/2"	1/2"	14
SDE177	SDE877	3/4" M-NPT C 3/4"	2 pcs	20	3/4"	3/4"	14
SDE188	SDE888	1" M-NPT C 1"	2 pcs	25	1"	1"	11
SDE199	SDE899	1+1/4" M-NPT C 1+1/4"	2 pcs	32	1+1/4"	1+1/4"	11

Note

NPT threads must be sealed using a high quality PTFE tape and/or PTFE paste product. Refer to thread sealant manufacturer's instructions on how to apply thread sealant.
Sealing performance may vary based on many factors such as pressure, temperature, media, thread quality, thread material, proper thread engagement and proper use of thread sealant.

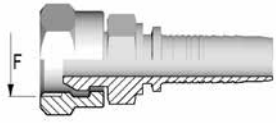
Customer should limit the number of times an NPT fitting is assembled and disassembled because thread deformation during assembly will result in deteriorating seal quality over time.
When using only PTFE tape, consider using thread lubrication to prevent galling of mating parts.

Standard NPSM National Pipe Straight Mechanical

The NPSM female has straight threads and a 30° inverted seat. This is used on the female swivel nut of iron pipe swivel adapters.

The leak-resistant joint is not made by the sealing fit of threads, but by a tapered seat in the coupling end. This connection is sometimes used in fluid power systems.

SBL F-NPSM C NPSM Female



Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SBL122	SBL822	1/4" F-NPSM C 1/4"	20 pcs	6	1/4"	1/4"	18
SBL144	SBL844	3/8" F-NPSM C 3/8"	20 pcs	10	3/8"	3/8"	18
SBL155	SBL855	1/2" F-NPSM C 1/2"	20 pcs	12	1/2"	1/2"	14
SBL177	SBL877	3/4" F-NPSM C 3/4"	20 pcs	20	3/4"	3/4"	14

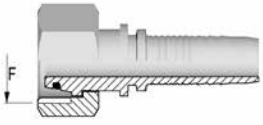
DIN 24° DIN 2353 / 3865 24°

The DIN 24° cone male will mate with any of the three females listed: Female 24° cone with O-Ring, Female metric tube, Female Universal or 60° cone. The male has a 24° seat, straight metric threads, and a recessed counterbore with matches the tube O.D. used with it.

The mating female may be a 24° cone with O-ring (DKO type), a metric tube fitting or a universal 24° or 60° cone.

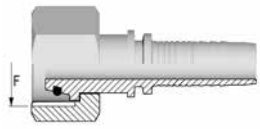
There is a light and heavy series DIN coupling. Proper identification is made by measuring both the thread size and the tube O.D. (the heavy series has a smaller tube O.D. than the light, but has a thicker wall section).

SBO F-DKOL C Female DKOL DIN 24° Light



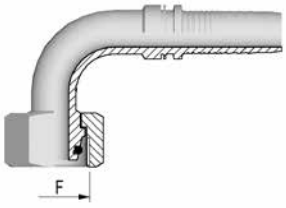
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SBO120	-	12X1.5 F-DKOL C 1/8"	20 pcs	4	1/8"	M 12x1,5	6
SBO121	SBO821	12X1.5 F-DKOL C 3/16"	20 pcs	5	3/16"	12 x 1.5	6
SBO131	-	14X1.5 F-DKOL C 3/16"	20 pcs	5	3/16"	14 x 1.5	6
SBO132	SBO832	14X1.5 F-DKOL C 1/4"	20 pcs	6	1/4"	14 x 1.5	8
SBO142	SBO842	16X1.5 F-DKOL C 1/4"	2 pcs	6	1/4"	16 x 1.5	10
SBO153	SBO853	18X1.5 F-DKOL C 5/16"	2 pcs	8	5/16"	18 x 1.5	12
SBO154	SBO854	18X1.5 F-DKOL C 3/8"	2 pcs	10	3/8"	18 x 1.5	12
SBO175	SBO875	22X1.5 F-DKOL C 1/2"	2 pcs	12	1/2"	22 x 1.5	15
-	SBO8G8	36X2 F-DKOL C 1"		25	1"	36 x 2	-

SBN F-DKOS C Female DKOS DIN 24° Heavy



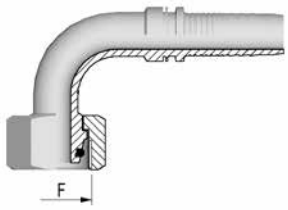
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SBN130	-	14X1.5 F-DKOS C 1/8"	20 pcs	4	1/8"	14x1,5	6
SBN152	SBN852	18X1.5 F-DKOS C 1/4"	20 pcs	6	1/4"	18x1.5	10
SBN164	SBN864	20X1.5 F-DKOS C 3/8"	20 pcs	10	3/8"	20x1.5	12
SBN174	SBN874	22X1.5 F-DKOS C 3/8"	20 pcs	10	3/8"	22x1.5	14
SBN184	SBN884	24X1.5 F-DKOS C 3/8"	20 pcs	10	3/8"	24x1.5	16
SBN185	SBN885	24X1.5 F-DKOS C 1/2"	20 pcs	12	1/2"	24x1.5	16

SCI F90-DKOL C Elbow Female DKOL DIN 24° Light



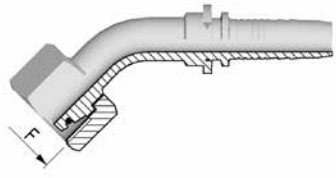
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SCI121	-	12X1.5 F90-DKOL C 3/16"	20 pcs	5	3/16"	12 x 1.5	6
SCI131	-	14X1.5 F90-DKOL C 3/16"	20 pcs	5	3/16"	14 x 1.5	6
SCI132	SCI832	14X1.5 F90-DKOL C 1/4"	20 pcs	6	1/4"	14 x 1.5	8
SCI142	SCI842	16X1.5 F90-DKOL C 1/4"	20 pcs	6	1/4"	16 x 1.5	10
SCI153	SCI853	18X1.5 F90-DKOL C 5/16"	20 pcs	8	5/16"	18 x 1.5	12
SCI154	SCI854	18X1.5 F90-DKOL C 3/8"	20 pcs	10	3/8"	18 x 1.5	12
SCI175	SCI875	22X1.5 F90-DKOL C 1/2"	20 pcs	12	1/2"	22 x 1.5	18

SCL F90-DKOS C Elbow Female DKOS DIN 24° Heavy



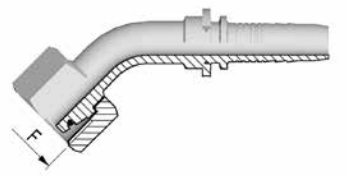
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SCL152	SCL852	18X1.5 F90-DKOS C 1/4"	20 pcs	6	1/4"	18 x 1.5	10
SCL164	SCL854	20X1.5 F90-DKOS C 3/8"	20 pcs	10	3/8"	20 x 1.5	12
SCL174	SCL874	22X1.5 F90-DKOS C 3/8"	20 pcs	10	3/8"	22 x 1.5	14
SCL185	SCL885	24X1.5 F90-DKOS C 1/2"	20 pcs	12	1/2"	24 x 1.5	16

SCQ F45-DKOL C 45° Female DKOL DIN 24° Light



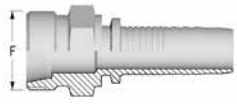
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SCQ132	SCQ832	14X1.5 F45-DKOL C 1/4"	20 pcs	6	1/4"	14 x 1.5	V8
SCQ142	SCQ842	16X1.5 F45-DKOL C 1/4"	20 pcs	6	1/4"	16 x 1.5	10
SCQ153	SCQ853	18X1.5 F45-DKOL C 5/16"	20 pcs	8	5/16"	18 x 1.5	12
SCQ154	SCQ854	18X1.5 F45-DKOL C 3/8"	20 pcs	10	3/8"	18 x 1.5	12
SCQ175	SCQ875	22X1.5 F45-DKOL C 1/2"	20 pcs	12	1/2"	22 x 1.5	15

SCN F45-DKOS C Female DKOS DIN 24° Heavy



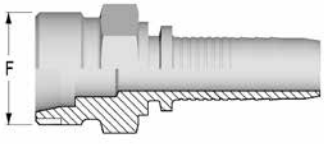
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SCN152	SCN852	18X1.5 F45-DKOS C 1/4"	20 pcs	6	1/4"	18 x 1.5	10
SCN163	SCN863	20X1.5 F45-DKOS C 5/16"	20 pcs	8	5/16"	20 x 1.5	12
SCN164	SCN864	20X1.5 F45-DKOS C 3/8"	20 pcs	10	3/8"	20 x 1.5	12
SCN185	SCN885	24X1.5 F45-DKOS C 1/2"	20 pcs	12	1/2"	24 x 1.5	16

SDF M-CEL C Male DKOL DIN 24° Light



Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SDF121	-	12X1.5 M-CEL C 3/16"	20 pcs	5	3/16"	12 x 1.5	6
SDF132	SDF832	14X1.5 M-CEL C 1/4"	20 pcs	6	1/4"	14 x 1.5	8
SDF142	SDF842	16X1.5 M-CEL C 1/4"	20 pcs	6	1/4"	16 x 1.5	10
SDF153	SDF853	18X1.5 M-CEL C 5/16"	20 pcs	8	5/16"	18 x 1.5	12
SDF154	SDF854	18X1.5 M-CEL C 3/8"	20 pcs	10	3/8"	18 x 1.5	12
SDF175	SDF875	22X1.5 M-CEL C 1/2"	20 pcs	12	1/2"	22 x 1.5	15
-	SDF8G8	36X2 M-CEL C 1"	20 pcs	25	1"	36 x 2	-

SDM M-CES C Male DKOS DIN 24° Heavy



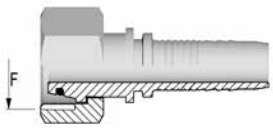
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SDM152	SDM852	18X1.5 M-CES C 1/4"	20 pcs	6	1/4"	18 x 1.5	10
SDM164	SDM864	20X1.5 M-CES C 3/8"	20 pcs	10	3/8"	20 x 1.5	12
SDM174	SDM874	22X1.5 M-CES C 3/8"	20 pcs	10	3/8"	22 x 1.5	14
SDM185	SDM885	24X1.5 M-CES C 1/2"	20 pcs	12	1/2"	24 x 1.5	16

Metric DIN 60° DIN 3863 60°

The DIN 60° cone male will mate with the female universal 24° or 60° cone only.
The male has a 60° seat and straight metric threads.
The female has a 24° and 60° universal seat and straight metric threads.

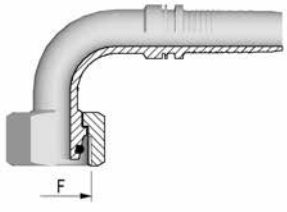
The seal takes piace by contact between the cone of the male and the nose of the flareless swivel. The threads hold the connection mechanically.

SBP F-MET60 C Straight Female Metric 60°



Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SBP132	-	14X1.5 F-MET60 C 1/4"	20 pcs	6	1/4"	14 x 1.5	28
SBP143	-	16X1.5 F-MET60 C 5/16"	20 pcs	8	5/16"	16 x 1.5	19
SBP154	-	18X1.5 F-MET60 C 3/8"	20 pcs	10	3/8"	18 x 1.5	14
SBP175	-	22X1.5 F-MET60 C 1/2"	20 pcs	12	1/2"	22 x 1.5	14

SCC F90-MET60 C Elbow Female Metric 60°



Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SCC132	-	14X1.5 F90-MET60 C 1/4"	20 pcs	6	1/4"	14 x 1.5	28
SCC143	-	16X1.5 F90-MET60 C 5/16"	20 pcs	8	5/16"	16 x 1.5	19
SCC154	-	18X1.5 F90-MET60 C 3/8"	20 pcs	10	3/8"	18 x 1.5	14
SCC175	-	22X1.5 F90-MET60 C 1/2"	20 pcs	12	1/2"	22 x 1.5	14

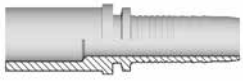
Metric Standpipe

A metric standpipe is comprised of three components attached to a male fitting.

Components
— Standpipe
— Bite Sleeve
— Metric Nut

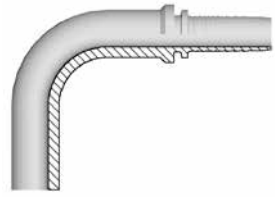
The nut is placed over the Standpipe, followed by the Bite Sleeve. For DIN light assemblies, a DIN light metric nut is used. For DIN heavy assemblies, a DIN heavy metric nut is used.
The Bite Sleeve and Standpipe are selected on the basis of tube OD.

SEA Standpipe C Straight Metric Standpipe



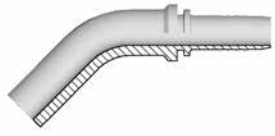
Carbon STEEL	Description	Minimum Pack quantity	OD	ID	
Part. No			mm	DN	inch
SEA110	6MM STANDPIPE C 1/8"	20 pcs	6	DN4	1/8"
SEA111	6MM STANDPIPE C 3/16"	20 pcs	6	DN5	3/16"
SEA121	8MM STANDPIPE C 3/16"	20 pcs	8	DN5	3/16"
SEA112	6MM STANDPIPE C 1/4"	20 pcs	6	DN6	1/4"
SEA122	8MM STANDPIPE C 1/4"	20 pcs	8	DN6	1/4"
SEA132	10MM STANDPIPE C 1/4"	20 pcs	10	DN6	1/4"
SEA142	12MM STANDPIPE C 1/4"	20 pcs	12	DN6	1/4"
SEA123	8MM STANDPIPE C 5/16"	20 pcs	8	DN8	5/16"
SEA133	10MM STANDPIPE C 5/16"	20 pcs	10	DN8	5/16"
SEA143	12MM STANDPIPE C 5/16"	20 pcs	12	DN8	5/16"
SEA134	10MM STANDPIPE C 3/8"	20 pcs	10	DN10	3/8"
SEA144	12MM STANDPIPE C 3/8"	20 pcs	12	DN10	3/8"
SEA135	10MM STANDPIPE C 1/2"	20 pcs	10	DN12	1/2"
SEA145	12MM STANDPIPE C 1/2"	20 pcs	12	DN12	1/2"

SEC STANDPIPE 90 C Elbow Standpipe 90°



Carbon STEEL Part. No	Description	Minimum Pack quantity	OD mm	ID DN	ID inch
SEC111	6MM STANDPIPE90 C 3/16"	20 pcs	6	5	3/16"
SEC121	8MM STANDPIPE90 C 3/16"	20 pcs	8	6	3/16"
SEC112	6MM STANDPIPE90 C 1/4"	20 pcs	6	6	1/4"
SEC122	8MM STANDPIPE90 C 1/4"	20 pcs	8	6	1/4"
SEC132	10MM STANDPIPE90 C 1/4"	20 pcs	10	6	1/4"
SEC142	12MM STANDPIPE90 C 1/4"	20 pcs	12	6	1/4"
SEC133	10MM STANDPIPE90 C 5/16"	20 pcs	10	8	5/16"
SEC143	12MM STANDPIPE90 C 5/16"	20 pcs	12	8	5/16"
SEC134	10MM STANDPIPE90 C 3/8"	20 pcs	10	10	3/8"
SEC144	12MM STANDPIPE90 C 3/8"	20 pcs	12	10	3/8"

SEE STANDPIPE 45 C 45° Standpipe



Carbon STEEL Part. No	Description	Minimum Pack quantity	OD mm	ID DN	ID inch
SEE112	6MM STANDPIPE45 C 1/4	20 pcs	6	6	1/4"
SEE122	8MM STANDPIPE45 C 1/4"	20 pcs	8	6	1/4"
SEE132	10MM STANDPIPE45 C 1/4"	20 pcs	10	6	1/4"
SEE142	12MM STANDPIPE45 C 1/4"	20 pcs	12	6	1/4"
SEE133	10MM STANDPIPE45 C 5/16"	20 pcs	10	8	5/16"
SEE143	12MM STANDPIPE45 C 5/16"	20 pcs	12	8	5/16"
SEE134	10MM STANDPIPE45 C 3/8"	20 pcs	10	10	3/8"
SEE144	12MM STANDPIPE45 C 3/8"	20 pcs	12	10	3/8"

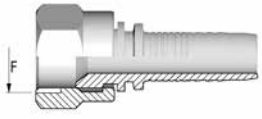
Standard JIC SAE J514 370

The Society of Automotive Engineers (SAE) specifies a 37° angle flare or seat be used with high pressure hydraulic tubing.
These are commonly called JIC couplings.

The JIC 37° flare male will mate with a JIC female only. The JIC male has straight threads and a 37° flare seat.
The JIC female has straight threads and a 37° flare seat.

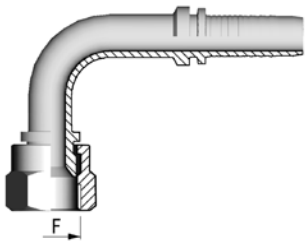
The seal is made on the 37° flare seat by establishing a line contact between the male flare and the female cone seat.
The threads hold the connection mechanically.

SBC F-JIC C Straight Female JIC 74°



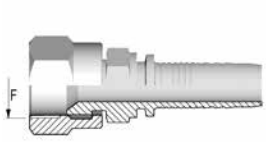
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SBC1A1	SBC8A1	7/16" F-JIC C 3/16"	20 pcs	5	3/16"	7/16"	20
SBC151	-	1/2" F-JIC C 3/16"	20 pcs	6	3/16"	1/2"	20
SBC1A2	SBC8A2	7/16" F-JIC C 1/4"	20 pcs	6	1/4"	7/16"	20
SBC152	SBC852	1/2" F-JIC C 1/4"	20 pcs	6	1/4"	1/2"	20
SBC1B2	SBC8B2	9/16" F-JIC C 1/4"	20 pcs	6	1/4"	9/16"	18
SBC172	-	3/4" F-JIC C 1/4"	20 pcs	6	1/4"	3/4"	16
SBC1B3	SBC8B3	9/16" F-JIC C 5/16"	20 pcs	8	5/16"	9/16"	18
SBC1B4	SBC8B4	9/16" F-JIC C 3/8"	20 pcs	10	3/8"	9/16"	18
SBC164	-	5/8" F-JIC C 3/8"	20 pcs	10	3/8"	5/8"	18
SBC174	SBC874	3/4" F-JIC C 3/8"	20 pcs	10	3/8"	3/4"	16
SBC1C4	SBC8C4	7/8" F-JIC C 3/8"	20 pcs	10	3/8"	7/8"	14
SBC175	SBC875	3/4" F-JIC C 1/2"	20 pcs	12	1/2"	3/4"	16
SBC1C5	SBC8C5	7/8" F-JIC C 1/2"	20 pcs	12	1/2"	7/8"	14
SBC1D5	SBC8D5	1+1/16" F-JIC C 1/2"	20 pcs	12	1/2"	1+1/16"	12
SBC1C6	SBC8C6	7/8" F-JIC C 5/8"	2 pcs	16	5/8"	7/8"	14
SBC1C7	-	7/8" F-JIC C 3/4"	2 pcs	19	3/4"	7/8"	14
SBC1D7	SBC8D7	1+1/16" F-JIC C 3/4"	2 pcs	19	3/4"	1+1/16"	12
SBC1D8	SBC8D8	1+1/16" F-JIC C 1"	2 pcs	25	1"	1+1/16"	12
SBC1E8	-	1+3/16" F-JIC C 1"	2 pcs	25	1"	1+3/16"	12
SBC1F8	SBC8F8	1+5/16" F-JIC C 1"	2 pcs	25	1"	1+5/16"	12

SCD F90-JIC C Elbow Female JIC 74°



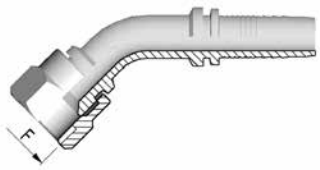
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SCD1A1	SCD8A1	7/16" F90-JIC C 3/16"	20 pcs	5	3/16"	7/16"	20
SCD151	-	1/2" F90-JIC C 3/16"	20 pcs	5	3/16"	1/2"	20
SCD1A2	-	7/16" F90-JIC C 1/4"	20 pcs	4	1/4"	7/16"	20
SCD152	SCD852	1/2" F90-JIC C 1/4"	20 pcs	6	1/4"	1/2"	20
SCD1B2	SCD8B2	9/16" F90-JIC C 1/4"	20 pcs	6	1/4"	9/16"	18
SCD172	-	3/4" F90-JIC C 1/4"	20 pcs	6	1/4"	3/4"	16
SCD1B3	SCD8B3	9/16" F90-JIC C 5/16"	20 pcs	8	5/16"	9/16"	18
SCD1B4	SCD8B4	9/16" F90-JIC C 3/8"	20 pcs	10	3/8"	9/16"	18
SCD174	SCD874	3/4" F90-JIC C 3/8"	20 pcs	10	3/8"	3/4"	16
SCD1C4	SCD8C4	7/8" F90-JIC C 3/8"	20 pcs	10	3/8"	7/8"	14
SCD175	SCD875	3/4" F90-JIC C 1/2"	20 pcs	12	1/2"	3/4"	16
SCD1C5	SCD8C5	7/8" F90-JIC C 1/2"	20 pcs	12	1/2"	7/8"	14
SCD1D5	-	1+1/16" F90-JIC C 1/2"	20 pcs	12	1/2"	1"+1/16	12
SCD1C6	SCD8C6	7/8" F90-JIC C 5/8"	2 pcs	16	5/8"	7/8"	14
SCD1C7	-	7/8" F90-JIC C 3/4"	2 pcs	19	3/4"	7/8"	14
SCD1D7	SCD8D7	1+1/16" F90-JIC C 3/4"	2 pcs	19	3/4"	1"+1/16	12
SCD1E7	-	1+3/16" F90-JIC C 3/4"	2 pcs	25	1"	1"+3/16	12
SCD1D8	-	1+1/16" F90-JIC C 1"	2 pcs	25	1"	1"+1/16	12
SCD1F8	SCD8F8	1+5/16" F90-JIC C 1"	2 pcs	25	1"	1"+5/16	12

SBM F-JIC DH C Straight Female with Hexagon JIC 74°



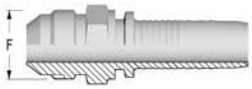
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SBM1A1		7/16" F-JIC DH C 3/16"	20 pcs	5	3/16"	7/16"	20
SBM1A2		7/16" F-JIC DH C 1/4"	20 pcs	6	1/4"	7/16"	20
SBM152		1/2" F-JIC DH C 1/4"	20 pcs	6	1/4"	1/2"	20
SBM1B2		9/16" F-JIC DH C 1/4"	20 pcs	6	1/4"	9/16"	18
SBM1B3		9/16" F-JIC DH C 5/16"	20 pcs	8	5/16"	9/16"	18
SBM1B4		9/16" F-JIC DH C 3/8"	20 pcs	10	3/8"	9/16"	18
SBM174		3/4" F-JIC DH C 3/8"	20 pcs	10	3/8"	3/4"	16
SBM1C4		7/8" F-JIC DH C 3/8"	20 pcs	10	3/8"	7/8"	14
SBM175		3/4" F-JIC DH C 1/2"	20 pcs	12	1/2"	3/4"	16
SBM1C5		7/8" F-JIC DH C 1/2"	20 pcs	12	1/2"	7/8"	14
SBM1D5		1+1/16" F-JIC DH C 1/2"	20 pcs	12	1/2"	1"1/16	12
SBM1C6		7/8" F-JIC DH C 5/8"	2 pcs	16	5/8"	7/8"	14
SBM1C7		7/8" F-JIC DH C 3/4"	2 pcs	19	3/4"	7/8"	14
SBM1D7		1+1/16" F-JIC DH C 3/4"	2 pcs	19	3/4"	1"1/16	12
SBM1D8		1+1/16" F-JIC DH C 1"	2 pcs	25	1"	1"1/16	12
SBM1F8		1+5/16" F-JIC DH C 1"	2 pcs	25	1"	1"5/16	12

SCP F45 JIC C 45° Female JIC 74°



Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SCP1A1	SCP8A1	7/16" F45-JIC C 3/16"	20 pcs	5	3/16"	7/16"	20
SCP152	SCP852	1/2" F45-JIC C 1/4"	20 pcs	6	1/4"	1/2"	20
SCP1B2	SCP8B2	9/16" F45-JIC C 1/4"	20 pcs	6	1/4"	9/16"	18
SCP1B3	SCP8B3	9/16" F45-JIC C 5/16"	20 pcs	8	5/16"	9/16"	18
SCP173	-	3/4" F45-JIC C 5/16"	20 pcs	8	5/16"	3/4"	16
SCP1B4	SCP8B4	9/16" F45-JIC C 3/8"	20 pcs	10	3/8"	9/16"	18
SCP174	SCP874	3/4" F45-JIC C 3/8"	20 pcs	10	3/8"	3/4"	16
SCP1C4	SCP8C4	7/8" F45-JIC C 3/8"	20 pcs	10	3/8"	7/8"	14
SCP1C5	SCP8C5	7/8" F45-JIC C 1/2"	20 pcs	12	1/2"	7/8"	14
SCP1D5	-	1+1/16" F45-JIC C 1/2"	20 pcs	12	1/2"	1"1/16	12
SCP1C6	SCP8C6	7/8" F45-JIC C 5/8"	20 pcs	16	5/8"	7/8"	14
SCP1C7	-	7/8" F45-JIC C 3/4"	20 pcs	19	3/4"	7/8"	14
SCP1D7	SCP8D7	1+1/16" F45-JIC C 3/4"	20 pcs	19	3/4"	1"1/16	12
SCP1E7	-	1+3/16" F45-JIC C 3/4"	20 pcs	19	3/4"	1"3/16	12
SCP1D8	-	1+1/16" F45-JIC C 1"	20 pcs	25	1"	1"1/16	12
SCP1F8	SCP8F8	1+5/16" F45-JIC C 1"	20 pcs	25	1"	1"5/16	12

SDD M-JIC C Male JIC 74°



Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	L
Part. No	Part. No			DN	inch	F	mm
SDD1A1		7/16" M-JIC C 3/16"	20	5	3/16"	7/16"	20
SDD1A2	SDD8A2	7/16" M-JIC C 1/4"	20	6	1/4"	7/16"	20
SDD152	SDD852	1/2" M-JIC C 1/4"	20	6	1/4"	1/2"	20
SDD1B2	SDD8B2	9/16" M-JIC C 1/4"	20	6	1/4"	9/16"	18
SDD172	SDD872	3/4" M-JIC C 1/4"	20	6	1/4"	3/4"	16
SDD173	-	3/4" M-JIC C 5/16"	20	8	5/16"	3/4"	16
SDD1B4	SDD8B4	9/16" M-JIC C 3/8"	20	10	3/8"	9/16"	18
SDD174	SDD874	3/4" M-JIC C 3/8"	20	10	3/8"	3/4"	16
SDD1C4	SDD8C4	7/8" M-JIC C 3/8"	20	10	3/8"	7/8"	14
SDD175	SDD875	3/4" M-JIC C 1/2"	20	12	1/2"	3/4"	16
SDD1C5	SDD8C5	7/8" M-JIC C 1/2"	20	12	1/2"	7/8"	14
SDD1D5	-	1+1/16" M-JIC C 1/2"	20	12	1/2"	1+1/16"	12
SDD1C7	-	7/8" M-JIC C 3/4"	2	19	3/4"	7/8"	14
SDD1D7	SDD8D7	1+1/16" M-JIC C 3/4"	2	19	3/4"	1+1/16"	12
SDD1E7	-	1+3/16" M-JIC C 3/4"	2	19	3/4"	1+3/16"	12
SDD1D8	-	1+1/16" M-JIC C 1"	2	25	1"	1+1/16"	12
SDD1F8	SDD8F8	1+5/16" M-JIC C 1"	2	25	1"	1+1/16"	12

Standard ORFS SAE J1453 O-Ring Face Seal

A seal is made when the O-Ring in the male contacts the flat face on the female. Couplings are intended for hydraulic systems where elastomeric seals are acceptable to overcome leakage and leak resistance is crucial.

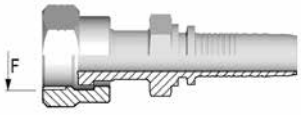
This connection offers the very best leakage control available today.

The male connector has a straight thread and a machined flat face. The female has a straight thread and a machined flat face.

The seal takes place by compressing the O-Ring onto the flat face of the female, similar to the split fiange type fitting.

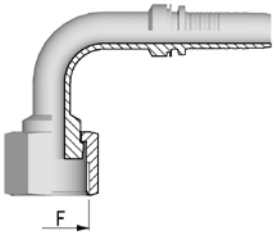
The threads hoid the connection mechanically.

SBE F-ORFS C Straight Female ORFS



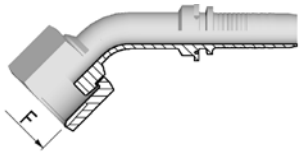
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SBE1H2	SBE8H2	11/16" F-ORFS C 1/4"	20 pcs	6	1/4"	11/16"	16
SBE1I4	SBE8I4	13/16" F-ORFS C 3/8"	20 pcs	10	3/8"	13/16"	16
SBE185	-	1" F-ORFS C 1/2"	20 pcs	12	1/2"	1"	14

SCF F90-ORFS C Elbow Female ORFS



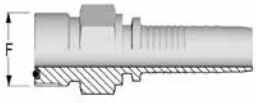
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SCF1H2	SCF8H2	11/16" F90-ORFS C 1/4"	20 pcs	6	1/4"	11/16"	16
SCF1I4	SCF8I4	13/16" F90-ORFS C 3/8"	20 pcs	10	3/8"	13/16"	16
SCF185	-	1" F90-ORFS C 1/2"	20 pcs	12	1/2"	1"	14

SCR F45-ORFS C Female 45° ORFS



Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SCR1H2	SCR8H2	11/16" F45-ORFS C 1/4"	20 pcs	6	1/4"	11/16"	16
SCR1I4	SCR8I4	13/16" F45-ORFS C 3/8"	20 pcs	10	3/8"	13/16"	16
SCR185	-	1" F45-ORFS C 1/2"	20 pcs	12	1/2"	1"	14

SDB M-ORFS C Male ORFS



Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SDB1H2	-	11/16" M-ORFS C 1/4"	20 pcs	6	1/4"	11/16"	16
SDB1I4	-	13/16" M-ORFS C 3/8"	20 pcs	10	3/8"	13/16"	16
SDB185	-	1" M-ORFS C 1/2"	20 pcs	12	1/2"	1"	14

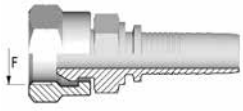
Standard JIS 30° Parallel Threads JIS B 0202

Japanese equipment uses JIS (Japanese Industrial Standard) couplings witha 30° seat and British Standard Pipe Parallel threads. These Japanese 30° flare male coupling will mate with a Japanese 30° flare female only.

The male and female have straight threads and a 30° seat.
The seal is made on the 30° seat.

The threads on the Japanese 30° flare connector conform to JIS B 0202, the same as the BSPP threads.
Both the British and Japanese connectors have a 30° seat, but they are not interchangeable, because the British seat is inverted.

SGB F-BSPP DH C Straight Female JIS 60° + Hexagon



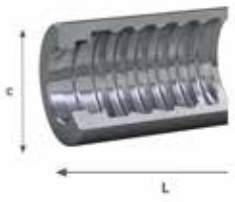
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SGB122	-	1/4" F-BSPP DH C 1/4"	20 pcs	6	1/4"	1/4"	19
SGB144	-	3/8" F-BSPP DH C 3/8"	20 pcs	10	3/8"	3/8"	19
SGB155	-	1/2" F-BSPP DH C 1/2"	20 pcs	12	1/2"	1/2"	14

SAF Crimping Ferrule VHP TP-F

An extreme performing hose needs extreme performing fittings.
For a hose of this Very High Pressure capability the ferrule and insert need to be specifically designed.

Transfer Oil strongly recommend the use of original parts.
For new applications, ferrules or fittings not listed in this file please contact us.

WARNING!
Always check bore collapse using go/no go bore gauge.
If needed adjust crimping diameter in order to obtain the optimal bore collapse.



Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		C	D	L
Part. No	Part. No			DN	inch	mm	mm	mm
SAF101	SAF801	1/8" FERRULE VHP TP-F	20 pcs	4	1/8"	13,5	9,8	24
SAF111	SAF811	3/16" FERRULE VHP TP-F	20 pcs	5	3/16"	15,5	11,8	29
SAF121	SAF821	1/4" FERRULE VHP TP-F	20 pcs	6	1/4"	20	15	38,4
SAF131	SAF831	5/16" FERRULE VHP TP-F	20 pcs	8	5/16"	24	18,2	41
SAF141	SAF841	3/8" FERRULE VHP TP-F	20 pcs	10	3/8"	26	20	44
SAF151	SAF851	1/2" FERRULE VHP TP-F	20 pcs	12	1/2"	33	25,5	54
SAF161	SAF861	5/8" FERRULE VHP TP-F	2 pcs	16	5/8"	36,5	28,7	53
SAF171	SAF871	3/4" FERRULE VHP TP-F	2 pcs	20	3/4"	40	32	60
SAF172	SAF872	3/4" FERRULE VHP TP-F	2 pcs	20	3/4"	39	31	60
SAF181	SAF881	1" FERRULE VHP TP-F	2 pcs	25	1"	50,8	41,5	63

Ferrule selection by hose family

All ferrules are available both with standard and AISI 316L steel

	AISI 316L STEEL	SAF801	SAF811	SAF821	SAF831	SAF841	SAF851	SAF861	SAF871	SAF872	SAF881
	CARBON STEEL	SAF101	SAF111	SAF121	SAF131	SAF141	SAF151	SAF161	SAF171	SAF172	SAF181
		1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	3/4"	1"
HYDRAULIC											
041X VHP 10000				•		•					
046X VHP NON COND		•	•	•		•					
040X VHP 10000 MARINER				•		•	•				
080X VHP EXTRA				•							
060X OFF SHORE MASTER 5000			•	•		•	•		•		•
168X OFF SHORE MASTER 10000				•							
INDUSTRIAL											
159X CNG 5000 COMP. NATURAL GAS HOSE				•		•	•			•	
049X HP AGGRESSIVE CHEMICALS						•	•				
048X VHP 10000 AGG. CHEMICALS				•	•	•	•	•	•		•

SAL Crimping Ferrule VHP TP-L

An extreme performing hose needs extreme performing fittings. For a hose of this Very High Pressure capability the ferrule and insert need to be specifically designed.

Transfer Oil strongly recommend the use of original parts. For new applications, ferrules or fittings not listed in this file please contact us.

WARNING!
Always check bore collapse using go/no go bore gauge. If needed adjust crimping diameter in order to obtain the optimal bore collapse.

Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		C	D	L
Part. No	Part. No			DN	inch	mm	mm	mm
SAL171	SAL871	3/4" FERRULE OSM 3k TP-L	2 pcs	20	3/4"	-	-	-
SAL181	SAL881	1" FERRULE OSM 3k TP-L	20 pcs	25	1"	-	-	-

Ferrule selection by hose family

All ferrules are available both with standard and AISI 316L steel

AISI 316L STEEL	-	-	-	-	-	-	-	SAL871	SAL881	-	
CARBON STEEL	-	-	-	-	-	-	-	SAL171	SAL181	-	
	-	-	-	-	-	-	-	3/4"	1"	-	
HYDRAULIC											
168X OFF SHORE MASTER 3K								•	•		

Standard BSPP British Standard Pipe Parallel

Popular couplings British Standard Pipe (BSP) threads, also known as Whitworth threads.
The BSPP (parallel) male will mate with a BSPP (parallel) female or a female port.
The BSPP male has straight threads and a 30° seat.
The BSPP female has straight threads and a 30° seat.

The female swivel BSPP has a tapered nose which seals on the cone seat of the male.
The BSPP (parallel) connector is similar to, but not interchangeable with, the NPSM connector.
The thread pitch is different in most sizes, and the thread angle is 55° instead of the 60° angle found on NPSM threads.

SOA F-BSPP VHP C VHP Straight Female BSPP 60°

Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	
Part. No	Part. No			DN	inch	F	
SOA120	SOA820	1/4 F-BSPP VHP C 1/8	20 pcs	4	1/8"	1/4"	19
SOA121	SOA821	1/4 F-BSPP VHP C 3/16	20 pcs	5	3/16"	1/4"	19
SOA122	SOA822	1/4 F-BSPP VHP C 1/4	20 pcs	6	1/4"	1/4"	19
SOA143	SOA843	3/8 F-BSPP VHP C 5/16	20 pcs	8	5/16"	3/8"	19
SOA144	SOA844	3/8 F-BSPP VHP C 3/8	20 pcs	10	3/8"	3/8"	19
SOA155	SOA855	1/2 F-BSPP VHP C 1/2	20 pcs	12	1/2"	1/2"	14
SOA176	SOA876	3/4 F-BSPP VHP C 5/8	2 pcs	16	5/8"	3/4"	14
SOA177	SOA877	3/4 F-BSPP VHP C 3/4	2 pcs	20	3/4"	3/4"	14
SOA187	SOA887	1 F-BSPP VHP C 3/4	2 pcs	20	3/4"	3/4"	11
SOA198	SOA898	1+1/4 F-BSPP VHP C 1	2 pcs	20	1"	1+1/4"	11
SOA188	SOA888	1 F-BSPP VHP C 1	2 pcs	25	1"	1"	11

Selection by hose family

All inserts are available both with standard and AISI 316L steel

	CARBON STEEL	SOA120	SOA121	SOA122	SOA143	SOA144	SOA155	SOA176	SOA177	SOA187	SOA198	SOA188
	AISI 316L STEEL	SOA820	SOA821	SOA822	SOA843	SOA844	SOA855	SOA876	SOA877	SOA887	SOA898	SOA888
		1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	1"	1"
HYDRAULIC												
041X VHP 10000				•		•						
046X VHP NON CONDUCTIVE		•	•	•		•						
040X VHP 10000 MARINER				•		•	•					
080X VHP EXTRA				•								
168X FF SHORE MASTER 3K											•	•
060X OFF SHORE MASTER 5K			•	•		•	•		•	•	•	•
169X OFF SHORE MASTER 10K				•								
INDUSTRIAL												
15R CNG 5000 COMPRESSED NATURAL GAS HOSE				•		•	•		•	•	•	•
049 HP AGGRESSIVE CHEMICALS						•	•					
048 VHP AGGRESSIVE CHEMICALS				•	•	•	•	•	•	•	•	•

SOB M-BSPP VHP C VHP Parallel Male BSPP

Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	
Part. No	Part. No			DN	inch	F	
SOB120	SOB820	1/4 M-BSPP VHP C 1/8	20 pcs	4	1/8"	1/4"	19
SOB121	SOB821	1/4 M-BSPP VHP C 3/16	20 pcs	5	3/16"	1/4"	19
SOB122	SOB822	1/4 M-BSPP VHP C 1/4	20 pcs	6	1/4"	1/4"	19
SOB142	SOB842	3/8 M-BSPP VHP C 1/4	20 pcs	6	1/4"	3/8"	19
SOB143	SOB843	3/8 M-BSPP VHP C 5/16	20 pcs	10	5/16"	3/8"	19
SOB144	SOB844	3/8 M-BSPP VHP C 3/8	20 pcs	10	3/8"	3/8"	19
SOB155	SOB855	1/2 M-BSPP VHP C 1/2	20 pcs	12	1/2"	1/2"	14
SOB176	SOB876	3/4 M-BSPP VHP C 5/8	20 pcs	20	5/8"	3/4"	14
SOB177	SOB877	3/4 M-BSPP VHP C 3/4	2 pcs	20	3/4"	3/4"	14
SOB188	SOB888	1 M-BSPP VHP C 1	2 pcs	25	1"	1"	11

Selection by hose family

All inserts are available both with standard and AISI 316L steel

	CARBON STEEL	SOB120	SOB121	SOB122	SOB142	SOB143	SOB144	SOB155	SOB176	SOB177	SOB188
	AISI 316L STEEL	SOB820	SOB821	SOB822	SOB842	SOB843	SOB844	SOB855	SOB876	SOB877	SOB888
		1/8"	3/16"	1/4"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
HYDRAULIC											
041X - VHP 10000				•	•		•				
046X - VHP NON CONDUCTIVE		•	•	•	•		•				
040X - VHP 10000 MARINER				•	•		•	•			
080X - VHP EXTRA				•	•						
168X - OFF SHORE MASTER 3K											•
060X - OFF SHORE MASTER 5K			•	•			•	•		•	•
169X - OFF SHORE MASTER 10K				•	•						
HYDRAULIC											
15R - CNG 5000 - COMPRESSED NATURAL GAS HOSE				•			•	•		•	•
049 - HP AGGRESSIVE CHEMICALS							•	•			
048 - VHP AGGRESSIVE CHEMICALS				•	•	•	•	•	•	•	•

Standard NPT National Pipe Tapered Fuel

This is a dryseal thread, the National pipe tapered thread for fuels.
This is used for both male and female ends.
This connection is still widely used in fluid power systems, even through it is not recommended by the National Fluid Power Association (NFPA) for use in hydraulic applications.

The NPTF male will mate with the NPTF, NPSF or NPSM female.
The NPTF male has tapered threads and a 30° inverted seat.

The NPTF female has tapered threads and no seat.
The seal takes piace by deformation of the threads.
The NPSM female has straight threads and a 30° inverted seat.
The seal takes piace on the 30° seat.

The NPTF connector is similar to, but not interchangeable with, the BSPT connector. The thread pitch is different in most sizes. Also, the thread angle is 60° instead of the 55° angle found on BSPT threads.

SOC F-NPT VHP NPT VHP Female

Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	
Part. No	Part. No			DN	inch	F	
SOC122	SOC822	1/4 F-NPT VHP C 1/4	20 pcs	6	1/4"	1/4"	18
SOC142	SOC842	3/8 F-NPT VHP C 1/4	20 pcs	6	1/4"	3/8"	18

Selection by hose family

All inserts are available both with standard and AISI 316L steel

CARBON STEEL			SOC122	SOC142					
AISI 316L STEEL			SOC822	SOC842					
	1/8"	3/16"	1/4"	1/4"	3/8"	1/2"	5/8"	3/4"	1"
HYDRAULIC									
041X VHP 10000			•	•					
046X VHP NON CONDUCTIVE			•	•					
040X VHP 10000 MARINER			•	•					
080X VHP EXTRA			•	•					
060X OFF SHORE MASTER 5K			•	•					
169X OFF SHORE MASTER 10K			•	•					
INDUSTRIAL									
15R CNG 5000 COMPRESSED NATURAL GAS HOSE			•	•					
048 VHP AGGRESSIVE CHEMICALS			•	•					

SOD M-NPT VHP C NPTF Male

Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	
Part. No	Part. No			DN	inch	F	
SOD101	SOD801	1/8 M-NPT VHP C 3/16	20 pcs	DN5	3/16"	1/8"	27
SOD121	SOD821	1/4 M-NPT VHP C 3/16	20 pcs	DN5	3/16"	1/4"	18
SOD122	SOD822	1/4 M-NPT VHP C 1/4	20 pcs	DN6	1/4"	1/4"	18
SOD142	SOD842	3/8 M-NPT VHP C 1/4	20 pcs	DN6	1/4"	3/8"	18
SOD143	SOD843	3/8 M-NPT VHP C 5/16	20 pcs	DN8	5/16"	3/8"	18
SOD144	SOD844	3/8 M-NPT VHP C 3/8	20 pcs	DN10	3/8"	3/8"	18
SOD155	SOD855	1/2 M-NPT VHP C 1/2	20 pcs	DN12	1/2"	1/2"	14
SOD177	SOD877	3/4 M-NPT VHP C 3/4	2 pcs	DN20	3/4"	3/4"	14
SOD188	SOD888	1 M-NPT VHP C 1	2 pcs	DN25	1"	1"	11,5

Selection by hose family

All inserts are available both with standard and AISI 316L steel

	CARBON STEEL	SOD101	SOD121	SOD122	SOD142	SOD143	SOD144	SOD155	SOD177	SOD188
	AISI 316L STEEL	SOD801	SOD821	SOD822	SOD842	SOD843	SOD844	SOD855	SOD877	SOD888
		3/16"	3/16"	1/4"	1/4"	5/16"	3/8"	1/2"	3/4"	1"
HYDRAULIC										
041X - VHP 10000				•	•		•			
046X - VHP NON CONDUCTIVE		•	•	•	•		•			
040X - VHP 10000 MARINER				•	•		•	•		
080X - VHP EXTRA				•	•					
168X - OFF SHORE MASTER 3K										•
060X - OFF SHORE MASTER 5K		•	•	•	•	•	•	•	•	•
169X - OFF SHORE MASTER 10K				•	•					
HYDRAULIC										
15R - CNG 5000 - COMPRESSED NATURAL GAS HOSE				•	•		•	•	•	•
049 - HP AGGRESSIVE CHEMICALS							•	•		
048 - VHP AGGRESSIVE CHEMICALS				•	•	•	•	•	•	•

Standard JIC SAE J514 370

The Society of Automotive Engineers (SAE) specifies a 37° angle flare or seat be used with high pressure hydraulic tubing. These are commonly called JIC couplings.

The JIC 37° flare male will mate with a JIC female only.

The JIC male has straight threads and a 37° flare seat. The JIC female has straight threads and a 37° flare seat. The seal is made on the 37° flare seat by establishing a line contact between the male flare and the female cone seat. The threads hold the connection mechanically.

SOH F VHP JIC C Straight Female JIC 74°

Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	
Part. No	Part. No			DN	inch	F	
SOH1A1	SOH8A1	7/16 F-JIC VHP C 3/16	20 pcs	6	3/16"	7/16"	20
SOH1A2	SOH8A2	7/16 F-JIC VHP C 1/4	20 pcs	6	1/4"	7/16"	20
SOH152	SOH852	1/2 F-JIC VHP C 1/4	20 pcs	6	1/4"	1/2"	20
SOH1B2	SOH8B2	9/16 F-JIC VHP C 1/4	20 pcs	6	1/4"	9/16"	18
SOH1B4	SOH8B4	9/16 F-JIC VHP C 3/8	20 pcs	10	3/8"	9/16"	18
SOH174	SOH874	3/4 F-JIC VHP C 3/8	20 pcs	10	3/8"	3/4"	16
SOH175	SOH875	3/4 F-JIC VHP C 1/2	20 pcs	12	1/2"	3/4"	16
SOH1C5	SOH8C5	7/8 F-JIC VHP C 1/2	20 pcs	12	1/2"	7/8"	14
SOH1D7	SOH8D7	1+1/16 F-JIC VHP C 3/4	2 pcs	20	3/4"	1+1/16"	12
SOH1F8	SOH8F8	1+5/16 F-JIC VHP C 1	2 pcs	25	1"	1+5/16"	12

Selection by hose family

All inserts are available both with standard and AISI 316L steel

	CARBON STEEL	SOH1A1	-	SOH1A2	SOH152	SOH1B2	SOH1B4	SOH174	SOH1C5	SOH175	-	SOH1F8
	AISI 316L STEEL	SOH8A1	SOH8B1	SOH8A2	SOH854	SOH8B2	SOH8B4	SOH874	SOH8C5	SOH875	SOH8D7	SOH8F8
		3/16"	3/16"	1/4"	1/4"	1/4"	3/8"	3/8"	1/2"	1/2"	3/4"	1"
HYDRAULIC												
041X VHP 10000				•	•	•	•	•				
046X VHP NON CONDUCTIVE		•	•	•	•	•	•	•				
040X VHP 10000 MARINER				•	•	•	•	•	•	•		
080X VHP EXTRA				•	•	•						
168X OFF SHORE MASTER 3K												•
060X OFF SHORE MASTER 5K				•	•	•	•	•	•	•	•	•
169X OFF SHORE MASTER 10K		•	•		•							
INDUSTRIAL												
15R CNG 5000 COMPRESSED NATURAL GAS HOSE				•	•	•	•	•	•	•	•	•
049 - HP AGGRESSIVE CHEMICALS							•	•	•	•		
048 VHP AGGRESSIVE CHEMICALS				•	•	•	•	•	•	•	•	•

Standard BSPT British Standard Pipe Tapered

The BSPT (tapered) male will mate with a BSPT (tapered) female, or a BSPP (parallel) female.
The BSPT male has tapered threads.
When mating with either the BSPT (tapered) female or the BSPP (parallel) female port, the seal is made on the threads accomplished by thread distortion.

A thread sealant is recommended. The BSPT connector is similar to, but not interchangeable with, the NPT connector.
The thread pitch is different in most cases, and the thread angle is 55° instead of the 60° angle found on NPT threads.

SOO M-BSPT VHP Tapered Male BSPT 60°

Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	
Part. No	Part. No			DN	inch	F	
SOO142	SOO842	3/8" M-BSPT VHP C 1/4"	20 pcs	6	1/4"	3/8"	19

Selection by hose family

All inserts are available both with standard and AISI 316L steel

CARBON STEEL	-	-	SOO142	-	-	-	-	-	-
AISI 316L STEEL	-	-	SOO842	-	-	-	-	-	-
	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
HYDRAULIC									
041X - VHP 10000			•						
046X - VHP NON CONDUCTIVE			•						
040X - VHP 10000 MARINER			•						
080X - VHP EXTRA			•						
168X - OFF SHORE MASTER 3K			•						
060X - OFF SHORE MASTER 5K			•						
169X - OFF SHORE MASTER 10K			•						
INDUSTRIAL									
15R - CNG 5000 - COMPRESSED NATURAL GAS HOSE			•						
049 - HP AGGRESSIVE CHEMICALS									
048 - VHP AGGRESSIVE CHEMICALS			•						

Standard DIN 24° DIN 2353 / 3865 24°

The DIN 24° cone male will mate with any of the three females listed: Female 24° cone with O-Ring, Female metric tube, Female Universal or 60° cone.

The male has a 24° seat, straight metric threads, and a recessed counterbore with matches the tube O.D. used with it.
The mating female may be a 24° cone with O-ring (DKO type), a metric tube fitting or a universal 24° or 60° cone.

There is a light and heavy series DIN coupling.

Proper identification is made by measuring both the treadh size and the tube O.D. (the heavy series has a smaller tube O.D. than the light, but has a thicker wall section).

SOF F-VHP DKOL Female Straight Female DIN 24°

Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread
Part. No	Part. No			DN	inch	F
SOF132	-	14X1.5 F-DKOL VHP C 1/4"	20 pcs	6	1/4"	14 x 1.5
SOF154	-	18X1.5 F-DKOL VHP C 3/8"	20 pcs	10	3/8"	18 x 1.5
SOF175	-	22X1.5 F-DKOL VHP C 1/2"	20 pcs	12	1/2"	22 x 1.5
SOF196	-	26X1.5 F-DKOL VHP C 5/8"	2 pcs	16	5/8"	26 x 1.5

Selection by hose family

	CARBON STEEL	SOF132	-	SOF154	SOF175	SOF196	-	-
		1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
HYDRAULIC								
041X - VHP 10000		•		•				
046X - VHP NON CONDUCTIVE		•		•				
040X - VHP 10000 MARINER		•		•	•			
080X - VHP EXTRA		•						
060X - OFF SHORE MASTER 5K		•		•	•			
169X - OFF SHORE MASTER 10K		•		•	•			
INDUSTRIAL								
15R - CNG 5000 - COMPRESSED NATURAL GAS HOSE		•		•	•			
049 - HP AGGRESSIVE CHEMICALS				•	•			
048 - VHP AGGRESSIVE CHEMICALS		•		•	•	•		

SOM F VHP DKOS Female Straight Female DIN 24°

Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread
Part. No	Part. No			DN	inch	F
SOM132	SOM832	14X1.5 F-DKOS VHP C 1/4"	20 pcs	6	1/4"	14 x 1.5
SOM142	SOM842	16X1.5 F-DKOS VHP C 1/4"	20 pcs	6	1/4"	16 x 1.5
SOM152	SOM852	18X1.5 F-DKOS VHP C 1/4"	20 pcs	6	1/4"	18 x 1.5
SOM172	SOM872	22X1.5 F-DKOS VHP C 1/4"	20 pcs	6	1/4"	22 x 1.5
SOM182	SOM882	24X1.5 F-DKOS VHP C 1/4"	20 pcs	6	1/4"	24 x 1.5
SOM163	-	20X1.5 F-DKOS VHP C 5/16"	20 pcs	8	5/16"	20 x 1.5
SOM164	-	20x1.5 F-DKOS VHP C 3/8"	20 pcs pcs	10	3/8"	20 x 1.5
SOM174	SOM874	22X1.5 F-DKOS VHP C 3/8"	20 pcs	10	3/8"	22 X 1.5
SOM185	SOM885	24X1.5 F-DKOS VHP C 1/2"	20 pcs	12	1/2"	24 x 1.5
SOM1F6	-	30X2 F-DKOS VHP C 5/8"	2 pcs	16	5/8"	30 x 2
SOM1G7	SOM8G7	36X2 F-DKOS VHP C 3/4"	2 pcs	20	3/4"	36 x 2
SOM1G8	SOM8G8	36X2 F-DKOS VHP C 1"	2 pcs	25	1"	36 x 2
SOM1H8	SOM8H8	42X2 F-DKOS VHP C 1"	2 pcs	25	1"	42 x 2

Selection by hose family

All inserts are available both with standard and AISI 316L steel

	CARBON STEEL	SOM132	SOM142	SOM152	SOM172	SOM182	SOM163	SOM164	SOM174	SOM185	SOM1F6	SOM1G7	SOM1G8	SOM1H8
	AISI 316L STEEL	SOM832	SOM842	SOM852	SOM872	SOM882	-	-	SOM874	SOM885	-	SOM8G7	SOM8G8	SOM8H8
		1/4"	1/4"	1/4"	1/4"	1/4"	5/16"	3/8"	3/8"	1/2"	5/8"	3/4"	1"	1"
HYDRAULIC														
041X - VHP 10000		•	•	•	•	•		•	•					
046X - VHP NON CONDUCTIVE		•	•	•	•	•		•	•					
040X - VHP 10000 MARINER		•	•	•	•	•		•	•	•				
080X - VHP EXTRA		•	•	•	•	•								
168X - OFF SHORE MASTER 3K													•	•
060X - OFF SHORE MASTER 5K		•	•	•	•	•		•	•	•		•	•	•
169X - OFF SHORE MASTER 10K		•	•	•	•	•								
INDUSTRIAL														
15R - CNG 5000 - COMPRESSED NATURAL GAS HOSE		•	•	•	•	•		•	•	•		•	•	•
049 - HP AGGRESSIVE CHEMICALS								•	•	•				
048 - VHP AGGRESSIVE CHEMICALS		•	•	•	•	•	•	•	•	•	•	•	•	•

SOI CEL Male VHP C Male Metric DIN 24°

Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	
Part. No	Part. No			DN	inch	F	
SOI132	SOI832	14X1.5 M-CEL VHP C 1/4"	20 pcs	6	1/4"	14 x 1.5	8
SOI143	SOI843	16X1.5 M-CEL VHP C 5/16"	20 pcs	8	5/16"	16 x 1.5	10
SOI154	SOI854	18X1.5 M-CEL VHP C 3/8"	20 pcs	10	3/8"	18 x 1.5	12
SOI175	SOI875	22X1.5 M-CEL VHP C 1/2"	20 pcs	12	1/2"	22 x 1.5	15
SOI1F7	SOI8F7	30X2 M-CEL VHP C 3/4"	20 pcs	19	3/4"	30 x 2	22
SOI1G8	SOI8G8	36X2 M-CEL VHP C 1"	20 pcs	25	1"	36 x 2	28

Selection by hose family

All inserts are available both with standard and AISI 316L steel

	CARBON STEEL	-	-	SOI132	SOI143	SOI154	SOI175	-	SOI1F7	SOI1G8
	AISI 316L STEEL	-	-	SOI832	SOI843	SOI854	SOI875	-	SOI8F7	SOI8G8
		1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
HYDRAULIC										
041X - VHP 10000				•		•				
046X - VHP NON CONDUCTIVE				•		•				
040X - VHP 10000 MARINER				•		•	•			
080X - VHP EXTRA				•						
168X - OFF SHORE MASTER 3K										•
060X - OFF SHORE MASTER 5K				•		•	•		•	•
169X - OFF SHORE MASTER 10K				•						
INDUSTRIAL										
15R - CNG 5000 - COMPRESSED NATURAL GAS HOSE				•		•	•		•	•
049 - HP AGGRESSIVE CHEMICALS						•	•			
048 - VHP AGGRESSIVE CHEMICALS				•	•	•	•		•	•

SOL VHP CES Male CES DIN 24° VHP

Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SOL152	SOL852	18X1.5 M-CES VHP C 1/4"	20 pcs	6	1/4"	18 x 1.5	10
SOL163	SOL863	20X1.5 M-CES VHP C 5/16"	20 pcs	8	5/16"	20 x 1.5	12
SOL174	SOL874	22X1.5 M-CES VHP C 3/8"	20 pcs	10	3/8"	22 x 1.5	14
SOL185	SOL885	24X1.5 M-CES VHP C 1/2"	20 pcs	12	1/2"	24 x 1.5	16
SOL1F6	SOL8F6	30X2 M-CES VHP C 5/8"	2 pcs	16	5/8"	30 x 2	20
SOL1G7	SOL8G7	36X2 M-CES VHP C 3/4"	2 pcs	19	3/4"	36 x 2	25
SOL1H8	SOL8H8	42X2 M-CES VHP C 1"	2 pcs	25	1"	42 X 2	30

Selection by hose family

All inserts are available both with standard and AISI 316L steel

	CARBON STEEL	-	-	SOL152	SOL163	SOL174	SOL185	SOL1F6	SOL1G7	SOL1H8
	AISI 316L STEEL	-	-	SOL852	SOL863	SOL874	SOL885	SOL8F6	SOL8G7	SOL8H8
		1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
HYDRAULIC										
041X - VHP 10000				•		•				
046X - VHP NON CONDUCTIVE				•		•				
040X - VHP 10000 MARINER				•		•	•			
080X - VHP EXTRA				•						
060X - OFF SHORE MASTER 3K										•
060X - OFF SHORE MASTER 5K				•		•	•		•	•
169X - OFF SHORE MASTER 10K				•						
INDUSTRIAL										
15R - CNG 5000 - COMPRESSED NATURAL GAS HOSE				•		•	•		•	•
049 - HP AGGRESSIVE CHEMICALS						•	•			
048 - VHP AGGRESSIVE CHEMICALS				•	•	•	•	•	•	•

Standard NPSM National Pipe Straight Mechanical

The NPSM female has straight threads and a 30° inverted seat. This is used on the female swivel nut of iron pipe swivel adapters.

The leak-resistant joint is not made by the sealing fit of threads, but by a tapered seat in the coupling end. This connection is sometimes used in fluid power systems.

SOP F-NPSM VHP Female

Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread	D
Part. No	Part. No			DN	inch	F	mm
SOP122	-	1/4 F-NPSM VHP C 1/4	20 pcs	6	1/4"	14	18

Selection by hose family

	CARBON STEEL	-	-	SOQ122	-	-	-	-	-
		1/8"	3/16"	1/4"	3/8"	1/2"	5/8"	3/4"	1"
HYDRAULIC									
041X - VHP 10000				•					
046X - VHP NON CONDUCTIVE				•					
040X - VHP 10000 MARINER				•					
080X - VHP EXTRA				•					
060X - OFF SHORE MASTER 3K									
060X - OFF SHORE MASTER 5K				•					
169X - OFF SHORE MASTER 10K				•					
INDUSTRIAL									
15R - CNG 5000 - COMPRESSED NATURAL GAS HOSE				•					
049 - HP AGGRESSIVE CHEMICALS									
048 - VHP AGGRESSIVE CHEMICALS				•					

SOQ F-Type M VHP

Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread
Part. No	Part. No			DN	inch	F
SOQ1B2	SOQ8B2	9/16 F-TYPE M VHP C 1/4	20 pcs	6	1/4"	9/16"-18 UNF

Selection by hose family

All inserts are available both with standard and AISI 316L steel

CARBON STEEL	-	-	SOQ1B2	-	-	-	-	-	-
AISI 316L STEEL	-	-	SOQ8B2	-	-	-	-	-	-
	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
HYDRAULIC									
041X - VHP 10000			•						
046X - VHP NON CONDUCTIVE			•						
040X - VHP 10000 MARINER			•						
080X - VHP EXTRA			•						
060X - OFF SHORE MASTER 3K			•						
060X - OFF SHORE MASTER 5K			•						
169X - OFF SHORE MASTER 10K			•						
INDUSTRIAL									
15R - CNG 5000 - COMPRESSED NATURAL GAS HOSE			•						
049 - HP AGGRESSIVE CHEMICALS									
048 - VHP AGGRESSIVE CHEMICALS			•						

Standard JIC SAE J514 370

The Society of Automotive Engineers (SAE) specifies a 37° angle flare or seat be used with high pressure hydraulic tubing. These are commonly called JIC couplings.

The JIC 37° flare male will mate with a JIC female only.

The JIC male has straight threads and a 37° flare seat. The JIC female has straight threads and a 37° flare seat. The seal is made on the 37° flare seat by establishing a line contact between the male flare and the female cone seat. The threads hold the connection mechanically.

SOH F-VHP JIC C Straight Female JIC 74°

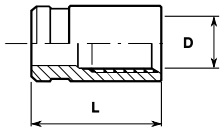
Carbon STEEL	AISI 316L STEEL	Description	Minimum Pack quantity	Hoze Size		Thread
Part. No	Part. No			DN	inch	F
SOH1A1	SOH8A1	7/16 F-JIC VHP C 3/16	20	6	3/16"	7/16"
SOH1A2	SOH8A2	7/16 F-JIC VHP C 1/4	20	6	1/4"	7/16"
SOH152	SOH852	1/2 F-JIC VHP C 1/4	20	6	1/4"	1/2"
SOH1B2	SOH8B2	9/16 F-JIC VHP C 1/4	20	6	1/4"	9/16"
SOH1B4	SOH8B4	9/16 F-JIC VHP C 3/8	20	10	3/8"	9/16"
SOH174	SOH874	3/4 F-JIC VHP C 3/8	20	10	3/8"	3/4"
SOH175	SOH875	3/4 F-JIC VHP C 1/2	20	12	1/2"	3/4"
SOH1C5	SOH8C5	7/8 F-JIC VHP C 1/2	20	12	1/2"	7/8"
SOH1D7	SOH8D71	1+1/16 F-JIC VHP C 3/4	2	20	3/4"	1+1/16"
SOH1F8	SOH8F8	1+5/16 F-JIC VHP C 1	2	25	1"	1+5/16"

Selection by hose family

All inserts are available both with standard and AISI 316L steel

	CARBON STEEL	SOH1A1	-	SOH1A2	SOH152	SOH1B2	SOH1B4	SOH174	SOH1C5	SOH175	-	SOH1F8
	AISI 316L STEEL	SOH8A1	SOH8B1	SOH8A2	SOH854	SOH8B2	SOH8B4	SOH874	SOH8C5	SOH875	SOH8D7	SOH8F8
		3/16"	3/16"	1/4"	1/4"	1/4"	3/8"	3/8"	1/2"	1/2"	3/4"	1"
HYDRAULIC												
041X - VHP 10000				•	•	•	•	•				
046X - VHP NON CONDUCTIVE		•	•	•	•	•	•	•				
040X - VHP 10000 MARINER				•	•	•	•	•	•	•		
080X - VHP EXTRA				•	•	•						
060X - OFF SHORE MASTER 3K												•
060X - OFF SHORE MASTER 5K				•	•	•	•	•	•	•	•	•
169X - OFF SHORE MASTER 10K		•	•		•							
INDUSTRIAL												
15R - CNG 5000 - COMPRESSED NATURAL GAS HOSE				•	•	•	•	•	•	•	•	•
049 - HP AGGRESSIVE CHEMICALS							•	•	•	•		
048 - VHP AGGRESSIVE CHEMICALS				•	•	•	•	•	•	•	•	•

SAY1XX Ferrule Micro TP-Y



Carbon STEEL	Description	Hoze Size		D	L
Part. No		DN	inch	mm	mm
SAY1C1	FERRULE MICRO TP-Y 2.0	2	5/64"	50	14
SAY1G1	FERRULE MICRO TP-Y 3.0	3	1/8"	6,50	14
SAY1M1	FERRULE MICRO TP-Y 4.0	4	5/32"	8,40	17

Selection by hose family

	CARBON STEEL	SAY1C1	SAY1G1	SAY1M1
	DN	2	3	4
HYDRAULIC				
089A-MICRO BORE DN2		•		
089B-MICRO BORE DN3			•	
089C-MICRO BORE DN4				•

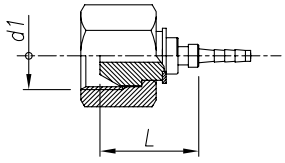
Standard BSPP British Standard Pipe Parallel

Popular couplings British Standard Pipe (BSP) threads, also known as Whitworth threads.

The BSPP (parallel) male will mate with a BSPP (parallel) female or a female port. The BSPP male has straight threads and a 30° seat. The BSPP female has straight threads and a 30° seat.

The female swivel BSPP has a tapered nose which seals on the cone seat of the male.
The BSPP (parallel) connector is similar to, but not interchangeable with, the NPSM connector.
The thread pitch is different in most sizes, and the thread angle is 55° instead of the 60° angle found on NPSM threads.

SBH F-BSPP C Straight Female BSPP 60°



Part. No	Description	Hoze Size DN	Hoze Size L	Thread	Ch	WP max bar
SBH12C	1/4 F-BSPP C DN2	2	18	ISO 228 G1/4"	17	630
SBH12G	1/4 F-BSPP C DN3	3	18	ISO 228 G1/4"	17	630
SBH12M	1/4 F-BSPP C DN4	4	18	-	-	500

Standard JIC SAE J514 370

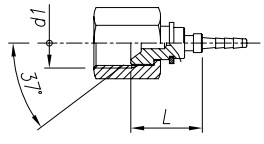
The Society of Automotive Engineers (SAE) specifies a 37° angle flare or seat be used with high pressure hydraulic tubing.
These are commonly called JIC couplings.

The JIC 37° flare male will mate with a JIC female only. The JIC male has straight threads and a 37° flare seat.

The JIC female has straight threads and a 37° flare seat. The seal is made on the 37° flare seat by establishing a line contact between the male flare and the female cone seat.

The threads hold the connection mechanically.

SBC JIC Female 7/16 Straight Female JIC 37°



Part. No	Description	Hoze Size DN	Hoze Size L	Thread	Ch	WP max bar
SBC1AC	7/16 F-JIC C DN2	2	15	7/16"-20 UNF	14	450
SBC1AM	7/16 F-JIC C DN4	4	15	-	-	450

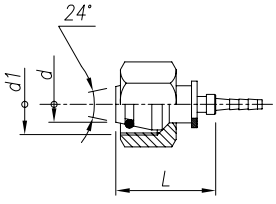
Standard DIN 24° DIN 2353 / 3865 24°

The DIN 24° cone male will mate with any of the three females listed: Female 24° cone with O-Ring, Female metric tube, Female Universal or 60° cone.
The male has a 24° seat, straight metric threads, and a recessed counterbore with matches the tube O.D. used with it.

The mating female may be a 24° cone with O-ring (DKO type), a metric tube fitting or a universal 24° or 60° cone.
There is a light and heavy series DIN coupling.

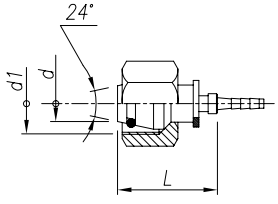
Proper identification is made by measu ring both the thread size and the tube O.D. (the heavy series has a smaller tube O.D. than the light, but has a thicker wall section).

SBO OR DIN 24° Female DKOL DIN 24° Light



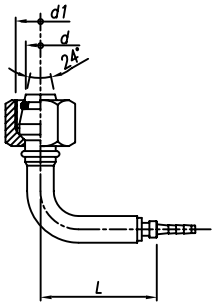
Part. No	Description	Hoze Size			Thread	Ch	WP max
		DN	L	d			bar
SB012C	12x1,5 F-DKOL C DN2	2	21	6	14	M12x1,5	315 bar
SB012M	12x1,5 F-DKOL C DN4	4	21	6	14	M12x1,5	315 bar

SBN OR DIN 24° Female DKOS DIN 24° Heavy



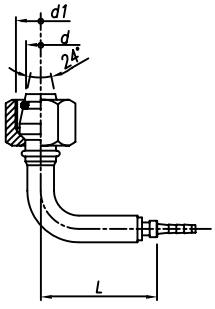
Part. No	Description	Hoze Size			Thread	Ch	WP max
		DN	L	d			bar
SBN13C	14X1.5 F-DKOS C DN2	2	21	6	17	M14x1,5	630
SBN14C	16X1.5 F-DKOS C DN2	2	21	8	19	M16x1,5	630
SBN13M	14X1.5 F-DKOS C DN4	4	21	6	17	M14x1,5	500
SBN14M	16X1.5 F-DKOS C DN4	4	21	8	19	M16x1,5	500

SCI F90 DKOL C Elbow Female DKOL DIN 24° Light



Part. No	Description	Hoze Size			Thread	Ch	WP max
		DN	L	d			bar
SCI12C	12x1.5 F90-DKOL C DN2	2	32	6	14	M12x1,5	315
SCI12M	12x1.5 F90-DKOL C DN4	4	32	6	14	M12x1,5	315

SCL F90-DKOS C Elbow Female DKOS DIN 24° Heavy



Part. No	Description	Hoze Size			Thread	Ch	WP max
		DN	L	d			bar
SCL13C	14x1.5 F90-DKOS C DN2	2	32	6	17	M14x1,5	630
SCL14C	16x1.5 F90-DKOS C DN2	2	30	8	19	M16x1,5	630
SCL13M	14x1.5 F90-DKOS C DN4	4	32	6	17	M14x1,5	500
SCL14M	16x1.5 F90-DKOS C DN4	4	30	8	19	M16x1,5	500

Metric Standpipe

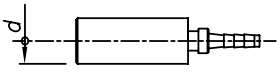
A metric standpipe is comprised of three components attached to a male f tting.

Components
— Standpipe
— Bite Sleeve
— Metric Nut

The nut is placed over the Standpipe, followed by the Bite Sleeve.

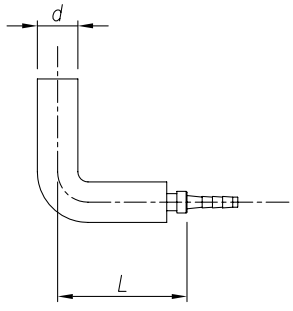
For DIN light assemblies, a DIN light metric nut is used. For DIN heavy assemblies, a DIN heavy metric nut is used.
For DIN heavy metric nut is used.
The Bite Sleeve and Standpipe are selected on the basis of tube O.D.

SEA Standpipe C Standpipe



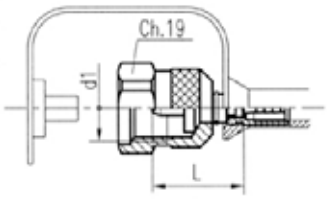
Part. No	Description	Hoze Size		
		DN	L	d
SEA11C	6 mm standpipe C DN2	2	25	6
SEA12C	8 mm standpipe C DN2	2	25	8
SEA11G	6 mm standpipe C DN3	3	26	6
SEA11M	6 mm standpipe C DN4	4	29	6
SEA12M	8 mm standpipe C DN4	4	29	8

SEC Standpipe90 C Elbow Standpipe



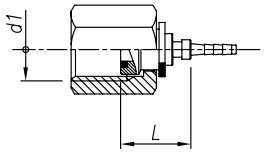
Part. No	Description	Hoze Size		
		DN	L	d
SEC11C	6 mm standpipe 90 C DN2	2	22	6
SEC12C	8 mm standpipe 90 C DN2	2	31	8
SEC11M	6 mm standpipe 90 C DN4	4	31	6
SEC12M	8 mm standpipe 90 C DN4	4	31	8

SB2 F-PGAUGE ISO228 C Straight Nut With Plug Connector



Part. No	Description	Hoze Size			Thread	Ch	WP max
		DN	L	d			bar
SB21DC	16x2 F-PGAUGE ISO228 C	2	21	6	22	M16x2	630
SB21DM	16x2 F-PGAUGE ISO228 C	4	21	8	22	M16x2	630

SBZ F-GAUGE FLAT C Pressure Gauge



Part. No	Description	Hoze Size		Thread	Ch	WP max
		DN	L			bar
SBZ12C	1/4 F-GAUGE FLAT C DN2	2	15	ISO 228 G1/4”	DN2	630
SBZ12M	1/4 F-GAUGE FLAT C DN4	4	15	ISO 228 G1/4”	DN2	500

Standard BSPP British Standard Pipe Parallel

Popular couplings British Standard Pipe (BSP) threads, also known as Whitworth threads.

The BSPP (parallel) male will mate with a BSPP (parallel) female or a female port.
The BSPP male has straight threads and a 30° seat.
The BSPP female has straight threads and a 30° seat.

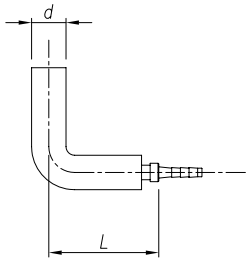
The female swivel BSPP has a tapered nose which seals on the cone seat of the male.

The BSPP (parallel) connector is similar to, but not interchangeable with, the NPSM connector. The thread pitch is different in most sizes, and the thread angle is 55° instead of the 60° angle found on NPSM threads.

SVA F-BSPP Push-On Straight Female BSPP 60°

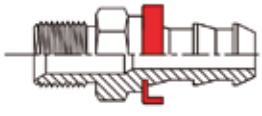
Part. No	Description	Hoze Size		Thread	
		DN	inch	F	
SVA122	1/4 F-BSPP PUSH-ON C 1/4	6	1/4"	1/4"	19
SVA144	3/8 F-BSPP PUSH-ON C 3/8	10	3/8"	3/8"	19
SVA155	1/2 F-BSPP PUSH-ON C 1/2	12	1/2"	1/2"	14
SVA177	3/4 F-BSPP PUSH-ON C 3/4	20	3/4"	3/4"	14

SVF F90 BSPP Push-On Elbow Female BSPP 60°



Part. No	Description	Hoze Size		Thread	
		DN	inch	F	
SVF122	1/4 F90-BSPP PUSH-ON C 1/4	6	1/4"	1/4"	19
SVF144	3/8 F90-BSPP PUSH-ON C 3/8	10	3/8"	3/8"	19
SVF155	1/2 F90-BSPP PUSH-ON C 1/2	12	1/2"	1/2"	14
SVF177	3/4 F90-BSPP PUSH-ON C 3/4	20	3/4"	3/4"	14

SVB Male BSPP Push-On Parallel Male BSPP 60°



Part. No	Description	Hoze Size		Thread	
		DN	inch	F	
SVB122	1/4 M-BSPP PUSH-ON C 1/4	6	1/4"	1/4"	19
SVB144	3/8 M-BSPP PUSH-ON C 3/8	10	3/8"	3/8"	19
SVB155	1/2 M-BSPP PUSH-ON C 1/2	12	1/2"	1/2"	14
SVB177	3/4 M-BSPP PUSH-ON C 3/4	20	3/4"	3/4"	14

Standard NPT National Pipe Tapered Fuel

This is a dryseal thread, the National pipe tapered thread for fuels.

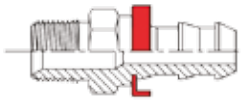
This is used for both male and female ends.
This connection is still widely used in fluid power systems, even through itIs not recommended by the National Fluid Power Association (N.F.P.A.) for use in hydraulic applications.

The NPTF male will mate with the NPTF, NPSF or NPSM female.
The NPTF male has tapered threads and a 30° inverted seat.
The NPTF female has tapered threads and no seat.

The seal takes piace by deformation of the threads. The NPSM female has straight threads and a 30° inverted seat. The seal takes piace on the 30° seat.

The NPTF connector is similar to, but not interchangeable with, the BSPT connector. The thread pitch is different in most sizes. Also, the thread angle is 60° instead of the 55° angle found on BSPT threads.

SVD M-NPT Push-On NPTF Male



Part. No	Description	Hoze Size		Thread	
		DN	inch	F	
SVD122	1/4 M-NPTF PUSH-ON C 1/4	6	1/4"	1/4"	18
SVD144	3/8 M-NPTF PUSH-ON C 3/8	10	3/8"	3/8"	18
SVD155	1/2 M-NPTF PUSH-ON C 1/2	12	1/2"	1/2"	14
SVD177	3/4 M-NPTF PUSH-ON C 3/4	20	3/4"	3/4"	14

Metric Standpipe

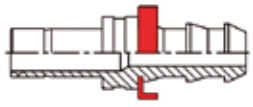
A metric standpipe is comprised of three components attached to a male f tting.

The components are: a Standpipe, Bite Sleeve and Metric Nut.
The nut is placed over the Standpipe, followed by the Bite Sleeve.

For DIN light assemblies, a DIN light metric nut is used.
For DIN heavy assemblies, a DIN heavy metric nut is used.
For DIN heavy metric nut is used.

The Bite Sleeve and Standpipe are selected on the basis of tube O.D.

SVE Standpipe Push-On Straight Metric Standpipe



Part. No	Description	Hose OD	Hose ID	
		mm	DN	inch
SVE112	6MM STANDPIPE PUSH-ON C 1/4	6	1/4"	19
SVE134	10MM STANDPIPE PUSH-ON C 3/8	10	3/8"	19
SVE145	12MM STANDPIPE PUSH-ON C 1/2	12	1/2"	14
SVE1C7	20MM STANDPIPE PUSH-ON C 3/4	20	3/4"	14

General Terms Of Sale

General introduction
The following terms of sale will be applied to every contract concluded through a purchase order placed via the Internet, telefax, electronic mail and ordinary mail, and relating to the standard products listed in the site or in the Transfer Oil catalogues, at the appropriate page. Any different and specific terms and every order relating to personalised products may/must be the subject of a different, separate agreement.
In the event of a contrast between these standard terms and any special term agreed to between the parties, the special term will take priority, but without prejudice to all the other general terms, as per the points below, wherever compatible. The general introduction forms an integral part of every purchase and sale contract concluded through the sending of the order form, whether by e-mail, by post or by telefax.

Preamble
Transfer Oil, hereafter also referred to as the Seller, sells the products listed and described in the "Products" page that can be found in official Transfer Oil web site or in one of the Transfer Oil catalogues, hereafter also referred to as the Products, which may be purchased under the terms as per the clauses below.

Conclusion of the contract
The purchase order on the Internet site must be compiled by the Purchaser according to the instructions in the appropriate "Orders" WEB page. The sending of the order form on the site, compiled as per the instructions, shall imply acceptance on the part of the purchaser of all the clauses outlined below. The sale and purchase contract, also in the event that the order is sent by the purchaser via telefax, e-mail or post, will in any case be considered as concluded and complete with the dispatch, on the part of Transfer Oil, of the due acceptance of the purchase order by telefax or electronic mail.

Cancellation and/or modification of orders
Penalty.
Any cancellations, reductions and/or modifications of orders already accepted by Transfer Oil may be made within and not later than five days from the date of the order, by means of a written communication to be sent via fax or by registered letter with advice of receipt to the seller party.
Any cancellation and/or modification notified after the above indicated period, or by other means different from those provided for in the previous paragraph shall imply a penalty of 10% of the price of the already ordered goods.
The penalty referred to in the above paragraph will be invariably equal to 50% of the price should the object of the sale be personalised products according to the purchaser's wishes and requirements.

The products
The Products that may be purchased, and the order of which implies – if accepted – total agreement with the general terms of sale, are those listed in the appropriate WEB page in the official Transfer Oil site, or in one of the Transfer Oil catalogues. The availability on stock of the above mentioned products is not guaranteed. In consideration of the particular applications of some products, the acceptance of the order can be subjected to a quantity equal to the economic batch of production in use at the moment of the order.
In the event that the subject of the sale are personalised products according to the purchaser's wishes and requirements, having as a result different characteristics from standard products, these general terms of sale shall be equally applicable and binding, but without prejudice to any different, special condition that shall take priority should it be the subject of specific, separate agreement.
Should the purchaser's offer or the seller's acceptance make reference to a specific sample, the product which is the subject of the relative sale, except in the event of a different written agreement, is binding with respect to the sample characteristics only within the limits of reasonable approximation.

Price and payment
The price shall be fixed according to the products chosen by the purchaser on the date of dispatch of the order and shall remain unchanged, except with reference to the provisions of the following clause, also if the delivery is deferred by agreement but nevertheless within six months from the date of the order. The customer has the right to the price relating to the products effectively collected with reference to that order for a period of six months.
The seller has the right to revise the prices of the products on the basis of the price dynamics of raw materials, labour and packaging, but must notify the purchaser about new prices at least 30 days before their application, and in such cases, the purchaser has the right to withdrawal.
Payment must categorically be made following the methods specified by Transfer Oil in the completed order form and according to the terms therein prescribed.

Express resolutory clause
In accordance and by the effects of art. 1456 of the civil code (c.c.), in the event of breach on the part of the purchaser of the obligations referred to in art. 5 (Price and payment), the seller shall have the right to cancel the contract/s already concluded, by means of a registered letter with advice of receipt, in which it declares to have made recourse to

this clause, without prejudice, however, to any possible action for compensation for damages. Any change in the purchaser's balance sheet situation such as to endanger the correct fulfilment of the obligation of payment of the price, shall give the seller, in accordance with art. 1461 c.c., the right to suspend deliveries already agreed, and to cancel the contract by means of a simple written notice, without prejudice, however, to the payment of the amounts due for services already carried out. Equally, any incorrect or failed compliance with the obligations relating to the payment of the price shall give the seller the right to suspend deliveries already agreed, also those not relating to the breach in question, in accordance with art. 1460 c.c.

It should be understood, in particular, that:

Delivery
The sale is considered as Ex-Works, and as a result, the costs of transport are fully borne by the purchaser. Transfer Oil shall arrange to deliver the Products sold to the carrier indicated by the purchaser in the order form.

Cancellation
The seller may cancel the contract and not fulfil the obligation to deliver whenever, by reason of force majeure and in any case of unforeseen and extraordinary events, the execution of the delivery service becomes excessively onerous or in any case impossible.

Quality
Transfer Oil carries out a random check of its products on each production batch. Any technical modifications will be subject to acceptance by the purchaser for orders in progress.

Warranty
Transfer Oil guarantees the conformity of the products supplied to the characteristics expressly indicated in the relative WEB page and in its catalogues. The warranty for defects in the products is categorically limited only to manufacture defects attributable to the seller. The warranty has a limited duration of twelve months, starting from the date of delivery, and is dependent on the regular reporting of the defect by the purchaser in accordance with the following paragraphs, as well as on the express written request to the seller to take action under the warranty. As a consequence of the aforementioned request, the seller may, at its own choice and alternatively: a) supply ex-works free of charge to the purchaser, products of the same type and quantity as those found to be defective or non-conforming to what was agreed; b) declare the cancellation of the contract in writing, offering the return of the price against restitution of the supplied products.
Except in the event of malice or gross negligence on the part of the seller, any possible compensation for damages to the purchaser may not in any case exceed the invoice price for the disputed products. The warranty here agreed to assimilates and replaces legal guarantees for defects and deformities, and excludes any other liability on the part of Transfer Oil in any way arising from the supplied products; specifically, the purchaser may not make other requests for compensation for damages, a reduction in the price or the cancellation of the contract. Once the duration of the warranty has elapsed, no claim may be made against the seller. The seller may not be held liable with respect to the purchaser for any loss of profit, non-use, loss of production, loss of contracts or any other indirect or consequential damage, but only for proven damages to persons or things, attributable to the sold products, in the event of its proven gross negligence and/or incompetence in their manufacture.

Claims
Claims relating to quantity, colour, or to quality faults and defects or to non-conformity that the purchaser may detect as soon as they come into possession of the goods, must be made by the purchaser in writing by means of a registered letter with advice of receipt, on penalty of forfeiture, not later than eight days from the moment in which the products arrive at their place of destination. Should the claim turn out to be unfounded, the purchaser shall be bound to reimburse the seller all costs borne by the latter for carrying out checks (any travel costs, expert opinions, etc.).

Interpretations
Any reference made to general terms, list prices, various attachments or to other material of the seller or of third parties, must be considered as referring to the terms and documents applied upon the conclusion of the contract.

Applicable law and competent court
These General terms of Sale, together with the Contract to which they refer, shall be regulated by Italian laws. The Court of Parma shall be the exclusive competent court for any dispute relating to, or deriving from, the Contract.

ILLUSTRATIONS
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