

This Product Technical Manual is divided into six Sections.
A Colour Coded Indicator Tab as shown along the side of this page aids finding and identifying each Section.
At the start of both the Hose Couplings and the Adaptors Sections is detailed information on How To Use each Section.
Pictorial Indexes for each Section are at the start of each Section.

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One of the many well recognised advantages of RYCO hydraulics products is that virtually all parts are branded with the RYCO name and Part Number, making for easy identification and reducing the chance for errors. The Part Number included the Size of the Hose, or Thread or Connector, in the Part Number ("Dash Size Part Numbering").

Essentially: IMPERIAL DIMENSIONS are expressed as the number of SIXTEENTHS of an inch.
METRIC DIMENSIONS are expressed as the number of MILLIMETRES.
Further explanation is given on the following pages.

For Example:

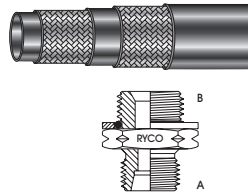
1. T26A is T2A Series two wire braid non-skive hose:

-6 = 6/16" = 3/8" inside diameter.

2. M75S-2208 is an M75S Adaptor with:

Thread A -22 = 22mm metric thread one end and

Thread B -08 = 8/16" = 1/2" BSP thread other end.



T204-0812 is a T204 JIC Female Coupling with:

Hose Size -12 = 8/16" = 1/2"

Thread Size -12 = 12/16" = 3/4"

For example: S27-0202 (previously S27-1)
S27 is BSPT Male Nipple Series
-0202 is size 1/8 by 1/8.

The size is clearly incorporated in the new Part Number.

With a little familiarity and by following the simple guide-lines on the next pages, you will find that you can specify Part Numbers without needing to refer to the Product Technical Manual.

EXAMPLES:

BSP 602

60° SEAT



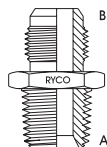
HOSE SIZE		THREAD SIZE	DASH SIZE	BSPP FEMALE
DIN	INCH	INCH		PART NO
6	1/4	1/8	-0402	602-0402
6	1/4	1/4	-0404	602-0404
6	1/4	3/8	-0406	602-0406

1. Hose Couplings

Part No. 602-0406
602 is the Group Designator for BSPP Female Field Attachable Insert.
6 = 600 Series Field Attachable Insert
02 = BSPP Female (End Termination Style)
-0406 is the Size Designator (Dash Size)
(Hose Size then Thread Size)
04 = Hose Size 4/16" = 1/4"
06 = Thread Size 6/16" = 3/8"

BSP/JIC S7

STRAIGHT



THREAD SIZE		DASH SIZE	BSPT MALE JIC MALE
A	B		PART NO
1/2	1.1/16	-0817	S7-0817

2. Adaptors

Part No. S7-0817
S7 is the Group Designator for BSPT Male JIC Male Nipple
-0817 is the Dash Size (A Thread then B Thread)
08 = 8/16" = 1/2" BSPT Male
17 = 17/16" = 1.1/16" JIC Male

RYCO “Dash Size” Definitions

The “Dash Size” of a Hose, Coupling, Thread or Connector is:

- 1. For Hose**
the number of SIXTEENTHS of an inch in the Inside Diameter.
- 2. For Threads or Connectors with Imperial Dimensions**
the number of SIXTEENTHS of an inch in the size of the Thread or Connector.
- 3. For Threads with Metric Dimensions**
the number of MILLIMETRES. (Usually OD of Male Thread).
(pitch of thread is sometimes included)
- 4. For Minelok and Rycolok Couplings**
the nominal size of the coupling in MILLIMETRES.
- 5. For Quick Release Couplings**
the nominal size of the coupling in SIXTEENTHS of an inch.
- 6. For Hose Protection**
RWA - inside diameter in MILLIMETRES.
FS1072 - inside diameter in SIXTEENTHS of an inch.
RSG/RSGY/RSGF - outside diameter in MILLIMETRES.
- 7. For Hydraulic Filters EXCEPTION TO RULE.**
Hydraulic Filters are dash sized for the number of EIGHTHS of an inch in the port size of the filter.

Rules for “Dash Size” Part Numbering

- 1. HYDRAULIC HOSE**
Part Number comprises the Hose Series number followed by the Dash Size.
Note: For Dash Sizes -03, -04, -05, -06 and -08 the “0” is not included in the part number except for Spiral Hose.
Hose Series Numbers are shown in Hose Pictorial Index on pages 12 and 13.
Dash Sizes are shown in the Quick Reference Chart on page 9.

Examples

- 06 size DF2 Series Hose is DF26
- 16 size SR Series Hose is SR16
- 12 size M2 Series Hose is M212
- 10 size RTH1 Series Hose is RTH110
- 08 size HSP Series (Spiral) Hose is HSP08

Note

If there are letters at the end of the Hose Series number, Dash Size comes before letters (AJ2D, AS1D, AS2D, H12A, H12D, H12S, H13A, H13D, H13S, H15D, M2G, P1HT, RT7N, RT7T, RT7TN, T1A, T2A, T1D, T2D, T2S, TXA2D, TJ2D,))

Examples

- 20 size H12A Series Hose is H1220A
- 32 size H13D Series Hose is H1332D
- 06 size P1HT Series Hose is P16HT
- 06 size RT7TN Series hose is RT76TN

2. HOSE COUPLINGS

Part Numbers comprise of Coupling Series and End Style number followed by the Dash Size of the Hose and the Thread or Connector Size.

The Hose Dash Size number is first. The Thread or Connector Dash Size Number follows.

Coupling Series and End Style Numbers are described at start of Hose Coupling Section. (See page 44 and pages 51 to 53).

Examples

1. Field Attachable Insert 1/2" BSPT Male for 3/8" hose.

Order Part No. 601-0608

6 = 600 Series Insert ← **601** - **06 08**
 01 = BSPT Male End Style ←
 -06 = 6/16" = 3/8" hose
 -08 = 8/16" = 1/2" thread



2. T200 Bitelok One Piece Crimp Coupling 3/4" hose x 1.1/16" JIC Female

Order Part No. T204-1217

T2 = T200 Series Coupling ← **T204** - **12 17**
 04 = JIC Female End Style ←
 -12 = 12/16" = 3/4" hose
 -17 = 17/16" = 1.1/16" thread



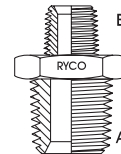
3. ADAPTORS

Part Numbers comprise of Group Designator followed by Dash Size.

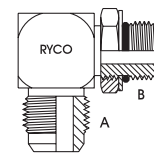
(Group Designators are shown in Adaptors Pictorial Index pages 118 to 125).

Examples

1. **S27** - **12 08**
 Group Designator for BSPT Male Nipple ←
 -12 = 12/16" = 3/4" thread (A)
 -08 = 8/16" = 1/2" thread (B)



2. **S91** - **12 21**
 Group Designator for JIC Male UN O Ring Male 90° Elbow ←
 -12 = 12/16" = 3/4" thread (JIC) (A)
 -21 = 21/16" = 1.5/16" thread (UNO) (B)



There are supplementary rules which determine the listing order for multi-ended adaptors. These rules are shown in detail on pages 116 and 117.

QUICK REFERENCE CHART OF DASH SIZE EQUIVALENTS

Example: Find Dash Size for 1.5/16" JIC thread. Read down JIC & UNO column until 1.5/16" is reached. Read off Dash Size in far left column (-21).

DASH SIZE	* INCH	** MM	BSP INCH-TPI	NPT INCH-TPI	JIC & UNO INCH-TPI	SAE FLARE INCH-TPI	ORFS INCH-TPI	METRIC MM x PITCH
-02	1/8	2	1/8 - 28	1/8 - 27				
-03	3/16	3						
-04	1/4	4	1/4 - 19	1/4 - 18				
-05	5/16	5			5/16 - 24	5/16 - 24		
-06	3/8	6	3/8 - 19	3/8 - 18	3/8 - 24	3/8 - 24		
-07	7/16	7			7/16 - 20	7/16 - 20		
-08	1/2	8	1/2 - 14	1/2 - 14	1/2 - 20	1/2 - 20		
-09	9/16	9			9/16 - 18		9/16 - 18	
-10	5/8	10	5/8 - 14			5/8 - 18		
-11	11/16	11					11/16 - 16	
-12	3/4	12	3/4 - 14	3/4 - 14	3/4 - 16	3/4 - 16		
-13	13/16	13					13/16 - 16	
-14	7/8	14			7/8 - 14	7/8 - 14		14 x 1,5 (-1415)
-15	15/16	15						
-16	1	16	1 - 11	1 - 11.1/2			1 - 14	16 x 1,5 (-1615)
-17	1.1/16	17			1.1/16 - 12	1.1/16 - 14		
-18	1.1/8	18						18 x 1,5 (-1815)
-19	1.3/16	19					1.3/16 - 12	
-20	1.1/4	20	1.1/4 - 11	1.1/4 - 11.1/2				20 x 1,5 (-2015)
-21	1.5/16	21			1.5/16 - 12			
-22	1.3/8	22						22 x 1,5 (-2215)
-23	1.7/16	23					1.7/16 - 12	
-24	1.1/2	24	1.1/2 - 11	1.1/2 - 11.1/2				24 x 1,5 (-2415)
-25	1.9/16	25						
-26	1.5/8	26			1.5/8 - 12			26 x 1,5 (-2615)
-27	1.11/16	27					1.11/16 - 12	
-28	1.3/4	28						
-29	1.13/16	29						
-30	1.7/8	30			1.7/8 - 12			30 x 1,5 (-3015) 30 x 2,0 (-3020)
-31	1.15/16	31						
-32	2	32	2 - 11	2 - 11.1/2			2 - 12	
-33	2.1/16	33						33 x 1,5 (-3315)
-36	2.1/4	36						36 x 1,5 (-3615) 36 x 2,0 (-3620)
-40	2.1/2	40	2.1/2 - 11	2.1/2 - 8	2.1/2 - 12			
-42	2.5/8	42						42 x 1,5 (-4215) 42 x 2,0 (-4220)
-48	3	48	3 - 11		3 - 8			
-52	3.1/4	52						52 x 2,0 (-5220)

***INCH COLUMN IS USED FOR:**

- Hose ID.
- Imperial Tube OD.
- Nominal size of SAE FLANGE.
- Nominal size of Quick Release Coupling.

****MM COLUMN IS USED FOR:**

- Metric Tube OD.
- Nominal size of MINELOK/RYSOLOK Couplings.

The RYCO hydraulics Minelok coupling is a two part, quick release coupling designed specifically for underground mining and high flow quick connect situations.

ONE TOUCH – SIMPLE TO USE – NO TOOLS – NO PINS – NO CLIPS

The unique design of the coupling allows the operator to very easily connect and disconnect the coupling in the trickiest of places, with the greatest of ease and the highest safety. Without the use of any tools, the ingenious one touch mechanism allows the Minelok coupling to be disconnected and reconnected in seconds. The knurled sleeve on the female coupling is pulled back and turned one third of a turn clockwise to release the male coupling, while a one third turn in the opposite direction resets the female coupling. To reconnect, the male is pushed into the female coupling – a simple one touch operation. To prevent the coupling from accidentally being released, the knurled sleeve requires a small inward push before it is possible to release the mechanism making it fool proof, yet easy to use.

TOUGH

Manufactured at RYCO hydraulics in Melbourne, Minelok couplings are made from high quality steel specially plated to prevent oxidation. Minelok couplings are available in RYCO T700 and T900 Bitelok Non-Skive One Piece Crimp Couplings, 3400 Series Hose Tails for Air and Water Hose, as well as various adaptors, in sizes from 25mm to 50mm (1" to 2"). See page 90 (T700 Series), page 99 (T900 Series), page 110 (3400 Series) and pages 168 and 169 for Minelok Adaptors.

STREAMLINE

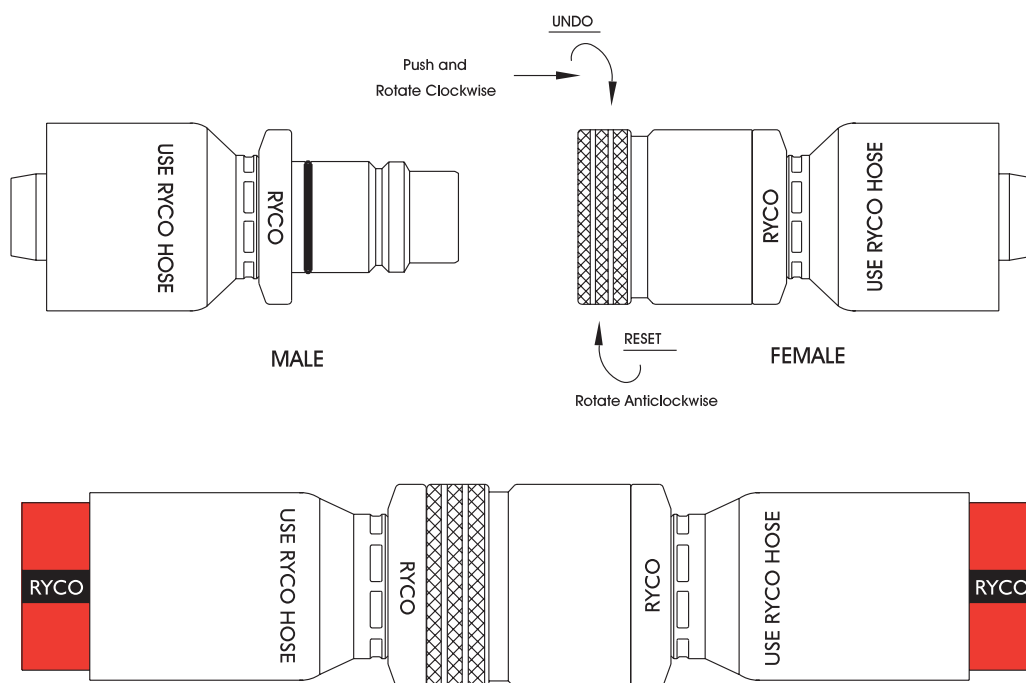
Because the coupling is so streamline, it can be used in very tight positions. With an inner bore equal to that of RYCO hose coupling inserts, high fluid flow is readily available and since the bore is equal throughout the coupling, no flow restriction exists.

PROTECTION

Engineered into the coupling is a series of dust and weather seals to prevent dirt and contaminants from entering the workings of the coupling, giving it great versatility and life span in mining conditions. An O ring seal and teflon back up washer are located inside the female coupling to create excellent fluid sealing capabilities. An O ring on the Minelok Male forms a dust seal to prevent ingress of contaminants while couplings are connected.

HIGH PRESSURE – QUALITY TESTED

The RYCO Minelok coupling is rated to an amazing 420 bar dynamic working pressure throughout its range. As with all RYCO quality products, the coupling design has undertaken and passed RYCO's rigorous testing; exceeding 600,000 impulse cycles without failure. Additionally, this unique coupling has proven itself successfully in the harshest of conditions in underground coal mines.

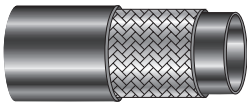
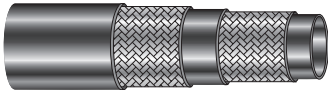
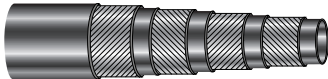
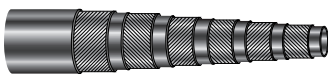
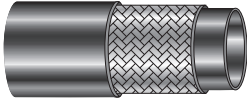
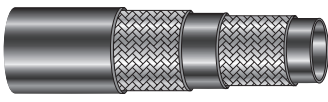
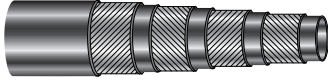
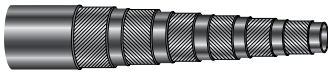
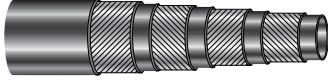
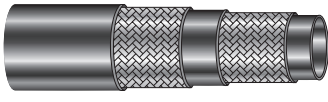
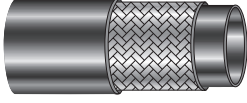
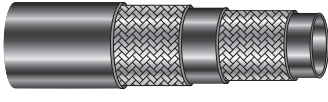


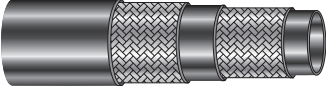
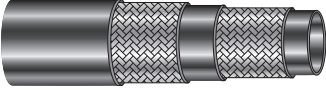
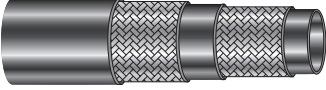
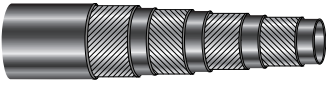
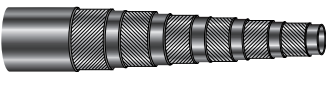
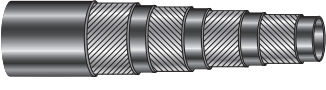
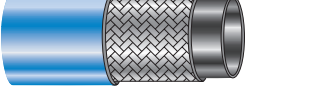
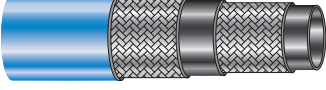
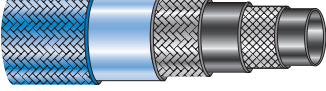
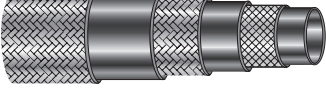
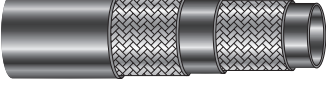
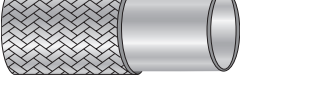
Patent Pending. Design Registration Nos. 123150/126669



Hydraulic Hose



RYCO Hose Series		Size Inside Diameter	Recommended For	Construction	Performance Specifications Met or Exceeded	
PAGE						
20	T1A AVENGER		-4 to -32 (1/4" to 2")	High pressure hydraulic oil lines. Maximum working temperatures to + 100°C.	Synthetic rubber tube. One wire braid. Thin non-skive black cover.	AS 3791 100R1AT DIN 20022 - 1SN EN 853 Type 1SN ISO 1436 Type 1AT SAE 100R1AT
21	T2A AVENGER		-4 to -40 (1/4" to 2.1/2")	High pressure hydraulic oil lines. Maximum working temperatures to + 100°C.	Synthetic rubber tube. Two wire braids. Thin, non-skive black cover.	AS 3791 100R2AT DIN 20022 - 2SN EN 853 Type 2SN ISO 1436 Type 2AT SAE 100R2AT
22	H12A AVENGER		-06 to -32 (3/8" to 2")	Very high pressure hydraulic oil lines.	Synthetic rubber tube. Four wire spirals. Black cover.	AS 3791 100R12 EN 856 Type R12 EN 856 Type 4SP (-12 to -32) ISO 3862 Type 6 SAE 100R12
23	H13A AVENGER		-12 to -32 (3/4" to 2")	Extremely high pressure hydraulic oil lines.	Synthetic rubber tube. Four or six wire spirals. Black cover.	AS 3791 100R13 EN 856 Type R13 ISO 3862 Type 7 SAE 100R13
24	T1D DIEHARD		-4 to -32 (1/4" to 2")	High pressure hydraulic oil lines. Very high abrasion resistant cover.	Synthetic rubber tube. One wire braid. Thin non-skive black cover.	AS 3791 100R1AT DIN 20022 - 1SN EN 853 Type 1SN ISO 1436 Type 1AT SAE 100R1AT
25	T2D DIEHARD		-4 to -32 (1/4" to 2")	High pressure hydraulic oil lines. Very high abrasion resistant cover.	Synthetic rubber tube. Two wire braids. Thin, non-skive black cover.	AS 3791 100R2AT DIN 20022 - 2SN EN 853 Type 2SN ISO 1436 Type 2AT SAE 100R2AT
26	H12D DIEHARD		-06 to -32 (3/8" to 2")	Very high pressure hydraulic oil lines. Very high abrasion resistant cover.	Synthetic rubber tube. Four wire spirals. Black cover.	AS 3791 100R12 EN 856 Type R12 EN 856 Type 4SP (-12 to -32) ISO 3862 Type 6 SAE 100R12
27	H13D DIEHARD		-12 to -32 (3/4" to 2")	Extremely high pressure hydraulic oil lines. Very high abrasion resistant cover.	Synthetic rubber tube. Four or six wire spirals. Black cover.	AS 3791 100R13 EN 856 Type R13 ISO 3862 Type 7 SAE 100R13
28	H15D DIEHARD		-12 to -24 (3/4" to 1.1/2")	Extremely high pressure hydraulic oil lines. Very high abrasion resistant cover.	Synthetic rubber tube. Four or six wire spirals. Black cover.	SAE 100R15
29	TXA2D DIEHARD		-8 to -20 (1/2" to 1.1/4")	High pressure hydraulic oil lines where pressure exceeds 100R2 by up to 30%.	Synthetic rubber tube. Two wire braids. Thin, non-skive black cover.	AS 3791 100R2AT BCS 174 DIN 20022 - 2SN EN 853 Type 2SN SAE 100R2AT
30	AS1D DIEHARD		-4 to -32 (1/4" to 2")	High pressure hydraulic oil lines. Very high abrasion resistant cover.	Synthetic rubber tube. One wire braid. Thick, skive type black cover.	AS 3791 100R1A DIN 20022 - 1ST EN 853 Type 1ST ISO 1436 Type 1A SAE 100R1A
31	AS2D DIEHARD		-4 to -32 (1/4" to 2")	High pressure hydraulic oil lines. Very high abrasion resistant cover.	Synthetic rubber tube. Two wire braids. Thick, skive type black cover.	AS 3791 100R2A DIN 20022 - 2ST EN 853 Type 2ST ISO 1436 Type 2A SAE 100R2A

RYCO Hose Series		Size Inside Diameter	Recommended For	Construction	Performance Specifications Met or Exceeded	
PAGE						
32	AJ2D JACK		-4 (1/4")	High pressure Hydraulic Jack applications. Very high abrasion resistant cover.	Synthetic rubber tube. Two wire braids. Thick skive type black cover.	Material Handling Institute Specification IJ100
33	TJ2D JACK		-4 (1/4")	High pressure Hydraulic Jack applications. Very high abrasion resistant cover.	Synthetic rubber tube. Two wire braids. Thin non-skive black cover.	Material Handling Institute Specification IJ100
34	T2S SLIDER		-4 to -32 (1/4" to 2")	High pressure hydraulic oil lines. Extremely abrasion resistant exterior protection layer.	Synthetic rubber tube. Two wire braids. Thin, non-skive black cover with exterior protection layer.	AS 3791 100R2AT DIN 20022 - 2SN EN 853 Type 2SN ISO 1436 Type 2AT SAE 100R2AT
35	H12S SLIDER		-06 to -24 (3/8" to 1.1/2")	Very high pressure hydraulic oil lines. Extremely abrasion resistant exterior protection layer.	Synthetic rubber tube. Four wire spirals. Black cover with exterior protection layer.	AS 3791 100R12 EN 856 Type R12 EN 856 Type 4SP (-12 to -24) ISO 3862 Type 6 SAE 100R12
36	H13S SLIDER		-12 to -24 (3/4" to 1.1/2")	Extremely high pressure hydraulic oil lines. Extremely abrasion resistant exterior protection layer.	Synthetic rubber tube. Four or six wire spirals. Black cover with exterior protection layer.	AS 3791 100R13 EN 856 Type R13 ISO 3862 Type 7 SAE 100R13
37	HSPA HSMA SPIRAL HOSE		-04 to -32 (1/4" to 2")	Very high pressure hydraulic oil lines.	Synthetic rubber tube. Four wire spirals. Black cover.	HSPA: EN 856 Type 4SP HSMA: EN 856 Type 4SH
38	RQP1 SURVIVOR		-4 to -16 (1/4" to 1")	High temperature, high pressure oil lines; and some phosphate ester fluids.	Synthetic rubber tube. One wire braid. Thin, non-skive blue cover.	AS 3791 100R1AT DIN 20022 - 1SN EN 853 Type 1SN ISO 1436 Type 1AT SAE 100R1AT
39	RQP2 SURVIVOR		-4 to -32 (1/4" to 2")	High temperature, high pressure oil lines; and some phosphate ester fluids.	Synthetic rubber tube. Two wire braids. Thin, non-skive blue cover.	AS 3791 100R2AT DIN 20022 - 2SN EN 853 Type 2SN ISO 1436 Type 2AT SAE 100R2AT
40	RQP5 SURVIVOR		-4 to -32 (3/16" to 1.13/16")	High temperature, medium to high pressure hydraulic oil lines; some phosphate ester fluids.	Synthetic rubber tube. Polyester inner braid, one wire braid. Blue polyester braid cover.	AS 3791 100R5 SAE 100R5 SAE J1402 Type All (Up to -12)
42	T5 TRUCKER		-4 to -32 (3/16" to 1.13/16")	Medium to high pressure hydraulic oil lines. Also suitable for fuel lines, airbrake lines, etc.	Synthetic rubber tube. Polyester inner braid, one wire braid. Black polyester braid cover.	AS 3791 100R5 SAE 100R5 SAE J1402 Type All (Up to -12)
43	DF2 DINFLEX		-4 to -12 (1/4" to 3/4")	High pressure hydraulic oil lines, two wire hose with one wire dimensions and flexibility.	Synthetic rubber tube. Two wire braids. Thin non-skive type black cover.	AS 3791 100R2AT EN 853 Type 2SN ISO 1436 SAE 100R16
44	RTH1 TEFLON		-4 to -16 (1/4" to 1")	Hydraulic oil, air, water, at high and low temperatures.	PTFE Tube (TEFLON*). Stainless steel wire braid. *DuPont Reg. TM	

Intro

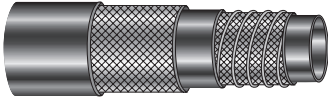
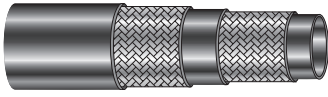
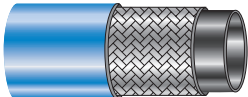
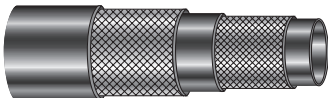
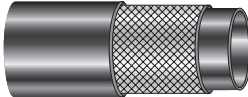
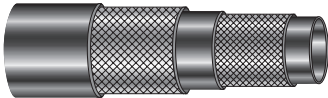
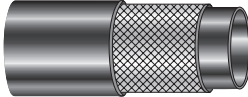
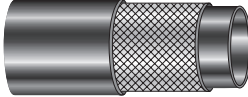
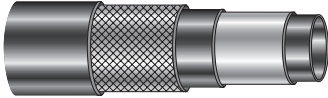
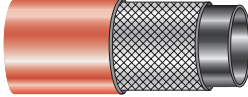
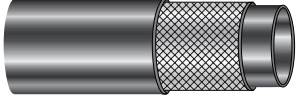
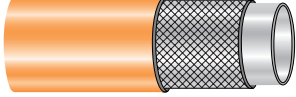
Hose

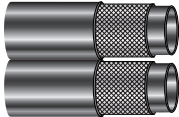
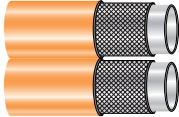
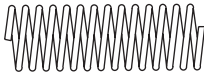



Couplings

Adaptors

Accessories

Technical

RYCO Hose Series		Size Inside Diameter	Recommended For	Construction	Performance Specifications Met or Exceeded	
45	SR SUCTION		-12 to -48 (3/4" to 3")	Hydraulic oil suction and low pressure return lines.	Synthetic rubber tube. Textile reinforcement with spiral helix wire. Black cover.	AS 3791 100R4 SAE 100R4 (except -48 size)
46	PW2 PRESSURE WASHER		-4 & -6 (1/4" & 3/8")	Hot water pressure washer applications.	Synthetic rubber tube. Two wire braids. Black, skive type cover.	
48	RQG1 LPG/D		-4 to -16 (1/4" to 1")	LPG and Natural Gas including automotive application. Max working pressure 2,6 MPA, temp +125°C.	Synthetic rubber tube. One wire braid. Blue cover.	Australian Gas Association Approval No. 5523. AS/NZS1869 Class D
49	M2G LPG/C		-4 to -12 (1/4" to 3/4")	LPG and Natural Gas. Max working pressure 2,6 MPA, temp + 65°C.	Synthetic rubber tube. Two textile braids. Black cover.	Australian Gas Association Approval No. 4247. AS/NZS1869 Class C
50	M1 FUEL LINE		-4 to -6 (1/4" to 3/8")	Low Pressure fuel lines.	Synthetic rubber tube. One textile braid. Black cover.	SAE 30R6 SAE 30R7
51	M2 TEXTILE		-4 to -12 (1/4" to 3/4")	Medium pressure hydraulic oil lines, anti freeze solutions and water.	Synthetic rubber tube. Two textile braids. Black cover.	AS 3791 100R3 DIN 20021 - 2TE ISO 4079 Type 3 SAE 100R3
52	PL1 PUSH ON		-4 to -12 (1/4" to 3/4")	Low pressure hydraulic oil lines, air and water.	Synthetic rubber tube. One textile braid. Black cover.	
53	P1HT HIGH TEMP PUSH ON		-4 to -12 (1/4" to 3/4")	Low pressure hydraulic oil lines, air and water. Higher temperatures.	Synthetic rubber tube. One textile braid. Black cover.	AS 3791 100R6 DIN 20021 - 1TE ISO 4079 Type 1 SAE 100R6
54	FB1 BARRIER		-6 to -10 (5/16" to 1/2")	Automotive air conditioning and refrigeration. Refrigerants R12, R134a, R22 & R114.	Tube: synthetic rubber with Nylon Barrier. One textile braid. Black cover.	SAE J2064 Type C
55	MP1 MULTI-PURPOSE		-4 to -20 (1/4" to 1.1/4")	Multi purpose hose. Air, water, petroleum oils, kerosene and fuel oils.	Synthetic rubber tube. One textile braid. Red cover.	RMA Class A tube. RMA Class B cover.
56	RT7 SPIDERLINE		-2 to -12 (1/8" to 3/4")	High pressure hydraulic oil lines, where light weight & corrosion resistance are required.	Thermoplastic polyester tube. One polyester braid. Black thermoplastic polyurethane cover.	AS 3791 100R7 EN 855 Type 7 SAE 100R7 (except RT72)
57	RT7N ISOLATOR		-4 to -12 (1/4" to 3/4")	High pressure hydraulic oil lines, where electrical non conductivity is required.	Thermoplastic polyester tube. One polyester braid. Orange thermoplastic polyurethane cover.	AS 3791 100R7 EN 855 Type 7 SAE 100R7

RYCO Hose Series		Size Inside Diameter	Recommended For	Construction	Performance Specifications Met or Exceeded
PAGE					
58	RT7T SPIDERLINE TWIN 	-4 to -8 (1/4" to 1/2")	High pressure hydraulic oil lines, where twin hoses are required.	Thermoplastic polyester tube. One polyester braid. Black thermoplastic polyurethane cover.	AS 3791 100R7 EN 855 Type 7 SAE 100R7
59	RT7TN ISOLATOR TWIN 	-4 to -8 (1/4" to 1/2")	High pressure hydraulic oil lines, where twin hoses are required.	Thermoplastic polyester tube. One polyester braid. Orange thermoplastic polyurethane cover.	AS 3791 100R7 EN 855 Type 7 SAE 100R7
60	RWA WIRE ARMOUR 	12 mm to 75 mm	Protection of cover of hoses.	Spring Steel Wire, galvanised.	
61	RSG SPIRAL GUARD 	16 mm to 110 mm (OUTSIDE diameter)	Protection of hoses from abrasion and impact. Bundling hoses together.	Polyethylene plastic spiral. Black RSG Yellow RSGY Dark Grey RSGF	
62 & 63	FS1072 FIRE SLEEVE 	-8 to -104 (1/2" to 6.1/2")	Protection of hoses from heat and molten metal splashes.	Braided glass fibre tubing coated with silicon rubber.	SAE Aerospace Standard AS1072
64	RH RAWHIDE	19 mm to 76 mm	Protection of hoses from abrasion and impact. Bundling hoses together.	Braided nylon tubing.	
65	750 	Suit some -4 hoses	Control bend radius at end of hoses.	Spring Steel Wire, galvanised.	
66	BEND RESTRICTORS	-04 to -12 hoses	Control bend radius at end of hoses.	Molded plastic.	

Intro

Hose

Couplings

Adaptors

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Technical

The range of RYCO hydraulic hoses continues to expand to offer the perfect choice for each hydraulic application. Our Company Policy of continual research and development, brings cost and performance benefits to our hydraulic hoses.

Wire braid reinforced hoses are available in AVENGER, DIEHARD, SURVIVOR and SLIDER specifications; each with their own advantages to suit individual applications.

Spiral reinforced hoses are available in AVENGER, DIEHARD and SLIDER specifications.

THERMOPLASTIC hoses include RT7 SPIDERLINE, for use where light weight and corrosion resistance are important; and RT7N ISOLATOR for applications requiring electrical non-conductivity. Both SPIDERLINE and ISOLATOR are available in twin line construction RT7T and RT7TN.

Other new hose series are RQP5 SURVIVOR and T5 TRUCKER to SAE 100R5 specification; used in automotive and trucking applications.

RYCO AVENGER - THE SMART CHOICE

REDUCES COSTS

DIN WORKING PRESSURES

MAXIMUM TEMPERATURES TO +100°C WIRE BRAID, +121°C SPIRAL REINFORCED

FLAME RESISTANT

T1A, T2A WIRE BRAID

H12A, H13A, HSPA, HSHA SPIRAL REINFORCED

RYCO AVENGER is specially designed by RYCO engineers to reduce costs.

AVENGER T1A and T2A wire braid meet or exceed the requirements of SAE 100 R1 and R2, and DIN 20022.

AVENGER H12A and H13A spiral reinforced meet or exceed the requirements of SAE 100 R12 and R13.

Flame Resistance to "GL" Germanischer Lloyd, or MSHA and AS2660 requirements.

Hose assemblies from RYCO T1A and T2A AVENGER up to and including -20 size, with RYCO T200 and T700 Bitelok One Piece crimp couplings, have GL Germanischer Lloyd Type Approval (marine & shipping applications).

RYCO DIEHARD - HOSE THAT WON'T SAY DIE

EXTRA ABRASION RESISTANT

HIGHLY FLEXIBLE

FRAS FLAME RESISTANT AND ANTI STATIC

MAXIMUM TEMPERATURES TO +100°C WIRE BRAID, +121°C SPIRAL REINFORCED

LASTS LONGER, SAVES DOWNTIME, SAVES MONEY

T1D, T2D, TXA2D, TJ2D, AS1D, AS2D, AJ2D WIRE BRAID

H12D, H13D, H15D SPIRAL REINFORCED

RYCO DIEHARD is extremely abrasion resistant, highly flexible, and flame resistant and anti static (FRAS).

It is designed to last longer, save downtime, and save money.

RYCO SLIDER - EXTREMELY ABRASION RESISTANT HOSE

EXTREMELY ABRASION RESISTANT - POLYETHYLENE EXTERIOR SHEATH

HIGHLY FLEXIBLE

FLAME RESISTANT

MAXIMUM TEMPERATURES TO +100°C WIRE BRAID, +121°C SPIRAL REINFORCED

LASTS LONGER, SAVES DOWNTIME, SAVES MONEY

T2S WIRE BRAID
H12S, H13S SPIRAL REINFORCED

RYCO SLIDER is extremely abrasion resistant, highly flexible and flame resistant. It is designed to last longer, save downtime, and save money in applications where the cover of the hose is subjected to sliding abrasion.

RYCO SURVIVOR - THE HEAT IS ON

HIGH TEMPERATURES TO +150°C

MULTI FLUID COMPATIBILITY

RESISTS CRACKING

BLUE COVER

RQP1 ONE WIRE BRAID, RQP2 TWO WIRE BRAID, RQP5 POLYESTER COVER

RYCO SURVIVOR is designed for high temperature applications; to keep performing when the heat is on. Suitable for use with many different fluids including high temperature air and some phosphate ester fluids. Easily identified blue outer cover.

RYCO THERMOPLASTIC

TEMPERATURES TO +95°C

LIGHT WEIGHT

RESISTS CORROSION

EASILY CLEANED

RT7 SPIDERLINE (BLACK COVER)
RT7N ISOLATOR (ORANGE COVER)
RT7T SPIDERLINE TWIN (BLACK COVER)
RT7TN ISOLATOR TWIN (ORANGE COVER)

Maximum Working Pressures

HOSE SIZE			MP1	SR	PL1	P1HT	M2	RTH1	RT7 RT7N	RQP5 T5	AS1D T1A, T1D	RQP1	DF2	T2A	RQP2	AS2D T2D	TXA2D	H12A H12D	H13A H13D	H15D	HSPA HSHA	
DIN	INCH	DASH	BAR	BAR	BAR	BAR	BAR	BAR	BAR	BAR	BAR	BAR	BAR	BAR	BAR	BAR	BAR	BAR	BAR	BAR	BAR	BAR
3	1/8	-02							207													
5	3/16	-03			21				207													
6	1/4	-04	14		21	28	86	170	190	207	225	225	350	420	400	420						500
8	5/16	-05			21	28				207												
10	3/8	-06	14		21	28	78	165	155	155	180	180	280	350	350	350		350				490
12	1/2	-08	14		21	28	69	120	138	138	160	160	245	295	300	350	375	350				425
16	5/8	-10	14		21	24		105		120	130	130		250	250	250	350					420
20	3/4	-12	14	21	21	21	52	85	86	103	105	120	155	215	215	215	313	350	350	420	440	
25	1	-16	14	17				50		55	90	90		167	167	167	225	310	350	420	420	
32	1.1/4	-20	14	14						43	65			125	150	125	175	275	350	420	350	
40	1.1/2	-24		10						35	50			90	100	90		255	350	420	310	
50	2	-32		7						24	40			80	90	80		210	350		275	
63	2.1/2	-40		4										69								

Pressure Conversion Chart 1 Bar = 14,5 PSI 1 MPA = 10 Bar

BAR	4	7	10	12	14	17	20	24	28	39	55	69	80	90	120	130
PSI	58	100	145	175	200	250	300	350	400	565	800	1000	1160	1300	1740	1890
BAR	160	180	200	215	225	250	300	337	350	375	400	420	435	500	585	690
PSI	2300	2600	2900	3100	3250	3600	4350	4900	5100	5440	5800	6080	6310	7250	8480	10000

Working Pressures:

Working Pressures shown above (except for RYCO PL1, P1HT and SR Series) are Dynamic Working Pressures for use with hydraulic fluid in systems with pressure surges or variable loads and are based on 4:1 minimum burst to working pressure safety factor. If Working Pressures are Static (constant loads without pressure spikes), the Working Pressures can be increased by 33%, for RYCO Series T1A, T2A, H12A, H13A, T1D, T2D, H12D, H13D, H15D, TXA2D, AS1D, AS2D, T2S, H12S, H13S, RQP1, RQP2, RQP5, T5, DF2, RTH1, HSP / HSH, M2, RT7, RT7N, RT7T and RT7TN. RYCO PL1 and P1HT Hoses are recommended for use with RYCO 800 Series Push On Fittings in systems with Static Working Pressures only, and are not recommended for vibration or pressure surge applications. The Working Pressures for PL1 and P1HT shown above are Static Working Pressures. Hose subjected to both maximum temperature and maximum working pressure will have a shortened lifetime.

Hose Series

Temperature Range

AS1D, AS2D, DF2, M2, SR, T1A, T2A, T1D, T2D, T2S, T5, TXA2D	From -40°C to +100°C (-40°F to +212°F)	These temperature ranges are for use with mineral oil based hydraulic oils. When using with air, water, or emulsions see page 217 or refer to RYCO or your RYCO Distributor for allowable temperature range. See page 38, 39 and 40 for more details.
H12A, H12D, H12S, H13A, H13D, H13S, H15D, HSPA, HSHA	From -40°C to +121°C (-40°F to +250°F)	
PL1, RT7, RT7N, RT7T, RT7TN	From -40°C to +95°C (40°F to +200°F)	
P1HT	From -40°C to +125°C constant (-40°F to +257°F) From -40°C to +135°C intermittent (-40°F to +275°F)	
RTH1	From -60°C to +260°C (-76°F to +500°F)	
RQP1, RQP2, RQP5	From -40°C to + 150°C Mineral oils From -40°C to + 121°C Water/Oil emulsions From -40°C to + 93°C Diesel fuels From -40°C to + 82°C Some phosphate ester fluids From -40°C to +121°C Air	

Flame Resistance:

All RYCO hoses (except RYCO FB1, M1, MP1, PW2, T1A, T2A, RT7, RT7N, RT7T, RT7TN, RQP5, SR, T5, RTH1 & PL1 Series) meet Flame Resistant Designation "U.S. MSHA" of the U.S. Department of Labour, Mine Safety and Health Administration and also comply with Flame Resistant requirements of Australian Standard AS2660 and Method of Test AS1180.10B. RYCO T1A & T2A meet Flame Resistant Designation "GL" Germanischer Lloyd.

Skive/Non-Skive:

Skive hoses have a thicker cover which must be removed at the ends of the hose before the couplings can be attached. Non-Skive hose has a thinner cover. RYCO Bitelok Non-Skive couplings bite down through the cover and grip the wire reinforcement.

Outside Diameters:

See page 65 for reference chart of outside diameters.

(See Pages 210 and 211 for "How to Order Hose Assemblies").

Coil length of RYCO Hydraulic Hose varies according to Hose Series and Size.

Wire-braid textile braid and spiral wire reinforced hydraulic hoses are in most cases manufactured in long lengths on flexible mandrels, which results in coils of hose of many different lengths. These hoses are produced and supplied in random lengths.

SR Suction Hose is manufactured on rigid mandrels of a specified length.

SR Hose 20 metres

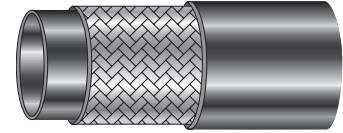
If hose is part of a general stock order, every effort will be made to supply length closest to length ordered, but length supplied may be shorter or longer than length ordered. If ordering "a coil" of hose, please specify the length required. If a specific cut length is required, this must be specified when ordering e.g. 19.5 metres exact length and may be subject to surcharge.

Shown below is the availability of RYCO Hydraulic Hose in Cut Lengths & Coils, and on Reels or in Bulk Cartons. Details of average quantities packed on reels or in cartons and their dimensions are available from RYCO on request.

HOSE SERIES	SIZE	CUT LENGTHS AND COILS	REELS
T1A & T2A	up to and including -16 (1") -20 to -32 (1.1/4" to 2")	● ●	●
T1D & T2D	up to and including -16 (1") -20 to -32 (1.1/4" to 2")	● ●	●
H12A, H12D, H12S	all sizes	●	
H13A, H13D, H13S	all sizes	●	
H15D	all sizes	●	
TXA2D	up to and including -16 (1") -20 (1.1/4")	● ●	●
AS1D & AS2D	up to and including -16 (1") -20 to -32 (1.1/4" to 2")	● ●	●
AJ2D / TJ2D	-04	●	●
T2S	all sizes	●	
RQP1	all sizes	●	●
RQP2	up to and including -16 (1") -20 to -32 (1.1/4" to 2")	● ●	●
RQP5	all sizes	●	
T5	all sizes	●	
DF2	all sizes	●	●
RTH1	all sizes	●	
SR	all sizes	●	
PW2	all sizes	●	●
HSPA / HSHA	all sizes	●	
RQG1	all sizes	●	●
M2G	all sizes	●	
M1	all sizes	●	●
M2G	all sizes	●	
PL1	all sizes	●	
P1HT	all sizes	●	
FB1	all sizes	●	●
MP1	all sizes	●	●
RT7	all sizes	●	
RT7N	all sizes	●	
RT7T	all sizes	●	
RT7TN	all sizes	●	

AVENGER T1A

1 WIRE BRAID HOSE



Meets or exceeds the performance requirements of AS 3791 100R1AT, DIN 20022 - 1SN, EN 853 Type 1SN, ISO 1436 Type 1AT, SAE 100R1AT .
 "GL" Germanischer Lloyd Type Approval to -20 size with T200 and T700 Series Couplings.
 "DNV" Det Norske Veritas Type Approval is pending.

Recommended For: High pressure hydraulic oil lines.
Tube: Black, oil resistant synthetic rubber. (Nitrile).
Reinforcement: One braid of high tensile steel wire.
Cover: Black, oil and abrasion resistant synthetic rubber.
 No skiving required with Bitelok T200 & T700 Series Crimp Couplings and K Series Field Attachable Couplings.

Temperature Range: From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 217.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Meets Flame Resistant Designation "GL" Germanischer Lloyd.
 T124A and T132A also meet Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.

Couplings: Bitelok T200 Non-Skive One Piece (sizes 1/4" to 1.1/4") pages 68 to 83.
 Bitelok T700 Non-Skive One Piece (sizes 3/8" to 2") pages 86 to 97.
 Field Attachable K Series (sizes 1/4" to 1") pages 54 to 67.
 *Field Attachable A Series (sizes 1.1/4" to 2") pages 54 to 67.
 Assembly instructions pages 220 to 222.

T1A Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
T14A	6	1/4	-04	225	3250	300	4350	900	13000
T16A	10	3/8	-06	180	2600	240	3480	720	10400
T18A	12	1/2	-08	160	2300	213	3090	640	9300
T110A	16	5/8	-10	130	1900	173	2510	520	7600
T112A	20	3/4	-12	105	1500	140	2030	420	6100
T116A	25	1	-16	90	1300	120	1700	360	5200
T120A	32	1.1/4	-20	65	945	87	1250	260	3760
T124A	40	1.1/2	-24	50	725	67	970	200	2900
T132A	50	2	-32	40	580	53	775	160	2320

T1A Hose Dimensions

Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	FIELD ATTACHABLE K (& A) SERIES		BITELOK ONE PIECE CRIMP		
	DIN	INCH	DASH				mm	KG/M	mm	INSERT	FERRULE
T14A	6	1/4	-04	100	0,23	13,4	600 SERIES	K00-04	T200		
T16A	10	3/8	-06	130	0,35	17,4	600 SERIES	K00-06	T200	T700	
T18A	12	1/2	-08	180	0,43	20,5	600 SERIES	K00-08	T200	T700	
T110A	16	5/8	-10	200	0,51	23,7	600 SERIES	K00-10	T200		
T112A	20	3/4	-12	240	0,65	27,6	600 SERIES	K00-12	T200	T700	
T116A	25	1	-16	300	0,95	35,7	600 SERIES	K00-16	T200	T700	
T120A	32	1.1/4	-20	420	1,30	43,6	600 SERIES	*A00-20	T200	T700	
T124A	40	1.1/2	-24	500	1,59	50,5	600 SERIES	*A00-24		T700	
T132A	50	2	-32	600	2,12	64,1	600 SERIES	*A00-32		T700	

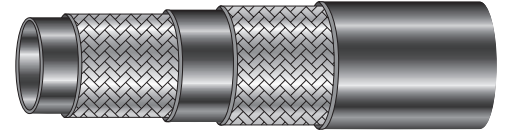
*When using A Series Field Attachable Couplings on T1A Series Hose, cover of hose must be skived at ends.

Refer to AS1D Series Hose page 30 for Skive Length.

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

AVENGER T2A

2 WIRE BRAID HOSE



Meets or exceeds the performance requirements of AS 3791 100R2AT, DIN 20022 - 2SN, EN 853 Type 2SN, ISO 1436 Type 2AT, SAE 100R2AT. "GL" Germanischer Lloyd Type Approval to -20 size with T200 and T700 Series Couplings. "DNV" Det Norske Veritas Type Approval is pending.

Recommended For: High pressure hydraulic oil lines.

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

Reinforcement: Two braids of high tensile steel wire.

Cover: Black, oil and abrasion resistant synthetic rubber. No skiving required with Bitelok T200 & T700 Series Crimp Couplings and L Series Field Attachable Couplings.

Temperature Range: From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 217.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Meets Flame Resistant Designation "GL" Germanischer Lloyd. T224A, T232A and T240A also meet Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.

Couplings: Bitelok T200 Non-Skive One Piece (sizes 1/4" to 1.1/4") pages 68 to 83.
 Bitelok T700 Non-Skive One Piece (sizes 3/8" to 2") pages 86 to 97.
 Field Attachable L Series (sizes 1/4" to 1.1/4") pages 54 to 67.
 Field Attachable B Series (sizes 1.1/2" and 2") pages 54 to 67.
 1200-40 Skive Two Piece (size 2.1/2") pages xx.
 Assembly instructions pages 220 to 222.

T2A Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
T24A	6	1/4	-04	420	6000	560	8000	1680	24000
T26A	10	3/8	-06	350	5100	467	6670	1400	20000
T28A	12	1/2	-08	295	4250	390	5670	1170	17000
T210A	16	5/8	-10	250	3600	333	4830	1000	14500
T212A	20	3/4	-12	215	3100	283	4100	850	12300
T216A	25	1	-16	167	2400	217	3150	650	9400
T220A	32	1.1/4	-20	125	1800	165	2400	500	7200
T224A	40	1.1/2	-24	90	1300	120	1730	360	5200
T232A	50	2	-32	80	1150	107	1550	320	4640
T240A	63	2.1/2	-40	69	1000	92	1330	276	4000

T2A Hose Dimensions

Matched Couplings

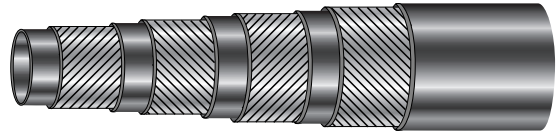
PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	FIELD ATTACHABLE L (& B) SERIES		BITELOK ONE PIECE CRIMP	
	DIN	INCH	DASH				INSERT	FERRULE		
T24A	6	1/4	-04	100	0,39	15,0	600 SERIES	L00-04	T200	
T26A	10	3/8	-06	130	0,56	19,0	600 SERIES	L00-06	T200	T700
T28A	12	1/2	-08	180	0,66	22,0	600 SERIES	L00-08	T200	T700
T210A	16	5/8	-10	200	0,80	25,2	600 SERIES	L00-10	T200	
T212A	20	3/4	-12	240	0,96	29,1	600 SERIES	L00-12	T200	T700
T216A	25	1	-16	300	1,37	37,7	600 SERIES	L00-16	T200	T700
T220A	32	1.1/4	-20	420	2,03	48,0	600 SERIES	L00-20	T200	T700
T224A	40	1.1/2	-24	500	2,75	54,4	600 SERIES	*B00-24		T700
T232A	50	2	-32	600	3,48	67,3	600 SERIES	*B00-32		T700
T240A	63	2.1/2	-40	760	3,70	78,6			1200-40	TWO PIECE

*When using B Series Field Attachable Couplings on T2A Series Hose, cover of hose must be skived at ends. Refer to AS2D Series Hose page 31 for Skive Length.

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

AVENGER H12A

VERY HIGH PRESSURE SPIRAL HOSE



Meets or exceeds the performance requirements of AS 3791 100R12, EN856 Type R12, EN 856 Type 4SP (-12 and above), ISO 3862 Type 6, SAE 100R12.

- Recommended For:** Very high pressure hydraulic oil lines.
The extra high working pressures and excellent impulse life when tested to SAE 100R12 test conditions, are designed to increase service life and minimise equipment downtime.
- Tube:** Black, oil resistant synthetic rubber.
- Reinforcement:** Four layers of alternated, spiralled high tensile steel wire.
- Cover:** Black abrasion resistant and oil resistant synthetic rubber.
Highly visible layline branding for easy and permanent identification.
No skiving required with Bitelok T700 Series Crimp Couplings.
- Temperature Range:** From -40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 217.
- Working Pressure:** Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.
- Flame Resistance:** Complies with Flame Resistant requirements of Australian Standard AS2660 and Method of Test AS1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.
- Couplings:** Bitelok T700 Non-Skive One Piece (sizes 3/8" to 2") pages 86 to 97.
Assembly instructions page 222.

H12A Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
H1206A	10	3/8	-06	350	5100	467	6800	1400	20400
H1208A	12	1/2	-08	350	5100	467	6800	1400	20400
H1212A	20	3/4	-12	350	5100	440	6400	1320	19200
H1216A	25	1	-16	310	4500	413	6000	1240	18000
H1220A	32	1.1/4	-20	275	4000	367	5330	1100	16000
H1224A	40	1.1/2	-24	255	3700	340	4930	1020	14800
H1232A	50	2	-32	210	3000	280	4000	840	12000

H12A Hose Dimensions

Matched Couplings

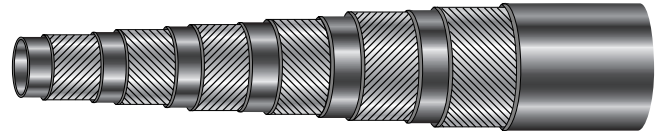
PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH				
H1206A	10	3/8	-06	mm	KG/M	mm	T700 SERIES
H1208A	12	1/2	-08	130	0,65	20,2	T700 SERIES
H1212A	20	3/4	-12	180	0,80	23,8	T700 SERIES
H1216A	25	1	-16	240	1,27	30,7	T700 SERIES
H1220A	32	1.1/4	-20	300	1,91	38,0	T700 SERIES
H1224A	40	1.1/2	-24	400	2,53	47,0	T700 SERIES
H1232A	50	2	-32	500	3,40	53,5	T700 SERIES
				600	4,50	66,7	T700 SERIES

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

AVENGER H13A

Meets or exceeds the performance requirements of AS 3791 100R13, EN856 Type R13, ISO 3862 Type 7, SAE 100R13.

EXTREMELY HIGH PRESSURE SPIRAL HOSE



- Recommended For:** Extremely high pressure hydraulic oil lines.
The extra high working pressures and excellent impulse life when tested to SAE 100R13 test conditions, are designed to increase service life and minimise equipment downtime.
- Tube:** Black, oil resistant synthetic rubber.
- Reinforcement:** Four layers of alternated, spiralled, high tensile steel wire for sizes -12 & -16.
Six layers of alternated, spiralled, high tensile steel wire for sizes -20 to -32.
- Cover:** Black abrasion resistant and oil resistant synthetic rubber.
Highly visible layline branding for easy and permanent identification.
No skiving required with Bitelok T900 Series Crimp Couplings.
- Temperature Range:** From -40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 217.
- Working Pressure:** Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.
- Flame Resistance:** Complies with Flame Resistant requirements of Australian Standard AS2660 and Method of Test AS1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.
- Couplings:** Bitelok T900 Non-Skive One Piece (sizes 3/4" to 2") pages 98 to 103.
Assembly instructions page 222.

H13A Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
H1312A	20	3/4	-12	350	5100	467	6800	1400	20400
H1316A	25	1	-16	350	5100	467	6800	1400	20400
H1320A	32	1.1/4	-20	350	5100	467	6800	1400	20400
H1324A	40	1.1/2	-24	350	5100	467	6800	1400	20400
H1332A	50	2	-32	350	5100	467	6800	1400	20400

H13A Hose Dimensions

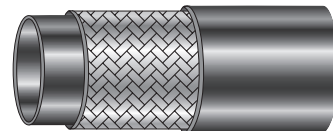
Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH	mm	KG/M	mm	
H1312A	20	3/4	-12	240	1,65	32,1	T900 SERIES
H1316A	25	1	-16	300	2,25	38,7	T900 SERIES
H1320A	32	1.1/4	-20	420	3,60	49,8	T900 SERIES
H1324A	40	1.1/2	-24	500	4,95	57,3	T900 SERIES
H1332A	50	2	-32	635	6,90	72,0	T900 SERIES

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

DIEHARD T1D

EXTRA ABRASION RESISTANT
FRAS 1 WIRE BRAID HOSE



Meets or exceeds the performance requirements of AS 3791 100R1AT, DIN 20022 - 1SN, EN 853 Type 1SN, ISO 1436 Type 1AT, SAE 100R1AT. "DNV" Det Norske Veritas Type Approval is pending.

Recommended For: High pressure hydraulic oil lines in applications where the outside cover of the hose is subjected to abrasion that may cause premature failure of standard hoses. The very high abrasion resistant properties of the cover, combined with the high working pressures and excellent impulse life when tested to EN 853 Type 1SN / SAE 100R1AT test conditions, are designed to increase service life and minimise equipment downtime.

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

Reinforcement: One braid of high tensile steel wire.

Cover: Black, extra abrasion resistant and oil resistant rubber. "FRAS" Flame Resistant and Anti-Static. The weight loss of the cover under ISO 6945 method of test for abrasion resistance is less than 10% (less than 0.05 gms) of that allowed by DIN 20022-1SN and EN 853 Type 1SN. Highly visible layline branding for easy and permanent identification. No skiving required with Bitelok T200 & T700 Series Crimp Couplings and K Series Field Attachable Couplings.

Temperature Range: From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 217.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS2660 and Methods of Test AS1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.

Couplings: Bitelok T200 Non-Skive One Piece (sizes 1/4" to 1.1/4") pages 68 to 83.
Bitelok T700 Non-Skive One Piece (sizes 3/8" to 1.1/4") pages 86 to 97.
Field Attachable K Series (sizes 1/4" to 1") pages 54 to 67.
Field Attachable A Series (sizes 1.1/4" to 2") pages 54 to 67.
Assembly instructions pages 220 to 222.

T1D Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
T14D	6	1/4	-04	225	3250	300	4350	900	13000
T16D	10	3/8	-06	180	2600	240	3480	720	10400
T18D	12	1/2	-08	160	2300	213	3090	640	9300
T112D	20	3/4	-12	105	1500	140	2000	420	6000
T116D	25	1	-16	90	1300	120	1740	360	5200
T120D	32	1.1/4	-20	65	945	87	1250	260	3760
T124D	40	1.1/2	-24	50	725	67	970	200	2900
T132D	50	2	-32	40	580	53	770	160	2320

T1D Hose Dimensions

Matched Couplings

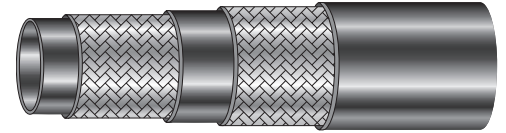
PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	FIELD ATTACHABLE K (& A) SERIES		BITELOK ONE PIECE CRIMP		
	DIN	INCH	DASH				mm	KG/M	mm	INSERT	FERRULE
T14D	6	1/4	-04	100	0,24	13,4	600 SERIES	K00-04	T200		
T16D	10	3/8	-06	130	0,36	17,4	600 SERIES	K00-06	T200	T700	
T18D	12	1/2	-08	180	0,45	20,5	600 SERIES	K00-08	T200	T700	
T112D	20	3/4	-12	240	0,65	27,6	600 SERIES	K00-12	T200	T700	
T116D	25	1	-16	300	0,96	35,7	600 SERIES	K00-16	T200	T700	
T120D	32	1.1/4	-20	420	1,32	43,6	600 SERIES	*A00-20	T200	T700	
T124D	40	1.1/2	-24	500	1,60	50,5	600 SERIES	*A00-24		T700	
T132D	50	2	-32	630	2,20	64,0	600 SERIES	*A00-32		T700	

*When using A Series Field Attachable Couplings on T1D Series Hose, cover of hose must be skived at ends. Refer to page 30 for Skive Length. Contact RYCO for Crimp Diameter & Mark Length for Bitelok Couplings.

DIEHARD T2D

EXTRA ABRASION RESISTANT
FRAS 2 WIRE BRAID HOSE

Meets or exceeds the performance requirements of AS 3791 100R2AT, DIN 20022 - 2SN, EN 853 Type 2SN, ISO 1436 Type 2AT, SAE 100R2AT. "DNV" Det Norske Veritas Type Approval is pending.



Recommended For: High pressure hydraulic oil lines in applications where the outside cover of the hose is subjected to abrasion that may cause premature failure of standard hoses. The very high abrasion resistant properties of the cover, combined with the high working pressures and excellent impulse life when tested to EN 853 Type 2SN / SAE 100R2AT test conditions, are designed to increase service life and minimise equipment downtime.

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

Reinforcement: Two braids of high tensile steel wire.

Cover: Black, extra abrasion resistant and oil resistant rubber. "FRAS" Flame Resistant and Anti-Static. The weight loss of the cover under ISO 6945 method of test for abrasion resistance is less than 10% (less than 0.05 gms) of that allowed by DIN 20022-2SN and EN 853 Type 2SN. Highly visible layline branding for easy and permanent identification. No skiving required with Bitelok T200 & T700 Series Crimp Couplings and L Series Field Attachable Couplings.

Temperature Range: From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 217.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS2660 and Methods of Test AS1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.

Couplings: Bitelok T200 Non-Skive One Piece (sizes 1/4" to 1.1/4") pages 68 to 83.
Bitelok T700 Non-Skive One Piece (sizes 3/8" to 2") pages 86 to 97.
Field Attachable L Series (sizes 1/4" to 1.1/4") pages 54 to 67.
Field Attachable B Series (sizes 1.1/2" & 2") pages 54 to 67.
Assembly instructions pages 220 to 222.

T2D Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
T24D	6	1/4	-04	420	6000	560	8000	1680	24000
T26D	10	3/8	-06	350	5100	467	6670	1400	20400
T28D	12	1/2	-08	350	5100	467	6670	1400	20400
T210D	16	5/8	-10	250	3600	333	4830	1000	14500
T212D	20	3/4	-12	215	3100	283	4100	850	12300
T216D	25	1	-16	167	2400	223	3200	670	9600
T220D	32	1.1/4	-20	125	1800	167	2400	500	7200
T224D	40	1.1/2	-24	90	1300	120	1730	360	5200
T232D	50	2	-32	80	1150	107	1550	320	4640

T2D Hose Dimensions

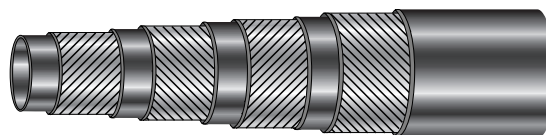
Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	FIELD ATTACHABLE L (& B) SERIES		BITELOK ONE PIECE CRIMP		
	DIN	INCH	DASH				mm	KG/M	mm	INSERT	FERRULE
T24D	6	1/4	-04	100	0,39	15,0	600 SERIES	L00-04	T200		
T26D	10	3/8	-06	130	0,57	19,0	600 SERIES	L00-06	T200	T700	
T28D	12	1/2	-08	180	0,66	22,0	600 SERIES	L00-08	T200	T700	
T210D	16	5/8	-10	200	0,80	25,2	600 SERIES	L00-10	T200		
T212D	20	3/4	-12	240	0,96	29,3	600 SERIES	L00-12	T200	T700	
T216D	25	1	-16	300	1,37	37,7	600 SERIES	L00-16	T200	T700	
T220D	32	1.1/4	-20	420	2,03	48,0	600 SERIES	L00-20	T200	T700	
T224D	40	1.1/2	-24	500	2,75	54,4	600 SERIES	*B00-24		T700	
T232D	50	2	-32	600	3,50	67,3	600 SERIES	*B00-32		T700	

*When using B Series Field Attachable Couplings on T2D Series Hose, cover of hose must be skived at ends. Refer to page 31 for Skive Length. Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

DIEHARD H12D

EXTRA ABRASION RESISTANT
VERY HIGH PRESSURE
FRAS SPIRAL HOSE



Meets or exceeds the performance requirements of AS 3791 100R12, EN856 Type R12, EN 856 Type 4SP (-12 and above), ISO 3862 Type 6, SAE 100R12.
"DNV" Det Norske Veritas Type Approval is pending.

Recommended For: Very high pressure hydraulic oil lines, in applications where the outside cover of the hose is subject to abrasion that may cause premature failure of standard hoses. The very high abrasion resistant properties of the cover, combined with the extra high working pressures and excellent impulse life when tested to SAE 100R12 test conditions, are designed to increase service life and minimise equipment downtime.

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

Reinforcement: Four layers of alternated, spiralled high tensile steel wire.

Cover: Black, extra abrasion resistant and oil resistant synthetic rubber.

"FRAS" Flame Resistant and Anti-Static.

The maximum weight loss of the cover under ISO 6945 method of test for abrasion resistance is less than 10% (less than 0.10 gms) of that allowed by DIN 20023 and EN 856.

Highly visible layline branding for easy and permanent identification.

No skiving required with Bitelok T700 Series Crimp Couplings.

Temperature Range: From -40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 217.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS2660 and Methods of Test AS1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.

Couplings: Bitelok T700 Non-Skive One Piece (sizes 3/8" to 2") pages 86 to 97.
Assembly instructions page 222.

H12D Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
H1206D	10	3/8	-06	350	5100	467	6800	1400	20400
H1208D	12	1/2	-08	350	5100	467	6800	1400	20400
H1212D	20	3/4	-12	350	5100	440	6400	1320	19200
H1216D	25	1	-16	310	4500	413	6000	1240	18000
H1220D	32	1.1/4	-20	275	4000	367	5330	1100	16000
H1224D	40	1.1/2	-24	255	3700	340	4930	1020	14800
H1232D	50	2	-32	210	3000	280	4000	840	12000

H12D Hose Dimensions

Matched Couplings

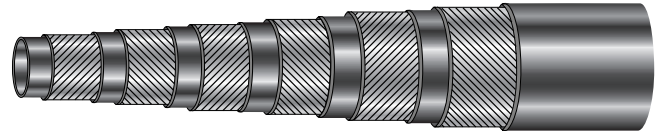
PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH				
H1206D	10	3/8	-06	mm	KG/M	mm	T700 SERIES
H1208D	12	1/2	-08	130	0,65	20,2	T700 SERIES
H1212D	20	3/4	-12	180	0,80	23,8	T700 SERIES
H1216D	25	1	-16	240	1,27	30,7	T700 SERIES
H1220D	32	1.1/4	-20	300	1,91	38,0	T700 SERIES
H1224D	40	1.1/2	-24	400	2,65	47,0	T700 SERIES
H1232D	50	2	-32	500	3,40	53,5	T700 SERIES
				600	4,50	66,7	T700 SERIES

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

DIEHARD H13D

**EXTRA ABRASION RESISTANT
EXTREMELY HIGH PRESSURE
FRAS SPIRAL HOSE**

Meets or exceeds the performance requirements of AS 3791 100R13, EN856 Type R13, ISO 3862 Type 7, SAE 100R13. "DNV" Det Norske Veritas Type Approval is pending.



Recommended For: Extremely high pressure hydraulic oil lines, in applications where the outside cover of the hose is subject to abrasion that may cause premature failure of standard hoses. The very high abrasion resistant properties of the cover, combined with the extra high working pressures and excellent impulse life when tested to SAE 100R13 test conditions, are designed to increase service life and minimise equipment downtime.

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

Reinforcement: Four layers of alternated, spiralled, high tensile steel wire for sizes -12 & -16. Six layers of alternated, spiralled, high tensile steel wire for sizes -20 to -32.

Cover: Black, extra abrasion resistant and oil resistant synthetic rubber. "FRAS" Flame Resistant and Anti-Static.

The maximum weight loss of the cover under ISO 6945 method of test for abrasion resistance is less than 10% (less than 0.10 gms) of that allowed by DIN 20023 and EN 856.

Highly visible layline branding for easy and permanent identification.

No skiving required with Bitelok T900 Series Crimp Couplings.

Temperature Range: From -40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 217.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS2660 and Methods of Test AS1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.

Couplings: Bitelok T900 Non-Skive One Piece (sizes 3/4" to 2") pages 98 to 103. Assembly instructions page 222.

H13D Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
H1312D	20	3/4	-12	350	5100	467	6800	1400	20400
H1316D	25	1	-16	350	5100	467	6800	1400	20400
H1320D	32	1.1/4	-20	350	5100	467	6800	1400	20400
H1324D	40	1.1/2	-24	350	5100	467	6800	1400	20400
H1332D	50	2	-32	350	5100	467	6800	1400	20400

H13D Hose Dimensions

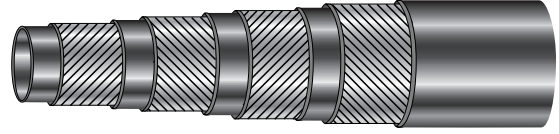
Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH	mm	KG/M	mm	
H1312D	20	3/4	-12	240	1,65	32,1	T900 SERIES
H1316D	25	1	-16	300	2,28	38,7	T900 SERIES
H1320D	32	1.1/4	-20	420	3,60	49,8	T900 SERIES
H1324D	40	1.1/2	-24	500	4,95	57,3	T900 SERIES
H1332D	50	2	-32	635	6,90	72,0	T900 SERIES

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

DIEHARD H15D

**EXTRA ABRASION RESISTANT
6000 PSI WORKING PRESSURE
FRAS SPIRAL HOSE**



Meets or exceeds the performance requirements of SAE 100R15.
"DNV" Det Norske Veritas Type Approval is pending.

Recommended For: Extremely high pressure hydraulic oil lines, in applications where the outside cover of the hose is subject to abrasion that may cause premature failure of standard hoses. Maximum Working Pressure of 420 Bar / 6000 PSI in all sizes. The very high abrasion resistant properties of the cover, combined with the extra high working pressures and excellent impulse life when tested to SAE 100R15 test conditions, are designed to increase service life and minimise equipment downtime.

Tube: Black, oil resistant rubber. (Neoprene).

Reinforcement: Four layers of alternated, spiralled high tensile steel wire for sizes -12 to -20. Six layers of alternated, spiralled high tensile steel wire for size -24.

Cover: Black, extra abrasion resistant and oil resistant synthetic rubber. "FRAS" Flame Resistant and Anti-Static. The maximum weight loss of the cover under ISO 6945 method of test for abrasion resistance is less than 10% (less than 0.10 gms) of that allowed by DIN 20023 and EN 856. Highly visible layline branding for easy and permanent identification.

Temperature Range: From -40°C to +121°C (-40°F to +250°F). For water, emulsions, etc. see page 217.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS2660 and Methods of Test AS1180.10B and 13A. Meets Flame Resistant Designation. "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.

Couplings: RYCO 6900N Two Piece Interlok (sizes 3/4" to 1.1/2") pages 104 to 107. Internal and External Skiving equipment required. Assembly instructions page XXX.

H15D Hose Working Pressures

1 BAR=14,5 PSI 1MPA =10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
H1512D	20	3/4	-12	420	6000	560	8000	1680	24000
H1516D	25	1	-16	420	6000	560	8000	1680	24000
H1520D	32	1.1/4	-20	420	6000	560	8000	1680	24000
H1524D	40	1.1/2	-24	420	6000	560	8000	1680	24000

H15D Hose Dimensions

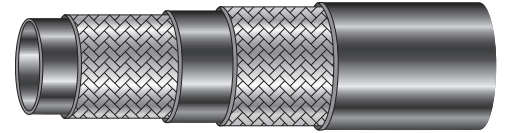
Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	INTERLOK 6900N SERIES TWO PIECE CRIMP	
	DIN	INCH	DASH				mm	FERRULE
H1512D	20	3/4	-12	270	1,50	32,0	900N	6900N-12
H1516D	25	1	-16	270	2,10	38,2	900N	6900N-16
H1520D	32	1.1/4	-20	270	3,60	49,2	900N	6900N-20
H1524D	40	1.1/2	-24	315	5,10	57,2	900N	6900N-24

Contact RYCO for Crimp Diameter and Internal and External Skive Lengths for RYCO Interlok 6900N Two Piece Couplings.

DIEHARD TXA2D

**EXTRA ABRASION RESISTANT
EXTRA HIGH PRESSURE
FRAS 2 WIRE BRAID HOSE**



Meets or exceeds the performance requirements of AS 3791 100R2AT, BCS 174, DIN 20022 - 2SN, EN 853 Type 2SN, ISO 1436 Type 2AT, SAE 100R2AT. "DNV" Det Norske Veritas Type Approval is pending.

Recommended For: High pressure hydraulic oil lines in applications where the outside cover of the hose is subjected to abrasion that may cause premature failure of standard hoses.

The working pressures of DIEHARD AGGRESSOR exceed the requirements of EN 853 Type 2SN & SAE 100R2AT by up to 30%, and sizes up to and including 3/4" meet the working pressure requirements of SAE 100R9.

The very high abrasion resistant properties of the cover, combined with the high working pressures and excellent impulse life when tested to EN 853 Type 2SN / SAE 100R2AT test conditions, are designed to increase service life and minimise equipment downtime. Ideal for high pressure use that requires a smaller outside diameter (except -20 size), lighter weight, and more flexibility than spiral hose.

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

Reinforcement: Two braids of high tensile steel wire.

Cover: Black, extra abrasion resistant and oil resistant rubber. "FRAS" Flame Resistant and Anti-Static. The weight loss of the cover under ISO 6945 method of test for abrasion resistance is less than 10% (less than 0.05 gms) of that allowed by DIN 20022-2SN and EN 853 Type 2SN.

Highly visible layline branding for easy and permanent identification.

No skiving required with Bitelok T200 & T700 Series Crimp Couplings and L Series Field Attachable Couplings.

Temperature Range: From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 217.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS2660 and Methods of Test AS1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.

Couplings: Bitelok T200 Non-Skive One Piece (sizes 1/2" to 1.1/4") pages 68 to 83.
Bitelok T700 Non-Skive One Piece (sizes 1/2" to 1.1/4") pages 86 to 97.
Field Attachable L Series (sizes 1/2" to 1.1/4") pages 54 to 67.
Assembly instructions pages 220 to 222.

TXA2D Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
TXA28D	12	1/2	-08	375	5440	500	7250	1500	21800
TXA210D	16	5/8	-10	350	5100	467	6800	1400	20400
TXA212D	20	3/4	-12	313	4530	417	6050	1250	18100
TXA216D	25	1	-16	225	3260	300	4350	900	13000
TXA220D	32	1.1/4	-20	175	2540	233	3380	700	10100

TXA2D Hose Dimensions

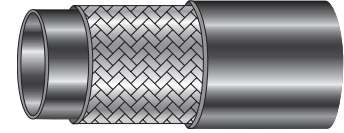
Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	FIELD ATTACHABLE L SERIES		BITELOK ONE PIECE CRIMP	
	DIN	INCH	DASH				mm	KG/M	mm	INSERT
TXA28D	12	1/2	-08	180	0,72	22,0	600 SERIES	L00-08	T200	T700
TXA210D	16	5/8	-10	200	0,87	25,2	600 SERIES	L00-10	T200	
TXA212D	20	3/4	-12	240	1,11	29,1	600 SERIES	L00-12	T200	T700
TXA216D	25	1	-16	300	1,50	37,7	600 SERIES	L00-16	T200	T700
TXA220D	32	1.1/4	-20	420	2,28	48,0	600 SERIES	L00-20	T200	T700

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

DIEHARD AS1D

EXTRA ABRASION RESISTANT
FRAS 1 WIRE BRAID HOSE



Meets or exceeds the performance requirements of
AS 3791 100R1A, DIN 20022 - 1ST, EN 853 Type 1ST, ISO 1436 Type 1A, SAE 100R1A.

- Recommended For:** High pressure hydraulic oil lines.
- Tube:** Black, oil resistant synthetic rubber. (Nitrile).
- Reinforcement:** One braid of high tensile steel wire.
- Cover:** Black, extra abrasion resistant and oil resistant synthetic rubber.
Skiving of cover is required with Bitelok T200 & T700 Series Crimp Couplings and A Series Field Attachable Couplings.
- Temperature Range:** From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 217.
- Working Pressure:** Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.
- Flame Resistance:** Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS2660 and Methods of Test AS1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.
- Couplings:** Bitelok T200 One Piece (sizes 1/4" to 1.1/4") pages 68 to 83.
Bitelok T700 One Piece (sizes 3/8" to 2") pages 86 to 97.
Assembly instructions T200 and T700 page 223.
Field Attachable A Series (sizes 1/4" to 2") pages 54 to 67.
Assembly instructions page 221.

AS1D Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
AS14D	6	1/4	-04	225	3250	300	4350	900	13000
AS16D	10	3/8	-06	180	2600	240	3480	720	10400
AS18D	12	1/2	-08	160	2300	213	3090	640	9300
AS112D	20	3/4	-12	105	1500	140	2000	420	6000
AS116D	25	1	-16	90	1300	120	1740	360	5200
AS120D	32	1.1/4	-20	65	940	87	1270	260	3800
AS124D	40	1.1/2	-24	50	725	67	970	200	2900
AS132D	50	2	-32	40	580	53	770	160	2320

AS1D Hose Dimensions

Matched Couplings

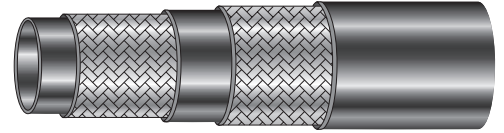
PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	A SERIES SKIVE LENGTH	FIELD ATTACHABLE A SERIES		BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH					mm	KG/M	
AS14D	6	1/4	-04	100	0,31	15,7	23	600 SERIES	A00-04	T200
AS16D	10	3/8	-06	130	0,44	19,7	26	600 SERIES	A00-06	T200 T700
AS18D	12	1/2	-08	180	0,53	22,8	23	600 SERIES	A00-08	T200 T700
AS112D	20	3/4	-12	240	0,79	30,1	31	600 SERIES	A00-12	T200 T700
AS116D	25	1	-16	300	1,14	37,8	37	600 SERIES	A00-16	T200 T700
AS120D	32	1.1/4	-20	420	1,48	45,8	45	600 SERIES	A00-20	T200 T700
AS124D	40	1.1/2	-24	500	1,79	52,1	49	600 SERIES	A00-24	T700
AS132D	50	2	-32	600	2,53	66,4	66	600 SERIES	A00-32	T700

Contact RYCO for Crimp Diameter and Skive Length for Bitelok Couplings.

DIEHARD AS2D

EXTRA ABRASION RESISTANT
FRAS 2 WIRE BRAID HOSE

Meets or exceeds the performance requirements of
AS 3791 100R2A, DIN 20022 - 2ST, EN 853 Type 2ST, ISO 1436 Type 2A, SAE 100R2A.



- Recommended For:** High pressure hydraulic oil lines.
- Tube:** Black, oil resistant synthetic rubber. (Nitrile).
- Reinforcement:** Two braids of high tensile steel wire.
- Cover:** Black, extra abrasion resistant and oil resistant synthetic rubber.
Skiving of cover is required with Bitelok T200 & T700 Series Crimp Couplings and B Series Field Attachable Couplings.
- Temperature Range:** From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 217.
- Working Pressure:** Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.
- Flame Resistance:** Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS2660 and Methods of Test AS1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.
- Couplings:** Bitelok T200 One Piece (sizes 1/4" to 1.1/4") pages 68 to 83.
Bitelok T700 One Piece (sizes 3/8" to 2") pages 86 to 97.
Assembly instructions T200 and T700 page 223.
Field Attachable B Series (sizes 1/4" to 2") pages 54 to 67. Assembly instructions page 221.

AS2D Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
AS24D	6	1/4	-04	420	6000	560	8000	1680	24000
AS26D	10	3/8	-06	350	5100	467	6770	1400	20400
AS28D	12	1/2	-08	350	5100	467	6770	1400	20400
AS210D	16	5/8	-10	250	3600	333	4830	1000	14500
AS212D	20	3/4	-12	215	3100	283	4100	850	12300
AS216D	25	1	-16	167	2400	223	3200	670	9600
AS220D	32	1.1/4	-20	125	1800	167	2400	500	7200
AS224D	40	1.1/2	-24	90	1300	120	1730	360	5200
AS232D	50	2	-32	80	1150	107	1550	320	4640

AS2D Hose Dimensions

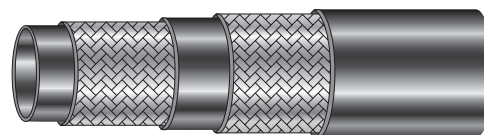
Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	B SERIES SKIVE LENGTH	FIELD ATTACHABLE B SERIES		BITELOK ONE PIECE CRIMP	
	DIN	INCH	DASH					mm	KG/M	mm	mm
AS24D	6	1/4	-04	100	0,47	17,3	22	600 SERIES	B00-04	T200	
AS26D	10	3/8	-06	130	0,65	21,3	25	600 SERIES	B00-06	T200	T700
AS28D	12	1/2	-08	180	0,78	24,5	27	600 SERIES	B00-08	T200	T700
AS210D	16	5/8	-10	200	0,92	27,7	30	600 SERIES	B00-10	T200	
AS212D	20	3/4	-12	240	1,11	31,7	31	600 SERIES	B00-12	T200	T700
AS216D	25	1	-16	300	1,50	39,5	38	600 SERIES	B00-16	T200	T700
AS220D	32	1.1/4	-20	420	2,28	50,6	51	600 SERIES	B00-20	T200	T700
AS224D	40	1.1/2	-24	500	2,75	57,0	53	600 SERIES	B00-24		T700
AS232D	50	2	-32	600	3,48	69,8	58	600 SERIES	B00-32		T700

Contact RYCO for Crimp Diameter and Skive Length for Bitelok Couplings.

JACK AJ2D & TJ2D

FRAS ABRASION RESISTANT JACK HOSE



Meets Materials Handling Institute specification IJ 100 for hydraulic hose and assemblies used with jacking systems.

Recommended For: Hydraulic Jack applications.
AJ24D has a thick, skive type cover.

TJ24D DIEHARD is suited to applications requiring a light weight, small outside diameter hose.

The very high abrasion resistant properties of the cover extend the life of the hose when it is subjected to the abrasion that may cause the premature failure of standard hoses.

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

Reinforcement: Two braids of high tensile steel wire.

Cover:
AJ24D: Black, oil and abrasion resistant synthetic rubber. "FRAS" Flame Resistant and Anti-Static. Skiving required with Bitelok T200 Series Crimp Couplings and B Series Field Attachable Couplings.
TJ24D: Black, extra abrasion resistant and oil resistant rubber. "FRAS" Flame Resistant and Anti-Static. No skiving required with Bitelok T200 Series Crimp Couplings and L Series Field Attachable Couplings.

The weight loss of the cover of AJ24D and TJ24D under ISO 6945 method of test for abrasion resistance is less than 10% (less than 0.05 gms) of that allowed by DIN 20022-2SN and EN 853 Type 2SN. Layline branding for easy and permanent identification.

Temperature Range: From -40°C to +49°C (-40°F to +120°F).

Working Pressure: Specification IJ 100 is based on 2:1 minimum burst to working pressure safety factor. RYCO AJ24D and TJ24D hoses have a 2.5:1 safety factor and are suitable for 700 BAR use in hydraulic jack applications ONLY.

Flame Resistance: Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS2660 and Methods of Test AS1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.

Couplings:
AJ24D:
 Bitelok T200 Series One Piece (sizes 1/4") pages 68 to 83. Assembly instructions page 224.
 Field Attachable B Series (sizes 1/4") pages 54 to 67. Assembly instructions page 221.
TJ24D:
 Bitelok T200 Series One Piece (sizes 1/4") pages 68 to 83. Assembly instructions page 223.
 Field Attachable L Series (sizes 1/4") pages 54 to 67. Assembly instructions page 220.

RYCO recommend the use of 3/8" NPTF Male Long Nose Couplings.

Part No. T209E-0406 -Bitelok One Piece Crimp.

Part No. L09E-0406 -Field Attachable L Series.

Part No. B09E-0406 -Field Attachable B Series.

Use of #750 Spring Guards at each end is also recommended.

Hose Specifications

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. WORKING PRESSURE		MIN. BURST PRESSURE		MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	mm	KG/M	mm
AJ24D	6	1/4	-04	700	10000	1750	25000	100	0,47	17,3
TJ24D	6	1/4	-04	700	10000	1750	25000	100	0,39	15,0

Matched Couplings

PART NO	HOSE SIZE ID			FIELD ATTACHABLE		BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH	INSERT	FERRULE	
AJ24D	6	1/4	-04	600-04	B00-04	T200
TJ24D	6	1/4	-04	600-04	L00-04	T200

Contact RYCO for Crimp Diameter and Mark or Skive Length for Bitelok Couplings.

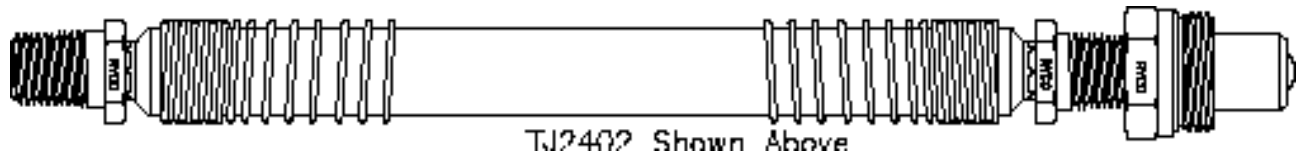
JACK HOSE ASSEMBLIES

For ease of ordering, Hose Assemblies can be specified using AJ and TJ numbers below, followed by length in millimetres.

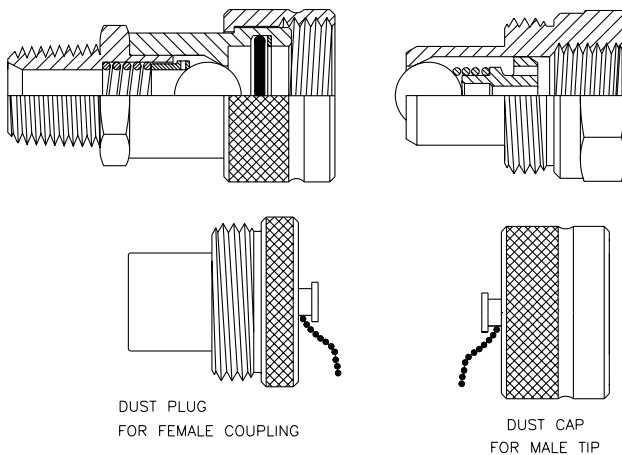
For example, to order a TJ24D Hose Assembly, 1800mm overall length, with 3/8" NPTF male one end and male Screw-On coupling other end, with Spring Guards at each end; simply order TJ2402 - 1800.

Standard lengths are 1000mm, 2000mm and 3000mm. Other lengths are available.

HOSE ASSEMBLY No. Substitute xxxx for overall length (mm)	HOSE END 1 Includes spring guard	HOSE END 2 Includes spring guard
AJ2401-xxxx TJ2401-xxxx	3/8" NPTF Male	3/8" NPTF Male
AJ2402-xxxx TJ2402-xxxx	3/8" NPTF Male	R100-06M Male Coupling
AJ2403-xxxx TJ2403-xxxx	3/8" NPTF Male	R100-06M Male Coupling and R100-06DC Dust Cap
AJ2404-xxxx TJ2404-xxxx	3/8" NPTF Male	R100-06FM Male and Female coupling
AJ2405-xxxx TJ2405-xxxx	3/8" NPTF Male	R100-06FMPC Male and Female Coupling with Dust Cap and Dust Plug



R100 Series Quick Release Couplings, 10,000 PSI, Thread-to-Connect.



- Designed for use in heavy duty applications on portable cylinders, rams and pumps, where low flow rates and pressures up to 700 bar / 10,000 PSI are involved.
- Threaded sleeve on female body engages thread on male tip. When the sleeve is screwed completely up, the two coupling halves are secured together. Can connect and disconnect with pressure in line.
- Precision ball type check valves.
- Threaded dust caps and plugs complete with captive chain are available.
- Female body is NPTF male threaded to screw directly into the cylinder or ram.
- Male tip is NPTF female threaded to screw onto hose coupling.

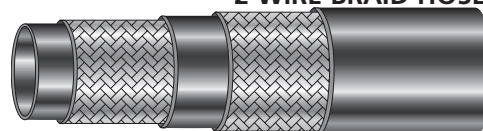
NOMINAL SIZE	NPTF THREAD	MAX. WORKING PRESSURE	FEMALE BODY	RYCO PART NUMBER			
				MALE TIP	COMPLETE COUPLING	DUST PLUG FOR FEMALE	DUST CAP FOR MALE
1/4	1/4	700	R100-04F	R100-04M	R100-04FM	R100-06DP	R100-06DC
3/8	3/8	700	R100-06F	R100-06M	R100-06FM	R100-06DP	R100-06DC

See page 188 for further information on RYCO R100 Couplings.

SLIDER T2S

Meets or exceeds the performance requirements of AS 3791 100R2AT, DIN 20022 - 2SN, EN 853 Type 2SN, ISO 1436 Type 2AT, SAE 100R2AT.

**EXTREMELY ABRASION RESISTANT
2 WIRE BRAID HOSE**



Recommended For: High pressure hydraulic oil lines in applications where the outside cover of the hose is subjected to sliding abrasion that may cause premature failure of standard hoses. The extremely high abrasion resistant properties of the polyethylene sheathed cover, combined with the high working pressures and excellent impulse life when tested to EN 853 Type 2SN / SAE 100R2AT test conditions, are designed to increase service life and minimise equipment downtime.

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

Reinforcement: Two braids of high tensile steel wire.

Cover: Black, abrasion resistant and oil resistant rubber sheathed with a layer of extremely abrasion resistant polyethylene.

The weight loss of the cover under ISO 6945 method of test for abrasion resistance is less than 0.2% (less than 0.001 gms) of that allowed by DIN 20022-2SN and EN 853 Type 2SN.

Highly visible layline branding for easy and permanent identification.

No skiving required with Bitelok T200 & T700 Series Crimp Couplings and L Series Field Attachable Couplings.

Temperature Range: From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 217.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Complies with Flame Resistant requirements of Australian Standard AS2660 and Method of Test AS1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.

Couplings: Bitelok T200 Non-Skive One Piece (sizes 1/4" to 1.1/4") pages 68 to 83.

Bitelok T700 Non-Skive One Piece (sizes 3/8" to 2") pages 86 to 97.

Field Attachable L Series (sizes 1/4" to 1.1/4") pages 54 to 67.

Field Attachable B Series (sizes 1.1/2" & 2") pages 54 to 67.

Assembly instructions pages 220 to 222.

T2S Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
T24S	6	1/4	-04	400	5800	533	7730	1600	23200
T26S	10	3/8	-06	350	5000	467	6670	1400	20000
T28S	12	1/2	-08	350	5000	467	6670	1400	20000
T210S	16	5/8	-10	250	3600	333	4830	1000	14500
T212S	20	3/4	-12	215	3100	283	4100	850	12300
T216S	25	1	-16	175	2540	233	3380	700	10100
T220S	32	1.1/4	-20	150	2175	200	2900	600	8700
T224S	40	1.1/2	-24	100	1450	133	1930	400	5800
T232S	50	2	-32	90	1300	120	1730	360	5200

T2S Hose Dimensions

Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	FIELD ATTACHABLE L (& B) SERIES		BITELOK ONE PIECE CRIMP		
	DIN	INCH	DASH				mm	KG/M	mm	INSERT	FERRULE
T24S	6	1/4	-04	100	0,39	15,0	600 SERIES	L00-04	T200		
T26S	10	3/8	-06	130	0,56	19,0	600 SERIES	L00-06	T200	T700	
T28S	12	1/2	-08	180	0,66	22,0	600 SERIES	L00-08	T200	T700	
T210S	16	5/8	-10	200	0,80	25,2	600 SERIES	L00-10	T200		
T212S	20	3/4	-12	240	0,96	29,1	600 SERIES	L00-12	T200	T700	
T216S	25	1	-16	300	1,37	37,7	600 SERIES	L00-16	T200	T700	
T220S	32	1.1/4	-20	420	2,03	48,0	600 SERIES	L00-20	T200	T700	
T224S	40	1.1/2	-24	500	2,75	54,4	600 SERIES	*B00-24		T700	
T232S	50	2	-32	600	3,48	67,3	600 SERIES	*B00-32		T700	

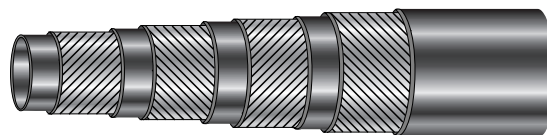
*When using B Series Field Attachable Couplings on T2S Series Hose, cover of hose must be skived at ends.

Refer to page 31 for Skive Length. Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

SLIDER H12S

**EXTREMELY ABRASION RESISTANT
VERY HIGH PRESSURE
SPIRAL HOSE**

Meets or exceeds the performance requirements of AS 3791 100R12, EN856 Type R12, EN 856 Type 4SP (-12 and above), ISO 3862 Type 6, SAE 100R12.



- Recommended For:** Very high pressure hydraulic oil lines, in applications where the outside cover of the hose is subject to sliding abrasion that may cause premature failure of standard hoses. The very high abrasion resistant properties of the polyethylene sheathed cover, combined with the extra high working pressures and excellent impulse life when tested to SAE 100R12 test conditions, are designed to increase service life and minimise equipment downtime.
- Tube:** Black, oil resistant synthetic rubber. (Neoprene).
- Reinforcement:** Four layers of alternated, spiralled high tensile steel wire.
- Cover:** Black, abrasion resistant and oil resistant rubber sheathed with a layer of extremely abrasion resistant polyethylene.
The maximum weight loss of the cover under ISO 6945 method of test for abrasion resistance is less than 0.2% (less than 0.002 gms) of that allowed by DIN 20023 and EN 856.
Highly visible layline branding for easy and permanent identification.
No skiving required with Bitelok T700 Series Crimp Couplings.
- Temperature Range:** From -40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 217.
- Working Pressure:** Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.
- Flame Resistance:** Complies with Flame Resistant requirements of Australian Standard AS2660 and Method of Test AS1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.
- Couplings:** Bitelok T700 Non-Skive One Piece (sizes 3/8" to 1.1/2") pages 86 to 97. Assembly instructions page 222.

H12S Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
H1206S	10	3/8	-06	350	5100	467	6800	1400	20400
H1208S	12	1/2	-08	350	5100	467	6800	1400	20400
H1212S	20	3/4	-12	350	5100	440	6400	1320	19200
H1216S	25	1	-16	310	4500	413	6000	1240	18000
H1220S	32	1.1/4	-20	275	4000	367	5330	1100	16000
H1224S	40	1.1/2	-24	255	3700	340	4930	1020	14800

H12S Hose Dimensions

Matched Couplings

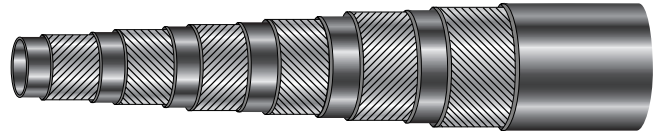
PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH				
H1206S	10	3/8	-06	mm	KG/M	mm	T700 SERIES
H1208S	12	1/2	-08	130	0,65	20,2	T700 SERIES
H1212S	20	3/4	-12	180	0,80	23,8	T700 SERIES
H1216S	25	1	-16	240	1,27	30,7	T700 SERIES
H1220S	32	1.1/4	-20	300	1,91	38,0	T700 SERIES
H1224S	40	1.1/2	-24	420	2,65	47,0	T700 SERIES
				510	3,40	53,5	T700 SERIES

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

SLIDER H13S

**EXTREMELY ABRASION RESISTANT
EXTREMELY HIGH PRESSURE
SPIRAL HOSE**

Meets or exceeds the performance requirements of AS 3791 100R13, EN856 Type R13, ISO 3862 Type 7, SAE 100R13.



Recommended For: Extremely high pressure hydraulic oil lines, in applications where the outside cover of the hose is subject to sliding abrasion that may cause premature failure of standard hoses. The very high abrasion resistant properties of the polyethylene sheathed cover, combined with the extra high working pressures and excellent impulse life when tested to SAE 100R13 test conditions, are designed to increase service life and minimise equipment downtime.

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

Reinforcement: Four layers of alternated, spiralled, high tensile steel wire for sizes -12 & -16.
Six layers of alternated, spiralled, high tensile steel wire for sizes -20 & -24.

Cover: Black, abrasion resistant and oil resistant rubber sheathed with a layer of extremely abrasion resistant polyethylene.

The maximum weight loss of the cover under ISO 6945 method of test for abrasion resistance is less than 0.2% (less than 0.002 gms) of that allowed by DIN 20023 and EN 856.

Highly visible layline branding for easy and permanent identification.

No skiving required with Bitelok T900 Series Crimp Couplings.

Temperature Range: From -40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 217.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Complies with Flame Resistant requirements of Australian Standard AS2660 and Method of Test AS1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration.

Couplings: Bitelok T900 Non-Skive One Piece (sizes 3/4" to 1.1/2") pages 98 to 103.
Assembly instructions page 222.

H13S Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
H1312S	20	3/4	-12	350	5100	467	6770	1400	20400
H1316S	25	1	-16	350	5100	467	6770	1400	20400
H1320S	32	1.1/4	-20	350	5100	467	6770	1400	20400
H1324S	40	1.1/2	-24	350	5100	467	6770	1400	20400
			-						

H13S Hose Dimensions

**Matched
Couplings**

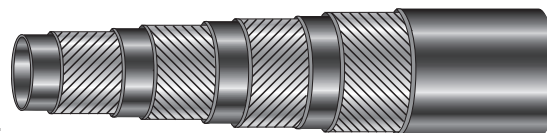
PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH				
H1312S	20	3/4	-12	mm	KG/M	mm	T900 SERIES
H1316S	25	1	-16	240	1,65	32,1	T900 SERIES
H1320S	32	1.1/4	-20	300	2,28	38,7	T900 SERIES
H1324S	40	1.1/2	-24	420	3,60	49,8	T900 SERIES
				510	4,95	57,3	T900 SERIES

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

SPIRAL HSPA / HSHA

EXTRA HIGH PRESSURE
SPIRAL HOSE

HSPA Series meets or exceeds the performance requirements of EN 856 4SP.
HSHA Series meets or exceeds the performance requirements of EN 856 4SH.



- Recommended For:** Extra high pressure hydraulic oil lines.
- Tube:** Black, oil resistant synthetic rubber. (Neoprene).
- Reinforcement:** Four layers of alternated, spiralled high tensile steel wire.
- Cover:** Black, oil and abrasion resistant synthetic rubber. Highly visible layline branding for easy and permanent identification.
- Temperature Range:** From -40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 217.
- Working Pressure:** Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.
- Flame Resistance:** Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration. Complies with Flame Resistant requirements of Australian Standard AS2660 and Method of Test AS1180. 10B.
- Couplings:** Please contact RYCO hydraulics Technical Department.

HSPA / HSHA Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
HSP04A	6	1/4	-04	500	7250	667	9700	2000	29000
HSP06A	10	3/8	-06	490	7100	650	9400	1960	28400
HSP08A	12	1/2	-08	425	6150	567	8200	1700	24600
HSP10A	16	5/8	-10	420	6000	560	8000	1680	24000
HSH12A	20	3/4	-12	440	6300	587	8400	1760	25200
HSH16A	25	1	-16	420	6000	560	8000	1680	24000
HSH20A	32	1.1/4	-20	350	5100	467	6770	1400	20300
HSH24A	40	1.1/2	-24	310	4500	413	6000	1240	18000
HSH32A	50	2	-32	275	4000	367	5330	1100	16000

HSPA / HSHA Hose Dimensions

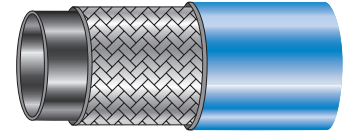
Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	BITELOK ONE PIECE CRIMP	
	DIN	INCH	DASH	mm	KG/M	mm		
HSP04A	6	1/4	-04	150	0,63	17,9	Contact RYCO	SKIVE COVER
HSP06A	10	3/8	-06	180	0,80	20,0	Contact RYCO	SKIVE COVER
HSP08A	12	1/2	-08	230	0,96	24,6	Contact RYCO	SKIVE COVER
HSP10A	16	5/8	-10	250	1,17	28,2	Contact RYCO	SKIVE COVER
HSH12A	20	3/4	-12	300	1,60	32,2	Contact RYCO	SKIVE COVER
HSH16A	25	1	-16	340	2,06	38,2	Contact RYCO	SKIVE COVER
HSH20A	32	1.1/4	-20	460	2,57	45,2	Contact RYCO	SKIVE COVER
HSH24A	40	1.1/2	-24	560	3,42	53,1	Contact RYCO	SKIVE COVER
HSH32A	50	2	-32	700	4,50	68,2	Contact RYCO	SKIVE COVER

Contact RYCO for Crimp Diameter and Skive Length for Biteelok Couplings.

SURVIVOR RQP1

HIGH TEMPERATURE, MULTI FLUID
1 WIRE BRAID HOSE



Meets or exceeds the performance requirements of AS 3791 100R1AT, DIN 20022 - 1SN, EN 853 Type 1SN, ISO 1436 Type 1AT, SAE 100R1AT. "DNV" Det Norske Veritas Type Approval (except RQP116 size).

Recommended For: High pressure hydraulic applications where pressure or temperature requirements exceed the performance requirements of SAE 100R1AT and DIN 20022-1SN, or where resistance to either petroleum-base or phosphate ester** fluid is required. May be used with compressed air if working pressure is reduced by 30%, and cover of hose is perforated (pin pricked).

Tube: Black, specifically compounded for temperature and chemical resistance.

Reinforcement: One braid of high tensile steel wire.

Cover: Blue, oil and abrasion resistant, synthetic rubber.
No skiving required with Bitelok T200 & T700 Series Crimp Couplings and K Series Field Attachable Couplings*.

Petroleum-base fluids from -40°C to +150°C (-40°F to +302°F).

Water/oil emulsions to +121°C (+250°F).

Diesel fuels to +93°C (+200°F).

Air to +121°C (+250°F) (maximum working pressure must be reduced by 30%).

Some phosphate ester** fluids in the temperature range of -40°C to +82°C (-40°F to +180°F).

**Not suitable for use with aerospace type phosphate esters such as Monsanto Skydrol 500B, Stauffer Aero-Safe 2300W and Chevron Hy-jet IV.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration. Complies with Flame Resistant requirements of Australian Standard AS2660 and Method of Test AS1180.10B.

Couplings: Bitelok T200 Non-Skive One Piece (sizes 1/4" to 1") pages 68 to 83.
Bitelok T700 Non-Skive One Piece (sizes 3/8" to 1") pages 86 to 97 .
Field Attachable K Series (sizes 1/4" to 1") pages 54 to 67.
Assembly instructions page 220 and 222.

RQP1 Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
RQP14	6	1/4	-04	225	3250	300	4330	900	13000
RQP16	10	3/8	-06	180	2600	240	3470	720	10400
RQP18	12	1/2	-08	160	2300	213	3100	640	9300
RQP110	16	5/8	-10	130	1880	173	2510	520	7540
RQP112	20	3/4	-12	120	1740	160	2330	480	7000
RQP116	25	1	-16	90	1300	120	1740	360	5200

RQP1 Hose Dimensions

Matched Couplings

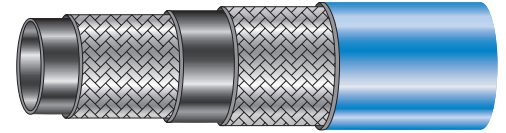
PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	FIELD ATTACHABLE K SERIES		BITELOK ONE PIECE CRIMP		
	DIN	INCH	DASH				mm	KG/M	mm	INSERT	FERRULE
RQP14	6	1/4	-04	100	0,24	13,4	600 SERIES	K00-04	T200		
RQP16	10	3/8	-06	130	0,34	17,4	600 SERIES	K00-06	T200	T700	
RQP18	12	1/2	-08	180	0,44	20,5	600 SERIES	K00-08	T200	T700	
RQP110	16	5/8	-10	200	0,51	23,7	600 SERIES	K00-10	T200		
RQP112	20	3/4	-12	240	0,64	27,6	600 SERIES	K00-12	T200	T700	
RQP116	25	1	-16	300	0,98	35,7	600 SERIES	K00-16	T200	T700	

*Field Attachable Couplings should not be used on RQP1 Hose at maximum working pressure when temperature exceeds 121°C (250°F). Field Attachable Couplings may be used on RQP1 Hose at over 121°C but at reduced working pressure. Contact RYCO for more information.

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

SURVIVOR RQP2

HIGH TEMPERATURE, MULTI FLUID
2 WIRE BRAID HOSE



Meets or exceeds the performance requirements of AS 3791 100R2AT, DIN 20022 - 2SN, EN 853 Type 2SN, ISO 1436 Type 2AT, SAE 100R2AT. "DNV" Det Norske Veritas Type Approval is pending.

Recommended For: High pressure hydraulic applications where pressure or temperature requirements exceed the performance requirements of SAE 100R2AT and DIN 20022-2SN, or where resistance to either petroleum-base or phosphate ester** fluid is required. May be used with compressed air if working pressure is reduced by 30% and cover of hose is perforated (pin pricked).

Tube: Black, specifically compounded for temperature and chemical resistance.

Reinforcement: Two braids of high tensile steel wire.

Cover: Blue, oil and abrasion resistant, synthetic rubber. No skiving required with Bitelok T200 & T700 Series Crimp Couplings and L Series Field Attachable Couplings*.

Temperature Range: Petroleum-base fluids from -40°C to +150°C (-40°F to +302°F); water/oil emulsions to +121°C (+250°F); diesel fuels to +93°C (+200°F).

Air to +121°C (+250°F) (max. working pressure must be reduced by 30%).

Some phosphate ester** fluids in the temperature range of -40°C to +82°C (-40°F to +180°F).

**Not suitable for use with aerospace type phosphate esters such as Monsanto Skydrol 500B, Stauffer Aero-Safe 2300W and Chevron Hy-jet IV.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety & Health Administration. Complies with Flame Resistant requirements of Australian Standard AS2660 & Method of Test AS1180.10B.

Couplings: Bitelok T200 Non-Skive One Piece (sizes 1/4" to 1.1/4") pages 68 to 83.

Bitelok T700 Non-Skive One Piece (sizes 3/8" to 2") pages 86 to 97.

Field Attachable L Series (sizes 1/4" to 1.1/4") pages 54 to 67.

***Field Attachable B Series (sizes 1.1/2" & 2") pages 54 to 67.

Assembly instructions page 220 to 222.

RQP2 Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
RQP24	6	1/4	-04	400	5800	533	7730	1600	23200
RQP26	10	3/8	-06	350	5100	467	6770	1400	20300
RQP28	12	1/2	-08	300	4350	400	5800	1200	17400
RQP210	16	5/8	-10	250	3600	333	4830	1000	14500
RQP212	20	3/4	-12	215	3100	283	4100	850	12300
RQP216	25	1	-16	167	2400	223	3230	670	9700
RQP220	32	1.1/4	-20	150	2175	200	2900	600	8700
RQP224	40	1.1/2	-24	100	1450	133	1930	400	5800
RQP232	50	2	-32	90	1300	120	1730	360	5200

RQP2 Hose Dimensions

Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	FIELD ATTACHABLE L (& B) SERIES		BITELOK ONE PIECE CRIMP	
	DIN	INCH	DASH				mm	KG/M	mm	INSERT
RQP24	6	1/4	-04	100	0,39	15,0	600 SERIES	L00-04	T200	
RQP26	10	3/8	-06	130	0,53	19,0	600 SERIES	L00-06	T200	T700
RQP28	12	1/2	-08	180	0,65	22,0	600 SERIES	L00-08	T200	T700
RQP210	16	5/8	-10	200	0,77	25,2	600 SERIES	L00-10	T200	
RQP212	20	3/4	-12	240	0,93	29,1	600 SERIES	L00-12	T200	T700
RQP216	25	1	-16	300	1,36	37,7	600 SERIES	L00-16	T200	T700
RQP220	32	1.1/4	-20	420	2,03	48,0	600 SERIES	L00-20	T200	T700
RQP224	40	1.1/2	-24	500	2,28	54,4	600 SERIES	*B00-24		T700
RQP232	50	2	-32	600	3,16	67,3	600 SERIES	*B00-32		T700

*Field Attachable Couplings should not be used on RQP2 Hose at maximum working pressure when temperature exceeds 121°C (250 °F). Field Attachable Couplings may be used on RQP2 Hose at over 121°C but at reduced working pressure. Contact RYCO for more information.

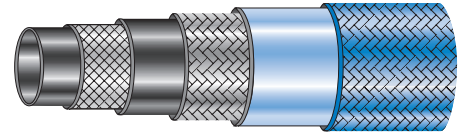
***When using B Series Field Attachable Couplings on RQP2 Series Hose, cover of hose must be skived at ends.

Refer to page 31 for Skive Length.

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

SURVIVOR RQP5

POLYESTER BRAID COVER HOSE



Meets or exceeds the performance requirements of AS 3791 100R5, SAE100R5, SAE J1402 Type All (up to -12 size).

Recommended For: Medium to high pressure hydraulic applications, where resistance to either petroleum-base or phosphate ester** fluid is required. The small bend radius, temperature resistance and light weight of RYCO RQP5 hose make it suitable for under the bonnet automotive/ trucking applications including hydraulic oil, diesel fuel, filtration, lubrication oil, transmission oil coolers and some power steering applications.

Sizes RQP54 to RQP512 also comply with SAE J1402 Type All "Automotive Air Brake Hose" for use in truck "air brake systems including flexible connections from frame to axle, tractor to trailer, trailer to trailer, and other unshielded air lines that are exposed to potential pull or impact".

May be used with compressed air if maximum dynamic working pressure as specified in the tables is reduced by 30%. RQP5 hose is normally used where there is minimal abrasion to the outside cover. If abrasion is likely, support the hose away from the source of abrasion using mounting clamps, or protect with RWA Wire Armour or RSG Spiral Guard. RQP5 is a reduced bore hose. It has a similar Inside Diameter to steel or copper tubing of the same nominal (outside diameter) size.

Tube: Black synthetic rubber, specifically compounded for temperature and chemical resistance.

Reinforcement: Polyester inner braid covered with one braid of high tensile steel wire.

Cover: Blue polyester braid. Skiving of cover is not required.

Temperature Range: Petroleum-base fluids from -40°C to +150°C (-40°F to +302°F); water/oil emulsions to +121°C (+250°F); diesel fuels to +93°C (+200°F). Air to +121°C (+250°F) (max. working pressure must be reduced by 30%). Some phosphate ester** fluids in the temperature range of -40°C to +82°C (-40°F to +180°F).

**Not suitable for use with aerospace type phosphate esters such as Monsanto Skydrol 500B, Stauffer Aero-Safe 2300W and Chevron Hy-jet IV.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor.

Couplings: Field Attachable V Series (sizes -04 to -32) pages 53 to 61. Assembly instructions page 220.

RQP5 Working Pressures

1 BAR=14,5 PSI 1MPa =10 BAR

PART NO	HOSE SIZE ID			100R5 MAX. DYNAMIC WORKING PRESSURE*		VACUUM RATING		100R5 MINIMUM BURST PRESSURE*		
	DIN	INCH	DASH	BAR	PSI	mm/Hg	in/Hg	BAR	PSI	
RQP54	5	3/16	0,19	-04	207	3000	710	28	830	12000
RQP55	6	1/4	0,25	-05	207	3000	710	28	830	12000
RQP56	8	5/16	0,31	-06	155	2250	710	28	620	9000
RQP58	10	13/32	0,41	-08	138	2000	710	28	550	8000
RQP510	12	1/2	0,50	-10	120	1750	710	28	480	7000
RQP512	16	5/8	0,63	-12	103	1500	710	28	415	6000
RQP516	22	7/8	0,88	-16	55	800	510	20	220	3200
RQP520	28	1.1/8	1,12	-20	43	625	510	20	172	2500
RQP524	35	1.3/8	1,38	-24	35	500	380	15	140	2000
RQP532	46	1.13/16	1,81	-32	24	350	280	11	96	1400

*IMPORTANT NOTE: MAXIMUM DYNAMIC WORKING PRESSURE and MINIMUM BURST PRESSURE shown above relate to SAE 100R5 specification and hose used in non Air Brake applications. For Air Brake applications, SAE J1402 Type All Air Brake Hose specification requires Minimum Burst Pressure

900 PSI (62,1 Bar) and Proof Pressure of 300 PSI (20,7 Bar) for all sizes, and reduced Minimum Bend Radius as shown below. RQP54 to RQP512 comply with SAE J1402 Minimum Bend Radius at SAE J1402 pressures, and SAE 100R5 Minimum Bend Radius at SAE 100R5 working pressures.

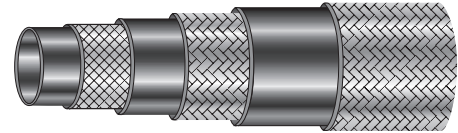
RQP5 Dimensions

Matched Couplings

PART NO	HOSE SIZE ID			100R5 MIN. BEND RADIUS*	J1402 MIN. BEND RADIUS*	AV. WEIGHT	NOMINAL HOSE OD	FIELD ATTACHABLE V SERIES		
	DIN	INCH	DASH	mm	mm			INSERT	FERRULE	COUPLING
RQP54	5	3/16	0,19	-04	75	0,23	13,2	600-03	V00-04	V00-03
RQP55	6	1/4	0,25	-05	85	0,26	14,8	600-04	V00-05	V00-04
RQP56	8	5/16	0,31	-06	100	0,30	17,2	600-05	V00-06	V00-05
RQP58	10	13/32	0,41	-08	120	0,36	19,6	600-06	V00-08	V00-06
RQP510	12	1/2	0,50	-10	140	0,53	23,4	600-08	V00-10	V00-08
RQP512	16	5/8	0,63	-12	165	0,65	27,4	600-10	V00-12	V00-10
RQP516	22	7/8	0,88	-16	190	0,63	31,4	600-14	V00-16	V00-14
RQP520	28	1.1/8	1,12	-20	230	0,90	38,1	600-18	V00-20	V00-18
RQP524	35	1.3/8	1,38	-24	270	1,00	44,5	600-22	V00-24	V00-22
RQP532	46	1.13/16	1,81	-32	340	1,48	56,4	600-29	V00-32	V00-29

TRUCKER T5

POLYESTER BRAID COVER HOSE



Meets or exceeds the performance requirements of AS 3791 100R5, SAE100R5, SAE J1402 Type All (up to -12 size).

Recommended For: Medium to high pressure hydraulic applications. The small bend radius, temperature resistance and light weight of RYCO T5 hose make it suitable for under the bonnet automotive/ trucking applications including hydraulic oil, diesel fuel, filtration, lubrication oil, transmission oil coolers and some power steering applications. Sizes T54 to T512 also comply with SAE J1402 Type All "Automotive Air Brake Hose" for use in truck "air brake systems including flexible connections from frame to axle, tractor to trailer, trailer to trailer, and other unshielded air lines that are exposed to potential pull or impact". May be used with compressed air if maximum dynamic working pressure as specified in the tables is reduced by 30%. T5 hose is normally used where there is minimal abrasion to the outside cover. If abrasion is likely, support the hose away from the source of abrasion using mounting clamps, or protect with RWA Wire Armour or RSG Spiral Guard. T5 is a reduced bore hose. It has a similar Inside Diameter to steel or copper tubing of the same nominal (outside diameter) size.

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

Reinforcement: Polyester inner braid covered with one braid of high tensile steel wire.

Cover: Black polyester braid. Skiving of cover is not required.

Temperature Range: Petroleum-base hydraulic oils from -40°C to +100°C (-40°F to +212°F). Water/oil emulsions see page 217. Diesel fuels and lubricating oils to +71°C (+160°F). Air to +71°C (+160°F) (maximum working pressure must be reduced by 30%).

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor.

Couplings: Field Attachable V Series (sizes -04 to -32) pages 53 to 61. Assembly instructions page 220.

NOTE RE COUPLING PART NUMBERS: Due to the reduced bore of T5 Hose Series, the Part Numbering system for the Inserts for V Series is different to other RYCO Field Attachable Couplings. See V Series Couplings on pages 53 to 61; for more information.

T5 Working Pressures

1 BAR=14,5 PSI 1MPa =10 BAR

PART NO	HOSE SIZE ID			100R5 MAX. DYNAMIC WORKING PRESSURE*		VACUUM RATING		100R5 MINIMUM BURST PRESSURE*		
	DIN	INCH	DASH	BAR	PSI	mm/Hg	in/Hg	BAR	PSI	
T54	5	3/16	0,19	-04	207	3000	710	28	830	12000
T55	6	1/4	0,25	-05	207	3000	710	28	830	12000
T56	8	5/16	0,31	-06	155	2250	710	28	620	9000
T58	10	13/32	0,41	-08	138	2000	710	28	550	8000
T510	12	1/2	0,50	-10	120	1750	710	28	480	7000
T512	16	5/8	0,63	-12	103	1500	710	28	415	6000
T516	22	7/8	0,88	-16	55	800	510	20	220	3200
T520	28	1.1/8	1,12	-20	43	625	510	20	172	2500
T524	35	1.3/8	1,38	-24	35	500	380	15	140	2000
T532	46	1.13/16	1,81	-32	24	350	280	11	96	1400

*IMPORTANT NOTE: *MAXIMUM DYNAMIC WORKING PRESSURE and MINIMUM BURST PRESSURE shown above relate to SAE 100R5 specification and hose used in non Air Brake applications. For Air Brake applications, SAE J1402 Type All Air Brake Hose specification requires Minimum Burst Pressure

900 PSI (62,1 Bar) and Proof Pressure of 300 PSI (20,7 Bar) for all sizes, and reduced Minimum Bend Radii as shown below. T54 to T512 comply with SAE J1402 Minimum Bend Radius at SAE J1402 pressures, and SAE 100R5 Minimum Bend Radius at SAE 100R5 working pressures.

T5 Dimensions

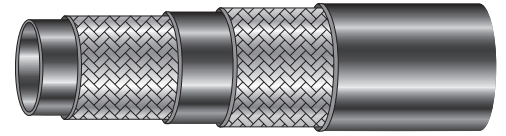
Matched Couplings

PART NO	HOSE SIZE ID			100R5 MIN. BEND RADIUS*	J1402 MIN. BEND RADIUS*	AV. WEIGHT	NOMINAL HOSE OD	FIELD ATTACHABLE V SERIES		
	DIN	INCH	DASH	mm	mm	KG/M	mm	INSERT	FERRULE	COUPLING
T54	5	3/16	0,19	75	51	0,23	13,2	600-03	V00-04	V00-03
T55	6	1/4	0,25	85	64	0,26	14,8	600-04	V00-05	V00-04
T56	8	5/16	0,31	100	76	0,30	17,2	600-05	V00-06	V00-05
T58	10	13/32	0,41	120	89	0,36	19,6	600-06	V00-08	V00-06
T510	12	1/2	0,50	140	102	0,53	23,4	600-08	V00-10	V00-08
T512	16	5/8	0,63	165	114	0,65	27,4	600-10	V00-12	V00-10
T516	22	7/8	0,88	190		0,63	31,4	600-14	V00-16	V00-14
T520	28	1.1/8	1,12	230		0,90	38,1	600-18	V00-20	V00-18
T524	35	1.3/8	1,38	270		1,00	44,5	600-22	V00-24	V00-22
T532	46	1.13/16	1,81	340		1,48	56,4	600-29	V00-32	V00-29

DINFLEX DF2

FRAS 2 WIRE BRAID COMPACT HOSE
DF2 Series Supersedes
DF1 Series & TM2 Series

Meets or exceeds the performance requirements of AS 3791 100R2AT, EN 853 Type 2SN, ISO 1436, SAE 100R2AT, SAE 100R16.



Recommended For: High pressure hydraulic oil lines. DINFLEX Hose has the compact outside diameter of one wire braid hose, but exceeds the performance requirements of SAE 100R2 two wire braid hose. Additionally it has a smaller bend radius and higher flexibility than standard one wire braid hoses.
Not suitable for use with Field Attachable Couplings.

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

Reinforcement: Two braids of high tensile steel wire.

Cover: Black, oil and abrasion resistant synthetic rubber. No skiving required with Bitelok T200 & T700 Series Crimp Couplings. **Not suitable for use with Field Attachable Couplings.**

Temperature Range: From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 217.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration. Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS2660 and Methods of Test AS1180.10B and 13A.

Couplings: Bitelok T200 Non-Skive One Piece (sizes 1/4" to 3/4") pages 68 to 83.
Bitelok T700 Non-Skive One Piece (sizes 3/8" to 3/4") pages 86 to 97.
Assembly instructions page 222.

Not suitable for use with Field Attachable Couplings.

DF2 Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
DF24	6	1/4	-04	350	5100	466	6760	1400	20300
DF26	10	3/8	-06	280	4060	373	5410	1120	16200
DF28	12	1/2	-08	245	3550	327	4740	980	14200
DF212	20	3/4	-12	155	2250	207	3000	620	9000

DF2 Hose Dimensions

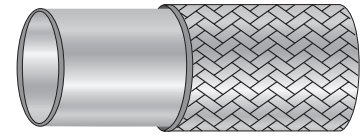
Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	BITELOK ONE PIECE CRIMP	
	DIN	INCH	DASH	mm	KG/M	mm		
DF24	6	1/4	-04	50	0,27	13,6	T200	
DF26	10	3/8	-06	65	0,37	17,0	T200	T700
DF28	12	1/2	-08	90	0,46	20,3	T200	T700
DF212	20	3/4	-12	120	0,78	27,7	T200	T700

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

TEFLON RTH1

STAINLESS STEEL BRAID PTFE HOSE



Recommended For: High pressure hydraulic oil lines. Fluids at extremes of pressure and temperature. RYCO RTH1 Series Hose Lining is chemically pure, inert and contains no leachable additives. RTH1 is remarkably resistant to high temperature and flame. It has a very high melting point, thermal degradation threshold and auto-ignition temperature.

Warning: RTH1 Hose Liner is non conductive. Do not use with high velocity fluids and gases, as static electricity may be generated and cause premature failure of hose. If in doubt contact RYCO hydraulics technical department.

Tube: PTFE. (TEFLON*).

Reinforcement & Cover: One braid of high tensile Grade 304 stainless steel wire.

Temperature Range: From -60°C to +260°C (-76°F to +500°F). (According to application).

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor. Working pressure is dependant on working temperature. Refer to chart below for working pressure limiting factors.

Couplings: 1RT200 Series Two Piece (sizes 1/4" to 1") pages 104 & 105. Assembly instructions page 224.

RTH1 Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
RTH14	6	1/4	-04	170	2450	225	3250	670	9750
RTH16	10	3/8	-06	165	2375	220	3170	655	9500
RTH18	12	1/2	-08	120	1750	160	2330	485	7000
RTH110	16	5/8	-10	105	1500	140	2000	415	6000
RTH112	20	3/4	-12	85	1250	115	1670	345	5000
RTH116	25	1	-16	50	750	70	1000	205	3000

RTH1 Hose Dimensions

PART NO	HOSE SIZE ID			MIN BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD
	DIN	INCH	DASH	mm	KG/M	mm
RTH14	6	1/4	-04	75	0,12	9,4
RTH16	10	3/8	-06	125	0,14	11,7
RTH18	12	1/2	-08	140	0,22	15,4
RTH110	16	5/8	-10	165	0,28	18,4
RTH112	20	3/4	-12	200	0,33	22,1
RTH116	25	1	-16	300	0,46	28,6

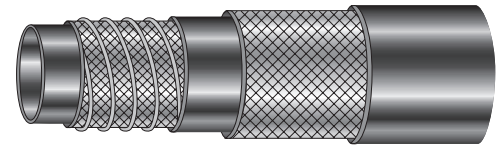
Working Temperature	Percentage of Working Pressure that may be safely used
-60°C to +100°C	100
+100°C to +150°C	93
+150°C to +200°C	85
+200°C to +250°C	77
+250°C to +260°C	70

*DuPont Registered TM

Contact RYCO for Crimp Diameter and Mark Length for 1RT200 Couplings.

SUCTION SR

SUCTION & RETURN HOSE



Meets or exceeds the performance requirements of AS 3791 100R4, SAE 100R4 (except SR48).

Recommended For: Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines.

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

Reinforcement: Textile braided with spiral wire to prevent collapsing.

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

Temperature Range: From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 217.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor.

Flame Resistance: Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration. Complies with Flame Resistant requirements of Australian Standard AS2660 and Method of Test AS1180.10B. (Except SR48).

Couplings: Working pressure shown is for hose performance capabilities. Performance of a hose assembly depends on clamping method.

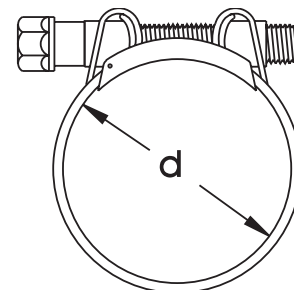
1. For Suction Applications, and Low Pressure Delivery (up to 25% of Max. Working Pressure).
3300 Series (sizes 3/4" to 2.1/2") pages 108 to 110.
3300 Series Couplings require a suitable clamp around the outside of the hose.
Refer to RYCO RSC Clamps shown below. Assembly Instructions page 224.
2. For Suction Applications, and Higher Pressure Delivery (up to 50% of Max. Working Pressure)
700 Series Couplings (sizes 3/4" to 2") pages 111 & 112.
700 Series Couplings require two clamps around the outside of the hose.
Refer to RYCO RSC Clamps shown below. Assembly Instructions page 224.
3. For Suction Applications, and High Pressure Delivery to 100% of Max. Working Pressure, refer to RYCO for availability of Swaged Couplings.

SR Hose Specifications

1 BAR = 14,5 PSI 1 MPA = 10 BAR

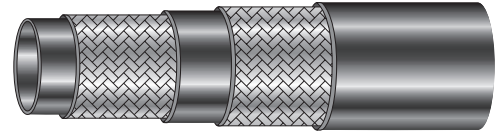
PART NO	HOSE SIZE ID			MAX. WORKING PRESSURE		MIN. BURST PRESSURE		VACUUM RATING		MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	mm/Hg	in/Hg	mm	KG/M	mm
SR12	20	3/4	-12	21	305	83	1200	760	29,9	130	0,82	33,0
SR16	25	1	-16	17	250	69	1000	760	29,9	150	1,00	40,0
SR20	32	1.1/4	-20	14	200	55	800	760	29,9	200	1,19	46,5
SR24	40	1.1/2	-24	10	145	41	595	760	29,9	250	1,39	53,1
SR32	50	2	-32	7	100	28	400	760	29,9	300	1,94	65,5
SR40	63	2.1/2	-40	4,2	60	17	245	760	29,9	350	2,37	78,5
SR48	75	3	-48	4,2	60	17	245	760	29,9	450	2,45	90,7

HOSE PART NO	CLAMP PART NO	CLAMP ADJUSTMENT RANGE d mm	RECOMMENDED TIGHTENING TORQUE NM
SR12	RSC-3134	31 to 34	16
SR16	RSC-3740*	37 to 40	16
	RSC-4043*	40 to 43	16
SR20	RSC-4347*	43 to 47	16
	RSC-4751*	47 to 51	16
SR24	RSC-5155	51 to 55	16
SR32	RSC-6368	63 to 68	16
SR40	RSC-7379	73 to 79	25
SR48	RSC-8591	85 to 91	25



*Due to the manufacturing tolerance on outside diameter of the hose and the range of adjustment of the clamp, it is necessary to confirm correct clamp at time of assembly.

PRESSURE WASHER **PW2**

**SKIVE HOSE
2 WIRE BRAID**

Recommended For: Hot Water Pressure Washer Machines.

Tube: Black, heat resistant synthetic rubber.

Reinforcement: Two braids of high tensile steel wire.

Cover: Black oil and abrasion resistant synthetic rubber.
The cover of the PW2 hose is formulated to resist marking.

Skiving of Cover is required with Bitelok T200 Series Crimp Couplings.
Temperature Range: PW2 Pressure Washer Hose handles hot water up to +150°C (+250°F).

Working Pressure: Maximum dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor.

Couplings: Bitelok T200 Series One Piece (sizes 1/4" & 3/8") pages 68 to 83.

Assembly instructions page 223.

Not suitable for use with Field Attachable Couplings.

Common hose couplings used on PW2 Hose include:

T202S BSPP Female Live Swivel

T294 PW Female

T295 PW Gun Handle Tube.

Important Note: Although PW2 is constructed to SAE 100R2AT dimensions, the cover **MUST BE SKIVED** prior to crimping on hose couplings.

PW2 Hose Specifications
1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. WORKING PRESSURE		MIN. BURST PRESSURE		MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	mm	KG/M	mm
PW24	6	1/4	-04	400	5800	1600	23200	100	0,39	15,0
PW26	10	3/8	-06	400	5800	1600	23200	130	0,56	19,0

Matched Couplings

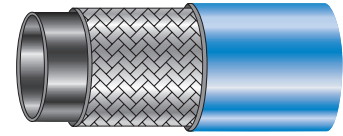
PART NO	HOSE SIZE ID			BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH	
PW24	6	1/4	-04	T200
PW26	10	3/8	-06	T200

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

LPG (CLASS D) RQG1

AUSTRALIAN GAS ASSOCIATION Approval No. 5523.
Meets AS/NZS 1869 Class D (2,6 MPa working pressure, +125°C max. temperature).

1 WIRE BRAID HOSE



IMPORTANT INFORMATION

RYCO RQG1 Series LPG Hose has Australian Gas Association approval (AGA approval No. 5523) only when used with RYCO K Series Field Attachable and RYCO T200 Series Bitelok One Piece Non-Skive Crimp Couplings. Hose assemblies must be assembled in accordance with the assembly instructions as detailed in the Assembly instructions on pages 220 and 222.

Assembly by authorised personnel only.

Warning: Do not use Field Attachable Couplings for domestic applications. (This is a requirement of Australian Standard AS/NZS 1869).

For any queries, please contact RYCO hydraulics Technical Department.

Recommended For: Liquefied Petroleum Gas and Natural Gas including automotive applications. Maximum Working Pressure 2,6 MPa (375 PSI).

Tube: Black, synthetic rubber.

Reinforcement: One braid of high tensile steel wire.

Cover: Blue abrasion resistant synthetic rubber. Pin pricked. No skiving required with Bitelok T200 Series Crimp Couplings and K Series Field Attachable Couplings.

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

Couplings: Bitelok T200 Series Non-Skive One Piece (sizes 1/4" to 1") pages 68 to 83. Assembly instructions page 222. Field Attachable K Series (sizes 1/4" to 1") pages 54 to 67. Assembly instructions page 220.

Assembly by authorised personnel only.

RQG1 Hose Specifications

PART NO	HOSE SIZE ID			MAXIMUM WORKING PRESSURE		MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD
	DIN	INCH	DASH	MPA	PSI	mm	KG/M	mm
RQG14	6	1/4	-04	2,6	375	100	0,24	13,4
RQG16	10	3/8	-06	2,6	375	130	0,34	17,4
RQG18	12	1/2	-08	2,6	375	180	0,44	20,5
RQG110	16	5/8	-10	2,6	375	200	0,51	23,7
RQG112	20	3/4	-12	2,6	375	240	0,64	27,6
RQG116	25	1	-16	2,6	375	300	0,98	35,7

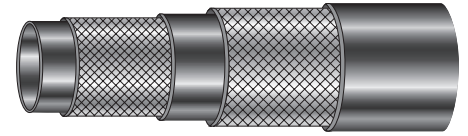
Matched Couplings

PART NO	HOSE SIZE ID			FIELD ATTACHABLE K SERIES	BITELOK ONE PIECE CRIMP	
	DIN	INCH	DASH	INSERT	FERRULE	
RQG14	6	1/4	-04	600 SERIES	K00-04	T200
RQG16	10	3/8	-06	600 SERIES	K00-06	T200
RQG18	12	1/2	-08	600 SERIES	K00-08	T200
RQG110	16	5/8	-10	600 SERIES	K00-10	T200
RQG112	20	3/4	-12	600 SERIES	K00-12	T200
RQG116	25	1	-16	600 SERIES	K00-16	T200

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

LPG (CLASS C) M2G

2 TEXTILE BRAID HOSE



AUSTRALIAN GAS ASSOCIATION Approval No. 4247.
Meets AS/NZS 1869 Class C (2,6 MPa working pressure, +65°C max. temperature).

IMPORTANT INFORMATION

RYCO M2G Series LPG Hose has Australian Gas Association approval (AGA approval No. 4247) only when used with RYCO T400 Series Bitelok One Piece Non-Skive Crimp Couplings.
Hose assemblies must be assembled in accordance with the assembly instructions as detailed in the Assembly instructions on page 222.

Assembly by authorised personnel only.

For any queries, please contact RYCO hydraulics Technical Department.

Recommended For: Liquefied Petroleum Gas and Natural Gas including automotive applications.
Maximum Working Pressure 2,6 MPa (375 PSI).

Tube: Black, synthetic rubber.

Reinforcement: Two textile braids.

Cover: Black abrasion resistant synthetic rubber. Pin pricked.
No skiving required with Bitelok T400 Series Crimp Couplings.

Temperature Range: From -40°C to +65°C (-40°F to +149°F).

Couplings: Bitelok T400 Non-Skive One Piece (sizes 1/4" to 3/4") pages 64 to 67.
Assembly instructions page 222.
100 Series Factory Bubble Crimp (1/4"). Refer to RYCO for availability.

M2G Hose Specifications

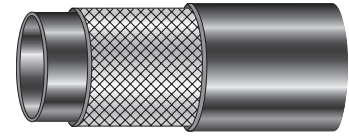
PART NO	HOSE SIZE ID			MAXIMUM WORKING PRESSURE		MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD
	DIN	INCH	DASH	MPA	PSI	mm	KG/M	mm
M24G	6	1/4	-04	2,6	375	75	0,16	14,3
M26G	10	3/8	-06	2,6	375	100	0,28	19,0
M28G	12	1/2	-08	2,6	375	125	0,41	23,8
M212G	20	3/4	-12	2,6	375	240	0,65	31,7

Matched Couplings

PART NO	HOSE SIZE ID			BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH	
M24G	6	1/4	-04	T400
M26G	10	3/8	-06	T400
M28G	12	1/2	-08	T400
M212G	20	3/4	-12	T400

FUEL LINE M1

1 TEXTILE BRAID HOSE



Meets or exceeds SAE OEM standards 30R6 and 30R7.

Recommended For: Multi-purpose hose for use on fuel lines, PCV and EEC systems, and for fuel return hose connections on diesel fuel injection systems. Approved for use with leaded and unleaded petrol, diesel and blends of ethanol, methanol and ethers.

WARNING: Do not use for pressure lines on fuel injected engines or for Cooling System Applications.

Tube: Black synthetic rubber. (Nitrile).

Reinforcement: One textile braid.

Cover: Oil resistant, resists the effects of high heat and ozone found in engine compartments.

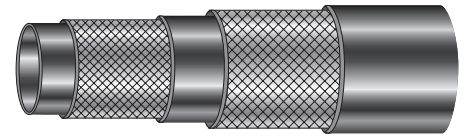
M1 Hose Specifications

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. WORKING PRESSURE		VACUUM RATING AT 20°C		MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD
	DIN	INCH	DASH	BAR	PSI	in/Hg	mm/Hg	mm	KG/M	mm
M14	6	1/4	-04	3,5	50	610	24	75	0,13	12,9
M15	8	5/16	-05	3,5	50	610	24	75	0,15	14,0
M16	10	3/8	-06	3,5	50	610	24	100	0,18	16,0

TEXTILE M2

2 TEXTILE BRAID HOSE



Meets or exceeds the performance requirements of AS 3791 100R3, DIN 20021 - 2TE, ISO 4079 Type 3, SAE 100R3.

Recommended For: Medium pressure hydraulic oil lines, antifreeze solutions, water.

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

Reinforcement: Two textile braids.

Cover: Black, oil and abrasion resistant synthetic rubber.
No skiving required with Bitelok T400 Series Crimp Couplings and 400 Series Field Attachable Couplings.

Temperature Range: From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 217.

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Flame Resistance: Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration. Complies with Flame Resistant requirements of Australian Standard AS2660 and Method of Test AS1180.10B.

Couplings: Bitelok T400 Non-Skive One Piece (sizes 1/4" to 3/4") pages 64 to 67.
Assembly instructions page 222.
Field Attachable 400 Series (sizes 1/4" to 3/4") pages 54 to 67.
Assembly instructions page 220.

M2 Hose Working Pressures

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
M24	6	1/4	-04	86	1250	115	1670	345	5000
M26	10	3/8	-06	78	1125	103	1495	310	4495
M28	12	1/2	-08	69	1000	92	1335	276	4000
M212	20	3/4	-12	52	750	69	1000	207	3000

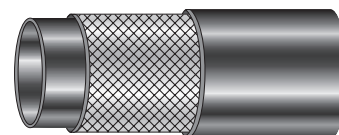
M2 Hose Dimensions

Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	FIELD ATTACHABLE 400 SERIES		BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH				INSERT	FERRULE	
M24	6	1/4	-04	75	0,16	14,3	600 SERIES	400-04	T400
M26	10	3/8	-06	100	0,28	19,0	600 SERIES	400-06	T400
M28	12	1/2	-08	125	0,41	23,8	600 SERIES	400-08	T400
M212	20	3/4	-12	150	0,65	31,7	600 SERIES	400-12	T400

PUSH ON PL1

1 TEXTILE BRAID HOSE



- Recommended For:** Petroleum base hydraulic oils, glycol antifreeze solutions, water, diesel fuels, and air.
- Tube:** Black, oil resistant synthetic rubber. (Nitrile).
- Reinforcement:** One textile braid.
- Cover:** Black, oil and abrasion resistant synthetic rubber.
- Temperature Range:** Petroleum base hydraulic oils from -40°C to +93°C (-40°F to +200°F).
Air from -40°C to +71°C (-40°F to +160°F).
Diesel fuels from -40°C to +49°C (-40°F to +120°F).
For water, glycol antifreeze solutions, emulsions etc. see page 217.
- Working Pressure:** PL1 Hose, and 800 Series Push on Fittings, are recommended for use in systems with Static Working Pressures (constant loads without pressure spikes) only. They are not recommended for vibration or pressure surge applications.
PL1 Hose should not be used at both maximum working pressure and maximum temperature simultaneously.
- Flame Resistance:** Meets either Flame Resistance Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration; or "GL" Germanischer Lloyd. Refer to RYCO for information.
- Couplings:** 800 Series Push-On pages 106 & 107.
Assembly instructions page 225.
PL1 Hose simply pushes on to 800 Series Couplings, and for Static Working Pressures up to 50% of Maximum Static Working Pressures a clamp is not required. For diesel fuel and other potentially dangerous or critical applications, and Static Working Pressures above 50% of maximum; a clamp around the hose is required. Do not overtighten clamp as this will damage hose.
Factory crimped couplings are also available in some sizes. Contact RYCO or your distributor for more information.

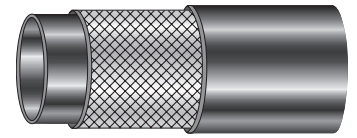
PL1 Hose Specifications

1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE		VACUUM RATING		MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	mm/Hg	in/Hg	mm	KG/M	mm
PL14	6	1/4	-04	20,7	300	83	1200	710	28	75	0,12	12,7
PL15	8	5/16	-05	20,7	300	83	1200	710	28	75	0,15	14,3
PL16	10	3/8	-06	20,7	300	83	1200	635	25	75	0,17	15,9
PL18	12	1/2	-08	20,7	300	83	1200	460	18	125	0,23	19,8
PL110	16	5/8	-10	20,7	300	83	1200	380	15	150	0,29	23,0
PL112	20	3/4	-12	20,7	300	83	1200	380	15	175	0,36	26,4

HIGH TEMP PUSH ON P1HT

1 TEXTILE BRAID HOSE



Meets or exceeds the performance requirements of AS 3791 100R6, DIN 20021 - 1TE, SAE 100R6.

- Recommended For:** Hydraulic oil lines, transmission oil cooler lines, glycol antifreeze solutions, water, diesel fuels and air.
- Tube:** Black, oil resistant synthetic rubber. (Nitrile).
- Reinforcement:** One textile braid.
- Cover:** Black, oil and abrasion resistant synthetic rubber.
- Temperature Range:** Petroleum base hydraulic oils & transmission oils from -40°C to +125°C (-40°F to +257°F) constant and +135°C (+275°F) intermittent (up to 10% of operating time).
Air from -40°C to +100°C (-40°F to +212°F)
Diesel fuels from -40°C to +71°C (-40°F to +160°F).
For water, glycol antifreeze solutions, emulsions etc. see page 217.
- Working Pressure:** P1HT Hose, and 800 Series Push on Fittings, are recommended for use in systems with Static Working Pressures (constant loads without pressure spikes) only. They are not recommended for vibration or pressure surge applications.
P1HT Hose should not be used at both maximum working pressure and maximum temperature simultaneously.
- Flame Resistance:** Meets Flame Resistance Designation "U.S. MSHA" of the US Department of Labour, Mine Safety and Health Administration. Complies with Flame Resistant requirement of Australian Standard AS2660 and Method of Test AS1180.10B.
- Couplings:** 800 Series Push-On pages 106 & 107.
Assembly instructions page 225.
P1HT Hose simply pushes on to 800 Series Couplings, and for Static Working Pressures up to 50% of Maximum Static Working Pressures a clamp is not required. For diesel fuel and other potentially dangerous or critical applications such as transmission oil cooler lines, and Static Working Pressures above 50% of maximum; a clamp around the hose is required. Do not overtighten clamp as this will damage hose.
Factory crimped couplings are also available in some sizes. Contact RYCO or your distributor for more information.

P1HT Hose Specifications

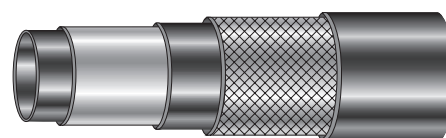
1 BAR = 14,5 PSI 1 MPA = 10 BAR

PART NO	HOSE SIZE ID			MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE		VACUUM RATING		MIN. BEND	AV. RADIUS	NOMINAL HOSE OD
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	mm/Hg	in/Hg	mm	KG/M	mm
P14HT	6	1/4	-04	27,6	400	110	1600	710	28	65	0,12	12,7
P15HT	8	5/16	-05	27,6	400	110	1600	710	28	75	0,15	14,3
P16HT	10	3/8	-06	27,6	400	110	1600	635	25	75	0,17	15,9
P18HT	12	1/2	-08	27,6	400	110	1600	460	18	100	0,23	19,8
P110HT	16	5/8	-10	24,1	350	97	1400	380	15	125	0,29	23,0
P112HT	20	3/4	-12	20,7	300	83	1200	380	15	140	0,36	26,4

BARRIER FB1

Meets or exceeds the performance requirements of SAE J 2064 Type C.

AIR CONDITIONING



Recommended For: Automotive air conditioning systems and other refrigeration and air conditioning systems using refrigerants R12 and R134a.
Also suitable for use with R22 and R114.
The internal rubber layer assures coupling integrity and reduces the risk of refrigerant loss around the couplings, and the nylon barrier reduces the permeation of refrigerant, to protect the environment.
FB1 is a reduced bore hose. It has a similar Inside Diameter to metal tubing of the same nominal size. For example, 5/8 inch (OD) tubing has an Inside Diameter of approximately 1/2 inch.
FB110 is also 1/2 inch Inside Diameter.

Tube: Synthetic rubber internal layer (polychloroprene) with Nylon Barrier.

Reinforcement: One braid of synthetic yarn.

Cover: Black, oil and abrasion resistant synthetic rubber. (EPDM).
No skiving required with Bitelok 1G00 Series Crimp Couplings.

Temperature Range: From -30°C to +125°C (-22°F to +257°F).

Couplings: 1G00 Crimp Couplings page 113.
Assembly instructions page 225.
1G00 Crimp Couplings consist of G00 Series Insert and 1G00 Series Crimp Ferrule.

Use only with 1G00 Series Crimp Ferrules.
Worm drive hose clamps must not be used with FB1 Hose.

FB1 Hose Specifications

1 BAR = 14,5 PSI 1 MPA = 10 BAR

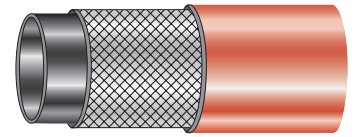
PART NO	HOSE SIZE ID			MAX. WORKING PRESSURE	MIN. BURST PRESSURE	MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD
	DIN	INCH	DASH	BAR	BAR	mm	KG/M	mm
FB16	8	5/16	-06	35	138	60	0,28	19,0
FB18	10	13/32	-08	35	138	70	0,42	23,0
FB110	12	1/2	-10	35	138	75	0,48	25,4

35 BAR = 500 PSI

Matched Couplings

PART NO	HOSE SIZE ID			1G00 SERIES CRIMP DIA +/- 0,25		1G00 CRIMP COUPLINGS	
	DIN	INCH	DASH	mm	mm	INSERT	FERRULE
FB16	8	5/16	-06	18,5	22,0	G00 SERIES	1G00-06
FB18	10	13/32	-08	22,1	22,0	G00 SERIES	1G00-08
FB110	12	1/2	-10	24,9	22,0	G00 SERIES	1G00-10

MULTI PURPOSE MP1



- Recommended For:** Air, water, petroleum oils, kerosene and fuel oils.
- Tube:** Black, oil resistant synthetic rubber (Nitrile).
RMA (USA) Class A High Oil Resistance.
- Reinforcement:** One textile braid.
- Cover:** Red, oil and abrasion resistant synthetic rubber (Modified Nitrile).
RMA (USA) Class B Medium Oil Resistance.
- Electrical Non Conductivity:** Non conductive at 1000 volts DC.
Meets electrical resistance of one megohm per inch when subjected to 1000 volts DC.
Incorrect storage and use may adversely affect electrical properties.
- Temperature Range:** Air, water, petroleum & lubricating oils from -40°C to +93°C (-40°F to +200°F).
Petrol, kerosene, fuel oils from -40°C to +49°C (-40°F to +120°F).
For continuous service at upper temperature limit, reduce maximum working pressure by 30%.
- Working Pressure:** Working pressures are based on 4:1 minimum burst to working pressure safety factor, and are for the performance of the hose with RYCO T400 Series One Piece Bitelok couplings only.
Maximum working pressure for a hose assembly with other couplings depends on the type of coupling and the type of clamp used.
MP1 Hose should not be used at maximum working pressure and maximum working temperature simultaneously.
- Couplings:** Bitelok T400 Non-Skive One Piece (sizes 1/4" to 1.1/4") pages 53 to 61.
Assembly instructions page 222.
Standard industrial hose barbed tails with hose clamps may also be suitable depending on working pressure required.
Not suitable for use with RYCO 800 Series Push On couplings.

MP1 Hose Working Pressures

1 BAR=14,5 PSI 1MPA=10 BAR

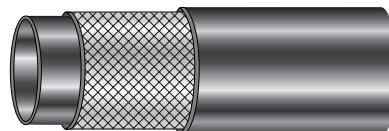
PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI
MP14	6	1/4	-04	13,8	200	55,2	800
MP16	10	3/8	-06	13,8	200	55,2	800
MP18	12	1/2	-08	13,8	200	55,2	800
MP110	16	5/8	-10	13,8	200	55,2	800
MP112	20	3/4	-12	13,8	200	55,2	800
MP116	25	1	-16	13,8	200	55,2	800
MP120	32	1.1/4	-20	13,8	200	55,2	800

MP1 Hose Dimensions

Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH	mm	KG/M	mm	
MP14	6	1/4	-04	50	0,15	13,5	T400
MP16	10	3/8	-06	75	0,23	17,5	T400
MP18	12	1/2	-08	100	0,32	21,4	T400
MP110	16	5/8	-10	125	0,43	25,4	
MP112	20	3/4	-12	125	0,50	28,6	T400
MP116	25	1	-16	200	0,80	37,3	T400
MP120	32	1.1/4	-20	250	1,00	43,9	T400

SPIDERLINE RT7



Meets or exceeds the performance requirements (except electrical non-conductivity tests) of AS 3791 100R7, EN 855 Type 7, SAE 100R7.

Note: RT72 size is not included in the above standards.

Recommended For: High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines. Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Heat and hydrolysis stabilised for use with water based hydraulic fluids up to +95°C. Suitable for use with some gases, fluids and chemicals (refer to RYCO Technical Department). RYCO RT7 Series hose has lighter weight and more compact outside diameter than wire braided rubber SAE100R1AT hose.

Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The polyester reinforcement gives RT7 hose excellent corrosion and fatigue resistance, and low elongation of ±2% at maximum dynamic working pressure.

Tube: Oil resistant seamless thermoplastic (Polyester).

Reinforcement: One braid of synthetic yarn (Polyester).

Cover: Black, oil and abrasion resistant thermoplastic (Polyurethane). All sizes are pin pricked (perforated).

Temperature Range: From -40°C to +95°C (-40°F to +200°F).

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Couplings: **RT72:** Field Attachable P Series (size 1/8") page 69. Assembly instructions page 220.

RT73: 7RT200 Series Two Piece (size 3/16") page 68. Assembly instructions page 224 (same as RTH1 Series hose with 1RT200 Series couplings except Step 1 is not necessary, and hose may be cut to length with a knife).

RT74 to RT712: Bitelok T400 Non-Skive One Piece (sizes 1/4" to 3/4") pages 64 to 67. Assembly instructions page 222.

RT7 Hose Working Pressures

1 BAR=14,5 PSI

1 MPA=10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
RT72	3	1/8	-02	207	3000	275	4000	830	12000
RT73	5	3/16	-03	207	3000	275	4000	830	12000
RT74	6	1/4	-04	190	2750	250	3650	760	11000
RT76	10	3/8	-06	155	2250	207	3000	620	9000
RT78	12	1/2	-08	138	2000	183	2650	550	8000
RT712	20	3/4	-12	86	1250	115	1650	345	5000

RT7 Hose Dimensions

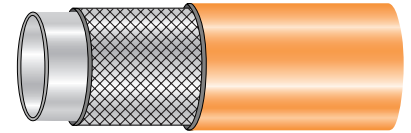
Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	FIELD ATTACHABLE P SERIES		BITELOK CRIMP
	DIN	INCH	DASH				INSERT	FERRULE	
RT72	3	1/8	-02	40	0,06	7,9	600-02	P00-02	
RT73	5	3/16	-03	90	0,09	10,5			7RT200
RT74	6	1/4	-04	100	0,13	12,9			T400
RT76	10	3/8	-06	127	0,17	16,5			T400
RT78	12	1/2	-08	180	0,25	20,3			T400
RT712	20	3/4	-12	240	0,34	27,9			T400

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

ISOLATOR RT7N

Meets or exceeds the performance requirements (including electrical non-conductivity tests) of AS 3791 100R7, EN 855 Type 7, SAE 100R7.



Recommended For: High pressure hydraulic oil lines where electrical non-conductivity is required (for use in applications where there is potential for contact with high voltage sources).
 Suitable for use with mineral, vegetable and most ester based hydraulic fluids.
 Heat and hydrolysis stabilised for use with water based hydraulic fluids up to +95°C.
 Suitable for use with some gases, fluids and chemicals (refer to RYCO Technical Department).
 Smooth inner tube for high flow rate; and smooth, easily cleaned cover.
 The polyester reinforcement gives RT7N hose excellent corrosion and fatigue resistance, and low elongation of ±2% at maximum dynamic working pressure.

Electrical Non-Conductivity: Meets non-conductivity requirements of SAE 100R7, AS 3791 100R7, EN 855 Type 7 (maximum leakage does not exceed 50 µA when subjected to 75 KV/305 mm or 250 KV/M for 5 minutes). Incorrect storage and use, particularly that leading to oil or moisture entering the reinforcement, may adversely affect electrical properties.

Tube: White, oil resistant seamless thermoplastic (Polyester).

Reinforcement: One braid of synthetic yarn (Polyester).

Cover: Orange, oil and abrasion resistant thermoplastic (Polyurethane).
 Cover is unperforated.

Temperature Range: From -40°C to +95°C (-40°F to +200°F).

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Couplings: Bitelok T400 Non-Skive One Piece (sizes 1/4" to 3/4") pages 64 to 67.
 Assembly instructions page 222.

RT7N Hose Working Pressures

1 BAR=14,5 PSI

1MPA=10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
RT74N	6	1/4	-04	190	2750	250	3650	760	11000
RT76N	10	3/8	-06	155	2250	207	3000	620	9000
RT78N	12	1/2	-08	138	2000	183	2650	550	8000
RT712N	20	3/4	-12	86	1250	115	1650	345	5000

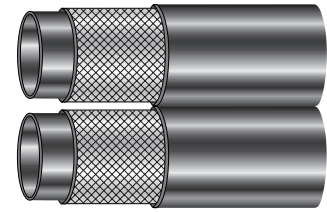
RT7N Hose Dimensions

Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH	mm	KG/M	mm	
RT74N	6	1/4	-04	100	0,13	12,9	T400
RT76N	10	3/8	-06	127	0,17	16,5	T400
RT78N	12	1/2	-08	180	0,25	20,3	T400
RT712N	20	3/4	-12	240	0,34	27,9	T400

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

SPIDERLINE TWIN RT7T



Meets or exceeds the performance requirements (except electrical non-conductivity tests) of AS 3791 100R7, EN 855 Type 7, SAE 100R7.

Recommended For: RYCO RT7T SPIDERLINE TWIN hose consists of two RT7 Series hoses of the same size, permanently joined together in a flat compact form that can be easily reeled onto payout and return reels on forklifts and cranes.

It is also used on dispensing equipment and other applications requiring two hoses. Suitable for use with mineral, vegetable and most ester based hydraulic fluids. Heat and hydrolysis stabilised for use with water based hydraulic fluids up to +95°C. Suitable for use with some gases, fluids and chemicals (refer to RYCO Technical Department). Smooth inner tube for high flow rate; and smooth, easily cleaned cover. The polyester reinforcement gives RT7T hose excellent corrosion and fatigue resistance, and low elongation of ±2% at maximum dynamic working pressure.

- Tube:** Oil resistant seamless thermoplastic (Polyester).
- Reinforcement:** One braid of synthetic yarn (Polyester).
- Cover:** Black, oil and abrasion resistant thermoplastic (Polyurethane). All sizes are pin pricked (perforated).

Temperature Range: From -40°C to +95°C (-40°F to +200°F).

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Couplings: Bitelok T400 Non-Skive One Piece (sizes 1/4" to 1/2") pages 64 to 67. Assembly instructions page 222 and below.

- Note: RYCO RT7T twin line hose must be separated at the ends to permit the attachment of the couplings. Procedure is as follows:
1. Arrange the end of the twin line hose so that it is lying straight and flat, resting on the bottom of both hoses, on a horizontal work surface.
 2. Mark the length to be separated on the cover of the hoses. The separation length required may vary depending on the crimper being used. Separation length must allow each hose to be inserted into the crimper without kinking the other hose.
 3. Lightly oil the hollow between the two hoses in the area to be separated. The oil will reduce the friction between the knife and the two hose covers.
 4. Hold the hoses flat on the work surface and lightly cut along the join between the two hoses with a very sharp trimming or hobby knife. Keep the knife vertical to avoid cover damage. Several cuts may need to be made to separate the hoses. Take care not to damage the covers of the hoses; if the cover is cut or the reinforcement is exposed, the hoses must not be used.
 5. Wipe the oil from the cover of the hoses, inspect to ensure no damage, and then follow Assembly Instructions on page 222 of RHC-9611.
 6. After crimping the couplings, the hoses can be tied together at the separation area with tape or a cable tie to prevent the hoses becoming further separated accidentally.

RT7T Hose Working Pressures

1 BAR=14,5 PSI 1MPA=10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
RT74T	6	1/4	-04	190	2750	250	3650	760	11000
RT76T	10	3/8	-06	155	2250	207	3000	620	9000
RT78T	12	1/2	-08	138	2000	183	2650	550	8000

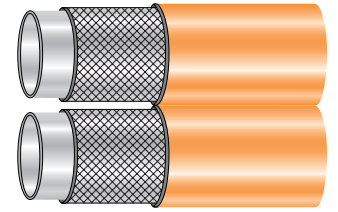
RT7T Hose Dimensions

Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH	mm	KG/M	mm	
RT74T	6	1/4	-04	100	0,26	12,9 (x 2 OFF)	T400
RT76T	10	3/8	-06	127	0,34	16,5 (x 2 OFF)	T400
RT78T	12	1/2	-08	180	0,50	20,3 (x 2 OFF)	T400

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

ISOLATOR TWIN RT7TN



Meets or exceeds the performance requirements (including electrical non-conductivity tests) of AS 3791 100R7, EN 855 Type 7, SAE 100R7.

Recommended For: RYCO RT7TN ISOLATOR TWIN hose consists of two RT7N Series hoses of the same size, permanently joined together in a flat compact form that can be easily reeled onto payout and return reels on forklifts and cranes. It is also used for hydraulic powered hand tools such as loppers and chain saws, and other applications requiring two hoses.

RT7TN is used where electrical non-conductivity is required (for use in applications where there is potential for contact with high voltage sources).

Suitable for use with mineral, vegetable and most ester based hydraulic fluids.

Heat and hydrolysis stabilised for use with water based hydraulic fluids up to +95°C.

Suitable for use with some gases, fluids and chemicals (refer to RYCO Technical Department).

Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The polyester reinforcement gives RT7TN hose excellent corrosion and fatigue resistance, and low elongation of ±2% at maximum dynamic working pressure.

Electrical Non-Conductivity: Meets non-conductivity requirements of SAE 100R7, AS 3791 100R7, EN 855 Type 7 (maximum leakage does not exceed 50 µA when subjected to 75 KV/305 mm or 250 KV/M for 5 minutes). Incorrect storage and use, particularly that leading to oil or moisture entering the reinforcement, may adversely affect electrical properties.

Tube: White, oil resistant seamless thermoplastic (Polyester).

Reinforcement: One braid of synthetic yarn (Polyester).

Cover: Orange, oil and abrasion resistant thermoplastic (Polyurethane).
Cover is unperforated.

Temperature Range: From -40°C to +95°C (-40°F to +200°F).

Working Pressure: Dynamic working pressures (in systems with pressure surges or variable loads) are based on 4:1 minimum burst to working pressure safety factor. Static working pressures (in systems with constant loads without pressure spikes) are based on 3:1 minimum burst to working pressure safety factor.

Couplings: Bitelok T400 Non-Skive One Piece (sizes 1/4" to 1/2") pages 64 to 67.
Assembly instructions page 222 and also see RT7T page 3 for instructions re: Separating the Ends.

RT7TN Hose Working Pressures

1 BAR=14,5 PSI

1MPA=10 BAR

PART NO	HOSE SIZE ID			MAX. DYNAMIC WORKING PRESSURE		MAX. STATIC WORKING PRESSURE		MIN. BURST PRESSURE	
	DIN	INCH	DASH	BAR	PSI	BAR	PSI	BAR	PSI
RT74TN	6	1/4	-04	190	2750	250	3650	760	11000
RT76TN	10	3/8	-06	155	2250	207	3000	620	9000
RT78TN	12	1/2	-08	138	2000	183	2650	550	8000

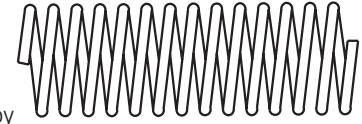
RT7TN Hose Dimensions

Matched Couplings

PART NO	HOSE SIZE ID			MIN. BEND RADIUS	AV. WEIGHT	NOMINAL HOSE OD	BITELOK ONE PIECE CRIMP
	DIN	INCH	DASH	mm	KG/M	mm	
RT74TN	6	1/4	-04	100	0,26	12,9 (x 2 OFF)	T400
RT76TN	10	3/8	-06	127	0,34	16,5 (x 2 OFF)	T400
RT78TN	12	1/2	-08	180	0,50	20,3 (x 2 OFF)	T400

Contact RYCO for Crimp Diameter and Mark Length for Bitelok Couplings.

RWA Wire Armour



Recommended For: Helping to prolong the life of hoses in arduous operating conditions, by protecting hose cover against abrasion and deep gouges.

Diameters have also been increased slightly for better range of fit, and three new sizes have been added.

Construction: Spring Steel Wire, galvanised for corrosion protection.

Temperature Range: Suitable for use with all RYCO hoses at their published temperature ranges.

Assembly Instructions: Slide RWA Wire Armour over hose, after first end of hose assembly is completed. Then complete second end of hose assembly.

Standard Length: 6 metres in all sizes.

SIZE	NOM ID mm	HOSE SERIES													
		T1A	T2A	T1D	T2D	H12A H12D	H13A H13D	H15D	TXA2D	AS1D	AS2D	AJ2D	TJ2D	HSPA HSHA	RQP1
RWA-12	12														
RWA-16	16	-4	-4	-4	-4							-4			-4
RWA-20	20	-6		-6							-4	-4	-4		-4
RWA-21	21		-6		-6										
RWA-23	23	-8	-8	-8	-8	-6			-8	-6	-6			-6	-8
RWA-27	27	-10				-8				-8	-8			-8	-10
RWA-30	30	-12	-10	-12	-10				-10		-10				-12
RWA-31	31		-12		-12				-12					-10	
RWA-34	34					-12	-12	-12		-12	-12			-12	
RWA-39	39	-16		-16											
RWA-41	41		-16		-16	-16	-16	-16	-16	-16	-16			-16	-16
RWA-49	49	-20	-20	-20	-20	-20			-20	-20				-20	
RWA-56	56	-24	-24	-24	-24	-24	-20	-20		-24	-20			-24	
RWA-61	61						-24	-24			-24				
RWA-68	68	-32	-32	-32	-32	-32				-32				-32	
RWA-75	75						-32				-32				

SIZE	NOM ID mm	HOSE SERIES														
		RQP2	T5 RQP5	DF2	RTH1	SR	PW2	RQG1	M2G	M1	M2	PL1	P1HT	FB1	MP1	RT7
RWA-12	12				-4											-2,-3
RWA-16	16	-4	-4,-5	-4	-6,-8		-4	-4	-4	-4,-5	-4	-4,-5	-4,-5		-4	-4
RWA-20	20		-6	-6			-6	-6		-6		-6	-6		-6	-6
RWA-21	21	-6	-8		-10				-6		-6	-8	-8	-6		
RWA-23	23	-8		-8				-8					-8	-8	-8	-8
RWA-27	27		-10		-12			-10	-8		-8	-10	-10	-10	-10	-10
RWA-30	30	-10	-12	-12				-12				-12	-12		-12	-12
RWA-31	31	-12			-16											
RWA-34	34		-16						-12		-12					
RWA-39	39					-12										
RWA-41	41	-16	-20			-16		-16							-16	
RWA-49	49	-20	-24			-20									-20	
RWA-56	56	-24				-24										
RWA-61	61		-32													
RWA-68	68	-32				-32										
RWA-75	75															

Spiral Guard RSG (Black) RSGY (Yellow) RSGF (FRAS)

Recommended For: Lightweight cost-effective protection of hoses and cables from abrasion and impact. It can also be used to bundle hoses together in groups. RSGF has MDA approval to Flame Resistant and Anti-Static requirements of AS2660.

Construction: Polyethylene plastic spiral, with rounded edges to protect hose cover. RSG Black; RSGY Yellow, RSGF Dark Grey. Polyethylene is not affected by exposure to air, water, hydraulic oil and many other fluids.

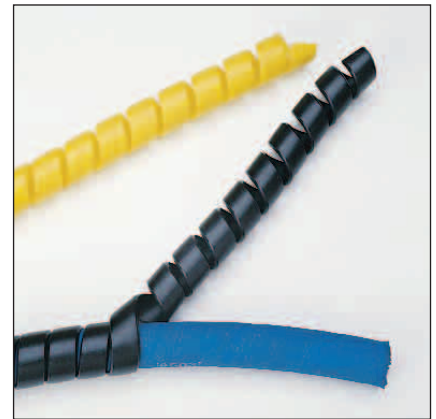
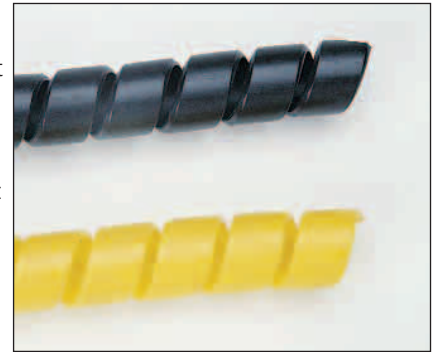
Temperature Range: From -40°C to +120°C (-40°F to +250°F).

Assembly Instructions: RYCO Spiral Guard can be applied easily after hose assembly because of its spiral form. Place one end of completed hose assembly in a vice. Wrap coil onto hose. It is recommended to choose RYCO Spiral Guard size so that it is a tight fit on the hose. This will keep the Spiral Guard in place on the hose.

Size Selection: Charts below show Spiral Guard size selection for a tight fit on the hose. Due to the Spiral Guard expanding to fit the hose, extra length of Spiral Guard must be allowed. This extra length can be estimated as follows:
T26A Nominal OD = 19,0mm (see chart on Page 63)
RSG-20L Nominal ID = 16,0mm (from chart below)
Estimated length of RSG-20L to cover 2.3 metres of T26A

$$= \frac{19,0}{16,0} \times 2.3\text{m} = 2.73 \text{ metres}$$

How to Order: Complete the Part Number: **RSG-16L, RSGY-75L, RSGF-50L** etc.
Sizes -16L to -90L : 20m coils or cut to length.
Size -110L : 10m coils or cut to length.



SIZE NOM OD mm	NOM ID mm	HOSE SERIES													
		T1A	T2A	T1D	T2D	H12A H12D	H13A H13D	H15D	TXA2D	AS1D	AS2D	AJ2D	TJ2D	HSPA HSHA	RQP1
-16L	13	-4	-4	-4	-4								-4		-4
-20L	16	-6,-8,-10	-6,-8,-10	-6,-8	-6,-8,-10	-6,-8			-8,-10	-4,-6,-8	-4,-6,-8	-4		-4,-6,-8	-6,-8,-10
-32L	28	-12,-16	-12,-16	-12,-16	-12,-16	-12,-16	-12,-16	-12,-16	-12,-16	-12,-16	-10,-12,-16			-10,-12,-16	-12,-16
-50L	44	-20,-24	-20,-24	-20,-24	-20,-24	-20,-24	-20	-20	-20	-20,-24	-20			-20,-24	
-63L	56	-32	-32	-32	-32	-32	-24	-24		-32	-24				
-75L	67		-40				-32				-32			-32	
-90L	82	HOSE GROUPS													
-110L	100	HOSE GROUPS													

SIZE NOM OD mm	NOM ID mm	HOSE SERIES														
		RQP2	RQP5 T5	DF2	RTH1	SR	PW2	RQG1	M2G	M1	M2	PL1	PIHT	FB1	MP1	RT7
-16L	13	-4	-4	-4	-8		-4	-4	-4	-4,-5	-4	-4,-5	-4,-5		-4	-4
-20L	16	-6,-8,-10	-6,-8,-10	-6,-8	-10,-12		-6	-6,-8,-10	-6,-8	-6	-6,-8	-6,-8 -10,-12	-6,-8 -10,-12	-6,-8,-10	-6,-8,-10	-6,-8
-32L	28	-12,-16	-12,-16,-20	-12	-16	-12,-16		-12,-16	-12		-12				-12,-16	-12
-50L	44	-20,-24	-24			-20,-24									-20	
-63L	56	-32	-32			-32										
-75L	67					-40										
-90L	82	HOSE GROUPS														
-110L	100	HOSE GROUPS														



Meets or exceeds the performance requirements of SAE Aerospace Standard AS 1072.

Construction: RYCO FS1072 FIRE SLEEVE is manufactured from high bulk braided glass fibre tubing, coated with silicon rubber. The “danger red” colour of the silicon rubber is due to heavy loading of iron oxide to improve heat resistance.

Recommended For: Increasing service life of hoses in a variety of hostile environments. It is used as a tough flexible insulation to protect from intense external radiant heat. It can also be used to reduce heat loss from hoses. RYCO FS1072 FIRE SLEEVE sheds molten metal splash, reducing damage to hoses. In the event of fire, hoses carrying flammable or hazardous materials remain intact longer. It can also be used to protect cables, pipes and wire ropes.

Temperature Range:

From	-54°C	to	+260°C	(-65°F to +500°F)	continuous exposure
From	+260°C	to	+1090°C	(+500°F to +2000°F)	15 to 20 minutes
From	+1090°C	to	+1640°C	(+2000°F to +3000°F)	15 to 30 seconds

Typical Properties:

K Value in	BTU/°F/hr/in ²	1.20
K Value in	$\frac{\text{Cal/cm}}{\text{Sec-cm}^2\text{-}^\circ\text{C}}$.0004134

Flame Resistance: 7 seconds to extinguish with no afterglow.

Abrasion Resistance: Wyzenbeck 9500 cycles, 3-1/3 lb pressure, 6 lb tension using fine emery cloth.

Oil and Fluid Resistance: Remains functional after immersion for 120hr @ 80°F in MIL-H-5606.

MIL-L-6082, Skydrol 500 LD and Skydrol 500.

Size Selection: FS1072 FIRESLEEVE performs best when installed with a loose fit over a hose. However, some end users insist on a tight fit for the sake of appearance. To achieve this tight fit, use compressed air to expand Firesleeve as it is installed over the hose. Length of Firesleeve will shorten as diameter expands, so allow some extra length.

For a loose fit, there is no hard and fast rule to relate Firesleeve inside diameter size with the outside diameter of the hose being covered. However, it is important to take two factors into account: hose length and hose cover.

When considering hose length, for hoses up to 5 metres long, use Nominal Inside Diameter of Fire Sleeve 15% larger than Nominal Outside Diameter of Hose being covered. Over 5 metres long, use a size 20% larger. Remember the Firesleeve must slide over the outside of the hose. The longer the hose, the tougher it is to install, especially if enough tolerance on a long hose has not been allowed.

The hose covering also requires special consideration. A hose with a smooth cover is easier to slide Firesleeve over than a hose with a rough rubber cover.

Be sure to leave a little extra length tolerance for hoses that have covers with a high co-efficient of friction.

Standard coil length is 15,24 metres; or cut lengths.

FS1072 FIRESLEEVE can be slit longitudinally to form a flat FIRE TAPE which can be wound around larger diameter hoses and secured with stainless steel ties or FSTAPE-16.

FSTAPE-16 is an iron oxide red silicone rubber tape designed to be self-bonding and self-curing onto FS1072 Firesleeve. It can be used to join sections of FIRESLEEVE and to repair scuffed or nicked areas of FIRESLEEVE. It can be used as an end sealant (instead of clamps) to prevent moisture and hydraulic oils wicking into the inner fibreglass braid.

FSTAPE-16 is supplied in a roll 25MM WIDE X 11 METRES LONG X 0.5MM THICK



FS1072 Fire Sleeve Specifications

PART NO	NOMINAL INSIDE DIAMETER OF FIRESLEEVE			NOMINAL WALL THICKNESS	NOMINAL WEIGHT
	mm	INCH	DASH		
FS1072-08	12,7	1/2	-08	4,3	0,20
FS1072-11	17,5	11/16	-11	4,3	0,29
FS1072-14	22,2	7/8	-14	4,4	0,37
FS1072-16	25,4	1	-16	4,8	0,49
FS1072-22	34,9	1.3/8	-22	4,8	0,60
FS1072-30	47,6	1.7/8	-30	4,0	0,63
FS1072-32	50,8	2	-32	4,0	0,71
FS1072-44	69,9	2.3/4	-44	5,0	1,08
FS1072-64	102,0	4	-64	5,0	1,89
FS1072-80	127,0	5	-80	5,0	2,26
FS1072-104	165,0	6.1/2	-104	5,0	2,86

Hose Nominal Outside Diameter Reference Chart

This chart may be used as a quick reference to assist in choosing correct size of Hose Protection. Dimensions are nominal only.

HOSE SIZE			HOSE SERIES													
DIN	INCH	DASH	T1A	T2A	T1D	T2D	H12D	H13D	H15D	TXA2D	AS1D	AS2D	AJ2D	TJ2D	HSPA HSHA	RQP1
3	1/8	-02														
5	3/16	-03														
6	1/4	-04	13,4	15,0	13,4	15,0					15,7	17,3	17,3	15,0	17,9	13,4
8	5/16	-05														
10	3/8	-06	17,4	19,0	17,4	19,0	20,2				19,7	21,3			20,0	17,4
12	1/2	-08	20,5	22,0	20,5	22,0	23,8			22,0	22,8	24,5			24,6	20,5
16	5/8	-10	23,7	25,2		25,2				25,2		27,7			28,2	23,7
20	3/4	-12	27,6	29,1	27,6	29,3	30,7	32,1	32,0	29,1	30,1	31,7			32,2	27,6
25	1	-16	35,7	37,7	35,7	37,7	38,0	38,7	38,2	37,7	37,8	39,5			38,2	35,7
32	1.1/4	-20	43,6	48,0	43,6	48,0	47,0	49,8	49,2	48,0	45,8	50,6			45,2	
40	1.1/2	-24	50,5	54,4	50,5	54,4	53,5	57,3	57,2		52,1	57,0			53,1	
50	2	-32	64,1	67,3	64,0	67,3	66,7	72,0			66,4	69,8			68,2	
63	2.1/2	-40		78,6												

HOSE SIZE			HOSE SERIES														
DIN	INCH	DASH	RQP2	RQP5, TS	DF2	RTH1	SR	PW2	RQG1	M2G	M1	M2	PL1	P1HT	FB1	MP1	RT7
5	3/16	-03															10,5
6	1/4	-04	15,0	13,2	13,6	9,4		15,0	13,4	14,3	12,9	14,3	12,7	12,7		13,5	12,9
8	5/16	-05		14,8							14,0		14,3	14,3			
10	3/8	-06	19,0	17,2	17,0	11,7		19,0	17,4	19,0	16,0	19,0	15,9	15,9	19,0	17,5	16,5
12	1/2	-08	22,0	19,6	20,3	15,4			20,5	23,8		23,8	19,8	19,8	23,0	21,4	20,3
16	5/8	-10	25,2	23,4		18,4			23,7				23,0	23,0	25,4	25,4	
20	3/4	-12	29,1	27,4	27,7	22,1	33,0		27,6	31,7		31,7	26,4	26,4		28,6	27,9
25	1	-16	37,7	31,4		28,6	40,0		35,7							37,3	
32	1.1/4	-20	48,0	38,1			46,5									43,9	
40	1.1/2	-24	56,4	44,5			53,1										
50	2	-32	67,3	56,4			65,5										
63	2.1/2	-40					78,5										

RAWHIDE

Recommended For: Protection of individual hoses from severe abrasion. Provides a cost effective method of bundling hoses together, while providing abrasion resistance to the bundle. When abrasion occurs, the thousands of tiny filaments in the sleeve bulk up, to continually renew the surface. Can assist in shielding personnel from the hot spray of a ruptured hydraulic hose.

Construction: Dense nylon multi filament woven tubular sleeve. Black colour. Nylon is not affected by exposure to air, water, hydraulic oil and many other fluids. The inside bore of the sleeve is smooth, allowing hose to move inside the sleeve, and allowing easy installation.

Flame Resistance: Meets Flame Resistant Designation U.S. MSHA of the U.S. Department of Labour, Mine Safety and Health Administration.

Temperature Range: From - 50°C to + 121°C (- 60°F to + 250°F).

Size Selection: Choose a size that is slightly larger than the hose or hoses to be sleeved. Refer to chart on page 63 for Nominal Outside Diameters of hoses. If Sleeve is to be installed onto fitted hose assemblies, allow for the maximum outside profile of the hose fittings.

Assembly Instructions: Cut the Nylon Hose Sleeve to length. The loose fibres of the cut edges can be sealed with a heat gun or hot knife, to prevent fraying. Install over hose or hose assembly. Secure in place using cable ties, band clamps or hose clamps.

Standard Coil Lengths: 30.5 metre long coils; or cut lengths.

PART NO	NOMINAL INSIDE DIAMETER		NOMINAL WALL THICKNESS	INSIDE FLAT DIMENSION
	A mm	A Inch	B mm	C mm
RH-19	19,0	3/4	1,7	29,8
RH-25	25,4	1	1,7	39,8
RH-32	31,8	1.1/4	1,7	49,9
RH-38	38,1	1.1/2	1,7	59,8
RH-44	44,4	1.3/4	1,7	69,7
RH-52	51,8	2	1,7	81,3
RH-63	63,5	2.1/2	1,7	99,7
RH-76	76,2	3	1,7	119,6
RH-90	88,9	3.1/2	1,7	139,5

750 & PLASTIC BR

Intro

Hose

Couplings

Adaptors

Accessories

Technical

