



# H5000 ILYCO AVENGER

# T4000 RYCO SLIDER



T4008S

# HOSE PICTORIAL INDEX

	HOSE SERIES	INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	COUPLING SERIES
ISC	BARIC BRAID					
61	T3000 INVOID AVENGER	<b>-04 to -16</b> 1/4″ to 1″	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	ISO 18752-BC SAE 100R17	T1000 T2000
62	T3000 INVOID DIEHARD	<b>-04 to -16</b> 1/4" to 1"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	ISO 18752-BC SAE 100R17	T1000 T2000
63	T3000 Ryce SLIDER	<b>-04 to -16</b> 1/4" to 1"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene cover.	ISO 18752-BC SAE 100R17	T1000 T2000
64	T3600A AVENGER™	<b>-04 to -16</b> 1/4" to 1"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	ISO 18752-BC	T1000 T2000
65	T3600 DIEHARD™	<b>-04 to -16</b> 1/4″ to 1″	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	ISO 18752-BC	T1000 T2000
66	T3600S SLIDER <sup>TM</sup>	<b>-04 to -16</b> 1/4" to 1"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber. One or two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene cover.	ISO 18752-BC	T1000 T2000
67	T4000 AVENGER <sup>TM</sup>	- <b>04 to -12</b> 1/4" to 3/4"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	ISO 18752-AC SAE 100R19	T2000
68	T4000 DIEHARD™	<b>-04 to -12</b> 1/4" to 3/4"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	ISO 18752-AC SAE 100R19	T2000
69	T4000 BYCO SLIDER SLIDER <sup>TM</sup>	<b>-04 to -12</b> 1/4" to 3/4"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One or two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	ISO 18752-AC SAE 100R19	T2000
70	T5000A AVENGER™	<b>-04 to -08</b> 1/4" to 1/2"	Very high pressure hydraulic oil lines.	Black, oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Black, oil and abrasion resistant synthetic rubber cover.	ISO 18752-AC	T2000
71	T5000D DIEHARD™	<b>-04 to -08</b> 1/4" to 1/2"	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	ISO 18752-AC	T2000
72	T5000 Ryco SLIDER	<b>-04 to -08</b> 1/4" to 1/2"	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	ISO 18752-AC	T2000



	HOSE SERIES	INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	COUPLING SERIES	
ISC	DBARIC BRAID (CONT)						
73	T6000 Ityce Avenger Avengertm	<b>-04 to -06</b> 1/4" to 3/8"	Extremely high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	ISO 18752-AC	T2000	
74	T6000 Ityce diehard	<b>-04 to -06</b> 1/4" to 3/8"	Extremely high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	ISO 18752-AC	T2000	HOCE
75	T6000 Ever SLIDER	<b>-04 to -06</b> 1/4" to 3/8"	Extremely high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	ISO 18752-AC	T2000	
ISC	BARIC SPIRAL						ر ر
76	H3000A AVENGER™	<b>-20 to -32</b> 1.1/4" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	EN 856 Type R12 EN 856 Type 45P ISO 18752-DC SAE 100R12	Т7000	
77	H3000D H3000 Ityce DIEHARD	<b>-20 to -32</b> 1.1/4" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	EN 856 Type R12 EN 856 Type 45P ISO 18752-DC SAE 100R12	Т7000	
78	H3000S H3000 ILVCO SLIDER	<b>-20 to -32</b> 1.1/4" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	EN 856 Type R12 EN 856 Type 45P ISO 18752-DC SAE 100R12	Т7000	
79	H4000 RYCO AVENGER	<b>-06 to -32</b> 3/8" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	EN 856 Type R12 EN 856 Type 45P (size DN25, -16) ISO 18752-DC SAE 100R12	T7000	
80	H4000 Ityce DIEHARD	<b>-06 to -32</b> 3/8" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	EN 856 Type R12 EN 856 Type 45P (size DN25, -16) ISO 18752-DC SAE 100R12	Т7000	
81	H4000 INVOIR SLIDER	<b>-06 to -32</b> 3/8" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	EN 856 Type R12 EN 856 Type 45P (size DN25, -16) ISO 18752-DC SAE 100R12	Т7000	
82	H5000A AVENGER™	<b>-06 to -32</b> 3/8" to 2"	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	EN 856 Type R13 ISO 18752-CC SAE 100R13	T7000 T9000	
83	H5000 H5000 INCO DIEHARD	<b>-06 to -32</b> 3/8" to 2"	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	EN 856 Type R13 ISO 18752-CC SAE100R13	T7000 T9000	
84	H5000 BYCO SLIDER	-06 to -32 3/8" to 2"	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four or six alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	EN 856 Type R13 ISO 18752-CC SAE 100R13	T7000 T9000	

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# HOSE PICTORIAL INDEX

	HOSE SERIES	INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	COUPLING SERIES
ISC	DBARIC SPIRAL (CONT)					
85	H6000 INCO AVENG	<b>-06 to -32</b> 3/8" to 2"	Extremely high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four, six or eight alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	EN 856 Type R15 ISO 18752-CC SAE 100R15	T7000 T9000 69000N (Skive)
86		<b>-06 to -32</b> 3/8" to 2"	Extremely high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four, six or eight alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	EN 856 Type R15 ISO 18752-CC SAE 100R15	T7000 T9000 69000N (Skive)
87	H6000 RYCO SLIDER	-06 to -32 3/8" to 2"	Extremely high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four, six or eight alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	ISO 3862 Type R15 ISO 18752-CC SAE 100R15	T7000 T9000 69000N (Skive)
BR	AID					
88	T1A - RYCO AVENGER T1A -	-03 to -32 3/16" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	AS 3791 100R1AT DIN 20022-1SN EN 853 Type 1SN ISO 1436 Types R1AT & 1SN SAE 100R1AT	T2000 T7000 6000 (K000)
89	T1D - RYCO DIEHARD T1D -	-03 to -32 3/16" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	AS 3791 100R1AT DIN 20022-1SN EN 853 Type 1SN ISO 1436 Types R1AT & 1SN SAE 100R1AT	T2000 T7000 6000 (K000)
90	TIS - INVCO SLIDER TIS -	<b>-03 to -32</b> 3/16" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	AS 3791 100R1AT DIN 20022-1SN EN 853 Type 1SN ISO 1436 Types R1AT & 1SN SAE 100R1AT	T2000 T7000
91	T1F FIRE SUPPRESSION	<b>-03 to -16</b> 3/16" to 1"	Fire Suppression Systems of off- road vehicles, mining equipment, stationary engines, etc.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Red, heat resistant, abrasion resistant and oil resistant rubber cover.	AS 3791 100R1AT DIN 20022-1SN EN 853 Type 1SN ISO 1436 Types R1AT & 1SN SAE 100R1AT	T2000 T7000 6000 (K000)
92	T2A AVENGER <sup>TM</sup>	<b>-04 to -48</b> 1/4" to 3"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	AS 3791 100R2AT DIN 20022-2SN EN 853 Type 2SN ISO 1436 Types R2AT & 2SN SAE 100R2AT	T2000 T7000 6000 (L000)
93	T2D DIEHARD <sup>TM</sup>	<b>-04 to -48</b> 1/4" to 3"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	AS 3791 100R2AT DIN 20022 - 2SN EN 853 Type 2SN ISO 1436 Types R2AT & 2SN SAE 100R2AT	T2000 T7000 6000 (L000)
94	T2S SLIDER <sup>TM</sup>	<b>-04 to -32</b> 1/4" to 2"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	AS 3791 100R2AT DIN 20022-2SN EN 853 Type 2SN ISO 1436 Type 2AT SAE 100R2AT	T2000 T7000
95	T2C	-04 to -32 1/4" to 2"	High pressure hydraulic oil lines in applications where low temperature environmental conditions exist.	Specially formulated oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R2AT DIN 20022-2SN EN 853 Type 2SN ISO 1436 Types R2AT & 2SN SAE 100R2AT	T2000 T7000
96	TXA2D	-08 to -16 1/2" to 1"	Extra high pressure hydraulic oil lines where pressure exceeds 100R2 by at least 30%.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	AS 3791 100R2AT BCS 174 DIN 20022-2SN EN 853 Type 2SN ISO 1436 Types R2AT & 2SN SAE 100R2AT	T2000 T7000 6000 (L000)

#### RYCO QUALITY



	HOSE SEF	RIES	INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	COUPLING SERIES
BR	AID (CONT)						
97	DF2A avenger™	= RYCO AVENGER DINFLEX	<b>-04 to -16</b> 1/4" to 1"	High pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	AS 3791 100R2AT EN 857 Type 2SC ISO 1436 SAE 100R2AT SAE 100R16	T2000
100	E2 ENERGY	= <b>Ryco</b> Energy E2	<b>-04 to -16</b> 1/4" to 1"	High pressure hydraulic oil lines	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil resistant synthetic rubber cover.	EN853 2SN SAE 100R2AT SAE 100R2S	T2000 T7000 6000 (L000)
98	<b>TJ2D</b> DIEHARD™ JACK	<b>= ILYCO</b> diehard tj2d <b>==</b>	<b>-04 to -06</b> 1/4" & 3/8"	Hydraulic Jack applications requiring a light weight, small outside diameter hose.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	Materials Handling Institute specification JJ 100 (July 1979)	T2000
SP	IRAL						
101	H12A avenger™	— <b>Ryco</b> avenger H12A ——	<b>-06 to -32</b> 3/8″ to 2″	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	AS 3791 100R12 EN 856 Type R12 EN 856 Type 4SP (-12 and above) ISO 3862 Type R12 SAE 100R12	T7000
102	H12D DIEHARD™	- <b>Ryco</b> diehard H12D	<b>-06 to -40</b> 3/8″ to 2.1/2″	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	AS 3791 100R12 EN 856 Type R12 EN 856 Type 45P (-12 and above) ISO 3862 Type R12 SAE 100R12	T7000
103	H12S slider™	- <b>ILYCO</b> SLIDER H12S	<b>-06 to -32</b> 3/8″ to 3″	Very high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Synthetic rubber cover sheathed with a layer of extremely abrasion resistant polyethylene.	AS 3791 100R12 EN 856 Type R12 EN 856 Type 45P (-12 and above) ISO 3862 Type R12 SAE 100R12	T7000
104	R4SHA Avenger™	<b>- ILYCO</b> AVENGER R4SHA	<b>-12 to -32</b> 3/4" to 2"	Extra high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	EN 856 Type 4SH ISO 3862 Type 4SH	T7000 T9000
105	R4SHD DIEHARD™	<b>ityco</b> diehard R4shd —	<b>-12 to -32</b> 3/4" to 2"	Extra high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	EN 856 Type 45H ISO 3862 Type 45H	T7000 T9000
106	R4SPA avenger™	- RYCO AVENGER R4SPA -	<b>-06 to -16</b> 3/8″ to 1″	Extra high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.	EN 856 Type 4SP ISO 3862 Type 4SP	T7000 (Skive)
107	R4SPD	- ILYCO DIEHARD R4SPD -	<b>-06 to -16</b> 3/8″ to 1″	Extra high pressure hydraulic oil lines.	Oil resistant synthetic rubber tube. Four alternating layers of spiralled high tensile steel wire reinforcement. Oil and extra abrasion resistant synthetic rubber cover.	EN 856 Type 4SP ISO 3862 Type 4SP	T7000 (Skive)

HIGHER TECHNOLOGY EQUALS GREATER PERFORMANCE

## HOSE PICTORIAL INDEX

	HOSE SER	IES	INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	COUPLING SERIES
SP	ECIALTY AND	HIGH TEMPER	ATURE				
108	T5 TRUCKER	-RYCO T5 TRUCKER	- <b>04 to -32</b> 1/4″ to 2″	Medium to high pressure hydraulic oil applications.	Oil resistant synthetic rubber tube. Polyester inner braid covered with one braid of high tensile steel wire reinforcement. Polyester braid cover.	AS 3791 100R5 SAE 100R5 SAE J1402 Type All (up to -12 size)	T4000 V000
109	D2B	Ityco Driller	<b>-24 to -32</b> 1.1/2" to 2"	Hydraulic oil or air lines. Drill rigs - high pressure, large bore air hose.	Oil resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.		T7000
110	MS1000 MINESPRAY	- INCO MINESPRAY MS1000 -	<b>-08 to -32</b> 1/2" to 2"	Water and air spray suited for dust control in all industrial and mining applications.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.		T2000 T4000
111	CS1000 COALSPRAY	- INCO COALSPRAY CS1000 -	<b>-08 to -32</b> 1/2" to 2"	Water and air spray suited for dust control in all industrial and mining applications.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.		T2000 T4000
112	BT1 biotrans	\\\\\ \$ INCO BIOTRANS \$ /,	<b>-04 to -16</b> 1/4″ to 1″	Transportation, marine fuel and engine hose applications.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement.	SAE J1527 Type Class I SAE J30R2 (non-marine) USCG SAE J1942	T2000 6000 (K000)
114	RQP1 survivor™	- RYCO RQP1	<b>-04 to -16</b> 1/4" to 1"	High pressure hydraulic oil applications, or where resistance to phosphate ester fluid is required.	Synthetic rubber tube, compounded for temperature resistance and multi fluid resistance. One braid of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R1AT DIN 20022-1SN EN 853 Type 1SN ISO 1436 Types R1AT & 1SN SAE 100R1AT	T2000 T7000 6000 (K000)
115	RQP2 SURVIVOR™	= <b>ILYCO</b> RQP2	<b>-04 to -32</b> 1/4" to 2"	High pressure hydraulic oil applications, or where resistance to phosphate ester fluid is required.	Synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R2AT DIN 20022-2SN EN 853 Type 2SN ISO 1436 Types R2AT & 2SN SAE 100R2AT	T2000 T7000 6000 (L000)
116	RQP5 survivor™	- ILYCO RQP5	<b>-04 to -32</b> 1/4" to 2"	Medium to high pressure hydraulic oil applications, or where resistance to phosphate ester fluid is required.	Oil resistant synthetic rubber tube. Polyester inner braid covered with one braid of high tensile steel wire reinforcement. Polyester braid cover.	AS 3791 100R5 SAE 100R5 SAE J1402 Type All (up to -12 size)	T4000 V000
117	RQP6	- ILYCO RQP6	<b>-04 to -12</b> 1/4" to 3/4"	Hydraulic oil lines, transmission oil cooler lines, glycol antifreeze solutions, water, diesel fuels and air.	Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R6 DIN 20021-1TE ISO 4079 Type 1 SAE 100R6	T4000 8000
PR	ESSURE WASH	HER					
118	TW1 TORNADO WASHER	<b>RYCO</b> TW1	<b>-06 to -08</b> 3/8" to 1/2"	Hot water pressure washer machines.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Synthetic rubber; oil, chicken fat and abrasion resistant cover.		T2000
119	<b>PW2</b> PRESSURE WASHER	= IRYCO PW2 PRESSURE WAS	<b>-04 to -06</b> 1/4" to 3/8"	Hot water pressure washer applications.	Heat resistant synthetic rubber tube. Two braids of high tensile steel wire reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.		T2000

\*Fitted as factory hose only



	HOSE SERIES	INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	COUPLING SERIES	JCTION
SU	CTION AND RETURN						
120	SR INVCO SR	- <b>12 to -48</b> 3/4" to 3"	Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines.	Oil resistant synthetic rubber tube. Textile reinforcement with spiral wire to prevent collapsing. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R4 (except SR48) SAE 100R4	33000 T4000	INTR
121	SRF COMPACT SUCTION	-12 to -32 3/4" to 2)	Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines.	Oil resistant synthetic rubber tube. Textile reinforcement with spiral wire to prevent collapsing. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R4 SAE 100R4	33000 T4000	HOSE
TE	FLON®						
122	RTH1	- <b>04 to -16</b> 1/4" to 1"	High pressure hydraulic oil lines. Fluids at extremes of pressure and temperature.	PTFE tube (TEFLON*). One braid of high tensile Grade 304 stainless steel wire reinforcement. *DuPont Reg. TM	SAE 100R14. RTH112 meets ID and OD requirements of SAE 100R14. Other sizes have ID and OD different to SAE 100R14	ТТ000	S
TE	XTILE BRAID						Z
123	FB2 BARRIER	-06 to -10 3/8" to 5/8"	Automotive air conditioning and refrigeration. Refrigerants R12, R134a, R22 & R114.	Synthetic rubber internal layer with Nylon Barrier tube. Two braids of synthetic yarn reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	SAE J2064 Type C Class II	1G000	COUPL
124	M1 - INVCO M1	<b>-04 to -06</b> 1/4" to 3/8"	Multi-purpose hose for use on fuel lines, PCV and EEC systems, and fuel return hose connections on diesel fuel injection systems.	Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil resistant synthetic rubber cover.	SAE 30R7	N/A	TORS
125	MP1 - ILYCO MP1	-04 to -20 1/4" to 1.1/4	Air, water, petroleum oils, kerosene and fuel oils.	Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	RMA Class A (tube) RMA Class B (cover)	T4000	ADAP
126	M2 TEXTILE	-04 to -16 1/4" to 1"	Medium pressure hydraulic oil lines, antifreeze solutions, water.	Oil resistant synthetic rubber tube. Two textile braids reinforcement. Oil resistant and abrasion resistant synthetic rubber cover.	AS 3791 100R3 DIN 20021-2TE ISO 4079 Type R3 SAE 100R3	T4000 6000 (M000)	ORIES
128	PL1 - ILYCO PL1	-04 to -12 1/4" to 3/4"	Petroleum base hydraulic oils, glycol antifreeze solutions, water, diesel fuels, and air.	Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil and abrasion resistant synthetic rubber cover.	AS 3791 100R6 DIN 20021-1TE ISO 4079 Type 1 SAE 100R6	T4000 8000	ACCESS
129		-04 to -12 1/4" to 3/4"	Petroleum base hydraulic oils, glycol antifreeze solutions, water, diesel fuels, and air.	Oil resistant synthetic rubber tube. One textile braid reinforcement. Oil and abrasion resistant synthetic rubber cover.	AS 3791 100R6 DIN 20021-1TE ISO 4079 Type 1 SAE 100R6	T4000 8000	SS SS
127	M2G LPG/C	<b>-04 to -12</b> 1/4" to 3/4"	Liquified Petroleum Gas and Natural Gas.	Oil resistant synthetic rubber tube. Two textile braids reinforcement. Abrasion resistant synthetic rubber perforated cover.	AS/NZS 1869 Class C	T4000 6000 (M000)	

# HOSE PICTORIAL INDEX

	HOSE SER	IES	INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	COUPLING SERIES
TH	ERMOPLASTIC						
132	TP7 SPIDERLINE R7	ILYCO SPIDERLINE TP7	<b>-03 to -16</b> 3/16″ to 1″	High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines.	Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover.	AS 3791 100R7 EN 855 TYPE R7 ISO 3949 SAE 100R7	T1000 T4000
133	TP7N ISOLATOR R7	RYCO ISOLATOR TP2N =====	<b>-04 to -16</b> 1/4" to 1"	Hydraulic oil lines where electrical non-conductivity is required.	Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic cover.	AS 3791 100R7 EN 855 TYPE R7 ISO 3949 SAE 100R7	T1000 T4000
134	TP7T SPIDERLINE TWIN R7	RYCO SPIDERLINE TP?T	<b>-04 to -08</b> 1/4" to 1/2"	Payout and return reels on forklifts and cranes, dispensing equipment and other applications requiring two hoses.	Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover.	AS 3791 100R7 EN 855 TYPE R7 ISO 3949 SAE 100R7	T1000 T4000
135	TP7TN	ILYCO ISOLATOR TP7TN ====	<b>-04 to -08</b> 1/4" to 1/2"	Payout and return reels on forklifts and cranes, hydraulic powered hand tools and other applications requiring two hoses.	Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic cover.	AS 3791 100R7 EN 855 TYPE R7 ISO 3949 SAE 100R7	T1000 T4000
136	TP8 SPIDERLINE R8	RYCO SPIDERLINE TP8	<b>-04 to -08</b> 1/4" to 1/2"	High pressure hydraulic oil lines; pilot lines; greasing and lubrication lines; and some pneumatic and water lines.	Oil resistant seamless thermoplastic tube. One or two braids of aramid fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover.	AS 3791 100R8 EN 855 TYPE R8 ISO 3949 SAE 100R8	T1000
137	TP8N ISOLATOR R8	RYCO ISOLATOR TPSN	<b>-04 to -08</b> 1/4" to 1/2"	Hydraulic oil lines where electrical non-conductivity is required.	Oil resistant seamless thermoplastic tube. One or two braids of aramid fibre reinforcement. Oil and abrasion resistant thermoplastic cover.	AS 3791 100R8 EN 855 TYPE R8 ISO 3949 SAE 100R8	T1000
138	TP8T SPIDERLINE TWIN R8	RYCO SPIDERLINE TP8T	<b>-04 to -08</b> 1/4" to 1/2"	Payout and return reels on forklifts and cranes, dispensing equipment and other applications requiring two hoses.	Oil resistant seamless thermoplastic tube. One or two braids of aramid fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover.	AS 3791 100R8 EN 855 TYPE R8 ISO 3949 SAE 100R8	T1000
139	TP8TN	RYCO ISOLATOR TPATN	<b>-04 to -08</b> 1/4" to 1/2"	Payout and return reels on forklifts and cranes, hydraulic powered hand tools and other applications requiring two hoses.	Oil resistant seamless thermoplastic tube. One or two braids of aramid fibre reinforcement. Oil and abrasion resistant thermoplastic cover.	AS 3791 100R8 EN 855 Type R8 ISO 3949 SAE 100R8	T1000
140	TP3000 SPIDERLINE N8	RYCO SPIDERLINE TP3000 ======	<b>-04 to -08</b> 1/4" to 1/2"	Medium pressure hose suitable for petroleum or synthetic based hydraulic fluids in forklift systems.	Polyester elastomer tube. One or two braids of synthetic fibre reinforcement. Special polyester, black with white ink- jet branding. Cover is perforated (pin-pricked).	SAE 100 R18	T4000
GR	EASING AND I	UBRICATION					
141	<b>TPGL</b> GREASE LINE	RYCO GREASELINE TPGL	<b>-02</b> 1/8″	High pressure greasing and lubrication systems.	Oil resistant seamless thermoplastic tube. One or two braids of synthetic fibre reinforcement. Oil and abrasion resistant thermoplastic perforated cover.		TG000 6000 (P000)
142	R4000		<b>-03</b> 3/16″	Flexible Grease Gun extension for high pressure greasing and lubrication systems.	Oil resistant synthetic rubber tube. One braid of high tensile steel wire reinforcement. Oil and abrasion resistant synthetic rubber cover.		_



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	HOSE PRO	TECTION	INSIDE DIAMETER	RECOMMENDED	CONSTRUCTION	PERFORMANCE SPECIFICATIONS MET OR EXCEEDED	JCTION
144	FS FIRE SLEEVE	ADVICAT FS1072-30. FIRE SLEEVE 1.718 INCH	<b>-08 to -104</b> 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 AS 1072	INTRODU
146	RCS CROCSLEEVE		<b>23 to 129 mm</b> 7/8" to 5"	Burst and pinhole protection. Protection of hoses from abrasion. Bundling hoses together.	Woven polyamide. RCSB - Black. RCSR - Red.	MSHA approved FRAS	ш
148	<b>RH</b> RAWHIDE	BITCO RAVVHIDE MSHA RAME RESISTANT	<b>23 to 93 mm</b> 7/8" to 3.5/8"	Protection of hoses from severe abrasion. Bundling hoses together.	Woven nylon tubing.	MSHA approved	SOH
149	RSG SPIRAL GUARD		<b>16 to 110 mm</b> (OD) 5/8″ to 4.1/2″	Protection of hoses from abrasion and impact. Bundling hoses together.	Polyethylene plastic spiral. Black.		NGS
149	<b>RSGF</b> SPIRAL GUARD FRAS		<b>16 to 110 mm</b> (OD) 5/8″ to 4.1/2″	Protection of hoses from abrasion and impact. Bundling hoses together.	Polyethylene plastic spiral. Dark Grey.	MSHA approved FRAS	COUPL
149	RSGY		<b>16 to 110 mm</b> (OD) 5/8" to 4.1/2"	Protection of hoses from abrasion and impact. Bundling hoses together.	Polyethylene plastic spiral. Yellow		ORS
150	RWA PUSH ON		<b>12 to 75 mm</b> 1/2" to 3"	Protection of hose cover from abrasion and gouges.	Spring Steel Wire, galvanised.		ADAPT
151	<b>RHYS</b> PACKAGING SLEEVE		<b>48 &amp; 79 mm</b> 1.9" and 3.1"	Packaging and protection of hose assemblies during transport and storage.	Heavy duty, low density polyethylene sleeve.		IRIES
152	<b>RHYT</b> RHYT-10, -32		Suits sizes -04 to -10 & -12 to -32	Permanent identification of hose assemblies.	High performance plastic.		ACCESSC
152	<b>RHWT</b> RHWT-10, -32		Suits sizes -04 to -10 & -12 to -32	Permanent identification of hose assemblies.	High performance plastic.		SS
153	750/760		Suits some -04 (1/4") & -06 (3/8") hoses	Control bend radius at end of hose assemblies.	Spring Steel Wire, galvanised.		FILTEF

41



# AN ENGER THE SMART CHOICE

**ABRASION RESISTANT** 

MSHA - FLAME RESISTANT

### H6000 ILYCO AVENGER

H6032A 2"

RYCO QUALITY

# INTRODUCTION

The tables following on pages 43 to 49 list the approvals RYCO Hydraulics have with various third parties for hoses used in RYCO Matched Hose Assemblies. For each Certification Body/Organisation referenced in the table, listed is; the Approval/ Certificate Number held by RYCO, and the Matched Coupling Series approved for the hose.

#### EXAMPLE:

A Hose Assembly using T112A needs to meet Marine Equipment Directive (MED) approval; the table shows:

The **MED Approval Number** for RYCO Hydraulics **T1A** Series Hose: **MED-B-3625**.

The **Matched Couplings** approved for use with **T112A** hose: **T2000** & **T7000** Series BITELOK Crimp, and **K000** Series Field Attachable Couplings.

	1	1	1			RYCO HOSE	TYPE APPRO	VALS	1	1	1	
HOSE	VENGER	IEHARD	LIDER		ĴÅ DNV		Lloyds Register			THE STREET OF TO	œ	HOSE
SERIES	4		S	ABS	DNV	GL	LR	MED	USCG	DOI	GOST-R	
T3000	Α	D	S									
T3004	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T3005	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T3006	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T3008	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T3010	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T3012	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T3016	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T3600	A	D	S									
T3604	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000			
T3605	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000			
T3606	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000			L R
T3608	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000			
T3610	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000			AF
T3612	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000			A
T3616	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000			
T4000	Α	D	S									
T4004	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T4005	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	E S
T4006	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T4008	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	SSC 1
T4010	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T4012	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	AC (
T5000	A	D	S									
T5004	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T5005	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T5006	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T5008	•	•	•	T2000	T2000	T2000	T2000	T2000	T2000		T2000	RS
T4000	Δ.	n.	s.									
T6004	A			T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T6005				T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T6006				T2000	T2000	T2000	T2000	T2000	T2000		T2000	

\* Refer to our website **www.RYCO.com.au** for current certificate approvals numbers.

# HOSE TYPE APPROVALS

	RYCO HOSE TYPE APPROVALS												
HOSE	<b>'ENGER</b>	EHARD	IDER		ĴÅ Driv		Lloyds Kegister			A DECEMBER OF THE REPORT OF TH	œ		
SERIES	Å	۵	SL	ABS	DNV	GL	LR	MED	USCG	DOT	GOST-R		
H3000	Δ	D	S										
H3020	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H3024	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H3032	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H(000	٨	n	s										
H4006	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H4008				T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H4010	•	•		T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H4012	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H4016	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H4020	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H4024	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H4032	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H5000	Δ	n	S										
H5006	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H5008	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H5010	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H5012	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H5016	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H5020	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H5024	•	•	•	T9000	T9000	T9000	T9000	T9000	T9000		T9000		
H5032	•	•	•	T9000	T9000	T9000	T9000	T9000	T9000		T9000		
H6000	Δ	D	S										
H6006	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H6008	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H6010	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H6012	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H6016	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H6020	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000		
H6024	•	•		T9000 &	T9000 &		T9000 &						
116022				69000N	69000N	69000N	69000N	69000N	69000N		69000N		
H6032	•	•	•	69000N	69000N	69000N	69000N	69000N	69000N		69000N		
T1	Α	D	S										
T13	•			T2000	T2000	T2000	T2000	T2000	T2000		T2000		
T14	•	•	•	12000 & K000	12000		12000 & K000						
115	•	•	•	12000 T2000 T7000					12000				
T16	•	•	•	& K000	T2000, T7000		& K000						
T18	•	•	•	& K000	T2000, T7000		& K000						
T110	•	•	•	T2000, T7000 & K000	T2000		T2000, T7000 & K000						
T112	•	•	•	T2000, T7000 & K000	T2000, T7000		T2000, T7000 & K000						
T116	•	•	•	T2000, T7000 & K000	T7000		T2000, T7000 & K000						
T120	•	•	•	T2000, T7000 & A000	T7000		T2000, T7000 & A000						
T124	•	•	•	T7000 & A000	T7000		T7000 & A000						
T132	•	•	•	T7000 & A000	T7000		T7000 & A000						

\* Refer to our website **www.RYCO.com.au** for current certificate approvals numbers.

**Ryco** HOSE TYPE APPROVALS

	RYCO HOSE TYPE APPROVALS											
HOSE SERIES	AVENGER	DIEHARD	SLIDER	ABS	ŮÅ DNV DNV	GL GL	LR	MED	USCG	DOT	GOST-R	TRODUCT
Т	1											Ž
T1	3F			T2000	T2000	T2000	T2000	T2000	T2000			
T1	4F			T2000 & K000								
T1	6F			T2000, T7000 & K000								
T1	8F			T2000, T7000 & K000			HOSE					
T1	12F			12000, 17000 & K000								
Т2	Α	D	S									
T24	•	•		T2000 & L000		T2000 & L000						
T25	•	•		T2000	T2000	T2000	T2000	T2000	T2000		T2000	
T26	•	•		12000, 17000 & L000	T7000 &		12000, 17000 & L000	U U				
TOO				T2000, T7000	T2000 &		T2000, T7000					
120	•	•		& L000	T7000		& L000					
T210	•	•		T2000, T7000 & L000	T2000		T2000, T7000 & L000					
T212	•	•		T2000, T7000 & L000	T2000 & T7000		T2000, T7000 & L000					
T216				T2000, T7000	T7000		T2000, T7000					
1210	•	•		& L000	17000		& L000					
T220	•	•		& L000	T7000		& L000					
T224	•	•		T7000 & B000	T7000		T7000 & B000	L L				
T232	•	•		T7000 & B000	T7000		T7000 & B000					
T240	•			12000	12000	12000	12000	12000	12000		12000	
T2	Α	D	S									
T24			•	T2000	T2000	T2000	T2000	T2000	T2000			
T26			•	T7000 &			U U					
TOO				T2000 &								
128			•	T7000	T7000	T7000	T7000	T7000	T7000			C V
T210			•	T2000 &								
				T2000 &								
1212			•	T7000	T7000	T7000	T7000	T7000	T7000			
T216			•	T2000 & T7000								
T220			•	T2000 & T7000								
T224			•	T7000	T7000	T7000	T7000	T7000	T7000			0 2
T232			•	T7000	T7000	T7000	T7000	T7000	T7000			
DF2A	Α	D	S									ū
DF26A	•			T2000	T2000	T2000	T2000	T2000	T2000		T2000	
DF28A	•			T2000	T2000	T2000	T2000	T2000	T2000		T2000	
DF210A	•			T2000	T2000	T2000	T2000	T2000	T2000		T2000	
DF212A	•			T2000	T2000	T2000	T2000	T2000	T2000		T2000	
DF216A	•			T2000	T2000	T2000	T2000	T2000	T2000		T2000	
<sup>•</sup> Refer to	our	we	bsi	te www.RYC	<b>O.com.au</b> for	current certi	ficate approv	als numbers.				ECHNIC

45



# DISENATION SAY DE

EXTRA ABRASION RESISTANT / FRAS - FLAME RESISTANT ANTI STATIC

# H6000 RYCO DIEHARD

RYCO QUALITY

**HIGHLY FLEXIBLE** 

H6032D 2"

HOSE TYPE APPROVALS

	1	1	1		1	RYCO HOSE	TYPE APPRO	VALS	1	1	1	
HOSE SERIES	AVENGER	DIEHARD	SLIDER	ABS	ŮÅ DNV DNV	GL GL	Lloyds Register LR	MED	USCG	DOT	GOST-R	
H12	Α	D	S									
H1206	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000	
H1208	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000	
H1210	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000	
H1212	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000	
H1216	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000	
H1220	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000	
H1224	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000	
H1232	•	•	•	T7000	T7000	T7000	T7000	T7000	T7000		T7000	
В	BT1											
B	T14			T2000 & K000		T2000 & K000						
B	T15			T2000 & K000		T2000 & K000						
B	T16			T2000 & K000		T2000 & K000						
B	T18			12000 & K000		12000 & K000						
BI	110			12000 & K000	T2000 & K000	T2000 & K000	12000 & K000	12000 & K000	T2000 & K000		12000 & K000	
DI	112			T2000 & K000		T2000 & K000						
	110			12000 & 1000	12000 & 1000	12000 & 1000	12000 & 1000	12000 & 1000	12000 & 1000		12000 & 1000	
R				T2000 8 K000	T2000 8 K000	T2000 8 K000		T2000 8 K000	T2000 8 K000		T2000 8 K000	
RQ	2P14			T2000 & K000		T2000 & K000						
nų	2513			T2000 T7000		T2000 T7000						
RQ	QP16			& K000		& K000						
RQ	QP18			T2000, T7000 & K000		T2000, T7000 & K000						
RQ	P110	)		T2000, T7000 & K000		T2000, T7000 & K000						
RQ	P112	2		T2000, T7000 & K000		T2000, T7000 & K000						
RQ	P116	5		T2000, T7000 & K000		T2000, T7000 & K000						
R	QP2											
RQ	QP24			T2000 & L000	T2000	T4000 & V000	T2000					
RQ	)P25 )P26			T2000 T2000, T7000	T4000 & V000	T2000 T2000, T7000						
RQ	)P28			& L000 T2000, T7000	T4000 & V000	& L000 T2000, T7000						
RQ	P210	)		& L000 T2000, T7000 & L000	T4000 & V000	& L000 T2000, T7000 & L000						
RQ	P212	2		T2000, T7000 & L000	T4000 & V000	T2000, T7000 & L000						
RQ	P216	5		T2000, T7000 & L000	V000	T2000, T7000 & L000						
RQ	P220	)		T2000, T7000 & L000	T7000	V000	T7000					
RQ	P224	Ļ		T7000 & B000	V000	T7000 & B000						
RQ	P232	2		T7000 & B000	V000	T7000 & B000						

\* Refer to our website **www.RYCO.com.au** for current certificate approvals numbers.

# HOSE TYPE APPROVALS

	RYCO HOSE TYPE APPROVALS											
HOSE SERIES	ABS	ŮÅ DNV DNV	GL	LR	MED	USCG	DOT	GOST-R				
POP5												
ROP54	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000				
ROP55	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000				
ROP56	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000				
ROP58	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000				
ROP510	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000				
ROP512	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000				
ROP516	V000	V000	V000	V000	V000	V000	V000	V000				
ROP520	V000	V000	V000	V000	V000	V000	V000	V000				
ROP524	V000	V000	V000	V000	V000	V000	V000	V000				
ROP532	V000	V000	V000	V000	V000	V000	V000	V000				
15	T4000 8 1/000	T4000 8 1/000	T4000 8 V000	T4000 8 V000	T4000 8 V000	T4000 8 V000		T4000 8 V000				
154	T4000 & V000	T4000 & V000	14000 & V000	T4000 & V000	T4000 & V000	T4000 & V000		T4000 & V000				
155	T4000 & V000	T4000 & V000	14000 & V000	T4000 & V000	T4000 & V000	T4000 & V000		14000 & V000				
100	T4000 & V000	T4000 & V000	14000 & V000	T4000 & V000	T4000 & V000	14000 & V000		14000 & V000				
150 T510	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000		T4000 & V000				
T510	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000	T4000 & V000		T4000 & V000				
T512	14000 & V000	14000 & V000	14000 & V000	14000 & V000	14000 & 0000 V000	14000 & V000		14000 & V000				
T570	V000	V000	V000	V000	V000	V000		V000				
T524	V000	V000	V000	V000	V000	V000		V000				
T532	V000	V000	V000	V000	V000	V000		V000				
1552	1000	1000	1000	0000	1000	1000		1000				
D2B			<b>TTOOO</b>	<b>TTO O O</b>	<b>TTO O O</b>	<b>TTO O O</b>		<b>TTO O O</b>				
D224B	T7000	T7000	T7000	T7000	T7000	T7000		T7000				
D232B	17000	17000	17000	17000	17000	17000		17000				
RTH1												
RTH14	TT000	TT000	TT000	TT000	TT000	TT000		TT000				
RTH16	TT000	TT000	TT000	TT000	TT000	TT000		TT000				
RTH18	TT000	TT000	TT000	TT000	TT000	TT000		TT000				
RTH110	TT000	TT000	TT000	TT000	TT000	TT000		TT000				
RTH112	TT000	TT000	TT000	TT000	TT000	TT000		TT000				
RTH116	TT000	TT000	TT000	TT000	TT000	TT000		TT000				
SR												
SR12	T4000 &	T4000 &	T4000 &	T4000 &	T4000 &	T4000 &		T4000 &				
	33000	33000	33000	33000	33000	33000		33000				
SR16	33000	33000	33000	33000	33000	33000		33000				
	T4000 &	T4000 &	T4000 &	T4000 &	T4000 &	T4000 &		T4000 &				
SR20	33000	33000	33000	33000	33000	33000		33000				
SR24	T4000 &	T4000 &	T4000 &	T4000 &	T4000 &	T4000 &		T4000 &				
	33000	33000	33000	33000	33000	33000		33000				
SR32	14000 & 33000	14000 & 33000	14000 & 33000	14000 & 33000	14000 & 33000	14000 & 33000		14000 & 33000				
	T4000 &	T4000 &	T4000 &	T4000 &	T4000 &	T4000 &		T4000 &				
SR40	33000	33000	33000	33000	33000	33000		33000				

\* Refer to our website **www.RYCO.com.au** for current certificate approvals numbers.



RYCO HOSE TYPE APPROVALS												
		ĴÅ DNV		Lloyds Register	-		AND CONTRACTOR OF THE CONTRACT	œ				
HOSE SERIES	ABS	DNV	GL	LR	MED	USCG	DOT	GOST-R				
SRF												
SRF12	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000				
SRF16	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000				
SRF20	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000				
SRF24	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000				
SRF32	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000	T4000 & 33000		T4000 & 33000				
М2												
M24	T4000	T4000	T4000	T4000	T4000	T4000		T4000				
M26	T4000	T4000	T4000	T4000	T4000	T4000		T4000				
M28	T4000	T4000	T4000	T4000	T4000	T4000		T4000				
M212	T4000	T4000	T4000	T4000	T4000	T4000		T4000				

**NOTE:** MED/USCG approval must use FS1072 FIRESLEEVE for RTH1, SR, SRF, M2, T5 and RQP5.

# HOSE COVERS

# HOSE COVERS



# RYCO AVENGER<sup>™</sup>

THE SMART CHOICE

#### ABRASION RESISTANT

#### **7** MSHA FLAME RESISTANT

**AVENGER**<sup>™</sup> has a synthetic rubber cover compounded to resist abrasion and is specifically designed for multiple applications. The complete **AVENGER**<sup>™</sup> series meets MSHA Flame Resistant requirements.



# RYCO DIEHARD<sup>™</sup>

IOSE THAT WON'T SAY DIE

- **7** EXTRA ABRASION RESISTANT
- **7** MSHA FLAME RESISTANT
- **7** FRAS FLAME RESISTANT & ANTI-STATIC

**DIEHARD**<sup>™</sup> has a synthetic rubber cover that is extra resistant to abrasion and complies with Flame Resistant and Anti-Static (FRAS) requirements of AS 2660 methods of test AS 1180.10B and AS 1180.13A, also meeting USA MSHA requirements. **DIEHARD**<sup>™</sup> complies with ISO 6945 method of test for abrasion resistance being less than 10% of the maximum weight loss allowed by EN 853, EN 856 and EN 857.

#### RYCO QUALITY



#### HYDRAULIC HOSE COVERS TO SUIT YOUR NEEDS

RYCO Hose styles cover a broad range of hydraulic applications. Different applications require different performance criteria. RYCO AVENGER<sup>®</sup>, DIEHARD<sup>®</sup>, SLIDER<sup>®</sup> and SURVIVOR<sup>®</sup> tube and cover compounds offer a perfect choice and are available across a range of our Hose Styles.



TECHNICAL

MULTI FLUID

RYCO QUALITY



RYCO QUALITY

HIGHLY FLEXIBLE

# THE HEAT IS ON

#### HIGH TEMPERATURE RESISTANCE / MSHA - FLAME RESISTANT

### **INVED** SURVIVOR RQP216 1" MAX WP 167 BAR / 2400 PSI MSHA FLAME RES

**RYCO QUALITY** 

**MULTI FLUID** 

#### MAXIMUM WORKING PRESSURES

Maximum Working Pressures shown below (except for **RYCO PL1, PL1D, RQP6, SR** and **SRF** Series) are Dynamic Working Pressures for use with hydraulic fluid in systems with pressure surges or variable loads and are based on 4:1 safety factor (minimum burst to maximum working pressure).

**RYCO PL1, PL1D** and **RQP6** hoses are recommended for use with **RYCO 8000 Series** Push-On Fittings in systems with Static Working Pressures only, and are not recommended for vibration or pressure surge applications. The Maximum Working Pressures for **PL1, PL1D** and **RQP6** shown below are Static Working Pressures.

Hose subjected to both maximum temperature and maximum working pressure will have a shortened lifetime.

HC	SE SI	ZE	T3000A/D/S	T3600A/D/S	T4000A/D/S	T5000A/D/S	T6000A/D/S	H3000A/D/S	H4000A/D/S	H5000/A/D/S	H6000A/D/S	T1A/D/S	TIF	T2A/D/S	a T2C	TXA2D	DF2A	E2	TJ2D	H12A/D/S	R4SHA/D	R4SPA/D	T5	D2B	MS1000	CS1000
	interi	DAJII												0,												
3	1/8	-02																								
5	3/16	-03										250	250													
6	1/4	-04	245	250	280	350	420					225	225	420	420		420	420	700				210			
8	5/16	-05	245	250	280	350	420					215	215	350	350		350	350	700				210			
10	3/8	-06	215	250	280	350	420		280	350	420	180	180	350	350		350	350		350		445	155			
12	1/2	-08	215	250	280	350	420		280	350	420	160	160	350	350	375	295	350		350		420	138		70	70
16	5/8	-10	215	250	280	350			280	350	420	130	130	250	250	350	250	250		350		380	121		70	70
19	3/4	-12	215	250	280	350			280	350	420	105	105	215	215	313	215	215		350	420	380	103		70	70
25	1	-16	215	250	280				280	350	420	90	90	175	175	225	167	175		350	380	350	55		70	70
31	1.1/4	-20						215	280	350	420	65		140	140					275	350	210	43		70	70
38	1.1/2	-24						215	280	350	420	50		100	100					255	300	185	35	100	70	70
51	2	-32						215	280	350	420	40		90	90					210	250	175	24	90	70	70
63	2.1/2	-40												70						140						
76	3	-48												70												
НС	SE SI	ZE	BT1	RQP1	RQP2	RQP5	R0P6	TW1	PW2	SR	SRF	RTH1	FB2	Σ	MP1	M2	PL1	PL1D	M2G	<b>TP7, TP7N</b>	<b>TP7T, TP7TN</b>	TP8, TP8N	TP8T, TP8TN	TP3000	TPGL	
HC DN	SE SI INCH	ZE DASH	BT1	RQP1	RQP2	RQP5	ROP6	TW1	PW2	SR	SRF	RTH1	FB2	۲ B/	Ldw R	M2	PL1	PL1D	M2G	<b>TP7, TP7N</b>	<b>TP71, TP71N</b>	TP8, TP8N	TP8T, TP8TN	TP3000	TPGL	
HC DN 3	SE SI INCH 1/8	ZE DASH -02	BT1	R0P1	R0P2	RQP5	RQP6	TW1	PW2	SR	SRF	RTH1	FB2	۲ B/	۲ س R	M2	PL1	PL1D	M2G	TP7, TP7N	<b>TP71, TP7TN</b>	TP8, TP8N	TP8T, TP8TN	TP3000	<b>191</b> 250	
HC DN 3 5	SE SI INCH 1/8 3/16	ZE DASH -02 -03	BT1	RaP1	RQP2	RaP5	RaP6	TW1	PW2	SR	SRF	RTH1	FB2	۲ B4	Ldw AR	80 M2	PL1	PL1D	M2G	<b>NLAT , LAT</b>	TP71, TP7TN	TP8, TP8N	TP8T, TP8TN	TP3000	<b>191</b> 250	
HC DN 3 5 6	SE SI INCH 1/8 3/16 1/4	ZE DASH -02 -03 -04	<b>5</b> 0	<b>LOD</b> 225	<b>K0P2</b>	<b>SGDX</b> 210	<b>9408</b> 28	TW1	<b>2Md</b>	S	SRF	<b>1HI</b> 170	FB2	<b>E</b> B4 3,5	Law R 14	<b>W</b> 88	<b>1</b> 28	28 28	<b>9</b> 2,6	<b>NLAL 'LAL</b> 210 210	<b>NILLAT, ITTT</b>	<b>TP8, TP8N</b>	<b>TP8T, TP8TN</b>	000 <b>E</b> 210	<b>191</b> 250	
HC DN 3 5 6 8	SE SI INCH 1/8 3/16 1/4 5/16	ZE DASH -02 -03 -04 -05	<b>LE</b> 50 50	<b>L</b> 225 215	<b>202</b> 400 350	<b>SGON</b> 210 210	<b>940</b> 28 28	TW1	<b>2Md</b> 400 400	SR	SRF	<b>HT</b> 170	FB2	₩ BA 3,5 3,5	14	M2 88	<b>11</b> 28 28	<b>011</b> 28 28	97W 2,6	<b>NLd1 'Ld1</b> 210 210 190	<b>NLLAI 'LLAI</b> 210 190	178, TP8N	<b>TP81, TP81</b>	210	<b>191</b> 250	
HC DN 3 5 6 8 10	SE SI INCH 1/8 3/16 1/4 5/16 3/8	ZE DASH -02 -03 -04 -05 -06	<b>LE</b> 50 50 50	<b>Lagy</b> 2225 215 180	<b>400</b> 350	<b>52</b> 210 210 155	<b>940</b> 28 28 28	1 ML 210	<b>2Md</b> 400 400 400	S	SRF	<b>1170</b>	35 35	<b>E</b> 3,5 3,5 3,5	14 14	<b>E</b> 888 799	<b>11</b> 28 28 28	28 28 28	9 <b>2</b> 2,6 2,6	<b>NLdI 'LdI</b> 210 210 190 160	<b>NLLdl 'LLdl</b> 2110 1900 1600	N8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1 8 1	N1841 '1841 350 280	210 210	<b>191</b> 250	
HC DN 3 5 6 8 10 12	SE SI INCH 1/8 3/16 1/4 5/16 3/8 1/2	ZE DASH -02 -03 -04 -05 -06 -08	<b>LE</b> 50 50 50 50	225 215 180 160	<b>202</b> 400 350 350 300	<b>S</b> <b>S</b> <b>S</b> <b>S</b> <b>S</b> <b>S</b> <b>S</b> <b>S</b> <b>S</b> <b>S</b>	<b>900</b> 28 28 28 28 28	210 210	<b>CM</b> 400 400 400	SR	SRF	<b>FER</b> 170 165 120	<b>28</b> 35 35	<b>E</b> BA 3,5 3,5 3,5	Law AR 14 14 14	<b>5</b> 888 799 700	<b>1</b> 28 28 28 28 28	<b>11</b> 28 28 28 28 28	95W 2,6 2,6 2,6	<b>LP1</b> 210 210 190 140	NLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL	<b>N841 (841</b> 3500 2880 2455	N18d1 '18d1 350 280 245	00021 2110 2110 2110	<b>19</b> 250	
HC DN 3 5 6 8 10 12 16	SE SI INCH 1/8 3/16 1/4 5/16 3/8 1/2 5/8	ZE DASH -02 -03 -04 -05 -06 -08 -08	500 500 500 500 500	<b>Lag</b> 2255 2155 1800 1300	<b>a</b> 400 350 350 300 250	<b>4</b> 210 210 155 138 121	<b>9 40</b> 28 28 28 28 28 28 28 28	<b>E</b> 210 210	<b>200</b> 400 400	SR	SRF	<b>EXAMPLE</b>	<b>8</b> 35 35 35	<b>E</b> BA 3,5 3,5 3,5	14 14 14	<b>5</b> 888 799 700	28 28 28 28 28 28 28 28 28	<b>P</b> 28 28 28 28 28 28 28 28	9 <b>5</b> 2,6 2,6	<b>NLAL 'LAL</b> 210 210 190 160 140	<b>LILLE 110</b> 210 190 160 140	<b>N841 841</b> 350 280 245	N18d1 18d1 350 280 245	0064 210 210 210	<b>191</b> 250	
HC DN 3 5 6 8 10 12 16 19	SE SI INCH 1/8 3/16 1/4 5/16 3/8 1/2 5/8 3/4	ZE DASH -02 -03 -04 -05 -06 -08 -10 -12	50 50 50 50 50 50 50 50	225 215 180 130 120	<b>č</b> 400 350 350 200 215	<b>San</b> 210 210 155 138 121 103	<b>9 402</b> 28 28 28 28 28 28 228 22 24 21	210 210	<b>C</b> 400 400	21	<b>1</b> 2 21	<b>LHZ</b> 1770 1655 1200 1055 855	<b>28</b> 355 355 355	<b>5</b> <b>8</b> <b>8</b> <b>8</b> <b>3</b> ,5 <b>3</b> ,5 <b>3</b> ,5	Lew AR 14 14 14 14 14	<b>E</b> 888 799 700 522	28 28 28 28 28 28 28 28 24 21	<b>11</b> 28 28 28 28 28 28 28 28 24 21	2,6 2,6 2,6 2,6	<b>NLAL 'LAL</b> 210 210 190 160 140 90	<b>NILLAL 'ILLA</b> 210 190 160 140	<b>N811 '81</b> 350 280 245	NL8d1 (18d1 350 280 245	0064 210 210	250	
HC DN 3 5 6 8 10 12 16 19 25	SE SI INCH 1/8 3/16 1/4 5/16 3/8 1/2 5/8 3/4 1	ZE DASH -02 -03 -04 -05 -06 -08 -10 -12 -16	50 50 50 50 50 50 50 50 50	<b>L</b> 225 215 180 160 130 120 90	<b>EXAMPLE</b> 4000 3500 3500 2500 2155 1677	210 210 155 138 121 103 55	28 28 28 28 28 24 21	210 210	<b>C</b> 400 400 400	<b>2</b> 5	<b>112</b> 11	<b>F</b> 1170 165 120 105 85 55	35 35 35	∑ BA 3,5 3,5 3,5	14 14 14 14 14 14 14 14	€¥ 888 799 700 522	28 28 28 28 28 28 24 21	28 28 28 28 28 28 24 21	2,6 2,6 2,6 2,6	<b>NLAL 'LAL</b> 2100 2100 1900 1400 900 700	210 190 140	<b>NgLL get</b> 350 280 245	<b>NI841 (1841</b> 3500 245	00021 210 210	<b>2</b> 50	
HC DN 3 5 6 8 10 12 16 19 25 31	SE SI INCH 1/8 3/16 1/4 5/16 3/8 1/2 5/8 3/4 1 1.1/4	ZE DASH -02 -03 -04 -05 -06 -08 -10 -12 -16 -20	50 50 50 50 50 50 50 50	225 215 180 160 130 90	<b>A</b> 00 350 350 250 215 167 150	<b>San Control</b> 2100 2100 1555 1388 1211 1033 555 433	<b>9402</b> 288 288 288 248 21	210 210	<b>C</b> 400 400	ec 21 17	<b>L</b> S 21 17 14	1170 1170 105 85 555	<b>35</b> 35 35	<b>5</b> BA 3,5 3,5 3,5	Law R 14 14 14 14 14 14 14	<b>E</b> 888 799 700 522	28 28 28 28 28 28 24 21	<b>2</b> 8 28 28 28 28 28 24 21	2,6 2,6 2,6 2,6	210 210 190 140 90 70	<b>NLLAL 'LLAL</b> 210 190 160 140	<b>N841 841</b> 350 280 245	N18d1 (18d1 350 280 245	000 E L 210 210	250	
HC DN 3 5 6 8 10 12 16 19 25 31 38	SE SI INCH 1/8 3/16 1/4 5/16 3/8 1/2 5/8 3/4 1 1.1/4 1.1/2	ZE DASH -02 -03 -04 -05 -06 -08 -10 -12 -16 -20 -24	50 50 50 50 50 50 50	225 215 180 160 120 90	<b>Example 2</b> <b>Example 2</b> <b>Exam</b>	210 210 155 138 121 103 55 43 35	28 28 28 28 28 24 21	210 210	<b>2</b> 400 400	<b>C</b> 21 17	<b>L</b> 21 17 14 10	1170 1165 120 105 85 55	35 35 35	<b>∑</b> BA 3,5 3,5 3,5	Lew AR 14 14 14 14 14 14 14 14	<b>₽</b> 888 799 700 522	28 28 28 28 28 28 24 21	28 28 28 28 28 24 21	2,6 2,6 2,6	<b>NLAL 'LAL</b> 2100 1900 1400 700	210 190 160	N81 81 350 280 245	N18d1 '18d1 350 280 245	210 210 210	250	
HC DN 3 5 6 8 10 12 16 19 25 31 38 51	SE SI INCH 1/8 3/16 1/4 5/16 3/8 1/2 5/8 3/4 1 1.1/4 1.1/2 2	ZE DASH -02 -03 -04 -05 -06 -08 -10 -12 -16 -20 -24 -32	50 50 50 50 50 50 50	<b>Lag</b> 225 215 180 120 90	<b>E</b> <b>E</b> <b>E</b> <b>E</b> <b>E</b> <b>E</b> <b>E</b> <b>E</b> <b>E</b> <b>E</b>	210 210 155 138 121 103 55 43 35 24	28 28 28 28 28 24 21	210 210	<b>200</b> 400 400	<b>C</b> 21 17	<b>L</b> 21 17 14 10 7	<b>FE</b> 1770 165 120 105 85 55	35 35 35	<b>E</b> BA 3,5 3,5 3,5	14 14 14 14 14 14 14	<b>₽</b> 888 799 700 522	28 28 28 28 28 24 21	28 28 28 28 28 24 21	2,6 2,6 2,6 2,6	<b>NLAL LAA</b> 210 210 190 160 140 70	210 190 160	<b>N81 84</b> 350 280 245	NI841 1841 350 280 245	210 210 210	250	
HC DN 3 5 6 8 10 12 16 19 25 31 38 51 63	SE SI INCH 1/8 3/16 1/4 5/16 3/8 1/2 5/8 3/4 1 1.1/4 1.1/2 2 2.1/2	ZE DASH -02 -03 -04 -05 -06 -08 -10 -12 -16 -20 -24 -32 -32	50 50 50 50 50 50 50	<b>L</b> 225 215 180 160 130 120 90	<b>A</b> 00 350 350 250 215 167 150 100 90	<b>Sala</b> 210 210 155 138 121 103 55 43 35 24	<b>960</b> 28 28 28 28 28 24 21	210 210	<b>C</b> 400 400	<b>e</b> 21 17 4,3	<b>Ly</b> 21 17 14 10 7	1170 1170 105 120 105 85 55	35 35 35	<b>5</b> 3,5 3,5 3,5	Law AR 14 14 14 14 14 14 14	<b>5</b> 2	28 28 28 28 28 24 21	28 28 28 28 28 28 24 21	2,6 2,6 2,6	210 210 190 160 140 70	NL/AL 1/L/AL 210 190 160 140	<b>N81 81</b> 350 280 245	N18d1 (18d1 350 280 245	00021 210 210	250	



#### SPECIFICATIONS SUMMARY

PRESS	SURE CO	ONVERS	ION CH	ART	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	

The Working Pressure of each Hose Coupling End Termination Style is shown in the Technical section. In most cases, the Working Pressure of the Hose Coupling End Termination Style that can be chosen for a particular hose exceeds the Maximum Working Pressure of the Hose.

It is possible however, to select a Hose Coupling with End Termination with lower Working Pressure than the Hose. In this case, as noted in SAE J516 and SAE J517, the rated Working Pressure of the Hose Assembly must not exceed the lower of the respective Working Pressure rated values.

#### EXAMPLE 1.

T28A Hose Assembly with T2040-0812 coupling one end and T2090-0808 coupling other end.

From above table or from page 92, Maximum Working Pressure of T28A is 350 bar.

From page 194, Maximum Working Pressure of T2040-0812 is 690 bar.

From page 192, Maximum Working Pressure of T2090-0808 is 690 bar.

The Maximum Working Pressure of the Hose Assembly is therefore 345 bar, the lowest of the respective Working Pressure rated values (in this case, the hose).

#### EXAMPLE 2.

H5016D Hose Assembly with T7130-1620 coupling one end and T7030-1621 coupling other end.

From above table or from page 83, Maximum Working Pressure of H5016D is 350 bar.

From page 228, Maximum Working Pressure of T7130-1620 is 280 bar.

From page 220, Maximum Working Pressure of T7030-1621 is 420 bar.

The Maximum Working Pressure of the Hose Assembly is therefore 280 bar, the lowest of the respective Working Pressure rated values (in this case, the T7130-1620).

See page 175 for more information.

#### **IMPULSE LIFE**

Although two or more hoses manufactured to different industry standard specifications may have identical Maximum Working Pressures, their suitability for the application must be considered. An important factor to consider is the magnitude and frequency of the pressure impulses that the hose assembly will experience.

#### **FLAME RESISTANCE**

All RYCO Hoses (except **RYCO E2, FB2, M1, MP1, PW2, TTW1, TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T, TP8TN, TP3000, RQP5, SR, SRF, T5, RTH1 & PL1** Series) meet Flame Resistant Designation "U.S. MSHA" of the U.S. Department of Labor, Mine Safety and Health Administration and also comply with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Contact RYCO Technical Department for more information.

#### **MINIMUM BEND RADIUS**

Minimum Bend Radius figures published are the radius to the cover of the Hose at the inside of the bend.

RYCO Hose Assemblies exceed the required impulse test requirements when bent to the published Minimum Bend Radius. Hose assemblies bent to smaller than the Minimum Bend Radius will have shortened lifetime.

#### **ANTI-STATIC**

"Anti-Static" refers to Hoses or Hose Assemblies being sufficiently electrically conductive to drain off static electricity. According to the requirements of AS 2660 Clause 2.2, the Hose or Hose assembly shall have an electrical resistance (measured from inside surface to outside surface) of less than 1 megohm per metre, when tested according to Method of Test AS 1180.13A. For applications requiring Anti-Static Hydraulic Hose Assemblies including, but not limited to, underground coal mines, where there is danger of ignition from static electricity discharge, only special Anti-Static Hose can be used.

RYCO DIEHARD<sup>™</sup> Hoses and COALSPRAY comply with the requirements of AS 2660 and Method of Test AS 1180.13A.

### HOSE SPECIFICATIONS SUMMARY

#### NON-CONDUCTIVE

Certain applications require that a Hose, or Hose Assembly, be Non-Conductive to prevent electrical current flow. For applications that require a Hose to be electrically Non-Conductive including, but not limited to, applications near high voltage electric lines, only special Non-Conductive Hoses can be used.

#### **SKIVE/NON-SKIVE**

Skiving refers to removing the cover at the ends of the Hose where the Hose Couplings are to be attached\*. Most RYCO combinations of Hose and Couplings are Non-Skive.

In a Non-Skive application, RYCO BITELOK couplings bite down through the cover and grip the wire reinforcement. Some combinations of RYCO Hose and Couplings require skiving. If skiving is required, it is clearly stated in both the Hose Section and the Couplings Section.

\* (For H13, H15 and H6000 with 69000N couplings, a section of the tube must also be skived. This is called Internal Skiving).

#### **OUTSIDE DIAMETERS**

See page 145 for reference chart of outside diameters.

#### SAFETY GUIDE - MAXIMUM TEMPERATURE LIMITS

Some RYCO Hose Series are not listed on page 57: T1F, TJ2D, M2G, M1, FB2, RTH1, TW1, PW2, MP1.

These Hoses are specific purpose Hoses, and their temperature limits are specified in the Hose Section of this Product Technical Manual. Contact RYCO Technical Department for any further queries.

Other RYCO Hose Series are listed on page 57. The Maximum Working Temperatures for these hoses, as listed in the Hose Section of this Product Technical Manual are for use with general purpose, mineral (petroleum) oil based hydraulic fluids, except where otherwise stated. Temperature limits for other hydraulic fluids, and some other common applications, are listed on page 57.

#### **CAUTION:**

Life expectancy of hoses is shortened at high temperatures. Detrimental effects increase when temperature is elevated, and also when; operating pressure, flow velocity, duration and frequency of exposure, and level of impurities in the media are high. Actual service life at temperatures approaching the recommended limits will depend on the particular application and the fluid being used.

Maximum Working Temperatures refer to the temperature of the media in the hose; not the environmental temperature around the outside of the hose. Please contact RYCO Technical Department for environmental temperatures in excess of 80°C (176°F), except **RQP1** and **RQP2** Series where environmental temperature is the same as media temperature.

Maximum Working Temperatures shown are for continuous temperatures. Slightly higher intermittent temperatures (up to 10% of time) may be acceptable with some hoses and some fluids, if reduced service life is acceptable. Please contact RYCO Technical Department for more information.

DO NOT expose Hose to Maximum Temperature and Maximum Working Pressure at the same time.

The fluid manufacturer's recommended maximum operating temperature for the fluid must not be exceeded. If different to the temperatures listed in the following table, the lower limit must take precedence. We recommend keeping the hose filled with the pressure medium at all times. Further information available on request.



#### SPECIFICATIONS SUMMARY

HOSE COVER	GROUP 1	GROUP 2	GROUP 3	GROUP 4	
AVENGER	T3000A, T4000A, T5000A, T6000A, T1A, T2A, DF2A	H3000A, H4000A, H5000A. H6000A, H12A, R4SPA, R4SHA			
DIEHARD	T3000D, T4000D, T5000D, T6000D, T1D, T2D, TXA2D, TJ2D, PL1D	H3000D, H4000D, H5000D. H6000D, H12D, R4SPD, R4SHD			INTRO
SLIDER	T3000S, T4000S, T5000S, T6000S, T1S, T2S	H3000S, H4000S, H5000S. H6000S, H12S			
SURVIVOR	RQP6		RQP1, RQP2, RQP5		
OTHER SERIES	SR, SRF, M2, T5, BT1, T1F, E2, PL1, DB2, T2C, CS1000, MS1000			TP7, TP7N, TP7T, TP7TN, TP8, TP8N, TP8T, TP8TN, TP3000, TPGL	HOSE
MEDIA		TEMPERAT	URE LIMITS		
GENERAL PURPOSE MINERAL (PETROLEUM) BASED HYDRAULIC OIL <sup>1</sup>	-40°C to +100°C (-40°F to +212°F) RQP6: -40° to +125°C (-40°F to +257°F)	-40°C to +121°C (-40°F to +250°F)	-40°C to +150°C (-40°F to +302°F)	-40°C to +95°C (-40°F to +203°F)	
WATER	+71°C (+160°F)	0°C to +71°C (+32°F to +160°F)	0°C to +121°C (+32°F +250°F)	0°C to +70°C (+32°F to +158°F)	
WATER IN MINERAL OIL (40% to 80% water)	+85°C (+185°F)	-40°C to +85°C (-40°F to +185°F)	-40°C +121°C (-40°F +250°F)	-40°C to +70°C (-40°F to +158°F)	
MINERAL OIL IN WATER (more than 80% water)	+85°C (+185°F)	-40°C to +85°C (-40°F to+185°F)	-40°C to +121°C (-40°F to +250°F)	-40°C to +70°C (-40°F to +158°F)	
WATER/GLYCOL	+85°C (+185°F)	-40°C to +85°C (-40°F to +185°F)	-40°C to +121°C (-40°F to +250°F)	-40°C to +70°C (-40°F to +158°F)	
GLYCOL	+85°C (+185°F)	-40°C to +85°C (-40°F to +185°F)	-40°C to+85°C (-40°F to +185°F)	-40°C to+70°C (-40°F to +158°F)	
PHOSPHATE ESTERS <sup>2</sup>	Not suitable	Not suitable	-40°C to +82°C (-40°F to +180°F) (see Note 2)	40°C to +70°C (-40°F to +158°F) (see Note 2)	
AIR <sup>3</sup>	RQP6: -40°C to +100°C (-40°F to +212°F) ***OTHERS:+71°C (+160°F)	-40°C to +71°C (-40°F to +160°F) (see Note 3)	-40°C to +121°C (-40°F to +250°F) (see Note 3)	-40°C to +71°C (-40°F to +160°F) (see Note 3)	
PETROL (GASOLINE)	Contact RYCO	Contact RYCO	Contact RYCO	Contact RYCO	
DIESEL FUEL	PL1: -40°C to +49°C (-40°F to +160°F) T5: -40°C to +71°C (-40°F to +160°F) RQP6: -40°C to +71°C (-40°F to +160°F) OTHERS: +50°C (+122°F)	-40°C to +50°C (-40°F to +122°F)	Not suitable		
ENGINE LUBRICATING OIL, GEARBOX OIL	-40°C to +100°C (-40°F to +212°F)	-40°C to +100°C (-40°F to +212°F)	-40°C to +100°C (-40°F to +212°F)	-40°C to +95°C (-40°F to +203°F)	
AUTOMATIC TRANSMISSION FLUID	-40°C to +100°C (-40°F to +212°F)	-40°C to +100°C (-40°F to +212°F)	-40°C to +100°C (-40°F to +212°F)	-40°C to +95°C (-40°F to +203°F)	

1 For highly refined and special purpose mineral based hydraulic oils (for example aviation hydraulic oils, MIL spec oils, etc), contact RYCO Technical Department.

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

For use with Air at pressures above 17,2 bar (250 psi), cover of hose must be perforated/pin-pricked (except RQP5 and T5), to allow air permeating through hose to escape without blistering the cover. Maximum working pressure of wire braid and spiral reinforced hose must be reduced by 30% (except for RQP1 and RQP2). Observe all State and Federal Safety Regulations.

TECHNICAL

# **ISOBARIC HOSE**

# 1/2 BEND RADIUS MILLION CYCLE

### **PERFORMANCE AT A GLANCE:**

#### **H SERIES ISOBARIC SPIRAL HOSE**

- Half SAE minimum bend radius.
- Highly flexible for easier routing and installation.
- Isobaric pressure from 215 bar/3100 psi (H3000) to 420 bar/6100 psi (H6000).
- Lighter weight means your hydraulic system is more compact and economical.
- 81 products in the H series Spiral range.
- Includes "World First" H6032 2" (DN51) hose.

Up to half SAE minimum bend radius for T Series Isobaric Braid Hose and H Series Isobaric Spiral Hose.

H Series Isobaric Spiral and T3000 tested to one million impulse cycles.

#### **T SERIES ISOBARIC BRAID HOSE**

- Half SAE minimum bend radius.
- Highly flexible for easier routing and installation.
- Isobaric pressure from 215 bar/3100 psi (T3000) to 420 bar/6100 psi (T6000).
- Lighter weight means your hydraulic system is more compact and economical.
- 81 products in the T series Braid hose range.
- T3000 Braid is proven to impulse test of one million cycles in all sizes.
- Meets and exceeds the performance requirements of ISO 18752 (all series).

# WHAT PRESSURE IS YOUR SYSTEM?



# HOSE ISOBARIC HOSE

#### RYCO MATCHED SYSTEM

RYCO hoses and couplings are designed and engineered to match for maximum safety, leak free performance and exceptional productivity and reliability.

#### H SERIES SPIRAL HOSE:

T7000 SERIES

**Bitelok non-skive one-piece crimp** For RYCO Hose Series: H3000 & H4000 all sizes. H5000 sizes -06 to -24. H6000 sizes -06 to -20.



T9000 SERIES Bitelok non-skive one-piece crimp For RYCO Hose Series:

H5000 size -32 only. H6000 size -24 only.



69000N SERIES Bitelok interlok internal/external skive two-piece crimp For RYCO Hose Series: H6000 sizes -12 to -32.

#### T SERIES BRAID HOSE:

**T2000 SERIES** 

For RYCO Hose Series:

T1000 SERIES Bitelok non-skive one-piece crimp For RYCO Hose Series: T3000 & T3600 all sizes.

Bitelok non-skive one-piece crimp

T3000, T3600, T4000, T5000 & T6000

#### RYCO HOSE COVERS:

all sizes.

#### H4000 RYCO AVENGER

#### AVENGER™

- Abrasion resistant
- MSHA flame resistant

#### DIEHARD™

• Extra abrasion resistant

H4000 ILYCO SLIDER

H4000 ILYCO DIEHARD

- MSHA flame resistant
- FRAS flame resistant and anti-static

- SLIDER™
- Extremely abrasion resistant
- MSHA flame resistant

#### LAYLINE IDENTIFICATION

Colour-coded system enables easy and permanent identification of hoses.

#### PRESSURE RANGE / HOSE SERIES:

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G

420 bar/6100 psi
350 bar/5100 psi
280 bar/4100 psi
250 bar/3625 psi
215 bar/3100 psi

#### COVER TYPE:

AVENGER AVENGER™

DIEHARD

SLIDER<sup>™</sup>

#### PART NUMBER:

H6000 INCO SLIDER

Incorporates information relating to RYCO hose series, nominal hose size, and cover type in a simple, concise manner.

#### SIZE:

The nominal size of the hose is displayed in three commonly used formats (example shown below in appearance of order):

- 2" (Inch Size)
- -32 (Dash Size)
- DN51 (Metric / DN Size)

#### WORKING PRESSURE:

RYCO Isobaric range of hose working pressures vary from 215 bar/3100 psi to 420 bar /6100 psi.

#### FLAME RESISTANCE:

Flame Resistance and Anti-Static (FRAS) and/or MSHA flame resistance properties of the hose are clearly stated and visible.

#### RYCO QUALITY

ISOBARIC BRAID

ADAPTORS

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FILTERS

**TECHNICAL** 

T3000A COMPACT ISOBARIC HOSE 215 BAR / 3100 PSI MILLION CYCLE



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 215 bar/3100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-BC, SAE 100R17.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid (-04 to -08 size) or two braids (-10 to -16 size) of high tensile steel wire.

#### **COVER:**

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

PART NO

Hose

T3004A

T3005A

T3006A

T3008A

T3010A

T3012A

T3016A

#### Tested to 1 million impulse cycles.

HOSE SIZE

Dash

-04

-05

-06

-08

-10

-12

-16

DN

6

8

10

12

16

19

25

T3000A - AVENGER

**COMPACT ISOBARIC HOSE** 

Constant pressure 215 bar/3100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

NOMINAL

HOSE ID

inch

1/4

5/16

3/8

1/2

5/8

3/4

1

mm

6,3

7,9

9,5

12,7

15,9

19,1

25,4

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

NOMINAL

HOSE OD

inch

0.46

0.57

0.61

0.74

0.92

1.09

1.37

mm

11,8

14,4

15,6

18,7

23,4

27,6

34,8

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

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AVERAGE

WEIGHT

kg/m lb/ft

0.11

0.15

0.18

0.24

0.38

0.52

0.77

0,16

0,23

0,26

0,36

0,56

0.78

1,14

T1000

T1000

T1000

T1000

T1000

T1000

T1000

**COUPLING SERIES** 

**ONE PIECE** 

**NON-SKIVE** 

T2000

T2000

T2000

T2000

T2000

T2000

T2000

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### COUPLINGS:

N

MINIMUM

BURST

PRESSURE

psi

14000

14000

12400

12400

12400

12400

12400

bar

980

980

860

860

860

860

860

MAXIMUM

WORKING

PRESSURE

psi

3500

3500

3100

3100

3100

3100

3100

bar

245

245

215

215

215

215

215

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

MINIMUM

BEND

RADIUS

inch

1.5

1.6

2.6

3.6

3.9

4.7

5.9

mm

38

41

65

90

100

120

150

**T1000 Series** (sizes -04 to -16) pages 177 to 187. **T2000 Series** (sizes -04 to -16) pages 188 to 208. Assembly Instructions page 498.

## HOSE **ISOBARIC BRAID**

# 3000

EXTRA ABRASION RESISTANT **FRAS COMPACT ISOBARIC HOSE** 215 BAR / 3100 PSI **MILLION CYCLE** 



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 215 bar / 3100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-BC, SAE 100R17.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid (-04 to -08 size) or two braids (-10 to -16 size) of high tensile steel wire.

#### **COVER:**

**DIEHARD™** Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

#### Tested to 1 million impulse cycles.

Constant pressure 215 bar/3100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

**DIEHARD**<sup>™</sup> complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP T1000 Series** (sizes -04 to -16) pages 177 to 187. T2000 Series (sizes -04 to -16) pages 188 to 208. Assembly Instructions page 498.

T3000D - DIEHARD COMPACT ISOBARIC HOSE		$\mathbb{I} \bigcirc$				$\bigcirc$		Ø				Ŵ				
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
T3004D	6	-04	6,3	1/4	11,8	0.46	245	3500	980	14000	38	1.5	0,16	0.11	T1000	T2000
T3005D	8	-05	7,9	5/16	14,4	0.57	245	3500	980	14000	41	1.6	0,23	0.15	T1000	T2000
T3006D	10	-06	9,5	3/8	15,6	0.61	215	3100	860	12400	65	2.6	0,26	0.18	T1000	T2000
T3008D	12	-08	12,7	1/2	18,7	0.74	215	3100	860	12400	90	3.6	0,36	0.24	T1000	T2000
T3010D	16	-10	15,9	5/8	23,4	0.92	215	3100	860	12400	100	3.9	0,56	0.38	T1000	T2000
T3012D	19	-12	19,1	3/4	27,6	1.09	215	3100	860	12400	120	4.7	0,78	0.52	T1000	T2000
T3016D	25	-16	25,4	1	34,8	1.37	215	3100	860	12400	150	5.9	1,14	0.77	T1000	T2000
Refer to the lates	Pafer to the latest RVCO Crimp Charts for crimp diameter and mark lengths															



MILLION

CYCLE

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# T3000S

EXTREMELY ABRASION RESISTANT COMPACT ISOBARIC HOSE 215 BAR / 3100 PSI MILLION CYCLE



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 215 bar/3100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-BC, SAE 100R17.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One or two braids (-10 to -16 size) of high tensile steel wire.

#### **COVER:**

**SLIDER™** Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

PART NO

Hose

T3004S

T3005S

T3006S

T3008S

T3010S

T3012S

T3016S

#### Tested to 1 million impulse cycles.

HOSE SIZE

Dash

-04

-05

-06

-08

-10

-12

-16

DN

6

8

10

12

16

19

25

T3000S - SLIDER

**COMPACT ISOBARIC HOSE** 

Constant pressure 215 bar/3100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

NOMINAL

HOSE ID

inch

1/4

5/16

3/8

1/2

5/8

3/4

1

mm

6,3

7,9

9,5

12,7

15,9

19,1

25,4

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

NOMINAL

HOSE OD

inch

0.46

0.57

0.61

0.74

0.92

1.09

1.37

mm

11,8

14,4

15,6

18,7

23,4

27,6

34,8

#### **MSHA - FLAME RESISTANCE AND ANTI-STATIC:**

**SLIDER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

T3000 RYCO SLIDER

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

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AVERAGE

WEIGHT

kg/m lb/ft

0.11

0.15

0.18

0.24

0.38

0.52

0.77

0,16

0,23

0,26

0,36

0,56

0,78

1,14

T1000

T1000

T1000

T1000

T1000

T1000

T1000

**COUPLING SERIES** 

**ONE PIECE** 

**NON-SKIVE** 

T2000

T2000

T2000

T2000

T2000

T2000

T2000

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

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MINIMUM

BURST

PRESSURE

psi

14000

14000

12400

12400

12400

12400

12400

bar

980

980

860

860

860

860

860

MAXIMUM

WORKING

PRESSURE

psi

3500

3500

3100

3100

3100

3100

3100

bar

245

245

215

215

215

215

215

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

MINIMUM

BEND

RADIUS

inch

1.5

1.6

2.6

3.6

3.9

4.7

5.9

mm

38

41

65

90

100

120

150

**T1000 Series** (sizes -04 to -16) pages 177 to 187. **T2000 Series** (sizes -04 to -16) pages 188 to 208. Assembly Instructions page 498.

CONNECTING PARTNERSHIPS	

# HOSE ISOBARIC BRAID

### T3600A COMPACT ISOBARIC HOSE 250 BAR / 3625 PSI



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 250 bar/3625 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-BC.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid (-04 to -06 size) or two braids (-08 to -16 size) of high tensile wire.

#### **COVER:**

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Extremely Flexible. Minimum Bend Radius 25% less than published SAE 100R17 Minimum Bend Radius. Tested to 500,000 cycles. Constant pressure 250 bar / 3625 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

**T1000 Series** (sizes -04 to -16) pages 177 to 187. **T2000 Series** (sizes -04 to -16) pages 188 to 208. Assembly Instructions page 498.

T3600A - AVENGER COMPACT ISOBARIC HOSE		$\mathbb{I}\bigcirc$				$\bigcirc$		Ø				Ŵ				
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM HOS	INAL E OD	MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
T3604A	6	-04	6,3	1/4	11,8	0.46	250	3625	1000	14500	38	1.5	0,16	0.11	T1000	T2000
T3605A	8	-05	7,9	5/16	14,4	0.57	250	3625	1000	14500	41	1.6	0,23	0.15	T1000	T2000
T3606A	10	-06	9,5	3/8	15,6	0.61	250	3625	1000	14500	49	1.9	0,27	0.18	T1000	T2000
T3608A	12	-08	12,7	1/2	19,9	0.78	250	3625	1000	14500	68	2.7	0,45	0.30	T1000	T2000
T3610A	16	-10	15,9	5/8	23,4	0.92	250	3625	1000	14500	75	3.0	0,61	0.41	T1000	T2000
T3612A	19	-12	19,1	3/4	27,6	1.09	250	3625	1000	14500	90	3.6	0,78	0.52	T1000	T2000
T3616A	25	-16	25,4	1	35,2	1.39	250	3625	1000	14500	113	4.4	1,30	0.87	T1000	T2000
Refer to the latest																

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

**ISOBARIC BRAID** 

T3600

# HOSE

COUPLINGS

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SSC	
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# FILTERS

TECHNICAL

T3600D EXTRA ABRASION RESISTANT

### T3600 RYCO DIEHARD

**FRAS COMPACT ISOBARIC HOSE** 250 BAR / 3625 PSI



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 250 bar / 3625 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-BC.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid (-04 to -06 size) or two braids (-08 to -16 size) of high tensile wire.

#### **COVER:**

**DIEHARD™** Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Extremely Flexible. Minimum Bend Radius 25% less than published SAE 100R17 Minimum Bend Radius. Tested to 500,000 cycles. Constant pressure 250 bar / 3625 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

**DIEHARD**<sup>™</sup> complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** T1000 Series (sizes -04 to -16) pages 177 to 187. T2000 Series (sizes -04 to -16) pages 188 to 208. Assembly Instructions page 498.

T3600D - DIEHARD COMPACT ISOBARIC HOSE		IO										Ŵ				
PART NO	HOSE	NOMINA OSE SIZE HOSE ID		INAL E ID	NOMINAL HOSE OD		WORKING PRESSURE		BURST PRESSURE		BEND RADIUS		AVERAGE WEIGHT		ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
T3604D	6	-04	6,3	1/4	11,8	0.46	250	3625	1000	14500	38	1.5	0,16	0.11	T1000	T2000
T3605D	8	-05	7,9	5/16	14,4	0.57	250	3625	1000	14500	41	1.6	0,23	0.15	T1000	T2000
T3606D	10	-06	9,5	3/8	15,6	0.61	250	3625	1000	14500	49	1.9	0,27	0.18	T1000	T2000
T3608D	12	-08	12,7	1/2	19,9	0.78	250	3625	1000	14500	68	2.7	0,45	0.30	T1000	T2000
T3610D	16	-10	15,9	5/8	23,4	0.92	250	3625	1000	14500	75	3.0	0,61	0.41	T1000	T2000
T3612D	19	-12	19,1	3/4	27,6	1.09	250	3625	1000	14500	90	3.6	0,78	0.52	T1000	T2000
T3616D	25	-16	25,4	1	35,2	1.39	250	3625	1000	14500	113	4.4	1,30	0.87	T1000	T2000
Refer to the latest RYCO Crimo Charts for crimo diameter and mark lengths																

## HOSE ISOBARIC BRAID

### T3600S EXTREMELY ABRASION RESISTANT

COMPACT ISOBARIC HOSE 250 BAR / 3625 PSI



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 250 bar/3625 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-BC, SAE 100R19.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid (-04 to -06 size) or two braids (-08 to -16 size) of high tensile wire.

#### **COVER:**

**SLIDER™** Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T1000 and T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Extremely Flexible. Minimum Bend Radius 25% less than published SAE 100R17 Minimum Bend Radius. Tested to 500,000 cycles. Constant pressure 250 bar/3625 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

#### **MSHA - FLAME RESISTANCE:**

**SLIDER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

**T1000 Series** (sizes -04 to -16) pages 177 to 187. **T2000 Series** (sizes -04 to -16) pages 188 to 208. Assembly Instructions page 498.

T3600S - SLIDER COMPACT ISOBARIC HOSE						$\bigcirc$		Ø				Ŵ						
PART NO	HOSE SIZE		NOM 10SE SIZE HOS		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE		
T3604S	6	-04	6,3	1/4	11,8	0.46	250	3625	1000	14500	38	1.5	0,16	0.11	T1000	T2000		
T3605S	8	-05	7,9	5/16	14,4	0.57	250	3625	1000	14500	41	1.6	0,23	0.15	T1000	T2000		
T3606S	10	-06	9,5	3/8	15,6	0.61	250	3625	1000	14500	49	1.9	0,27	0.18	T1000	T2000		
T3608S	12	-08	12,7	1/2	19,9	0.78	250	3625	1000	14500	68	2.7	0,45	0.30	T1000	T2000		
T3610S	16	-10	15,9	5/8	23,4	0.92	250	3625	1000	14500	75	3.0	0,61	0.41	T1000	T2000		
T3612S	19	-12	19,1	3/4	27,6	1.09	250	3625	1000	14500	90	3.6	0,78	0.52	T1000	T2000		
T3616S	25	-16	25,4	1	35,2	1.39	250	3625	1000	14500	113	4.4	1,30	0.87	T1000	T2000		

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.



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#### T4000A COMPACT ISOBARIC HOSE 280 BAR / 4100 PSI

#### T4000 RYCO AVENGER



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 280 bar/4100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-AC, SAE 100R19.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid (-04 size) or two braids (-05 to -12 size) of high tensile wire.

#### **COVER:**

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

PART NO

Hose

T4004A

T4005A

T4006A

T4008A

T4010A

T4012A

**T4000A - AVENGER** 

**COMPACT ISOBARIC HOSE** 

HOSE SIZE

Dash

-04

-05

-06

-08

-10

-12

DN

6

8

10

12

16

19

Constant pressure 280 bar/4100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

NOMINAL

HOSE ID

inch

1/4

5/16

3/8

1/2

5/8

3/4

mm

6,3

7,9

9,5

12,7

15,9

19,1

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

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NOMINAL

HOSE OD

inch

0.46

0.61

0.65

0.81

0.92

1.12

mm

11,8

15,6

16,6

20,6

23,4

28,4

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

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AVERAGE

WEIGHT

0.11

0.23

0.25

0.34

0.41

inch kg/m lb/ft

0,16

0,34

0,37

0,51

0,61

0,92 0.62

**COUPLING SERIES** 

**ONE PIECE** 

**NON-SKIVE** 

T2000

T2000

T2000

T2000

T2000

T2000

D

THIRD PARTY APPROVALS: ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

N

MINIMUM

BURST

PRESSURE

psi

16400

16400

16400

bar

4100 1120 16400

4100 1120 16400

4100 1120 16400

4100 1120

4100 1120

4100 1120

MAXIMUM

WORKING

PRESSURE

psi

bar

280

280

280

280

280

280

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

MINIMUM

BEND

RADIUS

1.97

2.17

2.56

3.55

3.94

4.73

mm

50

55

65

90

100

120

**T2000 Series** (sizes -04 to -12) pages 188 to 208. Assembly Instructions page 498.

## HOSE ISOBARIC BRAID

# T4000D

EXTRA ABRASION RESISTANT FRAS COMPACT ISOBARIC HOSE





#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 280 bar/4100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-AC, SAE 100R19.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid (-04 size) or two braids (-05 to -12 size) of high tensile wire.

#### **COVER:**

DIEHARD<sup>™</sup> Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Constant pressure 280 bar/4100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

**DIEHARD™** complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### TEMPERATURE RANGE:

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP T2000 Series** (sizes -04 to -12) pages 188 to 208. Assembly Instructions page 498.

T4000D - DIEHARD COMPACT ISOBARIC HOSE			Ĩ	$\bigcirc$	$\bigcirc$		$\bigcirc$		Ø				Ŵ			
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
T4004D	6	-04	6,3	1/4	11,8	0.46	280	4100	1120	16400	50	1.97	0,16	0.11	T2000	
T4005D	8	-05	7,9	5/16	15,6	0.61	280	4100	1120	16400	55	2.17	0,34	0.23	T2000	
T4006D	10	-06	9,5	3/8	16,6	0.65	280	4100	1120	16400	65	2.56	0,37	0.25	T2000	
T4008D	12	-08	12,7	1/2	20,6	0.81	280	4100	1120	16400	90	3.55	0,51	0.34	T2000	
T4010D	16	-10	15,9	5/8	23,4	0.92	280	4100	1120	16400	100	3.94	0,61	0.41	T2000	
T4012D	19	-12	19,1	3/4	28,4	1.12	280	4100	1120	16400	120	4.73	0,92	0.62	T2000	
Pafer to the latest RVCO Crimp Charts for crimp diameter and mark lengths																


# INTRODUCTION

**COUPLING SERIES** 

# FILTERS

# T4000S

EXTREMELY ABRASION RESISTANT COMPACT ISOBARIC HOSE 280 BAR / 4100 PSI

#### 

#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 280 bar/4100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-AC, SAE 100R19.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid (-04 size) or two braids (-05 to -12 size) of high tensile wire.

#### COVER:

**SLIDER™** Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

T4000S - SLIDER

**COMPACT ISOBARIC HOSE** 

Constant pressure 280 bar/4100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

NOMINAL

NOMINAL

#### **MSHA - FLAME RESISTANCE:**

T4000 RYCO SLIDER

**SLIDER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

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AVERAGE

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

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MINIMUM

BURST

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

MINIMUM

BEND

**T2000 Series** (sizes -04 to -12) pages 188 to 208. Assembly Instructions page 498.

PART NO	HOSE	SIZE	HOS	EID	HOS	EOD	PRES	SURE	PRES	SURE	RAL	lus	WEI	GHT	ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T4004S	6	-04	6,3	1/4	11,8	0.46	280	4100	1120	16400	50	1.97	0,16	0.11	T2000
T4005S	8	-05	7,9	5/16	15,6	0.61	280	4100	1120	16400	55	2.17	0,34	0.23	T2000
T4006S	10	-06	9,5	3/8	16,6	0.65	280	4100	1120	16400	65	2.56	0,37	0.25	T2000
T4008S	12	-08	12,7	1/2	20,6	0.81	280	4100	1120	16400	90	3.55	0,51	0.34	T2000
T4010S	16	-10	15,9	5/8	23,4	0.92	280	4100	1120	16400	100	3.94	0,61	0.41	T2000
T4012S	19	-12	19,1	3/4	28,4	1.12	280	4100	1120	16400	120	4.73	0,92	0.62	T2000
Refer to the lates	Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.														

MAXIMUM

WORKING

# HOSE ISOBARIC BRAID

# **T5000A** COMPACT ISOBARIC HOSE 350 BAR / 5100 PSI

# T5000 RYCO AVENGER



#### **RECOMMENDED FOR:**

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-AC.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### **COVER:**

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

**T2000 Series** (sizes -04 to -08) pages 188 to 208. Assembly Instructions page 498.

T5000A - A Compact iso	VENG BARIC	ER HOSE	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ĭ	ſ	Ŵ	V	ک V	
PART NO	HOSE	SIZE	NOMINA ZE HOSE II		NOM HOS	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAI	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T5004A	6	-04	6,3	1/4	13,2	0.52	350	5100	1400	20400	50	1.97	0,28	0.19	T2000
T5005A	8	-05	7,9	5/16	15,6	0.61	350	5100	1400	20400	55	2.17	0,34	0.23	T2000
T5006A	10	-06	9,5	3/8	17,1	0.67	350	5100	1400	20400	65	2.56	0,41	0.28	T2000
T5008A	12	-08	12,7	1/2	20,6	0.81	350	5100	1400	20400	90	3.55	0,57	0.38	T2000
Refer to the lates	efer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.														



# T5000D EXTRA ABRASION RESISTANT

# T5000 INCO DIEHARD

**FRAS** 

**COMPACT ISOBARIC HOSE** 350 BAR / 5100 PSI



#### **RECOMMENDED FOR:**

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-AC.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

T5000D - DIEHARD

**COMPACT ISOBARIC HOSE** 

HOSE SIZE

Two braids of high tensile steel wire.

#### **COVER:**

**DIEHARD**<sup>™</sup> Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

PART NO

Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

NOMINAL

HOSE ID

NOMINAL

HOSE OD

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

**DIEHARD**<sup>™</sup> complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

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AVERAGE

WEIGHT

**COUPLING SERIES** 

**ONE PIECE** 

D

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

MINIMUM

BEND

RADIUS

#### **COUPLINGS:**

MINIMUM

BURST

PRESSURE

**BITELOK NON-SKIVE ONE-PIECE CRIMP** T2000 Series (sizes -04 to -08) pages 188 to 208. Assembly Instructions page 498.

Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T5004D	6	-04	6,3	1/4	13,2	0.52	350	5100	1400	20400	50	1.97	0,28	0.19	T2000
T5005D	8	-05	7,9	5/16	15,6	0.61	350	5100	1400	20400	55	2.17	0,34	0.23	T2000
T5006D	10	-06	9,5	3/8	17,1	0.67	350	5100	1400	20400	65	2.56	0,41	0.28	T2000
T5008D	12	-08	12,7	1/2	20,6	0.81	350	5100	1400	20400	90	3.55	0,57	0.38	T2000
Refer to the lates	t RYCO C	rimp Cha	arts for c	rimp diar	neter an	d mark le	engths.								

MAXIMUM

WORKING

PRESSURE

# HOSE ISOBARIC BRAID

# T5000S EXTREMELY ABRASION RESISTANT

COMPACT ISOBARIC HOSE 350 BAR / 5100 PSI



#### **RECOMMENDED FOR:**

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-AC.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### **COVER:**

**SLIDER™** Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Constant pressure 350 bar/5100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

#### **MSHA - FLAME RESISTANCE:**

**SLIDER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

**T2000 Series** (sizes -04 to -08) pages 188 to 208. Assembly Instructions page 498.

T5000S - Compact ISO	SLIDE BARIC	R Hose	I	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ž	ſ	Ŵ	د ۷	ک ۷	
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM Hos	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAI	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLING SERIES
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T5004S	6	-04	6,3	1/4	13,2	0.52	350	5100	1400	20400	50	1.97	0,28	0.19	T2000
T5005S	8	-05	7,9	5/16	15,6	0.61	350	5100	1400	20400	55	2.17	0,34	0.23	T2000
T5006S	10	-06	9,5	3/8	17,1	0.67	350	5100	1400	20400	65	2.56	0,41	0.28	T2000
T5008S	12	-08	12,7	1/2	20,6	0.81	350	5100	1400	20400	90	3.55	0,57	0.38	T2000
Refer to the lates	efer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.														



FILTERS

TECHNICAL

#### T6000A COMPACT ISOBARIC HOSE 420 BAR / 6100 PSI

## T6000 RYCO AVENGER



#### **RECOMMENDED FOR:**

Extremely high pressure hydraulic oil lines. Constant pressure (Isobaric) 420 bar/6100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-AC.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### **COVER:**

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Constant pressure 420 bar/6100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T2000 Series** (sizes -04 to -06) pages 188 to 208. Assembly Instructions page 498.

T6000A - A Compact ISO	VENG BARIC	ER HOSE	Ĩ	$\bigcirc$		$\bigcirc$	Ć	$\overline{\mathbb{Q}}$	Ç	Ž	6	$\overline{\mathcal{A}}$	V	ک ۷	
PART NO	HOSE	SIZE	NOMINAL HOSE ID		NOM HOS	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI Be Rad	MUM ND NUS	AVEI WEI	RAGE GHT	COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T6004A	6	-04	6,3	1/4	13,2	0.52	420	6100	1680	24400	50	1.97	0,28	0.19	T2000
T6005A	8	-05	7,9	5/16	15,6	0.61	420	6100	1680	24400	55	2.17	0,35	0.24	T2000
T6006A	10	-06	9,5	3/8	17,6	0.69	420	6100	1680	24400	65	2.56	0,47	0.32	T2000
Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.															

# HOSE ISOBARIC BRAID

# **T6000D**

EXTRA ABRASION RESISTANT FRAS COMPACT ISOBARIC HOSE 420 BAR / 6100 PSI



#### **RECOMMENDED FOR:**

Extremely high pressure hydraulic oil lines. Constant pressure (Isobaric) 420 bar / 6100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-AC.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### **COVER:**

DIEHARD<sup>™</sup> Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Constant pressure 420 bar/6100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD<sup>™</sup> complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### TEMPERATURE RANGE:

T6000 ILYCO DIEHARD

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP T2000 Series** (sizes -04 to -06) pages 188 to 208. Assembly Instructions page 498.

T6000D - I Compact ISO	T6000D - DIEHARD COMPACT ISOBARIC HOSE		I	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ĭ	ſ	ЭĴ	د ۷	ک ۷	
PART NO	HOSE	SIZE	NOMINAL HOSE ID		NOM HOS	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI Be Rad	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T6004D	6	-04	6,3	1/4	13,2	0.52	420	6100	1680	24400	50	1.97	0,28	0.19	T2000
T6005D	8	-05	7,9	5/16	15,6	0.61	420	6100	1680	24400	55	2.17	0,35	0.24	T2000
T6006D	10	-06	9,5	3/8	17,6	0.69	420	6100	1680	24400	65	2.56	0,47	0.32	T2000
Refer to the lates	efer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.														



# **T6000S** EXTREMELY ABRASION RESISTANT

**COMPACT ISOBARIC HOSE** 420 BAR / 6100 PSI

# T6000 INTO SLIDER



#### **RECOMMENDED FOR:**

Extremely high pressure hydraulic oil lines. Constant pressure (Isobaric) 420 bar/6100 psi in all sizes. Small bend radius and compact dimensions are advantages in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 18752-AC.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### COVFR:

**SLIDER**<sup>™</sup> Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

PART NO

Hose

T6004S

T6005S

T6006S

T6000S - SLIDER

**COMPACT ISOBARIC HOSE** 

HOSE SIZE

Dash

-04

-05

-06

DN

6

8

10

Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius and compact dimensions are advantages in installations.

NOMINAL

HOSE ID

inch

1/4

5/16

3/8

mm

6,3

7,9

9,5

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

NOMINAL

HOSE OD

inch

0.52

0.61

0.69

mm

13,2

15,6

17,6

#### **MSHA - FLAME RESISTANCE:**

**SLIDER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

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AVERAGE

WEIGHT

kg/m lb/ft

0.19

0.24

0.32

0,28

0,35

0,47

**THIRD PARTY APPROVALS:** 

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

N

MINIMUM

BURST

PRESSURE

psi

24400

bar

1680

6100 1680 24400

6100 1680 24400

MAXIMUM

WORKING

PRESSURE

psi

6100

bar

420

420

420

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

MINIMUM

BEND

RADIUS

inch

1.97

2.17

2.56

mm

50

55

65

T2000 Series (sizes -04 to -06) pages 188 to 208. Assembly Instructions page 498.

COUPLINGS

D

**ONE PIECE** 

**NON-SKIVE** 

T2000

T2000

T2000

CONNECTING	PARTNERSHIPS

HOSE

# HOSE ISOBARIC SPIRAL

H3000A ISOBARIC SPIRAL HOSE 215 BAR / 3100 PSI MILLION CYCLE

# H3000 **Ryco** Avenger

#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 215 bar/3100 psi in all sizes. Small bend radius is an advantage in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type R12, EN 856 Type 4SP, ISO 18752-DC, SAE 100R12.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four alternating layers of spiralled high tensile steel wire.

#### **COVER:**

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Tested to 1 million impulse cycles at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 215 bar/3100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

#### MSHA - FLAME RESISTANCE:

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

**T7000 Series** (sizes -20 to -32) pages 217 to 233. Assembly Instructions page 498.

H3000A - A ISOBARIC SF	AVENGER PIRAL HOSE		I	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ž	ſ	ЭĴ	د ۷	۲ V	
PART NO	HOSE	SE SIZE		INAL E ID	NOM Hos	INAL E OD	MAX WOR PRES	IMUM KING SURE	MINI BU PRES	MUM RST SURE	MINI BE RAI	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLING SERIES
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H3020A	31	-20	31,8	1.1/4	45,7	1.80	215	3100	860	12400	200	7.9	2,27	1.53	T7000
H3024A	38	-24	38,1	1.1/2	50,3	1.98	215	3100	860	12400	250	9.8	2,35	1.58	T7000
H3032A	51	-32	50,8	2	63,3	2.49	215	3100	860	12400	400	15.8	3,40	2.28	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

ISOBARIC SPIRAL

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AC	

TECHNICAL

H3000D EXTRA ABRASION RESISTANT **FRAS ISOBARIC HOSE** 215 BAR / 3100 PSI **MILLION CYCLE** 



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 215 bar / 3100 psi in all sizes. Small bend radius is an advantage in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type R12, EN 856 Type 4SP, ISO 18752-DC, SAE 100R12.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four alternating layers of spiralled high tensile steel wire.

#### COVFR:

**DIEHARD™** Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Tested to 1 million impulse cycles at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 215 bar/3100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

**DIEHARD**<sup>™</sup> complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

H3000 RYCO DIEHARD

-40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** T7000 Series (sizes -20 to -32) pages 217 to 233. Assembly Instructions page 498.

H3000D - I ISOBARIC SP	DIEHAI PIRAL I	RD 10SE	Ĩ	$\bigcirc$		$\supset$	Ç		Ç	Ì	ſ.	$\searrow$	ہ ۷	² ✔	
PART NO	HOSE	SIZE	NOMINAI SIZE HOSE ID		NOM HOS	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAD	MUM ND IUS	AVEF WEI	RAGE GHT	COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H3020D	31	-20	31,8	1.1/4	45,7	1.80	215	3100	860	12400	200	7.9	2,27	1.53	T7000
H3024D	38	-24	38,1	1.1/2	50,3	1.98	215	3100	860	12400	250	9.8	2,35	1.58	T7000
H3032D	51	-32	50,8	2	63,3	2.49	215	3100	860	12400	400	15.8	3,40	2.28	T7000
Refer to the lates	efer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.														

# HOSE ISOBARIC SPIRAL

# H3000S

EXTREMELY ABRASION RESISTANT ISOBARIC SPIRAL HOSE 215 BAR / 3100 PSI MILLION CYCLE



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 215 bar/3100 psi in all sizes. Small bend radius is an advantage in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type R12, EN 856 Type 4SP, ISO 18752-DC, SAE 100R12

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four alternating layers of spiralled high tensile steel wire.

#### **COVER:**

**SLIDER™** Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Tested to 1 million impulse cycles at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 215 bar/3100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

#### **MSHA - FLAME RESISTANCE:**

H3000 INCO SLIDER

**SLIDER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

**T7000 Series** (sizes -20 to -32) pages 217 to 233. Assembly Instructions page 498.

H3000S - ISOBARIC SP	- SLIDER SPIRAL HOSE		I	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ž		ЭĴ	د ۷	<u>ک</u>	
PART NO	HOSE	SIZE	NOMIN IZE HOSE		NOM Hos	INAL E OD	MAX WOR PRES	IMUM KING SURE	MINI BU PRES	MUM RST SURE	MINI Be Rat	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLING SERIES
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H3020S	31	-20	31,8	1.1/4	45,7	1.80	215	3100	860	12400	200	7.9	2,27	1.53	T7000
H3024S	38	-24	38,1	1.1/2	50,3	1.98	215	3100	860	12400	250	9.8	2,35	1.58	T7000
H3032S	51	-32	50,8	2	63,3	2.49	215	3100	860	12400	400	15.8	3,40	2.28	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

ISOBARIC SPIRAL

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FILTERS

TECHNICAL

H4000A ISOBARIC SPIRAL HOSE 280 BAR / 4100 PSI MILLION CYCLE

## H4000 RYCO AVENGER



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 280 bar/4100 psi in all sizes. Small bend radius is an advantage in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type R12, EN 856 Type 4SP (size DN25, -16), ISO 18752-DC, SAE 100R12.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four (-06 to -24 size) and six (-32 size) alternating layers of spiralled high tensile steel wire.

#### **COVER:**

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Tested to 1 million impulse cycles at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 280 bar/4100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +121°C, -40°F to +250°F. For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS: ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T7000 Series** (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

SOBARIC SP	HOSE						MAXI		MINI BUI PRES		MINI		AVEF WFI	V RAGE GHT	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H4006A	10	-06	9,5	3/8	19,3	0.76	280	4100	1120	16400	62	2.4	0,61	0.41	T7000
H4008A	12	-08	12,7	1/2	22,7	0.89	280	4100	1120	16400	90	3.5	0,78	0.52	T7000
H4010A	16	-10	15,9	5/8	24,9	0.98	280	4100	1120	16400	100	3.9	0,76	0.51	T7000
H4012A	19	-12	19,1	3/4	30,0	1.18	280	4100	1120	16400	120	4.7	1,13	0.76	T7000
H4016A	25	-16	25,4	1	36,9	1.45	280	4100	1120	16400	150	5.9	1,60	1.08	T7000
H4020A	31	-20	31,8	1.1/4	44,0	1.73	280	4100	1120	16400	210	8.3	2,07	1.39	T7000
H4024A	38	-24	38,1	1.1/2	50,8	2.00	280	4100	1120	16400	330	13.0	2,65	1.78	T7000
H4032A	51	-32	50,8	2	66,4	2.61	280	4100	1120	16400	400	15.8	4,73	3.18	T7000

# HOSE ISOBARIC SPIRAL

# H4000D

EXTRA ABRASION RESISTANT FRAS ISOBARIC SPIRAL HOSE 280 BAR / 4100 PSI MILLION CYCLE



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 280 bar/4100 psi in all sizes. Small bend radius is an advantage in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type R12, EN 856 Type 4SP (size DN25, -16), ISO 18752-DC, SAE 100R12

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four (-06 to -24 size) and six (-32 size) alternating layers of spiralled high tensile steel wire.

#### **COVER:**

**DIEHARD™** Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 280 bar/4100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD<sup>™</sup> complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +121°C, -40°F to +250°F. For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP T7000 Series** (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

H4000D - ISOBARIC SF	DIEHA PIRAL I	RD 10se	I	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ĭ	ſ	ЭĴ	V	ک ۷	
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM HOS	INAL E OD	MAXI WOR PRES	IMUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAI	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H4006D	10	-06	9,5	3/8	19,3	0.76	280	4100	1120	16400	62	2.4	0,61	0.41	T7000
H4008D	12	-08	12,7	1/2	22,7	0.89	280	4100	1120	16400	90	3.5	0,78	0.52	T7000
H4010D	16	-10	15,9	5/8	24,9	0.98	280	4100	1120	16400	100	3.9	0,76	0.51	T7000
H4012D	19	-12	19,1	3/4	30,0	1.18	280	4100	1120	16400	120	4.7	1,13	0.76	T7000
H4016D	25	-16	25,4	1	36,9	1.45	280	4100	1120	16400	150	5.9	1,60	1.08	T7000
H4020D	31	-20	31,8	1.1/4	44,0	1.73	280	4100	1120	16400	210	8.3	2,07	1.39	T7000
H4024D	38	-24	38,1	1.1/2	50,8	2.00	280	4100	1120	16400	330	13.0	2,65	1.78	T7000
H4032D	51	-32	50,8	2	66,4	2.61	280	4100	1120	16400	400	15.8	4,73	3.18	T7000
Refer to the lates	t RYCO C	rimp Cha	arts for c	rimp diar	neter an	d mark le	enaths.								



# INTRODUCTION

# FILTERS

TECHNICAL

# H4000S

EXTREMELY ABRASION RESISTANT ISOBARIC SPIRAL HOSE 280 BAR / 4100 PSI MILLION CYCLE



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines. Constant pressure (Isobaric) 280 bar/4100 psi in all sizes. Small bend radius is an advantage in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type R12, EN 856 Type 4SP (size DN25, -16), ISO 18752-DC, SAE 100R12.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four (-06 to -24 size) and six (-32 size) alternating layers of spiralled high tensile steel wire.

#### **COVER:**

**SLIDER™** Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R12 Minimum Bend Radius. Constant pressure 280 bar/4100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

#### **MSHA - FLAME RESISTANCE:**

H4000 INTO SLIDER

**SLIDER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +121°C, -40°F to +250°F. For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS: ABS, DNV, GL, LR, MED and USCG.

#### DS, DINV, GL, LN, MED a

#### COUPLINGS:

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T7000 Series** (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

SOBARIC SP PART NO	HOSE	K 10SE SIZE	NOM HOS	) INAL E ID	NOM HOS	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAE	MUM ND DIUS	AVEF WEI	V RAGE GHT	COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
H4006S	10	-06	9,5	3/8	19,3	0.76	280	4100	1120	16400	62	2.4	0,61	0.41	T7000
H4008S	12	-08	12,7	1/2	22,7	0.89	280	4100	1120	16400	90	3.5	0,78	0.52	T7000
H4010S	16	-10	15,9	5/8	24,9	0.98	280	4100	1120	16400	100	3.9	0,76	0.51	T7000
H4012S	19	-12	19,1	3/4	30,0	1.18	280	4100	1120	16400	120	4.7	1,13	0.76	T7000
H4016S	25	-16	25,4	1	36,9	1.45	280	4100	1120	16400	150	5.9	1,60	1.08	T7000
H4020S	31	-20	31,8	1.1/4	44,0	1.73	280	4100	1120	16400	210	8.3	2,07	1.39	T7000
H4024S	38	-24	38,1	1.1/2	50,8	2.00	280	4100	1120	16400	330	13.0	2,65	1.78	T7000
H4032S	51	-32	50,8	2	66,4	2.61	280	4100	1120	16400	400	15.8	4,73	3.18	T7000

# HOSE ISOBARIC SPIRAL

### H5000A ISOBARIC SPIRAL HOSE 350 BAR / 5100 PSI MILLION CYCLE



#### **RECOMMENDED FOR:**

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar/5100 psi in all sizes. Small bend radius is an advantage in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type R13, ISO 18752-CC, SAE 100R13.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four (-06 to -20 size) and six (-24 to -32 size) alternating layers of spiralled high tensile steel wire.

#### **COVER:**

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R13 Minimum Bend Radius. Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +121°C, -40°F to +250°F. For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

BITELOK NON-SKIVE ONE-PIECE CRIMP T7000 Series (sizes -06 to -24) pages 217 to 233.

**T9000 Series** (size -32) pages 234 to 240. Assembly Instructions page 498.

H5000A - A ISOBARIC SP	VENG PIRAL I	ER 10SE	I	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ĭ	ſ	$\mathcal{Y}$	V	ک ۷		
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM HOS	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAD	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLIN One i	G SERIES PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
H5006A	10	-06	9,5	3/8	19,3	0.76	350	5100	1400	20400	62	2.4	0,61	0.41	T7000	
H5008A	12	-08	12,7	1/2	22,7	0.89	350	5100	1400	20400	90	3.5	0,78	0.52	T7000	
H5010A	16	-10	15,9	5/8	26,2	1.03	350	5100	1400	20400	100	3.9	0,98	0.66	T7000	
H5012A	19	-12	19,1	3/4	29,6	1.17	350	5100	1400	20400	120	4.7	1,21	0.81	T7000	
H5016A	25	-16	25,4	1	36,8	1.45	350	5100	1400	20400	150	5.9	1,72	1.16	T7000	
H5020A	31	-20	31,8	1.1/4	45,0	1.77	350	5100	1400	20400	210	8.3	2,42	1.63	T7000	
H5024A	38	-24	38,1	1.1/2	52,7	2.07	350	5100	1400	20400	330	13.0	3,44	2.31	T7000	
H5032A	51	-32	50,8	2	67,5	2.66	350	5100	1400	20400	400	15.8	5,40	3.63		T9000
Refer to the lates	t RYCO C	rimp Cha	arts for c	rimp diar	neter an	d mark le	engths.									

ISOBARIC SPIRAL

ADAPTORS

ACCESSORIES

# TECHNICAL

H5000D EXTRA ABRASION RESISTANT

# H5000 INCO DIEHARD

#### FRAS ISOBARIC SPIRAL HOSE 350 BAR / 5100 PSI MILLION CYCLE



#### **RECOMMENDED FOR:**

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes. Small bend radius is an advantage in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type R13, ISO 18752-CC, SAE100R13.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four (-06 to -20 size) and six (-24 to -32 size) alternating layers of spiralled high tensile steel wire.

#### COVER:

**DIEHARD™** Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

PART NO

Hose

H5006D

H5008D

H5010D

H5012D

H5016D

H5020D

H5024D

H5032D

H5000D - DIEHARD

**ISOBARIC SPIRAL HOSE** 

HOSE SIZE

Dash

-06

-08

-10

-12

-16

-20

-24

-32

DN

10

12

16

19

25

31

38

51

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R13 Minimum Bend Radius. Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

NOMINAL

HOSE ID

inch

3/8

1/2

5/8

3/4

1

1.1/4

1.1/2

2

mm

9,5

12,7

15,9

19,1

25,4

31,8

38,1

50,8

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

()

NOMINAL

HOSE OD

inch

0.76

0.89

1.03

1.17

1.45

1.77

2.07

2.66

mm

19,3

22,7

26,2

29,6

36,8

45,0

52,7

67,5

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

**DIEHARD™** complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +121°C, -40°F to +250°F. For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

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AVERAGE

WEIGHT

kg/m lb/ft

0.41

0.52

0.66

0.81

1.16 1.63

2.31

3.63

0,61

0,78

0,98

1,21

1,72

2,42

3,44

5,40

T7000

T7000

T7000

T7000

T7000

T7000

T7000

**COUPLING SERIES** 

**ONE PIECE** 

**NON-SKIVE** 

D

T9000

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

MINIMUM

BEND

RADIUS

inch

2.4

3.5

3.9

4.7

5.9

8.3

13.0

15.8

mm

62

90

100

120

150

210

330

400

#### COUPLINGS:

N

MINIMUM

BURST

PRESSURE

psi

20400

20400

20400

bar

1400

5100 1400 20400

5100 1400 20400

5100 1400 20400

5100 1400 20400

5100 1400 20400

5100 1400

5100 1400

MAXIMUM

WORKING

PRESSURE

psi

5100

bar

350

350

350

350

350

350

350

350

BITELOK NON-SKIVE ONE-PIECE CRIMP T7000 Series (sizes -06 to -24) pages 217 to 233. T9000 Series (size -32) pages 234 to 233. Assembly Instructions page 498.

# HOSE ISOBARIC SPIRAL

# H5000S

EXTREMELY ABRASION RESISTANT ISOBARIC SPIRAL HOSE 350 BAR / 5100 PSI MILLION CYCLE



#### **RECOMMENDED FOR:**

Very high pressure hydraulic oil lines. Constant pressure (Isobaric) 350 bar / 5100 psi in all sizes. Small bend radius is an advantage in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type R13, ISO 18752-CC, SAE 100R13.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four (-06 to -20 size) and six (-24 to -32 size) alternating layers of spiralled high tensile steel wire.

#### **COVER:**

**SLIDER™** Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Tested to **1 million impulse cycles** at up to 1/2 SAE 100R13 Minimum Bend Radius. Constant pressure 350 bar / 5100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

#### **MSHA - FLAME RESISTANCE:**

**SLIDER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +121°C, -40°F to +250°F. For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

**T7000 Series** (sizes -06 to -24) pages 217 to 233. **T9000 Series** (size -32) pages 234 to 240. Assembly Instructions page 498.

H5000S - ISOBARIC SP	SLIDE IRAL I	R IOSE	Ĩ	$\bigcirc$	$\mathbb{I}$	$\bigcirc$	Ç	$\bigcirc$	Ç	Ì		$\searrow$	V	ک V		
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM HOS	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI Be Rad	MUM ND NUS	AVEF WEI	RAGE GHT	COUPLIN ONE I	G SERIES PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
H5006S	10	-06	9,5	3/8	19,3	0.76	350	5100	1400	20400	62	2.4	0,61	0.41	T7000	
H5008S	12	-08	12,7	1/2	22,7	0.89	350	5100	1400	20400	90	3.5	0,78	0.52	T7000	
H5010S	16	-10	15,9	5/8	26,2	1.03	350	5100	1400	20400	100	3.9	0,98	0.66	T7000	
H5012S	19	-12	19,1	3/4	29,6	1.17	350	5100	1400	20400	120	4.7	1,21	0.81	T7000	
H5016S	25	-16	25,4	1	36,8	1.45	350	5100	1400	20400	150	5.9	1,72	1.16	T7000	
H5020S	31	-20	31,8	1.1/4	45,0	1.77	350	5100	1400	20400	210	8.3	2,42	1.63	T7000	
H5024S	38	-24	38,1	1.1/2	52,7	2.07	350	5100	1400	20400	330	13.0	3,44	2.31	T7000	
H5032S	51	-32	50,8	2	67,5	2.66	350	5100	1400	20400	400	15.8	5,40	3.63		Т9000
Refer to the lates	t RYCO C	rimp Cha	arts for c	rimp diar	neter an	d mark le	engths.									



H6000A ISOBARIC SPIRAL HOSE 420 BAR / 6100 PSI MILLION CYCLE

## H6000 **INTO** AVENGER



#### **RECOMMENDED FOR:**

Extremely high pressure hydraulic oil lines. Constant pressure (Isobaric) 420 bar/6100 psi in all sizes. Small bend radius is an advantage in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type R15, ISO 18752-CC, SAE 100R15.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four (-06 to -16 size), six (-20 to -24 size) and eight (-32 size) alternating layers of spiralled high tensile steel wire.

#### **COVER:**

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame Resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Tested to 1 million impulse cycles at up to 1/2 SAE 100R15 Minimum Bend Radius. World First: World's first 2" (-32) hose tested to 1 million impulse cycles at 400mm (15.8") Minimum Bend Radius. Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS: ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T7000 Series** (sizes -06 to -20) pages 217 to 233. **T9000 Series** (size -24) pages 234 to 240. Assembly Instructions page 498.

#### **BITELOK SKIVE TWO-PIECE CRIMP**

**69000N Series** (sizes -12 to -32) pages 245 to 251. Assembly Instructions page 504.

H6000A - A ISOBARIC SP	VENG	ER 10SE	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\mathbf{O}$	Ç	Ĭ	ſ.		V	<b>∨</b>			}
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM HOS	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI Be Rad	MUM ND NUS	AVEF WEI	RAGE GHT	COUP ONE F	LING SI PIECE	ERIES 2 PC
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE	SKIVE
H6006A	10	-06	9,5	3/8	19,3	0.76	420	6100	1680	24400	75	2.9	0,61	0.41	T7000		
H6008A	12	-08	12,7	1/2	22,7	0.89	420	6100	1680	24400	100	3.9	0,78	0.52	T7000		
H6010A	16	-10	15,9	5/8	26,2	1.03	420	6100	1680	24400	110	4.3	1,00	0.67	T7000		
H6012A	19	-12	19,1	3/4	30,6	1.20	420	6100	1680	24400	115	4.5	1,38	0.93	T7000		69000N
H6016A	25	-16	25,4	1	37,5	1.48	420	6100	1680	24400	165	6.5	1,99	1.34	T7000		69000N
H6020A	31	-20	31,8	1.1/4	46,4	1.83	420	6100	1680	24400	220	8.7	2,97	2.00	T7000		69000N
H6024A	38	-24	38,1	1.1/2	53,1	2.09	420	6100	1680	24400	350	13.8	3,81	2.56		T9000	69000N
H6032A	51	-32	50,8	2	71,5	2.81	420	6100	1680	24400	400	15.8	7,10	4.77			69000N

# HOSE ISOBARIC SPIRAL

# H6000

EXTRA ABRASION RESISTANT **FRAS ISOBARIC SPIRAL HOSE** 420 BAR / 6100 PSI **MILLION CYCLE** 



#### **RECOMMENDED FOR:**

Extremely high pressure hydraulic oil lines. Constant pressure (Isobaric) 420 bar/6100 psi in all sizes. Small bend radius is an advantage in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type R15, ISO 18752-CC, SAE 100R15.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four (-06 to -16 size), six (-20 to -24 size) and eight (-32 size) alternating layers of spiralled high tensile steel wire.

#### COVFR:

**DIEHARD™** Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Tested to 1 million impulse cycles at up to 1/2 SAE 100R15 Minimum Bend Radius. World First: World's first 2" (-32) hose tested to 1 million impulse cycles at 400mm (15.8") Minimum Bend Radius. Constant pressure 420 bar/6100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

**DIEHARD**<sup>™</sup> complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** T7000 Series (sizes -06 to -20) pages 217 to 233. T9000 Series (size -24) pages 234 to 240. Assembly Instructions page 498.

#### **BITELOK SKIVE TWO-PIECE CRIMP**

69000N Series (sizes -12 to -32) pages 245 to 251. Assembly Instructions page 504.

H6000D - I ISOBARIC SP	DIEHAI PIRAL H	RD 10SE	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ž	ſ	$\mathcal{N}$	V	? ▼	<u> </u>		<b>þ</b>
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM Hos	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BU PRES	MUM RST SURE	MINI BE RAC	MUM ND DIUS	AVEF WEI	RAGE GHT	COUP	LING SI PIECE	ERIES 2 PC
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE	SKIVE
H6006D	10	-06	9,5	3/8	19,3	0.76	420	6100	1680	24400	75	2.9	0,61	0.41	T7000		
H6008D	12	-08	12,7	1/2	22,7	0.89	420	6100	1680	24400	100	3.9	0,78	0.52	T7000		
H6010D	16	-10	15,9	5/8	26,2	1.03	420	6100	1680	24400	110	4.3	1,00	0.67	T7000		
H6012D	19	-12	19,1	3/4	30,6	1.20	420	6100	1680	24400	115	4.5	1,38	0.93	T7000		69000N
H6016D	25	-16	25,4	1	37,5	1.48	420	6100	1680	24400	165	6.5	1,99	1.34	T7000		69000N
H6020D	31	-20	31,8	1.1/4	46,4	1.83	420	6100	1680	24400	220	8.7	2,97	2.00	T7000		69000N
H6024D	38	-24	38,1	1.1/2	53,1	2.09	420	6100	1680	24400	350	13.8	3,81	2.56		T9000	69000N
H6032D	51	-32	50,8	2	71,5	2.81	420	6100	1680	24400	400	15.8	7,10	4.77			69000N
Refer to the lates		rimn Cha	orts for c	rimn diar	neter an	d mark le	onaths										



# \_\_\_\_\_

FILTERS

TECHNICAL

H6000S EXTRA ABRASION RESISTANT FRAS

#### ISOBARIC SPIRAL HOSE 420 BAR / 6100 PSI MILLION CYCLE



#### **RECOMMENDED FOR:**

Extremely high pressure hydraulic oil lines. Constant pressure (Isobaric) 420 bar/6100 psi in all sizes. Small bend radius is an advantage in installations.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: ISO 3862 Type R15, ISO 18752-CC, SAE 100R15.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four (-06 to -16 size), six (-20 to -24 size) and eight (-32 size) alternating layers of spiralled high tensile steel wire.

#### COVER:

**SLIDER™** Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 and T9000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Tested to 1 million impulse cycles at up to 1/2 SAE 100R15 Minimum Bend Radius. World First: World's first 2" (-32) hose tested to 1 million impulse cycles at 400mm (15.8") Minimum Bend Radius. Constant pressure 420 bar / 6100 psi in all sizes for easy system design and hose selection. Small bend radius is an advantage in installations.

#### **MSHA - FLAME RESISTANCE:**

H6000 RYCO SLIDER

**SLIDER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

-40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T7000 Series** (sizes -06 to -20) pages 217 to 233. **T9000 Series** (size -24) pages 234 to 240. Assembly Instructions page 498.

#### **BITELOK SKIVE TWO-PIECE CRIMP**

**69000N Series** (sizes -12 to -32) pages 245 to 251. Assembly Instructions page 504.

H6000S -	DIEHA PIRAL I	RD 10SE	Ĩ.	$\bigcirc$		$\bigcirc$	ļ (		Ç	Ŷ		$\mathcal{N}$	<u>v</u>	V			þ
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM HOS	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAD	MUM ND DIUS	AVEF WEI	RAGE GHT	COUP ONE F	LING SI PIECE	ERIE 2 P
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE	SKI
H6006S	10	-06	9,5	3/8	19,3	0.76	420	6100	1680	24400	75	2.9	0,61	0.41	T7000		
H6008S	12	-08	12,7	1/2	22,7	0.89	420	6100	1680	24400	100	3.9	0,78	0.52	T7000		
H6010S	16	-10	15,9	5/8	26,2	1.03	420	6100	1680	24400	110	4.3	1,00	0.67	T7000		
H6012S	19	-12	19,1	3/4	30,6	1.20	420	6100	1680	24400	115	4.5	1,38	0.93	T7000		6900
H6016S	25	-16	25,4	1	37,5	1.48	420	6100	1680	24400	165	6.5	1,99	1.34	T7000		6900
H6020S	31	-20	31,8	1.1/4	46,4	1.83	420	6100	1680	24400	220	8.7	2,97	2.00	T7000		6900
H6024S	38	-24	38,1	1.1/2	53,1	2.09	420	6100	1680	24400	350	13.8	3,81	2.56		T9000	6900
H6032S	51	-32	50,8	2	71,5	2.81	420	6100	1680	24400	400	15.8	7,10	4.77			6900

# HOSE BRAID



# - RYCO AVENGER T1A -



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN, ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid of high tensile steel wire.

#### COVER:

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and K000 Series Field Attachable Couplings.

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

**T2000 Series** (sizes -03 to -32) pages 188 to 208. **T7000 Series** (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -03 to -16) pages 276 to 290. K000 Series ferrule (sizes -03 to -16) page 276. Assembly Instructions page 496.

T1A - A NON-SK	VENGE	ER DSE	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ĭ	ſ	У)	V	ک ۷			
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAI	MUM ND DIUS	AVEF WEI	RAGE GHT	CO ONE I	UPLIN PIECE	G SERIES
Hose	DN	Dash	mm	inch	mm	inch	bar	nsi	bar	nsi	mm	inch	ka/m	lb/ft		NON-	SKIVE
T13A	5	-03	4,8	3/16	11,7	0.46	250	3600	1000	14500	35	1.4	0,19	0.13	T2000	Non	6000 (K000)
T14A	6	-04	6,3	1/4	, 13,3	0.52	225	3250	900	13000	38	1.5	0,22	0.15	T2000		6000 (K000)
T15A	8	-05	7,9	5/16	14,9	0.59	215	3100	860	12400	50	2.0	0,25	0.17	T2000		
T16A	10	-06	9,5	3/8	17,3	0.68	180	2600	720	10400	50	2.0	0,31	0.21	T2000	T7000	6000 (K000)
T18A	12	-08	12,7	1/2	20,3	0.80	160	2300	640	9200	75	3.0	0,39	0.26	T2000	T7000	6000 (K000)
T110A	16	-10	15,9	5/8	23,6	0.93	130	1900	520	7600	89	3.5	0,49	0.33	T2000	T7000	6000 (K000)
T112A	19	-12	19,1	3/4	27,6	1.09	105	1500	420	6000	109	4.3	0,62	0.42	T2000	T7000	6000 (K000)
T116A	25	-16	25,4	1	35,5	1.40	90	1300	360	5200	140	5.5	0,90	0.60	T2000	T7000	6000 (K000)
T120A	31	-20	31,8	1.1/4	43,2	1.70	65	945	260	3780	419	16.5	1,21	0.81	T2000	T7000	
T124A	38	-24	38,1	1.1/2	50,2	1.98	50	725	200	2900	500	19.7	1,45	0.97	T2000	T7000	
T132A	51	-32	50,8	2	63,6	2.50	40	580	160	2320	600	23.6	2,09	1.40	T2000	T7000	

\* When using A000 Series Field Attachable Couplings on T1A Series Hose, cover of hose must be skived at ends.

\*\* Tighter Minimum Bend Radius up to 1" does not apply when used with T7000 Series Couplings – refer to standard SAE Bend Radius with T7000 Series. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

#### RYCO QUALITY



ACCESSORIES

FILTERS

*FECHNICAL* 



## **RYCO** DIEHARD T1D



#### **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.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN, ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid of high tensile steel wire.

#### COVER:

DIEHARD<sup>™</sup> Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and K000 Series Field Attachable Couplings.

#### **FEATURES:**

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, result in increased service life and minimise equipment downtime.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

**DIEHARD™** complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T2000 Series (sizes -03 to -32) pages 188 to 208. T7000 Series (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE

**6000 Series** insert (sizes -03 to -16) pages 276 to 290. **K000 Series** ferrule (sizes -03 to -16) page 276. Assembly Instructions page 496.

T1D - D Non-sk	DIEHAR IVE HO	RD DSE	Ĩ	$\bigcirc$		$\bigcirc$	Ç		Ç	Ì			V	V			
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM Hos	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAD	MUM ND DIUS	AVER WEI	RAGE GHT	CO One f	UPLIN PIECE	G SERIES FIELD ATT
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	ka/m	lb/ft		NON-	SKIVE
T13D	5	-03	4,8	3/16	11,7	0.46	250	3600	1000	14500	35	1.4	0,19	0.13	T2000		6000 (K000)
T14D	6	-04	6,3	1/4	13,3	0.52	225	3250	900	13000	38	1.5	0,22	0.15	T2000		6000 (K000)
T15D	8	-05	7,9	5/16	14,9	0.59	215	3100	860	12400	50	2.0	0,25	0.17	T2000		
T16D	10	-06	9,5	3/8	17,3	0.68	180	2600	720	10400	50	2.0	0,31	0.21	T2000	T7000	6000 (K000)
T18D	12	-08	12,7	1/2	20,3	0.80	160	2300	640	9200	75	3.0	0,39	0.26	T2000	T7000	6000 (K000)
T110D	16	-10	15,9	5/8	23,6	0.93	130	1900	520	7600	89	3.5	0,49	0.33	T2000	T7000	6000 (K000)
T112D	19	-12	19,1	3/4	27,6	1.09	105	1500	420	6000	109	4.3	0,62	0.42	T2000	T7000	6000 (K000)
T116D	25	-16	25,4	1	35,5	1.40	90	1300	360	5200	140	5.5	0,90	0.60	T2000	T7000	6000 (K000)
T120D	31	-20	31,8	1.1/4	43,2	1.70	65	945	260	3780	419	16.5	1,21	0.81	T2000	T7000	
T124D	38	-24	38,1	1.1/2	50,2	1.98	50	725	200	2900	500	19.7	1,45	0.97	T2000	T7000	
T132D	51	-32	50,8	2	63,6	2.50	40	580	160	2320	600	23.6	2,09	1.40	T2000	T7000	

\* When using A000 Series Field Attachable Couplings on T1D Series Hose, cover of hose must be skived at ends.

\*\* Tighter Minimum Bend Radius up to 1" does not apply when used with T7000 Series Couplings – refer to standard SAE Bend Radius with T7000 Series. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

HIGHER TECHNOLOGY EQUALS GREATER PERFORMANCE

#### 89

# HOSE BRAID

# T1S EXTREMELY ABRASION RESISTANT ONE WIRE BRAID HOSE

### RYCO SLIDER T1S



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN, ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid of high tensile steel wire.

#### COVER:

**SLIDER™** Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings.

#### **MSHA - FLAME RESISTANCE:**

**SLIDER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

**T2000 Series** (sizes -03 to -32) pages 188 to 208. **T7000 Series** (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

T1S - NON-SK	SLIDE	R DSE	I	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ì	ſ	Y	د ۷	<u>ک</u>		
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAE	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLIN ONE F	G SERIES PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
T13S	5	-03	4,8	3/16	11,7	0.46	250	3600	1000	14500	35	1.4	0,19	0.13	T2000	
T14S	6	-04	6,3	1/4	13,3	0.52	225	3250	900	13000	38	1.5	0,22	0.15	T2000	
T15S	8	-05	7,9	5/16	14,9	0.59	215	3100	860	12400	50	2.0	0,25	0.17	T2000	
T16S	10	-06	9,5	3/8	17,3	0.68	180	2600	720	10400	50	2.0	0,31	0.21	T2000	T7000
T18S	12	-08	12,7	1/2	20,3	0.80	160	2300	640	9200	75	3.0	0,39	0.26	T2000	T7000
T110S	16	-10	15,9	5/8	23,6	0.93	130	1900	520	7600	89	3.5	0,49	0.33	T2000	T7000
T112S	19	-12	19,1	3/4	27,6	1.09	105	1500	420	6000	109	4.3	0,62	0.42	T2000	T7000
T116S	25	-16	25,4	1	35,5	1.40	90	1300	360	5200	140	5.5	0,90	0.60	T2000	T7000
T120S	31	-20	31,8	1.1/4	43,2	1.70	65	945	260	3780	419	16.5	1,21	0.81	T2000	T7000
T124S	38	-24	38,1	1.1/2	50,2	1.98	50	725	200	2900	500	19.7	1,45	0.97	T2000	T7000
T132S	51	-32	50,8	2	63,6	2.50	40	580	160	2320	600	23.6	2,09	1.40	T2000	T7000

\* Tighter Minimum Bend Radius up to 1" does not apply when used with T7000 Series Couplings – refer to standard SAE Bend Radius with T7000 Series. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

#### RYCO QUALITY



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## **RYCO** T1F FIRE SUPPRESSION

#### **RECOMMENDED FOR:**

Use in Fire Suppression Systems of off-road vehicles, mining equipment, stationary engines, etc. The hose is coloured red, for easy identification as part of the Fire Suppression System.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN, ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

#### TUBE:

Black, oil resistant synthetic rubber. Resistant to aqueous film forming foam, dry chemical powder, carbon dioxide, and water based fire extinguishing agents.

#### **REINFORCEMENT:**

One braid of high tensile steel wire.

#### **COVER:**

Red, heat resistant, abrasion resistant and oil resistant rubber. Flame Resistant to Australian Standard AS 2660 and U.S. MSHA requirements. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and K000 Series Field Attachable Couplings.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

**THIRD PARTY APPROVALS:** MED.

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

T2000 Series (sizes -03 to -16) pages 188 to 208. **T7000 Series** (sizes -06 to -16) pages 217 to 233. Assembly Instructions page 498.

#### **FIELD ATTACHABLE NON-SKIVE**

6000 Series insert (sizes -03 to -16) pages 276 to 290. K000 Series ferrule (sizes -03 to -16) page 276. Assembly Instructions page 496.

T1F – FIRE S NON-SK	SUPPRE (IVE HO	SSION SE	I	$\bigcirc$	][(	$\bigcirc$	Ç	2	Ç	Ý		$\mathbb{Z}$	Í Í	V			
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM HOS	INAL E OD	MAX WOR PRES	IMUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAI	MUM ND DIUS	AVER WEI	RAGE GHT	CO One	UPLIN PIECE	G SERIES
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft		NON-	SKIVE
T13F	5	-03	4,8	3/16	11,7	0.46	250	3600	1000	14500	89	3.5	0,19	0.13	T2000		6000 (K00
T14F	6	-04	6,3	1/4	13,3	0.52	225	3250	900	13000	100	3.9	0,22	0.15	T2000		6000 (K000
T15F	8	-05	7,9	5/16	14,9	0.59	215	3100	860	12400	114	4.5	0,25	0.17	T2000		
T16F	10	-06	9,5	3/8	17,3	0.68	180	2600	720	10400	127	5.0	0,31	0.21	T2000	T7000	6000 (K000
T18F	12	-08	12,7	1/2	20,3	0.80	160	2300	640	9200	178	7.0	0,39	0.26	T2000	T7000	6000 (K000
T110F	16	-10	15,9	5/8	23,6	0.93	130	1900	520	7600	200	7.9	0,49	0.33	T2000	T7000	6000 (K000
T112F	19	-12	19,1	3/4	27,6	1.09	105	1500	420	6000	240	9.5	0,62	0.41	T2000	T7000	6000 (K000
T116F	25	-16	25,4	1	35,5	1.40	90	1300	360	5200	300	11.8	0,90	0.60	T2000	T7000	6000 (K000

# HOSE BRAID



# **RYCO** AVENGER T2A =



#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: SAE 100R2AT, AS 3791 100R2AT, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Types R2AT & 2SN.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### COVER:

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings.

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

BITELOK NON-SKIVE ONE-PIECE CRIMP

**T2000 Series** (sizes -04 to -48) pages 188 to 208. **T7000 Series** (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -04 to -20) pages 276 to 290. L000 Series ferrule (sizes -04 to -20) page 276. Assembly Instructions page 496.

T2A - A NON-SK	T2A - AVENGER NON-SKIVE HOSE		Ĩ	$\bigcirc$			$\bigcirc$		Ç	Ĭ		$\mathcal{N}$	V	ک ۷			
PART NO	NO HOSE SIZE HOSE ID		INAL E ID	NOMINAL HOSE OD		MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAD	MUM ND DIUS	AVEF WEI	RAGE GHT	CO One f	UPLIN PIECE	G SERIES FIELD ATT	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft		NON-	SKIVE
T24A	6	-04	6,3	1/4	14,9	0.59	420	6100	1680	24400	100	3.9	0,35	0.24	T2000		6000 (L000)
T25A	8	-05	7,9	5/16	16,5	0.65	350	5100	1400	20400	114	4.5	0,42	0.28	T2000		
T26A	10	-06	9,5	3/8	18,9	0.74	350	5100	1400	20400	127	5.0	0,51	0.34	T2000	T7000	6000 (L000)
T28A	12	-08	12,7	1/2	21,9	0.86	350	5100	1400	20400	178	7.0	0,65	0.44	T2000	T7000	6000 (L000)
T210A	16	-10	15,9	5/8	25,1	0.99	250	3600	1000	14400	200	7.9	0,75	0.50	T2000	T7000	6000 (L000)
T212A	19	-12	19,1	3/4	29,1	1.15	215	3100	860	12400	240	9.5	0,93	0.62	T2000	T7000	6000 (L000)
T216A	25	-16	25,4	1	37,5	1.48	175	2500	700	10000	300	11.8	1,30	0.87	T2000	T7000	6000 (L000)
T220A	31	-20	31,8	1.1/4	47,6	1.87	140	2000	560	8000	419	16.5	1,97	1.33	T2000	T7000	6000 (L000)
T224A	38	-24	38,1	1.1/2	54,1	2.13	100	1450	400	5800	500	19.7	2,48	1.67	T2000	T7000	
T232A	51	-32	50,8	2	66,8	2.63	90	1300	360	5200	600	23.6	3,02	2.03	T2000	T7000	
T240A	63	-40	63,5	2.1/2	80,1	3.15	70	1000	280	4000	760	29.9	3,70	2.49	T2000		
T248A	76	-48	76,2	3	91,3	3.59	70	1000	280	4000	900	35.4	3,99	2.68	T2000		

\* When using B000 Series Field Attachable Couplings on T2A Series Hose, cover of hose must be skived at ends. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.





### **RYCO** DIEHARD T2D =



#### **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.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, DIN 20022 - 2SN, EN 853 Type 2SN, ISO 1436 Types R2AT & 2SN, SAE 100R2AT.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### **COVER:**

DIEHARD<sup>™</sup> Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings.

#### **FEATURES:**

PART NO

Hose

T24D

T25D

T26D

T28D

T210D

T212D

T216D

T220D

T224D

T232D

T240D

T248D

T2D - DIEHARD

**NON-SKIVE HOSE** 

HOSE SIZE

Dash

-04

-05

-06

-08

-10

-12

-16

-20

-24

-32

-40

-48

DN

6

8

10

12

16

19

25

31

38

51

63

76

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 result in, increased service life and minimise equipment downtime.

NOMINAL

HOSE ID

inch

1/4

5/16

3/8

1/2

5/8

3/4

1

1.1/4

1.1/2

2

2.1/2

3

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

mm

6,3

7,9

9,5

12,7

15,9

19.1

25,4

31,8

38,1

50,8

63,5

76,2

NOMINAL

HOSE OD

inch

0.59

0.65

0.74

0.86

0.99

1.15

1.48

1.87

2.13

2.63

3.15

3.59

When using B000 Series Field Attachable Couplings on T2D Series Hose, cover of hose must be skived at ends.

mm

14,9

16,5

18,9

21,9

25,1

29,1

37,5

47,6

54,1

66.8

80,1

91,3

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

**DIEHARD™** complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T2000 Series (sizes -04 to -48) pages 188 to 208. T7000 Series (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE

MINIMUM

BEND

RADIUS

inch

3.9

4.5

5.0

7.0

7.9

9.5

11.8

16.5

19.7

23.6

29.9

35.4

mm

100

114

127

178

200

240

300

419

500

600

760

900

**6000 Series** insert (sizes -04 to -20) pages 276 to 290. **L000 Series** ferrule (sizes -04 to -20) page 276. Assembly Instructions page 496.

W

AVERAGE

WEIGHT

kg/m lb/ft

0.24

0.28

0.34

0.44

0.50

0.62

0.87

1.33

1.67

2.03

2.49

2.68

T2000

0,35

0,42

0,51

0,65

0,75

0,93

1,30

1,97

2,48

3,02

3,70

3,99

	_
. (	-

6000 (L000)

6000 (L000)

6000 (L000)

6000 (L000)

6000 (L000)

6000 (L000)

**COUPLING SERIES** 

ONE PIECE FIELD ATT

**NON-SKIVE** 

T2000 T7000 6000 (L000)

T7000

T7000

T7000

T7000

T7000

T7000

T7000

FILTERS

TECHNICAI

MAXIMUM

WORKING

PRESSURE

psi

6100

5100

3600

3100

2500

2000

1450

1300

1000

1000

5100 1400

5100 1400

bar

420

350

350

350

250

215

175

140

100

90

70

70

MINIMUM

BURST

PRESSURE

psi

24400

20400

20400

20400

14400

12400

10000

8000

5800

5200

4000

4000

bar

1680

1400

1000

860

700

560

400

360

280

280

COUPLINGS

ADAPTORS

# HOSE BRAID



### **RYCO** SLIDER T2S



#### **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.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Type 2AT, SAE 100R2AT.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### **COVER:**

**SLIDER™** Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings.

#### **MSHA - FLAME RESISTANCE:**

**SLIDER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

**T2000 Series** (sizes -04 to -32) pages 188 to 208. **T7000 Series** (sizes -05 to -32) pages 217 to 233. Assembly Instructions page 498.

T2S - NON-SK	SLIDE	R )SE	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ĭ			ہ ۷	<u>۷</u>		
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM Hos	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAD	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLIN ONE I	G SERIES PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
T24S	6	-04	6,3	1/4	14,9	0.59	420	6100	1680	24400	100	3.9	0,35	0.24	T2000	
T25S	8	-05	7,9	5/16	16,5	0.65	350	5100	1400	20400	114	4.5	0,42	0.28	T2000	T7000
T26S	10	-06	9,5	3/8	18,9	0.74	350	5100	1400	20400	127	5.0	0,51	0.34	T2000	T7000
T28S	12	-08	12,7	1/2	21,9	0.86	350	5100	1400	20400	178	7.0	0,65	0.44	T2000	T7000
T210S	16	-10	15,9	5/8	25,1	0.99	250	3600	1000	14400	200	7.9	0,75	0.50	T2000	T7000
T212S	19	-12	19,1	3/4	29,1	1.15	215	3100	860	12400	240	9.5	0,93	0.62	T2000	T7000
T216S	25	-16	25,4	1	37,5	1.48	175	2500	700	10000	300	11.8	1,30	0.87	T2000	T7000
T220S	31	-20	31,8	1.1/4	47,6	1.87	140	2000	560	8000	419	16.5	1,97	1.33	T2000	T7000
T224S	38	-24	38,1	1.1/2	54,1	2.13	100	1450	400	5800	500	19.7	2,48	1.67	T2000	T7000
T232S	51	-32	50,8	2	66,8	2.63	90	1300	360	5200	600	23.6	3,02	2.03	T2000	T7000
Refer to the la	atest RYC	O Crimp	Charts fo	or crimp d	liameter	and mark	lengths.									



# **2**C LOW TEMPERATURE HOSE

#### **ILYCO** ICEBREAKER T2C == = =

# HOSE

#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines in applications where low temperature environmental conditions exist.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Types R2AT & 2SN, SAE 100R2AT.

#### **TUBE:**

Black, specially formulated oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### **COVER:**

Black, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings.

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#### **FEATURES:**

T2C LOW

Low Temperature hose (-50°C/-58°F).

#### **TEMPERATURE RANGE:**

From -50°C to +100°C (-58°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

T2000 Series (sizes -04 to -32) pages 188 to 208. T7000 Series (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

	IOKEI	IUSE		9	<u>+</u> >	9		3	2	2	U '	- U		•		
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BU PRES	MUM RST SURE	MINI Be Rac	MUM ND )IUS	AVEF WEI	RAGE GHT	COUPLIN ONE I	G SERIES
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
T24C	6	-04	6,3	1/4	15,0	0.59	420	6100	1680	24400	100	4.0	0,38	0.26	T2000	
T25C	8	-05	7,9	5/16	16,6	0.65	350	5100	1400	20400	114	4.5	0,46	0.31	T2000	
T26C	10	-06	9,5	3/8	19,0	0.75	350	5100	1400	20400	127	5.0	0,56	0.38	T2000	T7000
T28C	12	-08	12,7	1/2	22,2	0.87	350	5100	1400	20400	178	7.0	0,65	0.44	T2000	T7000
T210C	16	-10	15,9	5/8	25,2	0.99	250	3600	1000	14400	200	8.0	0.80	0.54	T2000	T7000
T212C	19	-12	19,0	3/4	29,1	1.15	215	3100	860	12400	240	9.5	0,94	0.63	T2000	T7000
T216C	25	-16	25,4	1	37,2	1.46	175	2500	700	10000	300	12.0	1,31	0.88	T2000	T7000
T220C	31	-20	31,8	1.1/4	47,4	1.87	140	2000	560	8000	419	16.5	1,91	1.28	T2000	T7000
T224C	38	-24	38,1	1.1/2	53,8	2.12	100	1450	400	5800	500	20.0	2,14	1.44	T2000	T7000
T232C	51	-32	50,8	2	66,7	2.63	90	1300	360	5200	600	24.0	2,78	1.87	T2000	T7000

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

# HOSE BRAID

#### TXA2D EXTRA ABRASION RESISTANT EXTRA HIGH PRESSURE FRAS TWO WIRE BRAID HOSE

# **RYCO** DIEHARD TXA2D :



#### **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. Ideal for high pressure use that requires a smaller outside diameter (except -20 size), lighter weight, and more flexibility than spiral hose.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, BCS 174, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Types R2AT & 2SN, SAE 100R2AT.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### **COVER:**

DIEHARD<sup>™</sup> Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings.

#### **FEATURES:**

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, result in increased service life and minimise equipment downtime.

#### FLAME RESISTANCE:

Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

BITELOK NON-SKIVE ONE-PIECE CRIMP T2000 Series (sizes -08 to -16) pages 188 to 208. T7000 Series (sizes -08 to -16) pages 217 to 233.

Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE

**6000 Series** insert (sizes -08 to -16) pages 276 to 290. **L000 Series** ferrule (sizes -08 to -16) page 276. Assembly Instructions page 496.

TXA2D – AGGR NON-SK PART NO	DIEHA ESSOF IVE HO	EHARD SOR E HOSE NOMINAL OSE SIZE HOSE ID			MAXIMUM NOMINAL HOSE OD PRESSURE		MINI BUI PRES	MINIMUM MI BURST I PRESSURE R			AVERAGE WEIGHT		COUPLING SERIES				
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft		NON-	SKIVE
TXA28D	12	-08	12,7	1/2	22,0	0.87	375	5440	1500	21760	178	7.0	0,72	0.48	T2000	T7000	6000 (L000)
TXA210D	16	-10	15,9	5/8	25,2	0.99	350	5100	1400	20400	200	8.0	0,87	0.58	T2000	T7000	6000 (L000)
TXA212D	19	-12	19,1	3/4	29,1	1.15	313	4530	1252	18120	240	9.5	1,11	0.75	T2000	T7000	6000 (L000)
TXA216D	25	-16	25,4	1	37,7	1.48	225	3250	900	13000	300	12.0	1,50	1.01	T2000	T7000	6000 (L000)

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





# **RYCO** AVENGER DINFLEX DF2A :



#### **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 two wire braid hoses.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, EN 857 Type 2SC, ISO 1436, SAE 100R2AT, SAE 100R16.

#### TURE

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

DF2A - DINFLEX

**NON-SKIVE HOSE** 

HOSE SIZE

Dash

-04

-05

-06

-08

-10

-12

-16

DN

6

8

10

12

16

19

25

PART NO

Hose

DF24A

DF25A

DF26A

DF28A

**DF210A** 

**DF212A** 

**DF216A** 

Two braids of high tensile steel wire.

#### **COVER:**

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. No skiving required with T2000 Series BITELOK Crimp Couplings.

NOMINAL

HOSE ID

inch

1/4

5/16

3/8

1/2

5/8

3/4

1

mm

6,3

7,9

9,5

12,7

15,9

19,1

25,4

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

 $\bigcirc$ 

NOMINAL

HOSE OD

inch

0.53

0.59

0.68

0.80

0.93

1.09

1.40

mm

13,4

14,9

17,3

20,3

23,6

27,6

35,5

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

Ŵ

AVERAGE

WEIGHT

kg/m lb/ft

0.19

0.27

0.29

0.34

0.42

0.55

0.74

0,28

0,41

0,51

0,63

0,81

1,10

0,43

**THIRD PARTY APPROVALS:** ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

N

MINIMUM

BURST

PRESSURE

psi

24000

20400

20400

17000

14500

12400

9700

bar

1680

1000

860

668

5100 1400

5100 1400

4250 1180

MAXIMUM

WORKING

PRESSURE

psi

6100

3600

3100

2400

bar

420

350

350

295

250

215

167

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

MINIMUM

BEND

RADIUS

inch

2.0

2.2

2.5

3.5

4.0

4.7

6.0

mm

50

56

63

88

101

120

152

T2000 Series (sizes -04 to -16) pages 188 to 208. Assembly Instructions page 498.

JPLING SERIES	
ONE PIECE	

COUPLING

**NON-SKIVE** 

T2000

T2000

T2000

T2000

T2000

T2000

T2000

ACCESSORIES

TECHNICAI

HOSE

COUPLINGS

ADAPTORS

# HOSE BRAID

TI2D **ABRASION RESISTANT FRAS JACK HOSE** 

## RYCO DIEHARD TJ2D =

#### **RECOMMENDED FOR:**

Hydraulic Jack applications requiring a light weight, small outside diameter hose. The very high abrasion resistant properties of the DIEHARD cover extend the life of the hose when it is subjected to the abrasion that may cause the premature failure of standard hoses.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: Materials Handling Institute specification IJ 100 (July 1979) for hydraulic hose and assemblies used with jacking systems.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### **COVER:**

DIEHARD<sup>™</sup> Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T2000 Series **BITELOK Crimp Couplings.** 

#### **FRAS - FLAME RESISTANCE AND ANTI-STATIC:**

**DIEHARD**<sup>™</sup> complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +49°C (-40°F to +120°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Specification IJ 100 (July 1979) is based on 2:1 minimum burst to maximum working pressure safety factor. RYCO TJ2D Series hose has a 2.5:1 safety factor and is suitable for 700 bar/10,000 psi use in hydraulic jack applications ONLY.

#### **COUPLINGS:**

## **BITELOK NON-SKIVE ONE-PIECE CRIMP**

T2000 Series (sizes -04 & -06) pages 188 to 208.

TJ2D – D JACK I	J2D – DIEHARD JACK HOSE		I(	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ì	ſ	$\searrow$	V	ک ۷		
PART NO	PART NO HOSE SIZE		NOM HOS	INAL E ID	NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		BURST PRESSURE		BEND		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
TJ24D	6	-04	6,3	1/4	14.9	0.59	700	10000	1750	25000	100	3.9	0.35	0.24	T2000	
TJ26D	10	-06	9,5	3/8	18.9	0.74	700	10000	1750	25000	127	5.0	0.51	0.34	T2000	

NOTE: Ensure rated Working Pressure of chosen End Style meets or exceeds the 700 bar/10,000 psi Maximum Working Pressure of TJ2D hose. For hydraulic jack applications, RYCO recommends the use of 3/8" NPTF Male Extended Couplings.

TJ24D: Part No. T209E-0406 BITELOK One-Piece Crimp. Use of RYCO 750 Spring Guards at each end of the hose assembly is also recommended. TJ26D: Part No. T209E-0606 BITELOK One-Piece Crimp. Use of a Bend Restrictor device at each end of the hose assembly is also recommended. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

NTRODUCTION

HOSE

COUPLINGS

ADAPTORS

## JACK HOSE ASSEMBLIES

For ease of ordering, Hose Assemblies can be specified using TJ24 and TJ26 numbers below, followed by overall length in millimetres. For example, to order a TJ24D Hose Assembly, 1800 mm 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 1000 mm, 2000 mm and 3000 mm. Other lengths are available.

٦	ACK HOSE ASSEMBLIES (H	OSE ENDS INCLUDE RYCO 750 SPRING GUARD**)
HOSE ASSEMBLY No.	HOSE END 1	HOSE END 2
TJ2401-xxxx* TJ2601-xxxx*	3/8" NPTF Male	3/8″ NPTF Male
TJ2402-xxxx* TJ2602-xxxx*	3/8" NPTF Male	R100-06M Male Tip
TJ2403-xxxx* TJ2603-xxxx*	3/8" NPTF Male	R100-06M Male Tip and R100-06DC Dust Cap
TJ2404-xxxx* TJ2604-xxxx*	3/8″ NPTF Male	R100-06FM Male and Female Coupling
TJ2405-xxxx* TJ2605-xxxx*	3/8" NPTF Male	R100-06FMPC Male and Female Coupling with Dust Cap and Dust Plug

\* Substitute xxxx for overall length (mm)

\*\* RYCO 750 Spring Guard is only available to suit TJ24D hose assemblies.



#### TJ2402 shown

#### R100 SERIES QUICK RELEASE COUPLINGS, 700 BAR/10,000 PSI, THREAD-TO-CONNECT.



	1	Ć	$\bigcirc$						
NOMINAL SIZE	NPTF THREAD	MAX WOR PRES	IMUM KING SURE	FEMALE BODY	MALE TIP	COMPLETE Coupling	DUST PLUG For Male	DUST PLUG FOR FEMALE	ſ
inch	inch	bar	psi			PART NO			
1/4	1/4	700	10000	R100-04F	R100-04M	R100-04FM	R100-06DP	R100-06DC	
3/8	3/8	700	10000	R100-06F	R100-06M	R100-06FM	R100-06DP	R100-06DC	

See page [XX] for further information on RYCO R100 Series Couplings.

FILTERS

# HOSE BRAID



# INCO ENERGY E2 ====

#### **RECOMMENDED FOR:**

High pressure hydraulic oil lines.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN853 2SN, SAE 100R2AT, SAE 100R2S.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### **COVER:**

Black, oil resistant synthetic rubber. No skiving required with T2000 &T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings.

#### **TEMPERATURE RANGE:**

From  $-40^{\circ}$ C to  $+100^{\circ}$ C ( $-40^{\circ}$ F to  $+212^{\circ}$ F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T2000 Series** (sizes -04 to -16) pages 188 to 208. **T7000 Series** (sizes -06 to -16) pages 217 to 233. Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE

6000 Series insert (sizes -04 to -16) pages 276 to 290. L000 Series ferrule (sizes -04 to -16) page 276. Assembly Instructions page 496.

E2 – ENE	RGY H	OSE	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\mathbf{O}$	Ç	Ŷ		<i>S</i>	V	ک V			
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM HOS	INAL E OD	MAX WOR PRES	IMUM KING SURE	MINI BU PRES	MUM RST SURE	MINI BE RAD	MUM ND DIUS	AVEF WEI	RAGE GHT	CO One i	UPLIN PIECE	G SERIES FIELD ATT
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft		NON-	SKIVE
E24	6	-04	6,3	1/4	14,9	0.59	420	6100	1680	24400	100	3.9	0,35	0.24	T2000		6000 (L000)
E25	8	-05	7,9	5/16	16,5	0.65	350	5100	1400	20400	114	4.5	0,42	0.28	T2000		
E26	10	-06	9,5	3/8	18,9	0.74	350	5100	1400	20400	127	5.0	0,51	0.34	T2000	T7000	6000 (L000)
E28	12	-08	12,7	1/2	21,9	0.86	350	5100	1400	20400	178	7.0	0,65	0.44	T2000	T7000	6000 (L000)
E210	16	-10	15,9	5/8	25,1	0.99	250	3625	1000	14500	200	7.9	0,75	0.50	T2000	T7000	6000 (L000)
E212	19	-12	19,1	3/4	29,1	1.15	215	3100	860	12400	240	9.5	0,93	0.62	T2000	T7000	6000 (L000)
E216	25	-16	25,4	1	37,5	1.48	175	2500	700	10000	300	11.8	1,30	0.87	T2000	T7000	6000 (L000)
			Chauta														

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.



NTRODUCTION

HOSE

COUPLINGS

ADAPTORS



# **RYCO** AVENGER H12A



#### **RECOMMENDED FOR:**

Very high pressure hydraulic oil lines. The extra high working pressures and excellent impulse life when tested to SAE 100R12 test conditions result in, increased service life and minimise equipment downtime.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R12, EN 856 Type R12, EN 856 Type 4SP (-12 and above), ISO 3862 Type R12, SAE 100R12.

#### **TUBF:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

H12A - AVENGER

**SPIRAL HOSE** 

HOSE SIZE

Dash

-06

-08

-10

-12

-16

-20

-24

-32

DN

10

12

16

19

25

31

38

51

PART NO

Hose

H1206A

H1208A

H1210A

H1212A

H1216A

H1220A

H1224A

H1232A

Four alternating layers of spiralled high tensile steel wire.

#### **COVER:**

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

NOMINAL

HOSE ID

inch

3/8

1/2

5/8

3/4

1

1.1/4

1.1/2

2

mm

9,5

12,7

15,9

19,1

25,4

31,8

38,1

50,8

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

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NOMINAL

HOSE OD

inch

0.76

0.89

1.03

1.18

1.47

1.80

2.09

2.60

mm

19,3

22,7

26,2

30,0

37,4

45,7

53,0

66,0

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

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AVERAGE

WEIGHT

kg/m lb/ft

0.41

0.52

0.66

0.81

1.24

1.57

2.04

2.84

0,61

0,78

0,98

1,21

1,84

2,34

3,04

4,23

**THIRD PARTY APPROVALS:** ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

N

MINIMUM

BURST

PRESSURE

psi

20400

20400

20400

16000

14800

12400

bar

1400

5100 1400 20400

5100 1400 20400

840

5100 1400

5100 1400

4000 1100

3700 1020

3050

MAXIMUM

WORKING

PRESSURE

psi

5100

bar

350

350

350

350

350

275

255

210

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

MINIMUM

BEND

RADIUS

inch

5.0

7.0

7.9

9.5

11.8

15.8

19.7

23.6

mm

127

178

200

240

300

400

500

600

T7000 Series (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

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**COUPLING SERIES** 

**ONE PIECE** 

**NON-SKIVE** 

T7000

T7000

T7000

T7000

T7000

T7000 T7000

T7000

101

# HOSE SPIRAL

### H12D EXTRA ABRASION RESISTANT VERY HIGH PRESSURE FRAS MULTI-SPIRAL HOSE



#### **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.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R12, EN 856 Type R12, EN 856 Type 4SP (-12 and above), ISO 3862 Type R12, SAE 100R12.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four alternating layers of spiralled high tensile steel wire.

#### **COVER:**

DIEHARD<sup>™</sup> Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

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, result in increased service life and minimise equipment downtime.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD<sup>™</sup> complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP T7000 Series** (sizes -06 to -40) pages 217 to 233. Assembly Instructions page 498.

H12D - DIEHARD SPIRAL HOSE			IO				$\bigcirc$		Ø				Ŵ			
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
H1206D	10	-06	9,5	3/8	19,3	0.76	350	5100	1400	20400	127	5.0	0,61	0.41	T7000	
H1208D	12	-08	12,7	1/2	22,7	0.89	350	5100	1400	20400	178	7.0	0,78	0.52	T7000	
H1210D	16	-10	15,9	5/8	26,2	1.03	350	5100	1400	20400	200	7.9	0,98	0.66	T7000	
H1212D	19	-12	19,1	3/4	30,0	1.18	350	5100	1400	20400	240	9.5	1,21	0.81	T7000	
H1216D	25	-16	25,4	1	37,4	1.47	350	5100	1400	20400	300	11.8	1,84	1.24	T7000	
H1220D	31	-20	31,8	1.1/4	45,7	1.80	275	4000	1100	16000	400	15.8	2,34	1.57	T7000	
H1224D	38	-24	38,1	1.1/2	53,0	2.09	255	3700	1020	14800	500	19.7	3,04	2.04	T7000	
H1232D	51	-32	50,8	2	66,0	2.60	210	3050	840	12400	600	23.6	4,23	2.84	T7000	
H1240D	63	-40	63,5	2.1/2	82,6	3.25	140	2000	560	8000	650	25.6	5,20	3.49	T7000	

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.



NTRODUCTION

HOSE

COUPLINGS

### H12S EXTREMELY ABRASION RESISTANT VERY HIGH PRESSURE MULTI-SPIRAL HOSE

# **RYCO** SLIDER H12S



#### **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.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R12, EN 856 Type R12, EN 856 Type 4SP (-12 and above), ISO 3862 Type R12, SAE 100R12.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four alternating layers of spiralled high tensile steel wire.

#### COVER:

**SLIDER™** Black, oil and extremely abrasion resistant synthetic rubber sheathed with a layer of extremely abrasion resistant polyethylene. Flame Resistant, MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

PART NO

Hose

H1206S

H1208S

H1210S

H1212S

H1216S

H1220S

H1224S

H1232S

H12S - SLIDER

**SPIRAL HOSE** 

HOSE SIZE

Dash

-06

-08

-10

-12

-16

-20

-24

-32

DN

10

12

16

19

25

31

38

51

The extremely 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, result in increased service life and minimise equipment downtime.

NOMINAL

HOSE ID

inch

3/8

1/2

5/8

3/4

1

1.1/4

1.1/2

2

mm

9,5

12,7

15,9

19,1

25,4

31,8

38,1

50,8

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

NOMINAL

HOSE OD

inch

0.76

0.89

1.03

1.18

1.47

1.80

2.09

2.60

mm

19,3

22,7

26,2

30,0

37,4

45,7

53,0

66,0

#### **MSHA - FLAME RESISTANCE:**

**SLIDER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +121°C (-40°F to +250°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

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AVERAGE

WEIGHT

kg/m lb/ft

0.41

0.52

0.66

0.81

1.24

1.57

2.04

2.84

0,61

0,78

0,98

1,21

1,84

2,34

3,04

4,23

**COUPLING SERIES** 

**ONE PIECE** 

**NON-SKIVE** 

T7000

T7000

T7000

T7000

T7000

T7000 T7000

T7000

D

THIRD PARTY APPROVALS: ABS, DNV, GL, LR, MED and USCG.

.B3, DINV, GL, LR, MED and

#### COUPLINGS:

N

MINIMUM

BURST

PRESSURE

psi

20400

20400

20400

20400

20400

16000

14800

12400

bar

1400

5100 1400

5100 1400

5100 1400

5100 1400

4000 1100

3700 1020

840

3050

MAXIMUM

WORKING

PRESSURE

psi

5100

bar

350

350

350

350

350

275

255

210

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

MINIMUM

BEND

RADIUS

inch

5.0

7.0

7.9

9.5

11.8

15.8

19.7

23.6

mm

127

178

200

240

300

400

500

600

**T7000 Series** (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

CONNECTING	PARINERSHIPS

# HOSE SPIRAL

# **R4SHA** EXTRA HIGH PRESSURE FOUR SPIRAL HOSE

# - RYCO AVENGER R4SHA



#### **RECOMMENDED FOR:**

Extra high pressure hydraulic oil lines.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type 4SH, ISO 3862 Type 4SH.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four alternating layers of spiralled high tensile steel wire.

#### COVER:

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 & T9000 Series BITELOK Crimp Couplings.

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

**T7000 Series** (-20 to -32) pages 217 to 233. **T9000 Series** (-12 to -16) pages 234 to 240. Assembly Instructions page 498.

R4SHA - AVENGER SPIRAL HOSE						$\bigcirc$ (		$\bigcirc$	Ø				Ŵ			
PART NO	HOSE SIZE		NOMINAL HOSE ID		M/ NOMINAL W HOSE OD PR		MAX WOR PRES	MAXIMUM M WORKING PRESSURE P		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		RAGE GHT	COUPLING SERIES	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
R4SH12A	19	-12	19,1	3/4	31,8	1.25	420	6100	1680	24400	280	11.0	1,47	0.99		T9000
R4SH16A	25	-16	25,4	1	37,9	1.49	380	5500	1520	22000	340	13.4	1,97	1.32		T9000
R4SH20A	31	-20	31,8	1.1/4	44,4	1.75	350	5100	1400	20400	460	18.1	2,44	1.64	T7000	
R4SH24A	38	-24	38,1	1.1/2	52,4	2.06	300	4350	1200	17400	560	22.1	3,13	2.10	T7000	
R4SH32A	51	-32	50,8	2	66,8	2.63	250	3625	1000	14500	700	27.6	4,51	3.03	T7000	

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.


### **R4SHD** EXTRA HIGH PRESSURE FOUR SPIRAL HOSE

## INCO DIEHARD R4SHD



#### **RECOMMENDED FOR:**

Extra high pressure hydraulic oil lines.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type 4SH, ISO 3862 Type 4SH.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four alternating layers of spiralled high tensile steel wire.

#### **COVER:**

**DIEHARD™** Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T7000 & T9000 Series BITELOK Crimp Couplings.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD<sup>™</sup> complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### COUPLINGS:

**BITELOK NON-SKIVE ONE-PIECE CRIMP T7000 Series** (-20 to -32) pages 217 to 233. **T9000 Series** (-12 to -16) pages 234 to 240. Assembly Instructions page 498.

R4SHD - D Spiral	R4SHD - DIEHARD SPIRAL HOSE		IO			$\bigcirc$	Ç	$\mathbf{O}$	Ç	Ĭ	6	$\searrow$	ہ ۷	ک ۷		
PART NO	RT NO HOSE SIZE		NOMINAL HOSE ID		NOM Hos	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI Be Rad	MUM ND NUS	AVEF WEI	RAGE GHT	COUPLIN ONE F	G SERIES PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
R4SH12D	19	-12	19,1	3/4	31,8	1.25	420	6100	1680	24400	280	11.0	1,47	0.99		Т9000
R4SH16D	25	-16	25,4	1	37,9	1.49	380	5500	1520	22000	340	13.4	1,97	1.32		Т9000
R4SH20D	31	-20	31,8	1.1/4	44,4	1.75	350	5100	1400	20400	460	18.1	2,44	1.64	T7000	
R4SH24D	38	-24	38,1	1.1/2	52,4	2.06	300	4350	1200	17400	560	22.1	3,13	2.10	T7000	
R4SH32D	51	-32	50,8	2	66,8	2.63	250	3625	1000	14500	700	27.6	4,51	3.03	T7000	

## HOSE SPIRAL

## **R4SPA** EXTRA HIGH PRESSURE FOUR SPIRAL HOSE

## - INYCO AVENGER R4SPA -----



#### **RECOMMENDED FOR:**

Extra high pressure hydraulic oil lines.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type 4SP, ISO 3862 Type 4SP.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four alternating layers of spiralled high tensile steel wire.

#### COVER:

**AVENGER™** Black, oil and abrasion resistant synthetic rubber. Flame resistant & MSHA compliant. Highly visible layline branding for easy and permanent identification. Skiving required with T7000 Series BITELOK Crimp Couplings.

#### **MSHA - FLAME RESISTANCE:**

**AVENGER™** complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

BITELOK SKIVE ONE-PIECE CRIMP

**T7000 Series** (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 499.

R4SPA - A SPIRAL	SPA – AVENGER SPIRAL HOSE		IO			$\bigcirc$	Ç	$\bigcirc$	Ç	Ĭ	ſ	$\mathcal{N}$	V	V		
PART NO	HOSE	SIZE	NOMINAL HOSE ID		NOM HOS	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAI	MUM ND DIUS	AVEI WEI	RAGE GHT	COUPLIN ONE I	G SERIES PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	SK	IVE
R4SP06A	10	-06	9,5	3/8	20,9	0.82	445	6450	1780	25800	180	7.1	0,71	0.48	T7000	
R4SP08A	12	-08	12,7	1/2	24,3	0.96	420	6100	1680	24400	230	9.1	0,86	0.58	T7000	
R4SP10A	16	-10	15,9	5/8	27,8	1.09	380	5500	1520	22000	250	9.9	1,10	0.74	T7000	
R4SP12A	19	-12	19,1	3/4	31,8	1.25	380	5500	1520	22000	300	11.8	1,47	0.99	T7000	
R4SP16A	25	-16	25,4	1	38,6	1.52	350	5100	1400	20400	340	13.4	1,95	1.31	T7000	



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### **R4SPD** EXTRA HIGH PRESSURE FOUR SPIRAL HOSE

## **IVCO** DIEHARD R4SPD



#### **RECOMMENDED FOR:**

Extra high pressure hydraulic oil lines.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: EN 856 Type 4SP, ISO 3862 Type 4SP.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Four alternating layers of spiralled high tensile steel wire.

#### **COVER:**

**DIEHARD™** Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. Skiving required with T7000 Series BITELOK Crimp Couplings.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

DIEHARD<sup>™</sup> complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### COUPLINGS:

BITELOK SKIVE ONE-PIECE CRIMP T7000 Series (sizes -06 to -16) pages 217 to 233. Assembly Instructions page 499.

R4SPD - DIEHARD SPIRAL HOSE		<b>ND</b>	$\square$			$\bigcirc$	Ć	$\mathbf{O}$	Ç	Ì	6	Ŵ	V	ک ۷	
PART NO	10 HOSE SIZE		NOMINAL HOSE ID		NOM HOS	INAL E OD	WOR PRES	KING SURE	BU PRES	MUM RST SURE	MINI BE RAD	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLING SERIES
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	SKIVE
R4SP06D	10	-06	9,5	3/8	20,9	0.82	445	6450	1780	25800	180	7.1	0,71	0.48	T7000
R4SP08D	12	-08	12,7	1/2	24,3	0.96	420	6100	1680	24400	230	9.1	0,86	0.58	T7000
R4SP10D	16	-10	15,9	5/8	27,8	1.09	380	5500	1520	22000	250	9.9	1,10	0.74	T7000
R4SP12D	19	-12	19,1	3/4	31,8	1.25	380	5500	1520	22000	300	11.8	1,47	0.99	T7000
R4SP16D	25	-16	25,4	1	38,6	1.52	350	5100	1400	20400	340	13.4	1,95	1.31	T7000

## HOSE SPECIALTY AND HIGH TEMPERATURE



#### - RYCO T5 TRUCKER



Medium to high pressure hydraulic oil 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, lubrication oil and transmission oil coolers. 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". T5 may be used with compressed air if maximum working pressure 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. See page 145 for more information.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R5, SAE 100R5, SAE J1402 Type All (up to -12 size).

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

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

#### COVER:

Black polyester braid. Skiving of cover is not required.

#### **MSHA - FLAME RESISTANCE:**

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration and Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B when used with FS1072 Fire Sleeve.

#### **TEMPERATURE RANGE:**

From  $-40^{\circ}$ C to  $+100^{\circ}$ C ( $-40^{\circ}$ F to  $+212^{\circ}$ F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

USCG - Hydraulic Systems, DoT

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP T4000 Series** (sizes -04 to -20) pages 209 to 216. Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE

**V000 Series** (sizes -04 to -32) pages 262 to 275. Assembly Instructions page 496.

T5 - TR POLYE COVER	UCKE STER HOSE	R	Ĩ	$\bigcirc$		$\bigcirc$	C MAX		( MINI	<u>)</u> МШМ	MINI		MINI		)	(Hg	V	<b>V</b>		
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOMINAL HOSE OD		WOR	KING SURE	BU PRES	RST	BEN SAE1	ID R 00R5	BEN	ID R 1402	VAC RAT	UUM 'ING	AVEF WEI	RAGE GHT	ONE PC	FIELD
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	mm	inch	inHg	mmHg	kg/m	lb/ft	NON-	SKIVE
T54	5	-04	4,8	3/16	13,2	0.52	210	3050	840	12200	75	3.0	51	2.0	710	28	0,23	0.15	T4000	V000
T55	6	-05	6,4	1/4	14,8	0.58	210	3050	840	12200	85	3.3	64	2.5	710	28	0,26	0.17	T4000	V000
T56	8	-06	7,9	5/16	17,2	0.68	155	2250	620	9000	100	4.0	76	3.0	710	28	0,30	0.20	T4000	V000
T58	10	-08	10,3	13/32	19,4	0.76	138	2000	552	8000	117	4.6	89	3.5	710	28	0,36	0.24	T4000	V000
T510	12	-10	12,7	1/2	23,4	0.92	121	1750	484	7000	140	5.5	102	4.0	710	28	0,53	0.36	T4000	V000
T512	16	-12	15,9	5/8	27,4	1.08	103	1500	414	6000	165	6.5	114	4.5	710	28	0,65	0.44	T4000	V000
T516	22	-16	22,2	7/8	31,4	1.24	55	800	221	3200	187	7.4			510	20	0,63	0.42	T4000	V000
T520	28	-20	31,0	1.1/8	38,1	1.50	43	625	172	2500	229	9.0			510	20	0,90	0.60	T4000	V000
T524	35	-24	32,0	1.3/8	44,5	1.75	35	500	140	2000	267	10.5			380	15	1,00	0.67		V000
T532	46	-32	45,0	1.13/16	56,3	2.22	24	350	98	1400	337	13.3			280	11	1,48	0.99		V000

\*IMPORTANT NOTE: MAXIMUM 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.

## SPECIALTY AND HIGH TEMPERATURE

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	ACCESSORIES

#### **RECOMMENDED FOR:**

HIGH TEMPERATURE DRILL RIG HOSE

D2B

DRILLER

Hydraulic oil or air lines. Drill rigs - high pressure, large bore air hose.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### **COVER:**

Perforated blue, oil and abrasion resistant synthetic rubber. No skiving required with T7000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Flame resistant cover. Smaller bend radius.

#### **MSHA - FLAME RESISTANCE:**

Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

Air: -40°C to + 121°C (-40°F to +250°F) Oil: -40°C to + 135C (-40°F to +275°F) For water, emulsions etc. see page 57.

**RYCO** DRILLER

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### COUPLINGS:

**BITELOK NON-SKIVE ONE-PIECE CRIMP T7000 Series** (sizes -24 to -32) pages 217 to 233. Assembly Instructions page 498.

D2B - DRIL	LER H	OSE	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ĭ		N	م ۷	ک ۷	
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS	INAL E OD	MAXIMUM WORKING PRESSURE		MINI BU PRES	MUM RST SURE	MINI BE RAD	MUM ND NUS	AVEF WEI	RAGE GHT	COUPLING SERIE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
D224B	38	-24	38,1	1.1/2	48,0	1.89	100	1450	400	5800	250	10	1,49	1.00	T7000
D232B	51	-32	50,8	2	62,0	2.44	90	1300	360	5200	300	12	2,24	1.50	T7000

## HOSE SPECIAL TY AND HIGH TEMPERATURE



#### **RECOMMENDED FOR:**

Water and air spray suited for dust control in all industrial and mining applications.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid of high tensile steel wire.

#### **COVER:**

Yellow, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T4000 Series BITELOK Crimp Couplings.

#### **MSHA - FLAME RESISTANCE:**

Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T2000 Series** (sizes -12 to -32) pages 188 to 208. T4000 Series (sizes -20 to -32) pages 209 to 216. Assembly Instructions page 498.

CS10 MINESPR	CS1000 - MINESPRAY HOSE					$\bigcirc$	Ç		Ç	Ž	ſ	$\mathcal{N}$	V	ک V		
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM HOS	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BU PRES	MUM RST SURE	MINI BE RAD	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLIN One i	G SERIES PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
MS1008	12	-08	12,7	1/2	18,5	0.73	70	1000	280	4000	90	3.6	0,29	0.19	T2000	
MS1010	16	-10	15,9	5/8	22,1	0.87	70	1000	280	4000	100	3.9	0,35	0.24	T2000	
MS1012	19	-12	19,1	3/4	25,8	1.02	70	1000	280	4000	120	4.7	0,40	0.27	T2000	
MS1016	25	-16	25,4	1	32,5	1.28	70	1000	280	4000	150	5.9	0,62	0.42	T2000	
MS1020	31	-20	31,8	1.1/4	39,5	1.56	70	1000	280	4000	210	8.3	0,75	0.50	T2000	T4000
MS1024	38	-24	38,1	1.1/2	46,0	1.81	70	1000	280	4000	250	9.9	1,00	0.67	T2000	T4000
MS1032	51	-32	50,8	2	59,1	2.33	70	1000	280	4000	300	11.8	1,42	0.95	T2000	T4000
Refer to the lates	t RYCO C	rimp Cha	arts for c	rimp diar	neter an	d mark le	naths									



# INTRODUCTION

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## TECHNICAL

## CS1000 COALSPRAY

### ITYCO COALSPRAY CS1000

#### **RECOMMENDED FOR:**

Water and air spray suited for dust control in all industrial and mining applications.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid of high tensile steel wire.

#### **COVER:**

Yellow, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T4000 Series BITELOK Crimp Couplings.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

Complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T2000 Series** (sizes -12 to -32) pages 188 to 208. **T4000 Series** (sizes -20 to -32) pages 209 to 216. Assembly Instructions page 498.

CS10 COALSPR	CS1000 - OALSPRAY HOSE		$\square$			)	Ç	$\bigcirc$	Ç	Ì			V	V		
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOM HOS	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAD	MUM ND IUS	AVEF WEI	RAGE GHT	COUPLIN One i	G SERIES PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
CS1008	12	-08	12,7	1/2	18,5	0.73	70	1000	280	4000	90	3.6	0,29	0.19	T2000	
CS1010	16	-10	15,9	5/8	22,1	0.87	70	1000	280	4000	100	3.9	0,35	0.24	T2000	
CS1012	19	-12	19,1	3/4	25,8	1.02	70	1000	280	4000	120	4.7	0,40	0.27	T2000	
CS1016	25	-16	25,4	1	32,5	1.28	70	1000	280	4000	150	5.9	0,62	0.42	T2000	
CS1020	31	-20	31,8	1.1/4	39,5	1.56	70	1000	280	4000	210	8.3	0,75	0.50	T2000	T4000
CS1024	38	-24	38,1	1.1/2	46,0	1.81	70	1000	280	4000	250	9.9	1,00	0.67	T2000	T4000
CS1032	51	-32	50,8	2	59,1	2.33	70	1000	280	4000	300	11.8	1,42	0.95	T2000	T4000

## HOSE SPECIALTY AND HIGH TEMPERATURE



#### **RECOMMENDED FOR:**

**ONE WIRE BRAID HOSE** 

Transportation, marine fuel and engine hose applications. Low pressure hydraulic oil return lines, general purpose water, glycol antifreeze solutions, biodiesel, diesel fuel, ethanol, gasoline/petrol or air.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: SAE J1527 Type Class I, USCG SAE J1942, SAE J30R2 (non-marine). Meets SAE J30R2 performance requirements for non-marine applications and SAE J1527 Type Class I and USCG SAEJ1942 for marine applications.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid of high tensile steel wire.

#### **COVER:**

Blue, oil resistant and abrasion resistant synthetic rubber.

#### **MSHA - FLAME RESISTANCE:**

Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **TEMPERATURE RANGE:**

	TEM	P°C
MEDIA	MIN	ΜΑΧ
Petroleum based hydraulic fluids	- 40	+135
Water, water/oil emulsion and water/glycol hydraulic fluids	—	80
Engine oil, lubricating oils	-40	121
Air	—	121
Diesel, JP8	-20	100
Biodiesel	- 40	100
Gasoline/petrol	-20	80
Ethanol blends (15% max.ethanol)	-20	80

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T2000 Series** (sizes -04 to -16) pages 188 to 208. Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE

**6000 Series** insert (sizes -04 to -16) pages 276 to 290. **K000 Series** ferrule (sizes -04 to -16) page 276. Assembly Instructions page 496.

BT1 - BIOTR	T1 – BIOTRANS HOSE					$\bigcirc$	Ç	$\mathbf{O}$	Ç	Ž	ſ	ЭĴ	V	V		
PART NO	HOSE	SIZE	NOMINAL HOSE ID		NOM Hos	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BU PRES	MUM RST SURE	MINI BE RAD	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPL ONE PC	ING SERIES FIELD ATT
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NOI	N-SKIVE
BT14	6	-04	6,3	1/4	13,3	0.52	50	725	200	2900	25	1.0	0,22	0.15	T2000	6000 (K000)
BT15	8	-05	7,9	5/16	14,9	0.59	50	725	200	2900	30	1.2	0,25	0.17	T2000	
BT16	10	-06	9,5	3/8	17,3	0.68	50	725	200	2900	35	1.4	0,31	0.21	T2000	6000 (K000)
BT18	12	-08	12,7	1/2	20,3	0.80	50	725	200	2900	55	2.2	0,39	0.26	T2000	6000 (K000)
BT110	16	-10	15,9	5/8	23,6	0.93	50	725	200	2900	70	2.8	0,49	0.33	T2000	6000 (K000)
BT112	19	-12	19,1	3/4	27,6	1.09	50	725	200	2900	82	3.2	0,62	0.41	T2000	6000 (K000)
BT116	25	-16	25,4	1	35,5	1.40	50	725	200	2900	105	4.1	0,90	0.60	T2000	6000 (K000)

# BIOTRANS TRANSPORTING OUR FUTURE

WIDE RANGE OF FLUIDS

/ MULTI PURPOSE HOSE

## ■ INCO BIOTRANS ( //// BT16 3/8" -06

MSHA

## HOSE SPECIALTY AND HIGH TEMPERATURE



#### **RECOMMENDED FOR:**

High pressure hydraulic oil applications where pressure or temperature requirements exceed the performance requirements of SAE 100R1AT and DIN 20022-1SN, or where resistance to phosphate ester\*\* fluid is required. May be used with compressed air if cover of hose is perforated (pin-pricked) and additional Safety Devices are used.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R1AT, DIN 20022-1SN, EN 853 Type 1SN, ISO 1436 Types R1AT & 1SN, SAE 100R1AT.

#### TUBE:

Black, synthetic rubber, specifically compounded for temperature resistance and multi fluid resistance.

#### **REINFORCEMENT:**

One braid of high tensile steel wire.

#### **COVER:**

Blue, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and K000 Series Field Attachable Couplings\*.

#### **MSHA - FLAME RESISTANCE:**

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration. Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B.

#### **TEMPERATURE RANGE:**

From -40°C to +150°C (-40°F to +302°F). For water, water/oil emulsions, diesel fuels, glycol, air, and some phosphate esters\*\* see page 57.

\*\*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:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

BITELOK NON-SKIVE ONE-PIECE CRIMP T2000 Series (sizes -04 to -16) pages 188 to 208. T7000 Series (sizes -06 to -16) pages 217 to 233.

Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE\*

6000 Series insert (sizes -04 to -16) pages 276 to 290. K000 Series ferrule (sizes -04 to -16) page 276. Assembly Instructions page 496.

RQP1 - S NON-SK	SURVIN	/OR )SE	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ž		$\mathcal{Y}$	V	V			
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM HOS	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BU PRES	MUM RST SURE	MINI BE RAD	MUM ND DIUS	AVEF WEI	RAGE GHT	CO One i	UPLIN PIECE	G SERIES FIELD ATT
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft		NON-	SKIVE
RQP14	6	-04	6,4	1/4	13,4	0.53	225	3250	900	13000	100	4.0	0,24	0.16	T2000		6000 (K000)
RQP15	8	-05	7,9	5/16	15,0	0.59	215	3120	860	12500	114	4.5	0,27	0.18	T2000		
RQP16	10	-06	9,5	3/8	17,4	0.69	180	2600	720	10400	127	5.0	0,34	0.23	T2000	T7000	6000 (K000)
RQP18	12	-08	12,7	1/2	20,5	0.81	160	2300	640	9300	178	7.0	0,44	0.30	T2000	T7000	6000 (K000)
RQP110	16	-10	15,9	5/8	23,7	0.93	130	1880	520	7540	200	8.0	0,51	0.34	T2000	T7000	6000 (K000)
RQP112	19	-12	19,1	3/4	27,6	1.09	120	1740	480	7000	240	9.5	0,64	0.43	T2000	T7000	6000 (K000)
RQP116	25	-16	25,4	1	35,7	1.41	90	1300	360	5200	300	12.0	0,98	0.66	T2000	T7000	6000 (K000)

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. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

## SPECIALTY AND HIGH TEMPERATURE



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## TECHNICAI

#### RQP2 HIGH TEMPERATURE MULTI FLUID TWO WIRE BRAID HOSE

## RYCO RQP2 =



#### **RECOMMENDED FOR:**

High pressure hydraulic oil applications where pressure or temperature requirements exceed the performance requirements of SAE 100R2AT, DIN 20022-2SN and EN 853 Type 2SN, or where resistance to phosphate ester<sup>†</sup> fluid is required. May be used with compressed air if cover of hose is perforated (pin-pricked) and additional Safety Devices are used.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R2AT, DIN 20022-2SN, EN 853 Type 2SN, ISO 1436 Types R2AT & 2SN, SAE 100R2AT.

#### TUBE:

Black, synthetic rubber, specifically compounded for temperature resistance and multi fluid resistance.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### **COVER:**

Blue, oil resistant and abrasion resistant synthetic rubber. No skiving required with T2000 & T7000 Series BITELOK Crimp Couplings and L000 Series Field Attachable Couplings\*.

#### **MSHA - FLAME RESISTANCE:**

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety & Health Administration. Complies with Flame Resistant requirements of Australian Standard AS 2660 & Method of Test AS 1180.10B.

#### **TEMPERATURE RANGE:**

From -40°C to +150°C (-40°F to +302°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T2000 Series** (sizes -04 to -32) pages 188 to 208. **T7000 Series** (sizes -06 to -32) pages 217 to 233. Assembly Instructions page 498.

#### **FIELD ATTACHABLE NON-SKIVE\***

**6000 Series** insert (sizes -04 to -20) pages 276 to 290. **L000 Series** ferrule (sizes -04 to -20) page 276. Assembly Instructions page 496.

RQP2 - S NON-SK	SURVIN	/OR DSE	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ì	ſ	ЭĴ	د ۷	ک ۷			
PART NO	D HOSE SIZE HOSI		INAL E ID	NOM Hos	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAD	MUM ND NUS	AVEF WEI	RAGE GHT	CO One i	UPLIN PIECE	G SERIES FIELD ATT	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft		NON-	SKIVE
RQP24	6	-04	6,4	1/4	15,0	0.59	400	5800	1600	23200	100	4.0	0,39	0.26	T2000		6000 (L000)
RQP25	8	-05	7,9	5/16	16,6	0.65	350	5100	1400	20400	114	4.5	0,45	0.30	T2000		
RQP26	10	-06	9,5	3/8	19,0	0.75	350	5100	1400	20400	127	5.0	0,53	0.36	T2000	T7000	6000 (L000)
RQP28	12	-08	12,7	1/2	22,0	0.87	300	4350	1200	17400	178	7.0	0,65	0.44	T2000	T7000	6000 (L000)
RQP210	16	-10	15,9	5/8	25,2	0.99	250	3600	1000	14500	200	8.0	0,77	0.52	T2000	T7000	6000 (L000)
RQP212	19	-12	19,1	3/4	29,1	1.15	215	3100	860	12400	240	9.5	0,93	0.62	T2000	T7000	6000 (L000)
RQP216	25	-16	25,4	1	37,7	1.48	167	2400	670	9600	300	12.0	1,38	0.93	T2000	T7000	6000 (L000)
RQP220	31	-20	31,8	1.1/4	48,0	1.89	150	2175	600	8700	419	16.5	2,03	1.36	T2000	T7000	6000 (L000)
RQP224	38	-24	38,1	1.1/2	54,4	2.14	100	1450	400	5800	500	20.0	2,30	1.55	T2000	T7000	
RQP232	51	-32	50,8	2	67,3	2.65	90	1300	360	5200	600	24.0	3,16	2.12	T2000	T7000	

\* 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 Hydraulics for more information.

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

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

115

## HOSE SPECIAL TY AND HIGH TEMPERATURE







#### **RECOMMENDED FOR:**

Medium to high pressure hydraulic oil applications, or where resistance to 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, lubrication oil and transmission oil coolers. 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". RQP5 may be used with compressed air if maximum working pressure 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. See page 263 for Branding Information.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R5, SAE 100R5, SAE J1402 Type All (up to -12 size).

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

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

#### **COVER:**

Blue polyester braid. Skiving of cover is not required.

#### **MSHA - FLAME RESISTANCE:**

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration and Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B when used with FS1072 Fire Sleeve.

#### **TEMPERATURE RANGE:**

From -40°C to +150°C (-40°F to +302°F). For water, emulsions etc. see page 57.

\*\*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:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

MED and USCG - Hydraulic and Fuel Systems, DoT .

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

T4000 Series (Sizes -04 to -20) pages 209 to 216. Assembly Instructions page 498.

#### **FIELD ATTACHABLE NON-SKIVE**

V000 Series (sizes -04 to -32) pages 262 to 275. Assembly Instructions page 496.

RQP5 - S POLYE		/OR	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\mathbf{O}$	Ç	Ž	ſ	Ŵ	ſ	Ŵ	)	(Hg	Ń	۲ ۷		
PART NO	HOSE	= SIZE	NOM HOS	INAL E ID	NOM HOS	INAL E OD	MAXI WOR PRES	MUM KING SURE	MIN BU PRES	MUM RST SURE	MINI BEN SAE1	MUM ID R 00R5	MINI BEN SAEJ	MUM ID R 1402	VAC Rat	UUM 'ING	AVER WEI	RAGE GHT	COUPLIN	G SERIES
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	mm	inch	inHg	mmHg	kg/m	lb/ft	NON-	SKIVE
RQP54	5	-04	4,8	3/16	13,2	0.52	210	3050	840	12200	75	3.0	51	2.0	0,23	0.15	710	28	T4000	V000
RQP55	6	-05	6,4	1/4	14,8	0.58	210	3050	840	12200	85	3.3	64	2.5	0,26	0.17	710	28	T4000	V000
RQP56	8	-06	7,9	5/16	17,2	0.68	155	2250	620	9000	100	4.0	76	3.0	0,30	0.20	710	28	T4000	V000
RQP58	10	-08	10,3	13/32	19,4	0.76	138	2000	552	8000	117	4.6	89	3.5	0,36	0.24	710	28	T4000	V000
RQP510	12	-10	12,7	1/2	23,4	0.92	121	1750	484	7000	140	5.5	102	4.0	0,53	0.36	710	28	T4000	V000
RQP512	16	-12	15,9	5/8	27,4	1.08	103	1500	414	6000	165	6.5	114	4.5	0,65	0.44	710	28	T4000	V000
RQP516	22	-16	22,2	7/8	31,4	1.24	55	800	221	3200	187	7.4			0,63	0.42	510	20	T4000	V000
RQP520	28	-20	31,0	1.1/8	38,1	1.50	43	625	172	2500	229	9.0			0,90	0.60	510	20	T4000	V000
RQP524	35	-24	32,0	1.3/8	44,5	1.75	35	500	140	2000	267	10.5			1,00	0.67	380	15		V000
RQP532	46	-32	45,0	1.13/16	56,3	2.22	24	350	98	1400	337	13.3			1,48	0.99	280	11		V000

\*IMPORTANT NOTE: MAXIMUM 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. 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.

## SPECIAL TY AND HIGH TEMPERATURE



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## YCO RQP6 -

#### **RECOMMENDED FOR:**

RQP6

**HIGH TEMPERATURE ONE TEXTILE BRAID HOSE** 

Hydraulic oil lines, transmission oil cooler lines, glycol antifreeze solutions, water, diesel fuels and air.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R6, DIN 20021-1TE, ISO 4079 Type 1, SAE 100R6.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One textile braid.

#### COVER:

**RQP610** 

**RQP612** 

16

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Blue, oil resistant and abrasion resistant synthetic rubber.

#### **MSHA - FLAME RESISTANCE:**

Meets Flame Resistance Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration. Complies with Flame Resistant requirement of Australian Standard AS 2660 and Method of Test AS 1180.10B.

#### **TEMPERATURE RANGE:**

#### Petroleum base hydraulic oils & transmission oils:

-40°C to +135°C (-40°F to +275°F) constant, and up to +150°C (+302°F) intermittent (up to 10% of operating time). **Air:** -40°C to +100°C (-40°F to +212°F) **Diesel fuels:** -40°C to +71°C (-40°F to +160°F). F

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

RQP6 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. RQP6 Hose should not be used at both maximum working pressure and maximum temperature simultaneously.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** T4000 Series (Sizes -04 to -12) pages 209 to 216. Assembly Instructions page 498.

#### **8000 SERIES PUSH-ON**

RQP6 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 for 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.

0,29 0.19

0,34 0.23

T4000

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or water, er	nulsio	ns etc	. see	page 5	57.													
ROP6 - SURVIVOR HIGH TEMPERATURE PUSH ON HOSE PART NO HOSE SIZE									Э́ мим RST	MINI			(Нд					
PART NO HOSE SIZE		HOS	EID	HOS	EOD	PRES	SURE	PRES	SURE	RAD	IUS	RAT	ING	WEI	GHT	ONE PC	PUSH 0	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	inHg	mmHg	kg/m	lb/ft	NON-SK	
RQP64	6	-04	6,4	1/4	12,3	0.48	28	410	112	1640	65	2.5	710	28	0,12	0.08	T4000	8000
RQP65	8	-05	7,9	5/16	13,9	0.55	28	410	112	1640	75	3.0	710	28	0,14	0.09	T4000	8000
RQP66	10	-06	9,5	3/8	15,5	0.61	28	410	112	1640	75	3.0	635	25	0,17	0.11	T4000	8000
RQP68	12	-08	12,7	1/2	19,0	0.75	28	410	112	1640	100	4.0	460	18	0,22	0.15	T4000	8000

350

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96

84

24

21

1400 125

1220 150

5.0

6.0

380

380

15

15

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

-12 19,1

-10 15,9 5/8 22,6 0.89

3/4 25,8 1.02

FILTERS

## HOSE PRESSURE WASHER

## TW1 TORNADO WASHER ONE WIRE BRAID

## RYCO TW1

#### **RECOMMENDED FOR:**

Hot Water Pressure Washer Machines.

#### **TUBE:**

Black, oil resistant synthetic rubber. Heat, cleaning chemicals and detergent resistant.

#### **REINFORCEMENT:**

One braid of high tensile steel wire.

#### **COVER:**

Grey synthetic rubber; oil, chicken fat and abrasion resistant. The cover of TW1 Hose is formulated to resist marking. No skiving required with T2000 Series BITELOK Crimp Couplings.

#### **TEMPERATURE RANGE:**

TW1 TORNADO WASHER Hose handles hot water up to +155°C (+310°F). For water, emulsions etc. see page 57.

WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T2000 Series (sizes -06 to -08) pages 188 to 208. Assembly Instructions page 498.

Common hose couplings used on TW1 Hose include: **T2020S** BSPP Female Live Swivel **T2940** PW Female **T2950** PW Gun Handle Tube.

TW1 - TO WASHEF	RNAD R HOSE	0	Ĩ	$\bigcirc$		$\bigcirc$	Ç		Ç	Ì	ſ	$\mathcal{N}$	ہ ۷	V	
PART NO	HOSE SIZE		NOM HOS	INAL E ID	NOM HOS	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI BE RAD	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLING SERIES
Hose	DN	Dash	mm	mm inch		inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
TW16	10	-06	9,5	3/8	17,4	0.69	210	3050	840	12200	60	2.4	0,34	0.23	T2000
TW18	12	-08	12,7	1/2	20,6	0.81	210	3050	840	12200	90	3.5	0,45	0.30	T2000





## **INCO** PW2 PRESSURE WASHER

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#### **RECOMMENDED FOR:**

Hot Water Pressure Washer Machines.

#### **TUBE:**

Black, heat resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids of high tensile steel wire.

#### COVER:

Black, oil resistant and abrasion resistant synthetic rubber. The cover of PW2 hose is formulated to resist marking. No skiving required with T2000 Series BITELOK Crimp Couplings.

#### **TEMPERATURE RANGE:**

PW2 PRESSURE WASHER Hose handles hot water up to +150°C (+302°F).

For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### COUPLINGS:

**BITELOK NON-SKIVE ONE-PIECE CRIMP T2000 series** (sizes -04 to -06) pages 188 to 208. Assembly Instructions page 498.

Common hose couplings used on PW2 Hose include: T2020S BSPP Female Live Swivel T2940 PW Female T2950 PW Gun Handle Tube.

(Note: The rated Maximum Working Pressures of **T2020S** Series couplings are lower than the Maximum Working Pressures of **PW2 Series** hoses.)

PW2 - PR WASHEF	ESSUR R HOSE	E	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ž	6	$\searrow$	ہ ۷	V	
PART NO	HOSE	SE SIZE		INAL E ID	NOM Hos	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI Be Rad	MUM ND NUS	AVEF WEI	RAGE GHT	COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	HOSE ID mm inch		inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
PW24	6	-04	6,4	1/4	15,0	0.59	400	5800	1600	23200	100	4.0	0,39	0.26	T2000
PW25	8	-05	7,9	5/16	16,6	0.65	400	5800	1600	23200	114	4.5	0,46	0.31	T2000
PW26	10	-06	9,5	3/8	19,0	0.75	400	5800	1600	23200	130	5.0	0,56	0.38	T2000

## HOSE SUCTION & RETURN



#### **RECOMMENDED FOR:**

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

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R4 (except SR48), SAE 100R4.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Textile reinforcement with spiral wire to prevent collapsing.

#### **COVER:**

Black, oil resistant and abrasion resistant synthetic rubber.

#### **TEMPERATURE RANGE:**

From  $-40^{\circ}$ C to  $+100^{\circ}$ C ( $-40^{\circ}$ F to  $+212^{\circ}$ F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

Working pressure shown is for hose performance capabilities. Performance of a hose assembly depends on couplings used.

#### 1. For Suction Applications, and Low Pressure Delivery (up to 25% of Maximum Working Pressure).

#### 33000 SERIES COUPLINGS WITH RSC CLAMP

**33000 Series** (sizes -12 to -48) pages 258 to 261. 33000 Series Couplings require a suitable clamp around the outside of the hose. Refer to RYCO RSC Clamps shown below. Assembly instructions page 501.

## 2. For Suction Applications, and High Pressure Delivery (up to 100% of Maximum Working Pressure).

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T4000 Series** (sizes -12 and -16) pages 209 to 216. Assembly Instructions page 498.

SR - SUC RETUR	SR – SUCTION AND RETURN HOSE		Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\mathbf{O}$	Ç	Ž	ſ	Z	)	(Нд	V	V
PART NO	HOSE SIZE		NOM HOS	INAL E ID	NOM HOS	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BU PRES	MUM RST SURE	MINI BE RAI	MUM ND DIUS	VAC Rat	UUM 'ING	AVER WEI	RAGE GHT
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	mmHg	inHg	kg/m	lb/ft
SR12	19	-12	19,1	3/4	31,5	1.24	21	300	84	1200	125	4.9	635	25	0,82	0.55
SR16	25	-16	25,4	1	40,0	1.57	17	250	68	1000	150	5.9	635	25	1,00	0.67
SR40	63	-40	63,5	2.1/2	78,5	3.09	4,3	62	17	250	350	13.8	635	25	2,37	1.59
SR48	76	-48	76,2	3	90,7	3.57	3,9	56	16	225	450	17.7	635	25	2,45	1.65

HOSE PART NO	CLAMP Part No	CLAMP ADJUSTMENT RANGE	RECOMN TIGHT TOR	1ENDED Ening Que
		d mm	N.m	ft.lbf
SR12	RSC-3134	31 to 34	20	15
SD16	RSC-3740*	37 to 40	20	15
SKIO	RSC-4043*	40 to 43	20	15
SR40	RSC-7379	73 to 79	25	18
SR48	RSC-8591	85 to 91	25	18

NOTE: For sizes -20, -24 & -32, use RYCO SRF Hose.

\*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.





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## **RYCO** DEFIANT SRF



#### **RECOMMENDED FOR:**

Petroleum and water base hydraulic fluids in suction lines or in low pressure return lines. Small bend radius is an advantage in installations where space is minimal. (Tighter Bend Radius than SAE 100R4)

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R4, SAE 100R4.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Textile reinforcement with spiral wire to prevent collapsing.

#### **COVER:**

Black, oil resistant and abrasion resistant synthetic rubber.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **COUPLINGS:**

Working pressure shown is for hose performance capabilities. Performance of a hose assembly depends on couplings used.

1. For Suction Applications, and Low Pressure Delivery (up to 25% of Maximum Working Pressure).

#### 33000 SERIES COUPLINGS WITH RSC CLAMP

**33000 Series** (sizes -12 to -32) pages 258 to 261. 3300 Series Couplings require a suitable clamp around the outside of the hose. Refer to RYCO RSC Clamps shown below.

Assembly instructions page 501.

2. For Suction Applications, and High Pressure Delivery (up to 100% of Maximum Working Pressure).

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T4000 Series** (sizes -12 to -32) pages 209 to 216. Assembly Instructions page 498.

SRF - DEFIA SUCTION AND	SRF - DEFIANT COMPACT SUCTION AND RETURN HOSE		Ĩ	$\bigcirc$	$\mathbb{I}$	$\bigcirc$	Ć	$\mathbf{O}$	Ç	Ž		$\searrow$	)	(Нд	د ۷	ک ۷	
PART NO	HOSE SIZE		NOM HOS	INAL E ID	NOM HOS	INAL E OD	WOR PRES	KING SURE	BU PRES	RST SURE	BE	ND NUS	VAC RAT	UUM 'ING	AVER WEI	RAGE GHT	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	mmHg	inHg	kg/m	lb/ft	
SRF12	19	-12	19,1	3/4	31,5	1.24	21	300	84	1200	63	2.5	635	25	0,82	0.55	
SRF16	25	-16	25,4	1	40,0	1.57	17	250	68	1000	75	2.9	635	25	1,00	0.67	
SRF20	31	-20	31,8	1.1/4	46,5	1.83	14	200	56	800	100	3.9	635	25	1,19	0.80	
SRF24	38	-24	38,1	1.1/2	53,1	2.09	10	150	40	600	125	4.9	635	25	1,39	0.93	
SRF32	51	-32	50,8	2	65,5	2.58	7	100	28	400	150	5.9	635	25	1,94	1.30	C

HOSE PART NO	CLAMP Part no	CLAMP ADJUSTMENT RANGE	RECOMN TIGHT TOR	1ENDED Ening Que
		d mm	N.m	ft.lbf
SRF12	RSC-3134	31 to 34	20	15
CDE14	RSC-3740*	37 to 40	20	15
SKFIO	RSC-4043*	40 to 43	20	15
SPEDO	RSC-4347*	43 to 47	20	15
JNF20	RSC-4751*	47 to 51	20	15
SRF24	RSC-5155	51 to 55	20	15
SRF32	RSC-6368	63 to 68	25	18

NOTE: For sizes -20, -24 & -32, use RYCO SRF Hose.

\*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.



## HOSE TEFLON®







#### **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. RYCO 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.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: SAE 100R14. RTH112 meets ID and OD requirements of SAE 100R14. Other sizes have ID and OD different to SAE 100R14.

#### TUBE:

TEFLON\* (PTFE).

#### **REINFORCEMENT:**

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). For water, emulsions etc. see page 57.

WORKING TE	MPERATURE	% OF WORKING PRESSURE THAT MAY BE USED SAFELY
°C	٥F	Percentage
-60°C to +100°C	(-76°F to +212°F)	100
+101°C to +150°C	(+214°F to +302°F)	93
+151°C to +200°C	(+304°F to +392°F)	85
+201°C to +250°C	(+394°F to +482°F)	77
+251°C to +260°C	(+484°F to +500°F)	70

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### THIRD PARTY APPROVALS:

MED and USCG.

#### COUPLINGS:

#### **ONE-PIECE CRIMP**

**TT000 Series** (sizes -04 to -16) pages 241 to 243. Assembly instructions page 500.

RTI TEFLON	11 - 1* HOS	SE	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\mathbf{O}$	MAX	) Mum	Ç	Ĭ	ſ	Y	V	ک ۷	
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS	INAL E OD	MAXI WOR PRES	MUM KING SURE	WOR PRES SAE1	KING SURE Dor14	MINI BUI PRES	MUM RST SURE	MINI BE RAD	MUM ND IUS	AVER WEI	RAGE GHT	COUPLING SERIES
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	bar	psi	mm	inch	WEIGHT kg/m lb/ft		
RTH14	6	-04	6,4	1/4	9,4	0.37	170	2450	103	1500	680	9800	75	3.0	0,12	0.08	TT000
RTH16	10	-06	9,5	3/8	11,7	0.46	165	2375	103	1500	660	9500	125	5.0	0,14	0.09	TT000
RTH18	12	-08	12,7	1/2	15,4	0.61	120	1750	55	800	485	7000	140	5.5	0,22	0.15	TT000
RTH110	16	-10	15,9	5/8	18,4	0.72	105	1500	55	800	420	6000	165	6.5	0,28	0.19	TT000
RTH112	19	-12	19,1	3/4	22,1	0.87	85	1250	55	800	345	5000	200	8.0	0,33	0.22	TT000
RTH116	25	-16	25,4	1	28,6	1.13	55	800	55	800	220	3200	300	12.0	0,46	0.31	TT000
* DuPont R	eqistere	d TM															



## HOSE

FILTERS

**NYLON BARRIER** 

**TWO TEXTILE BRAID HOSE** 

FB2

BARRIER

**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. FB2 is a reduced bore hose. It has a similar Inside Diameter to metal tubing of the same nominal size. For example, 5/8" (OD) tubing has an Inside Diameter of approximately 1/2". FB210 is also 1/2" Inside Diameter.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: SAE J2064 Type C Class II.

#### **TUBE:**

Black, synthetic rubber internal layer (polychloroprene) with Nylon Barrier.

#### **REINFORCEMENT:**

Two braids of synthetic yarn.

#### **COVER:**

Black, oil resistant and abrasion resistant synthetic rubber. No skiving required with 1G000 Series Crimp Couplings.

#### **TEMPERATURE RANGE:**

From -30°C to +125°C (-22°F to +257°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **COUPLINGS:**

INCO BARRIER FB2 =

**1G000 SERIES CRIMP COUPLINGS** page 252 and 253. Assembly instruction page 502.

1G000 Series Crimp Couplings consist of G00 Series Insert and 1G000 Series Crimp Ferrule.

Use only with 1G000 Series Crimp Ferrules. Worm drive hose clamps must not be used with FB2 Hose.

FB2 - BA AIR CONDITIC	ARRIER	R HOSE	I	$\bigcirc$		$\bigcirc$	Ć	$\bigcirc$	Ç	Ž	ſ	$\mathcal{N}$	Ń	ک V		
PART NO	HOSE	SE SIZE HOS		INAL SE ID	NOM HOS	INAL E OD	MAXI WOR PRES	IMUM KING SURE	MINI BU PRES	MUM RST SURE	MINI BE RAD	MUM ND DIUS	AVEI WEI	RAGE GHT	COUPLIN	G SERIES P COUPLINGS
Hose	DN	Dash	HOSE ID mm inch 7.9 5/16		mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	Insert	Ferrule
FB26	8	-06	<b>mm inch</b> 7,9 5/16		19,0	0.75	35	500	140	2000	16	0.6	0,28	0.19	G000	1G000-06
FB28	10	-08	10,3	13/32	23,0	0.91	35	500	140	2000	25	1.0	0,42	0.28	G000	1G000-08
FB210	12	-10	12,7	1/2	25,4	1.00	35	500	140	2000	32	1.3	0,48	0.32	G000	1G000-10
Refer to the lates	t RYCO C	rimp Cha	arts for c	rimp diai	meter an	d mark le	engths.									

## HOSE TEXTILE BRAID



RYCO M1 -

#### **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. For use with leaded and unleaded petrol, oil, diesel and other fuels.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: SAE 30R7.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One textile braid.

#### **COVER:**

Black, oil resistant synthetic rubber. Resists the effects of high heat and ozone found in engine compartments.

#### **TEMPERATURE RANGE:**

From -40°C to +125°C (-40°F to +257°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

M1 – FUEL	LINE	HOSE	Ĩ	$\bigcirc$	$\mathbb{I}$	$\bigcirc$	Ç	$\mathbf{O}$	Ç	Ì	6	$\mathcal{Y}$	V	V	)	(Hg
PART NO	HOSE	SIZE	NOMINAL ZE HOSE ID		NOM Hos	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI Be Rad	MUM ND NUS	AVEF WEI	RAGE GHT	VACUUM AT 20°C	RATING (68°F)
Hose	DN	Dash	mm	inch	mm	HOSE OD mm inch		psi	bar	psi	mm	inch	kg/m	lb/ft	mmHg	inHg
M14	6	-04	6,4	1/4	12,7	mm inch I   12,7 0.50 1		50	14	200	75	3.0	0,14	0.09	610	24
M15	8	-05	7,9	5/16	14,3	0.56	3,5	50	14	200	75	3.0	0,17	0.11	610	24
M16	10	-06	9,5	3/8	15,9	0.63	3,5	50	14	200	100	4.0	0,18	0.12	610	24





## MP1 MULTI PURPOSE ONE TEXTILE BRAID HOSE

## RYCO MP1

#### **RECOMMENDED FOR:**

Air, water, petroleum oils, kerosene and fuel oils.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: RMA (USA) Class A High Oil Resistance (tube), RMA (USA) Class B Medium Oil Resistance (cover),

#### **TUBE:**

Black, oil resistant synthetic rubber. RMA (USA) Class A High Oil Resistance.

#### **REINFORCEMENT:**

One textile braid.

#### **COVER:**

Red, oil resistant and abrasion resistant synthetic rubber (Modified Nitrile). RMA (USA) Class B Medium Oil Resistance. No skiving required with T4000 Series BITELOK Crimp Couplings.

#### **FEATURES:**

Tube 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: -40°C to +93°C (-40°F to +200°F). Petrol, kerosene, fuel oils: -40°C to +49°C (-40°F to +120°F). For continuous service at upper temperature limit, reduce maximum working pressure by 30%. For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure), and are for the performance of the hose with RYCO T4000 Series BITELOK One-Piece 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 NON-SKIVE ONE-PIECE CRIMP**

**T4000 Series** (sizes -04 to -20) pages 209 to 216. Assembly Instructions page 498.

Standard industrial hose barbed tails with hose clamps may also be suitable depending on working pressure required.

Not suitable for use with RYCO 8000 Series Push-On couplings.

MP1 - MULT HOS	I PURP Se	OSE	Ĩ	$\bigcirc$		$\bigcirc$	Ć	$\mathbf{O}$	Ç	Ì	ſ.	$\mathcal{Y}$	ہ ۷	V	
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM Hos	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUF PRES	MUM RST SURE	MINI BE RAD	MUM ND IUS	AVEF WEI	RAGE GHT	COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m lb/f		NON-SKIVE
MP14	6	-04	6,4	1/4	13,5	0.53	13,8	200	55,2	800	50	2.0	0,16	0.11	T4000
MP16	10	-06	9,5	3/8	17,5	0.69	13,8	200	55,2	800	70	3.0	0,24	0.16	T4000
MP18	12	-08	12,7	1/2	21,4	0.84	13,8	200	55,2	800	85	4.0	0,33	0.22	T4000
MP110	16	-10	15,9	5/8	25,4	1.00	13,8	200	55,2	800	105	5.0	0,43	0.29	T4000
MP112	19	-12	19,1	3/4	28,6	1.13	13,8	200	55,2	800	120	5.0	0,48	0.32	T4000
MP116	25	-16	25,4	1	37,3	1.47	13,8	200	55,2	800	155	8.0	0,82	0.55	T4000
MP120	31	-20	31,8	1.1/4	43,9	1.73	13,8	200	55,2	800	230	10.0	1,00	0.68	T4000

## HOSE TEXTILE BRAID



## RYCO M2



#### **RECOMMENDED FOR:**

Medium pressure hydraulic oil lines, antifreeze solutions, water.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R3, DIN 20021-2TE, ISO 4079 Type R3, SAE 100R3.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two textile braids.

#### **COVER:**

Black, oil resistant and abrasion resistant synthetic rubber. No skiving required with T4000 Series BITELOK Crimp Couplings and M000 Series Field Attachable Couplings.

#### **MSHA - FLAME RESISTANCE:**

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration. Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **THIRD PARTY APPROVALS:**

ABS, DNV, GL, LR, MED and USCG.

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

**T4000 Series** (sizes -04 to -12) pages 209 to 216. Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE

**6000 Series** insert (sizes -04 to -12) pages 276 to 290. **M000 Series** ferrule (sizes -04 to -12) page 276. Assembly Instructions page 496.

M2 – TEXTI	LE BR.	AID	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\bigcirc$	Ç	Ž	ſ	ЭĴ	V	V		
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BU PRES	MUM RST SURE	MINI BE RAI	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPL ONE PC	ING SERIES FIELD ATT
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NO	N-SKIVE
M24	6	-04	6,4	1/4	14,3	0.56	88	1250	350	5000	75	3.0	0,16	0.11	T4000	6000 (M000)
M26	10	-06	9,5	3/8	19,0	0.75	79	1125	315	4500	100	4.0	0,28	0.19	T4000	6000 (M000)
M28	12	-08	12,7	1/2	23,8	0.94	70	1000	280	4000	125	5.0	0,41	0.28	T4000	6000 (M000)
M212	19	-12	19,1	3/4	31,7	1.25	52	750	210	3000	240	9.5	0,65	0.44	T4000	6000 (M000)



## HOSE

M2G TWO TEXTILE BRAID HOSE LPG (CLASS C)

## RYCO M2G -

#### **IMPORTANT INFORMATION**

RYCO **M2G Series** LPG Hose has Australian Gas Association approval (AGA approval No. 4247) only when used with RYCO **T4000 Series** BITELOK One-Piece Non-Skive Crimp Couplings, or RYCO **M000 Series** Field Attachables.

#### AVAILABLE ONLY AS FACTORY FITTED HOSE ASSEMBLIES.

**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 Technical Department.

#### **RECOMMENDED FOR:**

Liquified Petroleum Gas and Natural Gas.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS/NZS 1869 Class C (2,6 MPa working pressure, +65°C/+149°F max. temperature).

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two textile braids.

#### **COVER:**

Black, abrasion resistant synthetic rubber. Pin-pricked (perforated). No skiving required with T4000 Series BITELOK Crimp Couplings and M000 Series Field Attachable Couplings.

#### **TEMPERATURE RANGE:** From -20°C to +65°C (-4°F to +149°F).

THIRD PARTY APPROVALS: AUSTRALIAN GAS ASSOCIATION Approval No. 4247.

#### COUPLINGS:

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T4000 Series** (sizes -04 to -12) pages 209 to 216. Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE

**6000 Series** insert (sizes -04 to -12) pages 276 to 290. **M000 Series** ferrule (sizes -04 to -12) page 276. Assembly Instructions page 496.

M2G – LP	G HOS	E	Ĩ	$\bigcirc$		$\bigcirc$	Ç	$\mathbf{O}$	Ç	Ž	ſ.	$\searrow$	ہ ۷	V		
PART NO	HOSE	SIZE	NOMINAL HOSE ID		NOM Hos	INAL E OD	MAXI WOR PRES	MUM KING SURE	MINI BUI PRES	MUM RST SURE	MINI Be Rad	MUM ND NUS	AVEF WEI	RAGE GHT	COUPL ONE PC	ING SERIES FIELD ATT
Hose	DN	Dash	mm	inch	mm	inch bar psi bar psi mm inch kg/m		lb/ft	NO	N-SKIVE						
M24G	6	-04	6,4	1/4	14,3	0.56	2,6	375	10,4	1500	75	3.0	0,16	0.11	T4000	6000 (M000)
M26G	10	-06	9,5	3/8	19,0	0.75	2,6	375	10,4	1500	100	4.0	0,28	0.19	T4000	6000 (M000)
M28G	12	-08	12,7	1/2	23,8	0.94	2,6	375	10,4	1500	125	5.0	0,41	0.28	T4000	6000 (M000)
M212G	19	-12	19,1	3/4	31,7	1.25	2,6	375	10,4	1500	240	9.5	0,65	0.44	T4000	6000 (M000)

## HOSE TEXTILE BRAID





#### **RECOMMENDED FOR:**

Petroleum base hydraulic oils, glycol antifreeze solutions, water, diesel fuels, and air.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R6, DIN 20021-1TE, ISO 4079 Type 1, SAE 100R6.

#### **TUBE:**

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One textile braid.

#### **COVER:**

Black, oil and abrasion resistant synthetic rubber. No skiving required with T4000 Series BITELOK Crimp Couplings.

#### **MSHA - FLAME RESISTANCE:**

Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration. Complies with Flame Resistant requirements of Australian Standard AS 2660 and Method of Test AS 1180.10B.

#### **TEMPERATURE RANGE:**

From -40°C to +95°C (-40°F to +203°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst 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.

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T4000 Series** (Sizes -04 to -12) pages 209 to 216. Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE

**8000 Series Push-On** (sizes -04 to -12). PL1 Hose simply pushes on to 8000 Series Couplings. For diesel fuel and other potentially dangerous, or critical applications crimp fittings are required.

P PUSH (	PL1 DN HOS	5E	Ĩ	$\bigcirc$		$\bigcirc$	Ć	)	Ç	Ĭ		$\mathcal{Y}$	)	(Нд	Ń	ر ۷		
		CIZE	NOM	INAL	NOM		MAXI STA WOR	MUM TIC KING	MINI BUI	MUM RST	MINI BE	MUM ND	VAC	UUM	AVE	RAGE		G SERIES
PARTNU	HUSE	SIZE	HUS		HUS	OSE OD PRESSL		SURE	PRES	SURE	RAL	105	RAI	ING	WEI	GHI	UNE PC	FIELD
Hose	DN	Dash	mm	inch	mm	m inch bar		psi	bar	psi	mm	inch	mmHg	inHg	kg/m	lb/ft	NON-	SKIVE
PL14	6	-04	6,4	1/4	12,3	0.48	28	410	112	1640	65	2.5	710	28	0,12	0.08	T4000	8000
PL15	8	-05	8,0	5/16	13,9	0.55	28	410	112	1640	75	3.0	710	28	0,14	0.09	T4000	8000
PL16	10	-06	9,5	3/8	15,5	0.61	28	410	112	1640	75	3.0	635	25	0,17	0.11	T4000	8000
PL18	12	-08	12,7	1/2	19,0	0.75	28	410	112	1640	100	4.0	460	18	0,22	0.15	T4000	8000
PL110	16	-10	16,0	5/8	22,6	0.89	24	350	96	1400	125	5.0	380	15	0,29	0.19	T4000	8000
PL112	19	-12	19,1	3/4	25,8	1.02	21	305	84	1220	150	6.0	380	15	0,34	0.23	T4000	8000



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FILTERS

#### **PL1D** EXTRA ABRASION RESISTANT FRAS ONE TEXTILE BRAID HOSE PUSH ON HOSE

## RYCO PL1D

#### **RECOMMENDED FOR:**

Petroleum base hydraulic oils, glycol antifreeze solutions, water, diesel fuels, and air.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R6, DIN 20021-1TE, ISO 4079 Type 1, SAE 100R6.

#### TUBE:

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One textile braid.

#### COVER:

DIEHARD<sup>™</sup> Black, oil and extra abrasion resistant synthetic rubber. Flame Resistant, Anti-Static (FRAS) & MSHA compliant. Highly visible layline branding for easy and permanent identification. No skiving required with T4000 Series BITELOK Crimp Couplings.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

**DIEHARD™** complies with Flame Resistant and Electrical Resistance (Anti-Static) requirements of Australian Standard AS 2660 and Methods of Test AS 1180.10B and 13A. Meets Flame Resistant Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst 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.

#### COUPLINGS:

**BITELOK NON-SKIVE ONE-PIECE CRIMP T4000 Series** (Sizes -04 to -12) pages 209 to 216. Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE

**8000 Series Push-On** (sizes -04 to -12). PL1 Hose simply pushes on to 8000 Series Couplings. For diesel fuel and other potentially dangerous, or critical applications crimp fittings are required.

PL PUSH (	.1 D DN HOS	6E	I	$\bigcirc$		$\bigcirc$	Ç		Ç	Ž		N		(Hg	۔ ۷	2 V		
			NOM	INAL	NOM	INAL	MAXI STA WOR	MUM TIC KING	MINI BU	MUM RST	MINI BE	MUM ND	VAC	UUM	AVEF	RAGE	COUPLIN	G SERIES
PART NO	HOSE	SIZE	HOS	EID	HOS	NOMINAL HOSE OD		SURE	PRES	SURE	RAD	DIUS	RAT	ING	WEI	GHT	ONE PC	FIELD
Hose	DN	Dash	mm	inch	mm	mm inch		psi	bar	psi	mm	inch	mmHg	inHg	kg/m	lb/ft	NON-	SKIVE
PL14D	6	-04	6,4	1/4	12,7	0.50	28	410	112	1640	75	3.0	710	28	0,12	0.08	T4000	8000
PL15D	8	-05	8,0	5/16	14,3	0.56	28	410	112	1640	75	3.0	710	28	0,15	0.10	T4000	8000
PL16D	10	-06	9,5	3/8	15,9	0.63	28	410	112	1640	75	3.0	635	25	0,17	0.11	T4000	8000
PL18D	12	-08	12,7	1/2	19,8	0.78	28	410	112	1640	125	5.0	460	18	0,23	0.15	T4000	8000
PL110D	16	-10	16,0	5/8	23,0	0.91	24	350	96	1400	150	6.0	380	15	0,29	0.19	T4000	8000
PL112D	19	-12	19,1	3/4	26,4	1.04	21	305	84	1220	175	6.9	380	15	0,36	0.24	T4000	8000





# ISOLATOR

## HALT THE CHARGE



## **RYCO** ISOLATOR

TP76N 3/8"

TP7N & TP7TN (SAE 100R7)

**DN10** 

MAX WP 1

-06



## HOSE THERMOPLASTIC

## SPIDERLINE **R7 HOSE**

#### 

#### **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. Suitable for use with some gases, fluids and chemicals. Cover is perforated (pin-pricked) for use with air and gases.

RYCO SPIDERLINE hose is lighter weight, has a more compact outside diameter and is less than half the minimum bend radius of wire braided rubber hose. Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The synthetic and aramid fibre reinforcement gives SPIDERLINE hose excellent corrosion and fatigue resistance plus low elongation at maximum dynamic working pressure.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R7, EN 855 TYPE R7, ISO 3949, SAE 100R7.

#### **TUBE:**

White, oil resistant seamless thermoplastic (Polyester).

#### **REINFORCEMENT:**

One or two braids of synthetic fibre.

#### **COVER:**

Black, oil and abrasion resistant thermoplastic (Polyurethane). Cover is perforated (pin-pricked).

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). Air & Water +70 °C (+158 °F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

T1000 Series (sizes -03 to -16) pages 177 to 187. T4000 Series (sizes -04 to -16) pages 209 to 216. Assembly Instructions page 498.

TP7 – SPIDEF	RLINE	HOSE	Ĩ	$\bigcirc$		$\bigcirc$	Ć	$\bigcirc$	Ç	Ž	ſ	$\mathcal{N}$	V	V		
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM HOS	INAL E OD	MAX WOR PRES	MUM KING SURE	MINI BU PRES	MUM RST SURE	MINI BE RAI	MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLIN One i	G SERIES PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
TP73	5	-03	5,0	3/16	9,6	0.38	210	3000	840	12000	25	1.0	0,06	0.04	T1000	
TP74	6	-04	6,5	1/4	12,2	0.48	210	3000	840	12000	35	1.4	0,10	0.07	T1000	T4000
TP75	8	-05	8,1	5/16	14,3	0.56	190	2700	760	10800	45	1.8	0,13	0.09	T1000	T4000
<b>TP76</b>	10	-06	9,7	3/8	16,0	0.63	160	2300	640	9200	55	2.2	0,15	0.10	T1000	T4000
<b>TP78</b>	12	-08	13,0	1/2	20,3	0.80	140	2000	560	8000	75	3.0	0,22	0.15	T1000	T4000
TP712	19	-12	19,5	3/4	27,1	1.07	90	1300	360	5200	140	5.5	0,34	0.23	T1000	T4000
TP716	25	-16	25,9	1	34,0	1.34	70	1000	280	4000	190	7.5	0,46	0.31	T1000	T4000
Refer to the lates	t RYCO C	rimp Cha	arts for c	rimp diar	neter an	d mark le	enaths.									



## HOSE

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### TP7N ISOLATOR R7 NON CONDUCTIVE HOSE

#### RYCO ISOLATOR TP7N ==========

#### **RECOMMENDED FOR:**

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  $+70^{\circ}$ C ( $+158^{\circ}$ F). Smooth inner tube for high flow rate; and smooth, easily cleaned cover. The high strength, non-metallic reinforcement gives these hoses excellent corrosion and fatigue resistance, and low elongation of  $\pm 2\%$  at maximum dynamic working pressure.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R7, EN 855 TYPE R7, ISO 3949, SAE 100R7.

#### TUBE:

White, oil resistant seamless thermoplastic (Polyester).

#### **REINFORCEMENT:**

One or two braids of synthetic fibre.

#### **COVER:**

Orange, oil and abrasion resistant thermoplastic (Polyurethane). Cover is non-perforated.

#### **FEATURES:**

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.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). Air & Water +70 °C (+158 °F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T1000 Series (sizes -04 to -16) pages 177 to 187. T4000 Series (sizes -04 to -16) pages 209 to 216. Assembly Instructions page 498.

TP7N - IS Non-Condu	SOLATOR ICTIVE HOSE		IO				$\bigcirc$		Ø				Ŵ			
PART NO	HOSE SIZE		NOMINAL Hose ID		M/ NOMINAL W HOSE OD PR		MAXI WOR PRES	AXIMUM VORKING RESSURE		MINIMUM BURST PRESSURE		MUM ND NUS	AVER WEI	RAGE GHT	COUPLING SERIES	
Hose	DN	Dash	mm	inch	mm inch		bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
TP74N	6	-04	6,5	1/4	12,2	0.48	210	3000	840	12000	35	1.4	0,10	0.07	T1000	T4000
TP76N	10	-06	9,7	3/8	16,0	0.63	160	2300	640	9200	55	2.2	0,15	0.10	T1000	T4000
TP78N	12	-08	13,0	1/2	20,3	0.80	140	2000	560	8000	75	3.0	0,22	0.15	T1000	T4000
TP712N	19	-12	19,5	3/4	27,1	1.07	90	1300	360	5200	140	5.5	0,34	0.23	T1000	T4000
TP716N	25	-16	25,9 1 34,0 1		1.34	70	1000	280	4000	190	7.5	0,46	0.31	T1000	T4000	

## HOSE THERMOPLASTIC

## **TP7T** SPIDERLINE R7 TWIN HOSE

RYCO SPIDERLINE TP7T -----

RYCO SPIDERLINE TP7T -----

#### **RECOMMENDED FOR:**

RYCO TP7T SPIDERLINE TWIN Hose consists of two TP7 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.

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. Suitable for use with some gases, fluids and chemicals. Cover is perforated (pin-pricked) for use with air and gases.

RYCO SPIDERLINE hose is lighter weight, has a more compact outside diameter and is less than half the minimum bend radius of wire braided rubber hose. Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The synthetic and aramid fibre reinforcement gives SPIDERLINE hose excellent corrosion and fatigue resistance plus low elongation at maximum dynamic working pressure.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R7, EN 855 TYPE R7, ISO 3949, SAE 100R7.

#### TUBE:

White, oil resistant seamless thermoplastic (Polyester).

#### **REINFORCEMENT:**

One or two braids of synthetic fibre.

#### **COVER:**

Black, oil and abrasion resistant thermoplastic (Polyurethane). Cover is perforated (pin-pricked).

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). Air & Water +70 °C (+158 °F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T1000 Series** (sizes -04 to -08) pages 177 to 187. **T4000 Series** (sizes -04 to -08) pages 209 to 216. Assembly Instructions pages 498 and 505.

TP7T – SPI TWIN I	PIDERLINE I HOSE		E IO				$\bigcirc$		Ø				Ŵ			
PART NO	HOSE SIZE		NOMINAL HOSE ID		MAXI NOMINAL WORE HOSE OD PRES		MUM KING SURE	MINI BU PRES	IMUM MINI RST BE SURE RAD		MUM ND DIUS	AVEF WEI	RAGE GHT	COUPLING SERIES ONE PIECE		
Hose	DN	Dash	mm	inch	mm	inch	bar psi		bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
TP74T	6	-04	6,5	1/4	12,2	0.48	210	3000	840	12000	35	1.4	0,20	0.13	T1000	T4000
TP75T	8	-05	8,1	5/16	14,3	0.56	190	2700	760	10800	45	1.8	0,26	0.18	T1000	T4000
TP76T	10	-06	9,7	3/8	16,0	0.63	160	2300	640	9200	55	2.2	0,30	0.20	T1000	T4000
TP78T	12	-08	08 13,0 1/2		20,3	0.80	30 140 20		560	8000	75	3.0	0,44	0.30	T1000	T4000
		winner Cha														



FILTERS

TECHNICAL

#### TP7TN ISOLATOR R7 NON CONDUCTIVE TWIN HOSE

**RECOMMENDED FOR:** 

RYCO ISOLATOR TP7TN -----

RYCO ISOLATOR TP7TN ------

## hydraulic fluids up to +70°C (+158°F). Suitable for use with<br/>some gases, fluids and chemicals (contact RYCO Hydraulics<br/>Technical Department). Smooth inner tube for high flow<br/>rate; and smooth, easily cleaned cover. The polyesterFrom Air & V<br/>Polyester

reinforcement gives TP7TN Hose excellent corrosion and fatigue resistance, and low elongation of  $\pm 2\%$  at maximum dynamic working pressure.

RYCO TP7TN ISOLATOR TWIN Hose consists of two TP7N

payout and return reels on forklifts and cranes. It is also

used for hydraulic powered hand tools, such as loppers

hoses. TP7TN is used where electrical non-conductivity is

required (for use in applications where there is potential

mineral, vegetable and most ester based hydraulic fluids. Heat and hydrolysis stabilised for use with water based

for contact with high voltage sources). Suitable for use with

and chain saws, and other applications requiring two

in a flat compact form that can be easily reeled onto

Series Hoses of the same size, permanently joined together

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R7, EN 855 TYPE R7, ISO 3949, SAE 100R7.

#### TUBE:

White, oil resistant seamless thermoplastic (Polyester).

#### **REINFORCEMENT:**

One or two braids of synthetic fibre.

#### COVER:

Orange, oil and abrasion resistant thermoplastic (Polyurethane). Cover is non-perforated.

#### FEATURES:

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.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). Air & Water +70 °C (+158 °F). For water, emulsions etc. see page 57.

#### WORKING PRESSURE:

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### COUPLINGS:

BITELOK NON-SKIVE ONE-PIECE CRIMP T1000 Series (sizes -04 to -08) pages 177 to 187. T4000 Series (sizes -04 to -08) pages 209 to 216. Assembly Instructions pages 498 and 505.

TP7TN - IS NON-CONDUCTI	TP7TN - ISOLATOR ON-CONDUCTIVE TWIN HOSE		IO				$\bigcirc$		Ø				Ŵ			
PART NO	HOSE SIZE HOSE ID		INAL E ID	MAX Nominal Wo Hose od Pre		MAXI WOR PRES	KIMUM MININ RKING BUR SSURE PRESS		IMUM MINI IRST BE SSURE RAD		MINIMUM BEND RADIUS		RAGE GHT	COUPLIN ONE I	G SERIES PIECE	
Hose	DN	Dash	mm inch		mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
TP74TN	6	-04	6,5	1/4	12,2	0.48	210	3000	840	12000	35	1.4	0,20	0.13	T1000	T4000
TP76TN	10	-06	9,7	3/8	16,0	0.63	160	2300	640	9200	55	2.2	0,30	0.20	T1000	T4000
TP78TN	12	-08	08 13,0 1/2		20,3 0.80		140	2000	560	8000	75	3.0	0,44	0.30	T1000	T4000
Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.																

## HOSE THERMOPLASTIC

## TP8 SPIDERLINE R8 HOSE

#### RYCO SPIDERLINE TP8 -----

#### **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. Suitable for use with some gases, fluids and chemicals. Cover is perforated (pin-pricked) for use with air and gases.

RYCO SPIDERLINE hose is lighter weight, has a more compact outside diameter and is less than half the minimum bend radius of wire braided rubber hose. Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The synthetic and aramid fibre reinforcement gives SPIDERLINE hose excellent corrosion and fatigue resistance plus low elongation at maximum dynamic working pressure.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R8, EN 855 TYPE R8, ISO 3949, SAE 100R8.

**TUBE:** 

White, oil resistant seamless thermoplastic (Polyester).

#### **REINFORCEMENT:**

One or two braids of aramid fibre.

#### **COVER:**

Black, oil and abrasion resistant thermoplastic (Polyurethane). Cover is perforated (pin-pricked).

#### **TEMPERATURE RANGE:**

From  $-40^{\circ}$ C to  $+100^{\circ}$ C ( $-40^{\circ}$ F to  $+212^{\circ}$ F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **COUPLINGS:**

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T1000 Series** (sizes -04 to -08) pages 177 to 187. Assembly Instructions page 498.

TP8 – SPIDERLINE HOSE		HOSE					$\bigcirc$		Ø				Ŵ		
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAX WOR PRES	MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MUM ND DIUS	AVERAGE WEIGHT		COUPLING SERIES
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
TP84	6	-04	6,5	1/4	11,5	0.45	350	5000	1400	20000	50	2.0	0,09	0.06	T1000
TP86	10	-06	9,7	3/8	15,5	0.61	280	4000	1120	16000	60	2.4	0,14	0.09	T1000
<b>TP88</b>	<b>288</b> 12 -08 13,0 1/2			1/2	19,9 0.78		245	3500	980	14000	80	3.1	0,20	0.13	T1000
Refer to the lates	Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.														



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## TP8N ISOLATOR R8 NON CONDUCTIVE HOSE

#### RYCO ISOLATOR TP8N -----

## RECOMMENDED FOR:

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  $+70^{\circ}$ C ( $+158^{\circ}$ F). Smooth inner tube for high flow rate; and smooth, easily cleaned cover. The high strength, non-metallic reinforcement gives these hoses excellent corrosion and fatigue resistance, and low elongation of  $\pm 2\%$  at maximum dynamic working pressure.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R8, EN 855 TYPE R8, ISO 3949, SAE 100R8.

TUBE:

White, oil resistant seamless thermoplastic (Polyester).

#### **REINFORCEMENT:**

One or two braids of aramid fibre.

#### **COVER:**

Orange, oil and abrasion resistant thermoplastic (Polyurethane). Cover is non-perforated.

#### FEATURES:

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.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). Air & Water +70 °C (+158 °F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### COUPLINGS:

#### **BITELOK NON-SKIVE ONE-PIECE CRIMP**

**T1000 Series** (sizes -04 to -08) pages 177 to 187. Assembly Instructions page 498.

TP8N - IS NON-CONDU	N - ISOLATOR Inductive hose		IO				$\bigcirc$		Ø				Ŵ			
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL V HOSE OD P		MAXI WOR PRES	MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MUM ND NUS	AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
TP84N	6	-04	6,5	1/4	11,5	0.45	350	5000	1400	20000	50	2.0	0,09	0.06	T1000	
TP86N	10	-06	9,7	3/8	15,5	0.61	280	4000	1120	16000	60	2.4	0,14	0.09	T1000	
TP88N	12 -08 13,0 1/2		1/2	19,9	19,9 0.78 245 35		3500	980 14000		80 3.1		0,20 0.13		T1000		

## HOSE THERMOPLASTIC

## TP8T SPIDERLINE R8 TWIN HOSE

RYCO SPIDERLINE TP8T -----

RYCO SPIDERLINE TP8T --

#### **RECOMMENDED FOR:**

RYCO TP8T SPIDERLINE TWIN Hose consists of two TP8 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.

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. Suitable for use with some gases, fluids and chemicals. Cover is perforated (pin-pricked) for use with air and gases.

RYCO SPIDERLINE hose is lighter weight, has a more compact outside diameter and is less than half the minimum bend radius of wire braided rubber hose. Smooth inner tube for high flow rate; and smooth, easily cleaned cover.

The synthetic and aramid fibre reinforcement gives SPIDERLINE hose excellent corrosion and fatigue resistance plus low elongation at maximum dynamic working pressure.

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: AS 3791 100R8, EN 855 TYPE R8, ISO 3949, SAE 100R8.

#### **TUBE:**

White, oil resistant seamless thermoplastic (Polyester).

#### **REINFORCEMENT:**

One or two braids of aramid fibre.

#### **COVER:**

Black, oil and abrasion resistant thermoplastic (Polyurethane). Cover is perforated (pin-pricked).

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). Air & Water +70 °C (+158 °F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP** 

**T1000 Series** (sizes -04 to -08) pages 177 to 187. Assembly Instructions pages 498 and 505.

TP8T – SPI TWIN I	P8T – SPIDERLINE TWIN HOSE		IO				$\bigcirc$		Ø				Ŵ				
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM HOS	INAL E OD	MAX WOR PRES	IMUM KING SURE	MUM MINI KING BUF SURE PRES		MINI BE RAI	MUM ND DIUS	AVEI WEI	RAGE GHT	COUPLING SERIES		
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE		
TP84T	6	-04	6,5	1/4	11,5	0.45	350	5000	1400	20000	50	2.0	0,17	0.11	T1000		
TP86T	10	-06	9,7	3/8	15,5	0.61	280	4000	1120	16000	60	2.4	0,27	0.18	T1000		
TP88T	12 -08 13,0 1/2		1/2	19,9	9,9 0.78 2		245 3500		980 14000		80 3.1		0.27	T1000			
Defense ale la la se																	



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## TP8TN **ISOLATOR R8 NON CONDUCTIVE TWIN HOSE**

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

hoses. TP8TN is used where electrical non-conductivity is

required (for use in applications where there is potential

mineral, vegetable and most ester based hydraulic fluids. Heat and hydrolysis stabilised for use with water based

hydraulic fluids up to +70°C (+158°F). Suitable for use with

some gases, fluids and chemicals (contact RYCO Hydraulics

flow rate; and smooth, easily cleaned cover. The aramid

reinforcement gives TP8TN Hose excellent corrosion and

fatigue resistance, and low elongation of ±2% at maximum

Technical Department). Smooth inner tube for high

Meets or Exceeds the Performance Requirements of:

AS 3791 100R8, EN 855 Type R8, ISO 3949, SAE 100R8.

White, oil resistant seamless thermoplastic (Polyester).

for contact with high voltage sources). Suitable for use with

and chain saws, and other applications requiring two

**RECOMMENDED FOR:** 

dynamic working pressure.

**PERFORMANCE:** 

**REINFORCEMENT:** 

One or two braids of aramid fibre.

TURE

RYCO ISOLATOR TPATN ----

RYCO ISOLATOR TP8TN -

#### **COVER:** RYCO TP8TN ISOLATOR TWIN Hose consists of two TP8N

Orange, oil and abrasion resistant thermoplastic (Polyurethane). Cover is non-perforated.

#### **FEATURES:**

Meets non-conductivity requirements of SAE 100R7, AS 3791 100R7, EN 855 Type 7 (maximum leakage does not exceed 50  $\mu$ A 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.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). Air & Water +70 °C (+158 °F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### COUPLINGS:

**BITELOK NON-SKIVE ONE-PIECE CRIMP** T1000 Series (sizes -04 to -08) pages 177 to 187. Assembly Instructions pages 498 and 505.

#### TP8TN - ISOLATOR N Ŵ D **NON-CONDUCTIVE TWIN HOSE** MINIMUM MINIMUM MAXIMUM **COUPLING SERIES** NOMINAL NOMINAL WORKING BURST BEND AVERAGE PART NO HOSE SIZE HOSE ID HOSE OD PRESSURE PRESSURE RADIUS WEIGHT **ONE PIECE** DN **NON-SKIVE** Hose Dash mm inch mm inch bar psi bar psi mm inch kg/m lb/ft TP84TN 6 -04 6,5 1/4 11,5 0.45 350 5000 1400 20000 50 2.0 0,17 0.11 T1000 TP86TN 10 -06 9,7 3/8 15,5 0.61 280 4000 1120 16000 60 2.4 0,27 0.18 T1000 TP88TN 0.78 245 3500 980 14000 80 0,40 0.27 T1000 12 -08 13,0 1/2 19,9 3.1 Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

## HOSE THERMOPLASTIC

**TP3000** LOW TEMPERATURE R18 ISOBARIC HOSE 210 BAR / 3000 PSI

#### 

#### **RECOMMENDED FOR:**

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

#### **PERFORMANCE:**

Meets or Exceeds the Performance Requirements of: SAE 100 R18.

#### **TUBE:**

Polyester elastomer.

#### **REINFORCEMENT:**

One or two braids of synthetic fibre.

#### **COVER:**

Special polyester, black with white ink-jet branding. Cover is perforated (pin-pricked).

#### **FEATURES:**

Special polyester cover resistant to low temperatures and harsh weather conditions. Optimum bonding between tube, braids and cover for tight bend radii without cover wrinkling.

#### **TEMPERATURE RANGE:**

From -55°C to +100°C (-67°F to +212°F) Air & Water +70 °C (+158 °F) For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### COUPLINGS:

**BITELOK NON-SKIVE ONE-PIECE CRIMP T4000 Series** (sizes -04 to -08) pages 209 to 216. Assembly Instructions page 498.

TP3000 - I Thermopla	TP3000 - ISOBARIC THERMOPLASTIC HOSE			$\bigcirc$		$\bigcirc$	$\bigcirc$		Ø				Ŵ			
PART NO	HOSE SIZE		NOMINAL HOSE ID		NOMINAL HOSE OD		MAXIMUM WORKING PRESSURE		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES ONE PIECE	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE	
TP3004	6	-04	6,5	1/4	12,2	0.48	210	3000	840	12000	35	1.4	0,09	0.06	T4000	
TP3006	10	-06	9,7	3/8	16,6	0.65	210	3000	840	12000	45	1.8	0,16	0.11	T4000	
TP3008	12	-08	13,0	1/2	22,5	0.89	210	3000	840	12000	70	2.8	0,29	0.20	T4000	
Refer to the lates	Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.															
## GREASING AND LUBRICATION



RYCO GREASELINE TPGL -----

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**RECOMMENDED FOR:** 

Thermoplastic constant pressure hose for high pressure greasing and lubrication systems.

#### TUBE:

White, oil resistant seamless thermoplastic polymer.

#### **REINFORCEMENT:**

One braid of synthetic fibre.

#### **COVER:**

Black, oil and abrasion resistant thermoplastic ploymer. Cover is non-perforated.

#### **FEATURES:**

Polyester reinforcement for high pressure. Extremely compact and flexible, and highly kink resistant. Special low-friction smooth cover for easy installation and compact routing.

#### **TEMPERATURE RANGE:**

From -40°C to +100°C (-40°F to +212°F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

#### **COUPLINGS:**

**BITELOK NON-SKIVE ONE-PIECE CRIMP TG000 Series** (size -02) page 244. Assembly Instructions page 498.

#### FIELD ATTACHABLE NON-SKIVE

6000 Series insert (size -02) pages 276 to 290. P000 Series ferrule (size -02) page 276.

TPGL - THER	MOPL <i>I</i> NE HO	ASTIC Se	Ĩ	$\bigcirc$	$\bigcirc$		$\bigcirc$		Ø							
PART NO	HOSE	SIZE	NOM Hos	INAL E ID	NOM Hos	INAL E OD	MAXIMUM N WORKING PRESSURE P		MINIMUM BURST PRESSURE		MINIMUM BEND RADIUS		AVERAGE WEIGHT		COUPLING SERIES	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NO	N-SKIVE
TPGL2	4	-02	4,0	0.16	8,3	0.33	250	3600	1000	14400	25	0.98	0,05	0.03	TG000	6000 (P000)

Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

## HOSE GREASING AND LUBRICATION



#### **RECOMMENDED FOR:**

Rubber-covered hose for high pressure greasing and lubrication systems.

#### TUBE:

Black, oil resistant seamless synthetic rubber.

#### **REINFORCEMENT:**

One braid of high tensile steel wire.

#### **COVER:**

Black, oil and abrasion resistant synthetic rubber.

#### FEATURES:

Suit standard grease guns. High tensile wire reinforcement for high pressure and durability. Available in a variety of lengths

#### **TEMPERATURE RANGE:**

From  $-40^{\circ}$ C to  $+100^{\circ}$ C ( $-40^{\circ}$ F to  $+212^{\circ}$ F). For water, emulsions etc. see page 57.

#### **WORKING PRESSURE:**

Maximum working pressures are based on 4:1 safety factor (maximum working pressure to minimum burst pressure).

R4100 - FLEXIBLE GREASE GUN EXTENSIONS									
PART NO	OVERALI	LENGTH	END 1 CONNECTION	END 2 CONNECTION					
Hose	mm	inch							
R4100	255	10	1/8" BSPT MALE	1/8" BSPT MALE					
R4200	380	15	1/8" BSPT MALE	1/8" BSPT MALE					
R4101	460	18	1/8" BSPT MALE	1/8" BSPT MALE					
R4201	610	24	1/8" BSPT MALE	1/8" BSPT MALE					
R4202	710	28	1/8" BSPT MALE	1/8" BSPT MALE					



# HOSE PROTECTION

**EXTRA ABRASION RESISTANT** 

#### FRAS - FLAME RESISTANT ANTI STATIC

RYCO CROCSLEEVE RCSR-44 FRAS AHIGH PRESSURE HOSES

RYCO QUALITY

BUNDLE MULTIPLE HOSES

RCS CROCSLEEVE SHOWN ABOVE THE LATEST IN RYCO'S SUPERIOR RANGE OF HOSE PROTECTION PRODUCTS

## HOSE HOSE PROTECTION - FS1072 FIRE SLEEVE



MEETS OR EXCEEDS THE PERFORMANCE REQUIREMENTS OF: SAE AEROSPACE STANDARD AS 1072.

#### **RECOMMENDED FOR:**

S1072

FIRE SLEEVE

Increasing service life of hoses used in hostile environments. It is a tough, flexible insulation, which not only protects from from intense external radiant heat, but also sheds molten metal splash. Consequently, damage to hoses is reduced and service life is increased. 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. RYCO FS1072 FIRE SLEEVE can also be used to reduce heat loss from hoses.

#### **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.

#### **TEMPERATURE RANGE:**

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

#### **TYPICAL PROPERTIES:**

K Value in BTU/°F/hr/in2 1.20 K Value in Cal/cm sec-cm2-°C

0.0004134

#### **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 FIRE SLEEVE 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 FIRE SLEEVE as it is installed over the hose. Length of FIRE SLEEVE will shorten in length as it increases in diameter, so allow for some extra length to compensate for this.

For a loose fit, there is no hard and fast rule to relate the Nominal Inside Diameter of FIRE SLEEVE with the Nominal Outside Diameter of the hose being covered. However, it is important to take two factors into account: hose length and hose cover.

For hoses up to 5 metres (16 ft) long, use a Nominal Inside Diameter of FIRE SLEEVE 15% larger than the Nominal Outside Diameter of hose being covered. For hoses over 5 metres (16 ft) long, use a size 20% larger. Remember the FIRE SLEEVE 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.

As the FIRE SLEEVE must slide over the outside of the hose, the hose covering also requires special consideration. A hose with a rough rubber cover is more difficult to slide FIRE SLEEVE over than a hose with a smooth cover.

For hose covers that have a high co-efficient of friction, be sure to allow for greater tolerance between the Nominal Inside Diameter of FIRE SLEEVE and the Nominal Outside Diameter of the hose to be covered.

#### Sizes FS1072-08 to FS1072-104: Standard coil length is 15,24 metres (50 ft); or cut lengths. Lengths longer than 15,24 meters (50 ft)

are also available, contact RYCO Customer Service.

#### Sizes FS1072-80 and FS1072-104: Standard coil length is 5 metres (16.4 ft)

FS1072 FIRE SLEEVE 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**

FSTAPE-16 is an iron oxide, red silicone rubber tape. It is designed to be, not only self-bonding and self-curing, but to also bond and cure onto FS1072 FIRE SLEEVE. It can be used to join seperate sections of FIRE SLEEVE, as well as to repair any scuffed or nicked areas of FIRE SLEEVE. 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 25 mm WIDE x 11 metres LONG x 0,5 mm THICK (1 inch x 36 ft x 0.02 inch)





INTRODUCTION

HOSE

COUPLINGS

С

#### FS1072 FIRE SLEEVE SPECIFICATIONS

FIRE SLEEVE DIMENSIONS									
PART NO	NOMINAL ID		NOM WA Thick	INAL ALL (NESS	NOM INSIDI DIMEI	INAL E FLAT NSION	NOMINAL WEIGHT		
	A mm	A inch	B mm	B inch	C mm	C inch	kg/m	lb/ft	
FS1072-08	12,7	0.50	4,3	0.17	20,0	0.79	0,19	0.13	
FS1072-11	17,5	0.69	4,3	0.17	27,5	1.08	0,29	0.19	
FS1072-14	22,2	0.87	4,4	0.17	34,9	1.37	0,28	0.19	
FS1072-16	25,4	1.00	4,8	0.19	39,9	1.57	0,31	0.21	
FS1072-18	28,6	1.13	4,7	0.19	46,6	1.84	0,37	0.25	
FS1072-20	31,8	1.25	4,7	0.19	47,4	1.87	0,36	0.24	
FS1072-22	34,9	1.38	4,8	0.19	54,8	2.17	0,43	0.29	
FS1072-24	38,1	2.50	4,0	0.16	58,3	2.29	0,46	0.31	
FS1072-30	47,6	1.87	4,0	0.16	74,8	2.93	0,54	0.36	
FS1072-32	50,8	2.00	4,0	0.16	79,8	3.14	0,55	0.37	
FS1072-40	63,5	2.50	4,1	0.16	94,2	3.71	0,84	0.56	
FS1072-44	69,9	2.75	5,0	0.20	109,8	4.32	0,85	0.57	
FS1072-64	102,0	4.02	5,0	0.20	160,2	6.32	1,07	0.72	
FS1072-80	127,0	5.00	5,0	0.20	199,5	7.89	2,26	1.52	
FS1072-104	165,0	6.50	5,0	0.20	259,2	10.21	2,86	1.92	



#### 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, and are in millimetres. Divide by 25.4 to convert to inches.

H	DSE SI	ZE		HOSE SERIES																							
DN	inch	Dash	T3000A/D/S	T3600A/D/S	T4000A/D/S	T5000A/D/S	T6000A/D/S	H3000A/D/S	H4000A/D/S	H5000/A/D/S	H6000A/D/S	T1A/D/S	T1F	T2A/D/S	T2C	TXA2D	DF2A	E3	TJ2D	H12A/D/S	R4SHA/D	R4SPA/D	T5	D2B	MS1000	CS1000	PTORS
3	1/8	-02																									D
5	3/16	-03										11,7	11,7														◄
6	1/4	-04	11,8	11,8	11,8	13,2	13,2					13,3	13,3	14,9	15,0		13,4	14,9	14,9				13,2				
8	5/16	-05	14,4	14,4	15,6	15,6	15,6		10.2	10.2	10.2	14,9	14,9	16,5	16,6		14,9	16,5	18,9	10.2		20.0	14,8				
10	3/8	-06	15,0	15,0	10,0	17,1	17,0		19,3	19,3	19,3	17,3	17,3	18,9	19,0	22.0	17,3	18,9		19,3		20,9	17,2		10 F	10 5	
12	1/Z	-08	10,7	10,7	20,0	20,0	21,5		22,7	22,7	22,7	20,5	20,5	21,9	22,2	22,0	20,5	21,9		22,7		24,3	19,4		18,5	18,5	ഗ
10	3/0	-10	23,4	23,4	23,4	24,0			24,9	20,2	20,2	23,0	23,0	20,1	23,2 20.1	23,2	23,0	20,1		20,2	31.8	27,0	23,4 27 /		22,1	22,1	Ξ
25	1	-16	34.8	34.8	35.2	27,0			36.9	36.8	37.5	35.5	35.5	37.5	37.2	37.7	35.5	37.5		37.4	37.9	38.6	31.4		32.5	32.5	0 R
31	1.1/4	-20	51,0	51,0	55,2			45.7	44.0	45.0	46.4	43.2	55,5	47.6	47.4	57,7	55,5	57,5		45.7	44.4	49.6	38.1		39.5	39.5	SS
38	1.1/2	-24						50,3	50,8	52,7	53,1	50,2		54,1	53,8					53,0	52,4	56,0	44,5	48,1	46,0	46,0	ШŬ
51	2	-32						63,3	66,4	67,5	71,5	63,6		66,8	66,7					66,0	66,8	68,9	56,3	61,8	59,1	59,1	
63	2.1/2	-40												80,1						82,6							∣ ◄
76	3	-48												93,4													
DN	inch	Dash	3T1	RQP1	RQP2	RQP5	RQP6	rw1	JW2	SR	SRF	RTH1	-82	И1	MP1	M2	11	0L1D	M2G	ΓΡΖ, ΤΡΖΝ	ΓΡΖΤ, ΤΡΖΤΝ	FP8, TP8N	<b>FP8T, TP8TN</b>	rP3000	LPGL		RS
3	1/8	-02		-	-	-	-	-	-	•1	•,	-	-	-	-	-	-	-	-	-			-	-	8.3		ΗË
5	3/16	-03																		9,6					0,0		
6	1/4	-04	13,3	13,4	15,0	13,2	12,7		15,0			9,4		12,7	13,5	14,3	12,3	12,3	14,3	12,2	12,2	11,5	11,5	12,2			
8	5/16	-05	14,9	15,0	16,6	14,8	14,3		16,6					14,3			13,9	13,9		14,3	14,3						
10	3/8	-06	17,3	17,4	19,0	17,2	15,9	17,4	19,0			11,7	19,0	15,9	17,5	19,0	15,5	15,5	19,0	16,0	16,0	15,5	15,5	16,6			
12	1/2	-08	20,3	20,5	22,0	19,4	19,8	20,6				15,4	23,0		21,4	23,8	19,0	19,0	23,8	20,3	20,3	19,9	19,9	22,5			
16	5/8	-10	23,6	23,7	25,2	23,4	23,0					18,4	25,4		25,4		22,6	22,6									
19	3/4	-12	27,6	27,6	29,1	27,4	26,4			31,5	31,5	22,1			28,6	31,7	25,8	25,8	31,7	27,1							
25	1	-16	35,5	35,7	37,7	31,4				40,0	40,0	28,6			37,3					34,0							CA
31	1.1/4	-20			48,0	38,1					46,5				43,9												Ī
38	1.1/2	-24			54,4	44,5					53,1																프
51	2	-32			67,3	56,3					65,5																Ш
63	2.1/2	-40								78,5																	
76	3	-48								90,7																	

HIGHER TECHNOLOGY EQUALS GREATER PERFORMANCE

## HOSE HOSE PROTECTION - RCS CROCSLEEVE



#### **RECOMMENDED FOR:**

Hose burst and pinhole protection. 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.

#### **CONSTRUCTION:**

Densely woven, polyamide tubular sleeve. Black or Red colour. CROCSLEEVE is not affected by exposure to air, water, hydraulic oil and many other fluids. The inside bore of the CROCSLEEVE is smooth, allowing hose to move inside the sleeve, and allowing easy installation.

#### FRAS - FLAME RESISTANCE AND ANTI-STATIC:

Flame Resistant and Anti-Static - FRAS. Electrical conductivity is 3 to 5  $M\Omega/m$  when subjected to 500 Volts DC.

#### TEMPERATURE RANGE:

From - 50°C to + 121°C (- 58°F to + 250°F).

#### **SIZE SELECTION:**

Choose a size that is slightly larger than the hose or hoses to be sleeved - recommended size is 50% larger than nominal Hose OD (see chart on page 145). If CROCSLEEVE is to be installed onto fitted hose assemblies, allow for the maximum outside profile of the hose fittings.

#### **ASSEMBLY INSTRUCTIONS:**

1. Cut the CROCSLEEVE to length.

- 2. The loose fibres of the cut edges can be sealed with a heat gun or hot knife, to prevent fraying.
- 3. Install over hoses or hose assemblies.
- 4. Secure in place using adhesive-lined heat shrink tubing.

#### **RCS CROCSLEEVE SPECIFICATIONS**

CROCSLEEVE DIMENSIONS										
PAR	T NO	NOM I	INAL D	NOM Fla	INAL T ID	NOM FLA	INAL T OD	NOMINAL WEIGHT		
BLACK	RED	A mm	A inch	B mm	B inch	C mm	C inch	kg/m	lb/ft	
RCSB-20	RCSR-20	20	0.79	31	1.22	34	1.34	0,039	0.026	
RCSB-23	RCSR-23	23	0.91	36	1.42	39	1.54	0,044	0.030	
RCSB-27	RCSR-27	27	1.06	42	1.65	45	1.77	0,052	0.035	
RCSB-31	RCSR-31	31	1.22	49	1.93	52	2.05	0,060	0.040	
RCSB-36	RCSR-36	36	1.42	54	2.13	57	2.24	0,065	0.044	
RCSB-44	RCSR-44	44	1.73	69	2.72	72	2.83	0,082	0.055	
RCSB-47	RCSR-47	47	1.85	74	2.91	77	3.03	0,086	0.058	
RCSB-55	RCSR-55	55	2.17	86	3.39	89	3.50	0,102	0.068	
RCSB-60	RCSR-60	60	2.36	94	3.70	97	3.82	0,111	0.074	
RCSB-66	RCSR-66	66	2.60	104	4.09	107	4.21	0,122	0.082	
RCSB-73	RCSR-73	73	2.87	115	4.53	118	4.65	0,135	0.091	
RCSB-93	RCSR-93	93	3.66	146	5.75	149	5.87	0,170	0.114	
RCSB-112	RCSR-112	112	4.41	176	6.93	179	7.05	0,206	0.138	
RCSB-129	RCSR-129	129	5.08	202	7.95	205	8.07	0.360	0.241	





#### RYCO QUALITY



#### HOSE PROTECTION - RCS CROCSLEEVE

CROCSLEI	CROCSLEEVE SIZE VERSUS HOSE AND DASH SIZE SELECTION TABLE															
	T3000A/D/S	T3600A/D/S	T4000A/D/S	T5000A/D/S	T6000A/D/S	H3000A/D/S	H4000A/D/S	H5000/A/D/S	H6000A/D/S	H12A/D/S	R4SHA/D	R4SPA/D	T1A/D/S	T2A/D/S	D2B	
PART NO.				<u> </u>			۵	Dash Siz	2e							
RCSB-20	-04	-04	-04	-04	-04								-03,-04			
RCSB-23	-05	-05	-05	-05	-05								-05	-04		
RCSB-27	-06	-06	-06	-06	-06								-06	-05		
RCSB-31	-08	-08	-08	-08			-06	-06	-06	-06		-06	-08	-06		
RCSB-36	-10	-10	-10	-10	-08		-08	-08	-08	-08		-08	-10	-08		
RCSB-44	-12	-12	-12	-12			-10	-10	-10	-10		-10	-12	-10,-12		
RCSB-47							-12	-12	-12	-12	-12	-12				
RCSB-55	-16	-16	-16				-16	-16	-16		-16		-16	-16		
RCSB-60										-16		-16				
RCSB-66							-20	-20			-20		-20			4
RCSB-73						-20			-20	-20		-20	-24	-20	-24	
RCSB-93						-24	-24	-24	-24	-24	-24	-24	-32	-24	-93	Ī
RCSB-112						-32	-32	-32	-32	-32	-32	-32		-32		
RCSB-129										-40				-40		1 2

## CROCSLEEVE - SAFETY FIRST

DESIGN FEATURES	BENEFITS	S S
GREATER STRENGTH	CROCSLEEVE is made from high density PA (polyamide) for greater strength	PTOF
FLAME RESISTANT - ABRASION RESISTANT	CROCSLEEVE is Flame Resistant and Anti-Static - FRAS	ADA
BURST RESISTANT	CROCSLEEVE is very resistant to hose burst	
PIN HOLE RESISTANT	CROCSLEEVE is very resistant to hose pin holes	
LEAK RESISTANT	CROCSLEEVE will allow pressure build up of up to 7 bar (100 psi)	SORI
STABLE	CROCSLEEVE is stable and has great resistance to sun, atmospheric agents and ageing	
ΝΟΝ-ΤΟΧΙΟ	CROCSLEEVE is non toxic	
ТОИСН	CROCSLEEVE is super tough	
COLOURS	CROCSLEEVE comes in BLACK (RCSB) and RED (RCSR)	E R S
EASY INSTALLATION	CROCSLEEVE has a smooth bore providing easy installation of the hose	

	Acetone	Very Good	Ether	Very Good	
	Alcohols	Very Good	Gasoline	Very Good	$\square$
	Bacterium	Very Good	Ionic Metallic Solutions	Very Good	
	Benzene	Very Good	Mineral Oil	Very Good	<
CHEMICALLY COMPATIBLE	Carbon Tetrachloride	Very Good	Moths	Very Good	
	Chlorine Based Solvents	Very Good	Mould	Very Good	Ę
	Diluted Acids	Good	Oil	Very Good	Ì
	Diluted Bases	Very Good	Vegetable Oil	Very Good	

## HOSE HOSE PROTECTION - RAWHIDE NYLON HOSE SLEEVE



#### **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.

#### **CONSTRUCTION:**

Densely woven, multi-filament nylon, 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 Labor, Mine Safety and Health Administration.

#### **TEMPERATURE RANGE:**

From -  $50^{\circ}$ C to +  $121^{\circ}$ C (-  $58^{\circ}$ F to +  $250^{\circ}$ F).

#### **SIZE SELECTION:**

Choose a size that is slightly larger than the hose or hoses to be sleeved (see chart on page 145).

If sleeve is to be installed onto fitted hose assemblies, allow for the maximum outside profile of the hose fittings.

#### **ASSEMBLY INSTRUCTIONS:**

1. Cut the Nylon Hose Sleeve to length.

- 2. The loose fibres of the cut edges can be sealed with a heat gun or hot knife, to prevent fraying.
- 3. Install over hoses or hose assemblies.
- 4. Secure in place using cable ties, band clamps or hose clamps.

#### **STANDARD COIL LENGTHS:**

91,4 metre (300 ft) long coils; or cut lengths.



#### **RH RAWHIDE SPECIFICATIONS**

RAWHIDE NYLON HOSE SLEEVE									
PART NO	NOMINAL ID		NOM WA Thick	INAL ALL (NESS	NOM INSIDE DIME	INAL E FLAT NSION	NOMINAL WEIGHT		
	A mm	A inch	B mm	B inch	C mm	C inch	kg/m	lb/ft	
RH-23	22,9	0.90	2,3	0.09	29,8	1.41	0,06	0.03	
RH-27	26,9	1.06	2,3	0.09	39,8	1.67	0,07	0.04	
RH-31	31,0	1.22	2,3	0.09	49,9	1.92	0,08	0.05	
RH-36	36,0	1.42	2,5	0.10	56,6	2.23	0,09	0.06	
RH-46	46,0	1.81	2,5	0.10	72,1	2.84	0,12	0.08	
RH-56	55,6	2.19	2,5	0.10	87,4	3.44	0,15	0.10	
RH-61	60,5	2.38	2,5	0.10	95,0	3.74	0,16	0.11	
RH-67	66,8	2.63	2,5	0.10	104,6	4.12	0,17	0.12	
RH-73	73,2	2.88	2,5	0.10	115,1	4.53	0,19	0.13	
RH-93	93,0	3.66	2,5	0.10	146,1	5.75	0,25	0.17	



#### HOSE PROTECTION - RSG/RSGY/RSGF SPIRAL GUARD



NTRODUCTION

ACCESSOR	

FILTER

TECHNICAL

#### **RECOMMENDED FOR:**

RSG

**RSGF (FRAS)** 

Lightweight, cost-effective protection of hoses and cables from abrasion and impact. It can also be used to bundle hoses together in groups. RSGF meets Flame Resistance Designation "U.S. MSHA" of the US Department of Labor, Mine Safety and Health Administration.

#### **CONSTRUCTION:**

Polyethylene plastic spiral, with rounded edges to protect hose cover. RSG Black; RSGY Yellow; RSGF FRAS (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 +248°F).

**POLYETHYLENE SPIRAL GUARD** RSG (BLACK), RSGY (YELLOW),

#### **ASSEMBLY INSTRUCTIONS:**

RYCO Spiral Guard can easily be applied 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. The Spiral Guard expands to fit the hose or hose bundle. Allow extra length of Spiral Guard to allow for this expansion.

#### **SIZE SELECTION:**

The tables below show RYCO 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 = 18,9 mm (see chart on page 145) RSG-20L Nominal ID = 15,0 mm (from chart below) Estimated length of RSG-20L to cover 2,3 metres of T26A

 $=\frac{18,9}{15,0} \times 2,3 \text{ m} = 2,90 \text{ metres}$ 

#### **HOW TO ORDER:**

Complete the Part Number: RSG-16L, RSGY-75L, RSGF-50L etc.

Sizes -16L to -90L:	20 m (65.6 ft) coils or cut to length.
Size -110L:	10 m (32.8 ft) coils or cut to length.

S	PIR/	AL G	UAR	D HOSE SERIES																	AD								
DASH	NOM II mm	INAL D inch	NOM O mm	INAL D inch	T3000A/D/S	T3600A/D/S	T4000A/D/S	T5000A/D/S	T6000A/D/S	H3000A/D/S	H4000A/D/S	H5000/A/D/S	H6000A/D/S	T1A/D/S	T1F	T2A/D/S	T2C	TXA2D	DF2A	E2	TJ2D	H12A/D/S	R4SHA/D	R4SPA/D	T5	D2B	MS1000	CS1000	
-12L	9,0	0.35	13,0	0.51	-4	-4	-4	-4						-3	-3				-4										
-16L	12,0	0.47	16,5	0.65	-5, -6	-5, -6	-5	-5	-4,-5					-4, -5	-4,-5	-4	-4		-5	-4	-4				-4,-5				
-20L	15,0	0.59	20,0	0.79	-8	-8	-6, -8	-6, -8	-6		-6	-6	-6	-6, -8	-6, -8	-5,-6	-5,-6		-6	-5,-6	-5	-6		-6	-6,-8		-8	-8	S S
-25L	19,0	0.75	24,5	0.96	-10	-10	-8-10		-8		-8	-8	-8	-10	-10	-8, -10	-8, -10	-8, -10	-8	-8, -10		-8		-8	-10		-10	-10	Ш
-32L	23,0	0.91	30,0	1.18	-12	-12	-12	-10,-12			-10,-12	-10,-12	-10,-12	-12	-12	-12	-12	-12	-10,-12	-12		-10, 12		-10	-12		-12	-12	
-40L	30,5	1.20	39,0	1.54	-16	-16	-16	-16			-16	-16	-16	-16	-16	-16	-16	-16	-16	-16		16	-12,-16	-12,16	-16,-20		-16	-16	
-50L	38,0	1.50	46,5	1.83						-20	-20	-20	-20	-20, -24		-20	-20					-20	-20	-20	-24		-20,-24	-20,-24	
-63L	47,0	1.85	58,0	2.28						-24	-24	-24	-24	-32		-24	-24, -32					-24	-24	-24	-32	-24	-32	-32	
-75L	61,0	2.40	73,0	2.87						-32	-32	-32	-32			-32,-40	-32					-32	-32	-32		-32			
-90L	70,5	2.78	84,5	3.33												-48						-40							
-110L	84,0	3.31	99,0	3.90																									0
																							7		7				Ř
DASH SIZE	NOM II mm	INAL D inch	NOM O mm	INAL D inch	BT1	RQP1	RQP2	RQP5	RQP6	TW1	PW2	SR	SRF	RTH1	FB2	M1	MP1	M2	PL1	PL1D	M2G	TP7, TP7N	трут, труті	TP8, TP8N	ТР8Т, ТР8ТІ	TP3000	TPGL		
-12L	9,0	0.35	13,0	0.51		-4		-4	-4					-4,-6		-4			-4	-4		-4	-4	-4	-4	-4	-2		
-16L	12,0	0.47	16,5	0.65	-4,-5	-5	-4	-5	-5, -6		-4			-8		-5, -6		-4	-5,-6	-5,-6		-5, -6	-5,-6	-6	-6	-6			
-20L	15,0	0.59	20,0	0.79	-6,	-6,-8	-5,-6	-6,-8	-8	-6	-5,-6			-10	-6		-4,-6	-6	-8	-8	-4,-6	-8	-8	-8	-8				_
-25L	19,0	0.75	24,5	0.96	-8,-10	-10	-8, -10	-10	-10	-8				-12	-8		-8,-10	-8	-10	-10	-8					-8			
-32L	23,0	0.91	30,0	1.18	-12	-12	-12	-12	-12			-12		-16	-10		-12	-12	-12	-12	-12	-12							
-40L	30,5	1.20	39,0	1.54	-16	-16	-16	-16,-20					-12				-16					-16							
-50L	38,0	1.50	46,5	1.83			-20	-24				-16	-16				-20												Ī
-63L	47,0	1.85	58,0	2.28			-24	-32					-20,-24																L L
-75L	61,0	2.40	73,0	2.87			-32						-32																
-90L	70,5	2.78	84,5	3.33								-40																	H
		2.21	00.0	2.00																									

#### HIGHER TECHNOLOGY EQUALS GREATER PERFORMANCE

#### 149

## HOSE HOSE PROTECTION - RWA WIRE ARMOUR



#### **RECOMMENDED FOR:**

Protection for Hose Cover in arduous operating conditions; especially against abrasion and deep gouges, thus prolonging the life of the Hose.

#### **CONSTRUCTION:**

Spring Steel Wire; galvanised for corrosion protection.

#### **TEMPERATURE RANGE:**

Suitable for use with all RYCO Hoses at their published temperature ranges.

#### **ASSEMBLY INSTRUCTIONS:**

- 1. Slide RWA Wire Armour over hose after first end of hose assembly is completed.
- 2. Then complete second end of hose assembly.

#### **STANDARD LENGTH:**

6 metres (19.7 ft) in all sizes.

WIRE A	RMOL	JR											HOS	E SEI	RIES										
	NOM II	INAL D	3000A/D/S	3600A/D/S	4000A/D/S	5000A/D/S	6000A/D/S	3000A/D/S	4000A/D/S	5000/A/D/S	6000A/D/S	1A/D/S	2A/D/S	2C	XA2D	IF2A	2	J2D	112A/D/S	4SHA/D	4SPA/D	5	2B	IS 1000	S1000
PART NO	mm	inch	F	F	Ĥ	F	F	I	I	T	T	-	F	F	н		ш	H	T	~	~	-		2	0
RWA-12	12	0.47	4 5	4 5	4	4	4					A E	4			4	4					A E			
RWA-10	20	0.03	-4,-5	-4,-5	-4	-4 5 6	-4					-4,-5	-4	15		-4	-4	Δ				-4,-5			
RWA-20	20	0.78	-0	-0	-5,-0	-5,-0	-5,-0		-6	-6	-6	-0	-5	-4,-5		-0	-5	-5				-0		-8	-8
RWA-23	23	0.05	0	U	-8	-8	8		U	Ū	Ū	-8	-8	Ū	-8	-8	-8	5	-6		-6	U		U	U
RWA-27	27	1.06	-10	-10	-10	-10	Ū		-8,	-8	-8	-10	Ū	-8,	Ū	-10	-10		-8		-8	-10		-10,	-10,
DWA 20	20	1 10	10	10	10	10			-10	10	10	10	10	-10	10	10			10		10	10		-12	-12
RWA-30	30	1.19	-12	-12	-12	-12				-10	-10	-12	-10	-12	-10	-12	-12		-10		-10	-12			
RWA-34	34	1.34							-12	-12	-12		-12	-12	-12		-12		-12	-12	-12	-16		-16	-16
RWA-39	39	1.52	-16	-16	-16				-16	-16	-16	-16		-16		-16	-16			-16					
RWA-41	41	1.61											-16		-16				-16		-16	-20		-20	-20
RWA-49	49	1.93						-20	-20	-20	-20	-20	-20	-20	-20				-20	-20		-24		-24	-24
RWA-56	56	2.2						-24	-24	-24	-24	-24	-24	-24					-24	-24	-20		-24		
RWA-61	61	2.4																			-24	-32		-32	-32
RWA-68	68	2.68						-32	-32			-32	-32	-32					-32				-32		
RWA-75	75	2.95								-32	-32									-32	-32				
	NOM I	INAL D	_	P1	P2	P5	P6	F	2			Ŧ	2		F			Q	Ð	7, TP7N	7Τ, ΤΡ7ΤΝ	3, TP8N	3T, TP8TN	3000	GL
PART NO	mm	inch	BT	ß	ß	ğ	ß	ĕ	M	SR	SRI	RT	EB	ž	MP	M2	Ľ	Ę	M2	TP	E I	Ĩ	Ĩ	đ	Ţ
RWA-12	12	0.47										-4								-3					-2
RWA-16	16	0.63	-4,-5	-4,-5	-4	-4,-5	-4,-5					-6,-8		-4,-5	-4	-4	-4,-5	-4,-5	-4	-4,-5	-4,-5	-4	-4	-4	
RWA-20	20	0.78	-6	-6	-5	-6	-6	-6	-4,-5					-6	-6		-б	-6		-6	-6	-6	-6	-6	
RWA-21	21	0.83			-6	-8	-8		-6			-10	-6			-6	-8	-8	-6			-8	-8		
RWA-23	23	0.91	-8	-8	-8	10	10	-8				10	-8		-8	0	10	10	0	-8	-8			0	
RWA-27	27	1.06	-10	-10	10	-10	-10					-12	-10		-10	-8	-10	-10	-8	10				-8	
RWA-30	21	1.19	-12	-12	-10	-12	-12					16			-12		-12	-12		-12					
RWA-31	34	1.22			-12	-16						-10							-12						
RWA-39	39	1.52	-16			10				-12	-12								12	-16					
RWA-41	41	1.61		-16	-16	-20				-16	-16														
RWA-49	49	1.93		-	-20	-24				-	-20														
RWA-56	56	2.2			-24						-24														
RWA-61	61	2.4				-32																			
RWA-68	68	2.68			-32						-32														
RWA-75	75	2.95																							

### HOSE PROTECTION - RHYS PACKAGING SLEEVE





#### **RECOMMENDED FOR:**

HYS

PACKAGING SLEEVE

Packaging and protection of hose assemblies, in transit and in storage. RYCO RHYS Packaging Sleeve is installed over the finished hose assembly. The ends may be heat sealed, or folded over and stapled, or taped closed.

#### **CONSTRUCTION:**

Heavy gauge low density polyethylene clear plastic tubing; printed at intervals with "RYCO" logo, and incorporating an area for the hose assembly Part Number to be written.

#### **ASSEMBLY INSTRUCTIONS:**

1. Select correct size of RYCO RHYS Packaging Sleeve. It must be large enough to allow for the maximum outside profile of the hose couplings.

Two sizes are available:

**RHYS-75** suits most hoses up to -16 (1") hose bore.

- **RHYS-125** suits most hoses from -16 to -32 (1" to 2") hose.
- 2. If required, write the hose assembly Part Number onto the Packaging Sleeve using a ball point pen.
- 3. Slide the hose assembly into the RHYS Packaging Sleeve.
- 4. Trim Packaging Sleeve to length, and seal ends.

**STANDARD COIL LENGTHS:** 350 metres (1,150 feet).

#### RHYS HOSE ASSEMBLY PACKAGING SLEEVE SPECIFICATIONS

	PACKAGING SLEEVE														
PART NO	NOM	INAL D	NOM WA Thick	INAL ALL (NESS	NOM INSIDE DIME	INAL E FLAT NSION	NOMINAL WEIGHT								
	A mm	A inch	B mm	B inch	C mm	C inch	kg/m	lb/ft							
RHYS-75	48	1.9	0,15	0.006	75	3.0	0,021	0.014							
RHYS-125	79	3.1	0,15	0.006	125	5.0	0,035	0.023							

# 

## HOSE HOSE PROTECTION - RHYT HOSE TAG



#### **RECOMMENDED FOR:**

Permanent identification of hose assemblies. RYCO Hose Tags enable hose assembly information to be attached to the hose assembly in a cost effective manner.

Two sizes of Hose Tags allow all common hose sizes to be tagged.

Information can be written or printed on the Hose Tag prior to being attached to the hose. When the Hose Tag is wrapped on the hose, a clear panel at the end of the tag wraps over to protect the written or printed information.

Hose Tag remains in position on the hose due to the adhesive backing, and the Hose Tag bends with the hose, ensuring that flexibility is not affected.

The slim profile of the attached Hose Tag reduces the risk of accidental removal. Hose Tag does not damage or cut the cover of the hose.

#### **CONSTRUCTION:**

Heat, oil, ozone, sunlight, and weather resistant high performance plastic.

Adhesive-backed for permanent attachment to the hose assembly. Area to write or print information, with a clear panel that wraps over to protect the hose assembly identification information.

#### **TEMPERATURE RANGE:**

Suitable for use with all RYCO Hoses at their published temperature ranges.

#### **ASSEMBLY INSTRUCTIONS:**

1. Select correct size of RYCO RHYT Hose Tag for the hose assembly that is to be identified.

Two sizes are available:

**RHYT-10** and **RHWT-10** suits hose sizes -04 to -10 (1/4" to 5/8").

**RHYT-32** and **RHWT-32** suits hose sizes -12 to -32 (3/4" to 2").

- 2. Using a ball point pen or label printer, apply the required information onto the Hose Tag.
- 3. Remove the release paper from the back of the Hose Tag to expose the adhesive.
- 4. While ensuring that the Hose Tag is parallel to the axis of the hose, wrap the Hose Tag tightly around the hose, then continue to wrap the clear plastic panel over the Hose Tag.
- 5. Press firmly to ensure that the adhesive bonds.

#### **RHYT HOSE TAGS SPECIFICATIONS**

RHYT/RHWT HOSE TAGS															
	SUITS HOSE SIZE ID RANGE														
PART NO	DN	INCH	DASH												
RHYT-10	6 to 16	1/4 to 5/8	-04 to -10												
RHYT-32	12 to 51	3/4 to 2	-12 to -32												
RHWT-10	6 to 16	1/4 to 5/8	-04 to -10												
RHWT-32	12 to 51	3/4 to 2	-12 to -32												

Contact RYCO for further information.



### HOSE PROTECTION - 750/760 SPRING GUARD



**750/760** Spring guard

## HOSE

JAC

#### **RECOMMENDED FOR:**

TJ24D and TJ26D Specialist Jacking Hose Assemblies, to control bend radius at end of hoses to avoid excessive strain on hose couplings. Can also be used with **PW24**, **PW26**, **T24A**, **T24C**, **T24D**, **T24S**, **T26A**, **T26C**, **T26D** and **T26S** Hoses. Can be used with **L000** Series Field Attachable and **T2000** Series BITELOK Couplings.

**750** Suits some -4 (1/4") and -6 (3/8") hoses

**760** Suits some -6 (3/8") hoses

#### **CONSTRUCTION:**

RYCO

Spring Steel Wire; galvanised for corrosion protection.

#### **ASSEMBLY INSTRUCTIONS:**

Slide Spring Guards over the hose before assembling hose ends. After ends are assembled, twist and push Spring Guards onto the ferrules. The close pitched end of the Spring Guard goes over the ferrule, and the wide pitched end goes over the hose (as depicted in below image).

TJ24D DIEHARD



## HOSE

#### HOW TO ORDER RYCO HYDRAULIC HOSE

#### SEE PAGES 486 AND 487 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 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 (65.6 ft)

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 in the table below is the availability of RYCO Hydraulic Hose in Coils (C), and on Reels (R) or in Bulk Cartons (B). Details of average quantities packed on reels (or in cartons) and their dimensions are available from RYCO on request.

			1			1	1		HOSE SERIES																	
HOSE SIZE		00A/D/S	00A/D/S	00A/D/S	00A/D/S	00A/D/S	00A/D/S	DOA	00D/S	00A/D/S	A/D/S	PA/D	HA/D		/S		/D/S		2D	A				-	2	2
DASH	INCH	T30(	T40(	T50(	T60(	H30	H40	H50	H50	H60	H12	R4S	R4S	T1A	T1D,	T1F	T2A,	T2C	TXA	DF2	E2	TJ2D	BT1	RQP	RQP	RQP
-03	3/16″													R,B		R,B	R,B									
-04	1/4″	R,B	R,B	R,B	R,B							R,B		R,B	R,B	R,B	R,B			R,B		R,B	R,B	R,B	R,B	R,B
-05	5/16″													R,B		R,B	R,B									
-06	3/8″	R,B	R,B	R,B	R,B				R,B	R,B	R,B	R,B		R,B	R,B	R,B	R,B			R,B		R,B	R,B	R,B	R,B	R,B
-08	1/2″	R,B	R,B	R,B	R,B		R,B		R,B	R,B	R,B	R,B		R,B	R,B	R,B	R,B		R,B	R,B			R,B	R,B	R,B	R,B
-10	5/8″	R,B	R,B				R,B		R,B	R,B	R,B	R,B		R,B	R,B	R,B	R,B		R,B	R,B			R,B	R,B	R,B	R,B
-12	3/4″	R,B	R,B				R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B		R,B	R,B			R,B	R,B	R,B	R,B
-16	1″	R,B					R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B		R,B	R,B			R,B	R,B	R,B	R,B
-20	1.1/4″					C,B	C,B		C,B	C,B	C,B		C,B	C,B	C,B		C,B		C,B						C,B	C,B
-24	1.1/2″					C,B	C,B		C,B	C,B	C,B		C,B	C,B	C,B		C,B								C,B	C,B
-32	2″					C,B	C,B		C,B	C,B	C,B			C,B	C,B		C,B								C,B	C,B
-40	2.1/2″																C,B									
-48	3″																									

													HOS	E SE	RIES											
HOSE SIZE DASH INCH		RQP6	T5	D2B	MS1000	CS1000	TW1	PW2	RTH1	SR	SRF	M1	MP1	M2	PL1/PL1D	M2G	FB2	TP7	TP7N	трут	TP7TN	TP8	TP8N	трвт	TP8TN	TP3000
-03	3/16″																	R,B		R,B		R,B				
-04	1/4″	R,B	R,B						R,B			R,B	R,B	R,B	R,B	R,B		R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B
-05	5/16″																									
-06	3/8″	R,B	R,B				R,B	R,B	R,B			R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B
-08	1/2″	R,B	R,B				R,B	R,B	R,B				R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B
-10	5/8″	R,B	R,B						R,B				R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B	R,B			
-12	3/4″	R,B	R,B						R,B	R	R		R,B	R,B	R,B	R,B	R,B	R,B	R,B			R,B	R,B			
-16	1″		R,B							R	R		R,B	R,B	R,B	R,B		R,B	R,B			R,B	R,B			
-20	1.1/4″		C,B							С	С		C,B													
-24	1.1/2″		C,B	C,B						С	С		C,B													
-32	2″		C,B	C,B						С	С															
-40	2.1/2″									С	С															
-48	3″									С																