





## 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:**

#### 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.

#### **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.

T3000A - A COMPACT ISO PART NO	BARIC		NOM HOS	INAL E ID	NOM HOS		WOR	IMUM KING SURE	MINI BU		BE	MUM ND DIUS	AVEF WEI	RAGE	COUPLIN ONE F	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
T3004A	6	-04	6,3	1/4	11,8	0.46	245	3500	980	14000	38	1.5	0,16	0.11	T1000	T2000
T3005A	8	-05	7,9	5/16	14,4	0.57	245	3500	980	14000	41	1.6	0,23	0.15	T1000	T2000
T3006A	10	-06	9,5	3/8	15,6	0.61	215	3100	860	12400	65	2.6	0,26	0.18	T1000	T2000
T3008A	12	-08	12,7	1/2	18,7	0.74	215	3100	860	12400	90	3.6	0,36	0.24	T1000	T2000
T3010A	16	-10	15,9	5/8	23,4	0.92	215	3100	860	12400	100	3.9	0,56	0.38	T1000	T2000
T3012A	19	-12	19,1	3/4	27,6	1.09	215	3100	860	12400	120	4.7	0,78	0.52	T1000	T2000
T3016A	25	-16	25,4	1	34,8	1.37	215	3100	860	12400	150	5.9	1,14	0.77	T1000	T2000

## T3000D

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.

#### TURE

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™** 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 - I COMPACT ISO PART NO	BARIC		NOM HOS		NOM HOS	INAL E OD	WOR	IMUM KING SURE	MINI BUI	MUM RST SURE	BE	MUM ND DIUS		V RAGE GHT	COUPLIN	
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





#### **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:**

#### 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.

#### **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:**

 $-40^{\circ}$ 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:**

#### **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.

T3000S - COMPACT ISO PART NO	BARIC			INAL E ID	NOM HOS		WOR	IMUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	AVEF	V RAGE GHT	COUPLIN ONE F	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
T3004S	6	-04	6,3	1/4	11,8	0.46	245	3500	980	14000	38	1.5	0,16	0.11	T1000	T2000
T3005S	8	-05	7,9	5/16	14,4	0.57	245	3500	980	14000	41	1.6	0,23	0.15	T1000	T2000
T3006S	10	-06	9,5	3/8	15,6	0.61	215	3100	860	12400	65	2.6	0,26	0.18	T1000	T2000
T3008S	12	-08	12,7	1/2	18,7	0.74	215	3100	860	12400	90	3.6	0,36	0.24	T1000	T2000
T3010S	16	-10	15,9	5/8	23,4	0.92	215	3100	860	12400	100	3.9	0,56	0.38	T1000	T2000
T3012S	19	-12	19,1	3/4	27,6	1.09	215	3100	860	12400	120	4.7	0,78	0.52	T1000	T2000
T3016S	25	-16	25,4	1	34,8	1.37	215	3100	860	12400	150	5.9	1,14	0.77	T1000	T2000



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:**

 $-40^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+212^{\circ}\text{F}$ ). 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 - A COMPACT ISO PART NO	BARIC		NOM HOS		NOM HOS		WOR	MUM KING SURE	MINI BUI		MINI BE RAD			V RAGE GHT	COUPLIN ONE F	
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



## T3600D

EXTRA ABRASION RESISTANT 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™** 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:**

 $-40^{\circ}$ 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:**

#### **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.

0	T3600D - I OMPACT ISO PART NO	BARIC		NOM HOS	INAL E ID	NOM HOS		WOR	IMUM KING SSURE	MINI BUI		BE	MUM ND DIUS	AVEF	V RAGE GHT	COUPLIN ONE F	
Ī	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



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.

#### TURF

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:**

 $-40^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+212^{\circ}\text{F}$ ). 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 - COMPACT ISO PART NO	BARIC		NOM HOS			INAL E OD	WOR	IMUM KING SURE	MINI BUI			MUM ND DIUS	AVEF	V RAGE GHT	COUPLIN ONE F	
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



## T4000A

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:**

**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 280 bar / 4100 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 -12) pages 188 to 208. Assembly Instructions page 498.

T4000A - A COMPACT ISO			III NOM	INAL	Į((	INAL	MAXI WOR	MUM KING	MINI BUI	MUM RST	MINI BE	MUM ND		V RAGE	COUPLING SERIES
PART NO	HOSE	SIZE	HOSE ID		HOS	E OD	PRES	SURE	PRES	SURE	RAD	IUS	WEI	GHT	ONE PIECE
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T4004A	6	-04	6,3	1/4	11,8	0.46	280	4100	1120	16400	50	1.97	0,16	0.11	T2000
T4005A	8	-05	7,9	5/16	15,6	0.61	280	4100	1120	16400	55	2.17	0,34	0.23	T2000
T4006A	10	-06	9,5	3/8	16,6	0.65	280	4100	1120	16400	65	2.56	0,37	0.25	T2000
T4008A	12	-08	12,7	1/2	20,6	0.81	280	4100	1120	16400	90	3.55	0,51	0.34	T2000
T4010A	16	-10	15,9	5/8	23,4	0.92	280	4100	1120	16400	100	3.94	0,61	0.41	T2000
T4012A	19	-12	19,1	3/4	28,4	1.12	280	4100	1120	16400	120	4.73	0,92	0.62	T2000

## **T4000D**

EXTRA ABRASION RESISTANT FRAS 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.

#### TURE

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

One braid (-04 size) or two braids (-05 to -12 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 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 - COMPACT ISO PART NO	BARIC		NOM HOS		NOM HOS		WOR	IMUM KING SURE	MINI BUI		MINI BE RAD			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
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



## **T4000S**

EXTREMELY ABRASION RESISTANT COMPACT ISOBARIC HOSE 280 BAR / 4100 PSI

#### T4000 RYCO SLIDER













#### **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.

#### TURE

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:**

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.

#### **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 -12) pages 188 to 208. Assembly Instructions page 498.

T4000S - COMPACT ISO PART NO	BARIC		NOM	INAL SE ID	NOM HOS		WOR	IMUM KING SURE	MINI BUI PRES		BE	MUM ND DIUS		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
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

## T5000A

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:**

**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			1		[(		Ç		(	<b>Ž</b>			(v	V	
PART NO	HOSE	SIZE	NOM HOS		NOM HOS	INAL E OD	WOR	MUM KING SURE	BUI	MUM RST SURE	MINI BE RAD	ND		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



### T5000D

EXTRA ABRASION RESISTANT 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:**

Two braids 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 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.

#### 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:**

 $-40^{\circ}$ 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:**

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

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

T5000D - COMPACT ISO			1		[(		Ç		(	Ĭ			(V	V	
PART NO	HOSE	SIZE	NOM HOS		NOM HOS		WOR	MUM KING SURE	MINI BUI PRES		BE	MUM ND IUS		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
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



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:**

 $-40^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$  to  $+212^{\circ}\text{F}$ ). 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 -			1		<b>[</b> [		Ç		(	Ĭ		$\searrow$	[V	V	
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS		WOR	IMUM KING SURE	BU		MINI BE RAD			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
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



## T6000A 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

**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			1		]((		Ç		(	Ť		$\searrow$	(V	<u>v</u>	
	PART NO	HOSE	SIZE	NOM HOS		NOM HOS		WOR	MUM KING SURE	BUI	MUM RST SURE	BE	MUM ND IUS		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
١	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

## **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™** 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™** 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 -06) pages 188 to 208. Assembly Instructions page 498.

T600 COMPAC		DIEHAI Baric		1		[[		Ç		(	Ĭ			(V	v	
PARTI	ART NO HOSE SIZE		SIZE	NOM HOS		NOM HOS	INAL E OD	WOR	MUM KING SURE	BUI	MUM RST SURE	MINI BE RAD		AVEF WEI	RAGE GHT	COUPLING SERIES  ONE PIECE
Hose	e	DN			inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
T6004	4D	6	-04	6,3	1/4	13,2	0.52	420	6100	1680	24400	50	1.97	0,28	0.19	T2000
T6005	5D	8	-05	7,9	5/16	15,6	0.61	420	6100	1680	24400	55	2.17	0,35	0.24	T2000
T6006	5D	10	-06	9,5	3/8	17,6	0.69	420	6100	1680	24400	65	2.56	0,47	0.32	T2000



## **T6000S**

EXTREMELY ABRASION RESISTANT 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:

**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 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:**

**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 -06) pages 188 to 208. Assembly Instructions page 498.

	T6000S - COMPACT ISO			1		]((		Ç		(	Ť		$\searrow$	(v	<u>v</u>	
	PART NO	HOSE	SIZE	NOM HOS		NOM HOS		WOR	IMUM KING SURE	BUI	MUM RST SURE	MINI BE RAD			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
١	T6004S	6	-04	6,3	1/4	13,2	0.52	420	6100	1680	24400	50	1.97	0,28	0.19	T2000
	T6005S	8	-05	7,9	5/16	15,6	0.61	420	6100	1680	24400	55	2.17	0,35	0.24	T2000
	T6006S	10	-06	9,5	3/8	17,6	0.69	420	6100	1680	24400	65	2.56	0,47	0.32	T2000

#### ISOBARIC SPIRAL





#### **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 -			1		<u>[(</u>		Ç		(	<b>Ž</b>			[V	V	
PART NO	RT NO HOSE SIZE		NOM HOS	INAL E ID		INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE	MINI BE RAD		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
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



## 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.

#### 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 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™** 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 -20 to -32) pages 217 to 233. Assembly Instructions page 498.

I	H3000D - Sobaric Sp			1		]((		Ç		(	<b>Ž</b>		$\mathcal{N}$	\(\frac{\sqrt{\v}}{\v}\)	V	
	PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS		WOR	IMUM KING SURE	MINI BUI PRES		BE	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

#### 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:**

**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 S			1				Ç		(	<b>Ž</b>			[V	V	
PART NO				INAL E ID		INAL E OD	WOR	IMUM KING SURE	BU	MUM RST SURE	MINI BE RAD		AVEF WEI		COUPLING SERIES ONE PIECE
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



## **H4000A**

ISOBARIC SPIRAL HOSE 280 BAR / 4100 PSI MILLION CYCLE

# H4000 RYCO AVENGER Lovde Register Regi

#### **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.

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

#### **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:**

 $-40^{\circ}$ C to  $+121^{\circ}$ C,  $-40^{\circ}$ F to  $+250^{\circ}$ 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:**

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

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

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PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS		WOR	MUM KING SURE	MINI BUI PRES		BE	MUM ND IUS		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
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

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#### 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™** 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			1		]((		Ç		(	Ĭ			(V	V	
PART NO	HOSE	SIZE	NOM HOS		NOM HOS		WOR	MUM KING SURE	MINI BUI PRES		MINI BE RAD		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



## **H4000S**

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

# H4000 RYCO SLIDER

#### **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:**

**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 -32) pages 217 to 233. Assembly Instructions page 498.

H4000S - ISOBARIC SE			1		]((		Ç		(	Ť		$\mathcal{N}$	(V	<u>v</u>	
PART NO	HOSE	SIZE		INAL E ID	NOM HOS		WOR	MUM KING SURE	MINI BUI PRES		BE	MUM ND DIUS		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

#### ISOBARIC SPIRAL



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.

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.

**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			<u> </u>		[(		Ç		(	<b>Ž</b>		$\mathcal{Y}$	[v	V		
PART NO	PART NO HOSE SIZE Hose DN Dash			INAL E ID	NOM HOS	INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE		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
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



## **H5000D**

EXTRA ABRASION RESISTANT 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.

#### TURE

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:**

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.

#### 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).

#### **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.

H5000D - ISOBARIC SE			1		]((		Ç		(	<b>)</b>			(V	V		
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS		WOR	MUM KING SURE	MINI BUI PRES		MINI BE RAD		AVEF WEI		COUPLIN ONE F	
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE
H5006D	10	-06	9,5	3/8	19,3	0.76	350	5100	1400	20400	62	2.4	0,61	0.41	T7000	
H5008D	12	-08	12,7	1/2	22,7	0.89	350	5100	1400	20400	90	3.5	0,78	0.52	T7000	
H5010D	16	-10	15,9	5/8	26,2	1.03	350	5100	1400	20400	100	3.9	0,98	0.66	T7000	
H5012D	19	-12	19,1	3/4	29,6	1.17	350	5100	1400	20400	120	4.7	1,21	0.81	T7000	
H5016D	25	-16	25,4	1	36,8	1.45	350	5100	1400	20400	150	5.9	1,72	1.16	T7000	
H5020D	31	-20	31,8	1.1/4	45,0	1.77	350	5100	1400	20400	210	8.3	2,42	1.63	T7000	
H5024D	38	-24	38,1	1.1/2	52,7	2.07	350	5100	1400	20400	330	13.0	3,44	2.31	T7000	
H5032D	51	-32	50,8	2	67,5	2.66	350	5100	1400	20400	400	15.8	5,40	3.63		T9000

#### 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.

#### TURE

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 SE			1		[(		Ç		(	<b>Ž</b>		$\mathcal{J}$	(V	V		
PART NO	HOSE	SIZE		INAL E ID	NOM HOS	INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE		MUM ND IUS	AVEF WEI	RAGE GHT	COUPLIN ONE F	
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		T9000



## **H6000A**

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.

#### TURE

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 - ISOBARIC SI			1		<u>[</u>		Ç		(	Ť		$\mathcal{N}$	\(\frac{\z}{\psi}\)	v)			•
PART NO	HOSE	SIZE		INAL E ID	NOM HOS	INAL E OD	WOR	MUM KING SURE	BUI	MUM RST SURE	BE	MUM ND DIUS		RAGE GHT		LING S	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

#### ISOBARIC SPIRAL

## **H6000D**

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.

#### TURE

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:

**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™** 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 - ISOBARIC SF			1		]((		Ç		(	Ĭ			(V	V			}
PART NO	HOSE	SIZE	NOM HOS		NOM HOS		WOR	MUM KING SURE	BUI	MUM RST SURE	MINI BE RAD		AVEF WEI	RAGE GHT		LING S	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



## **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.

#### TURE

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:**

**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 - ISOBARIC S			<b>I</b> ((		<u>[(</u>		Ç		(	Ĭ		$\mathcal{N}$	[V	v V			•
PART NO	HOSE	SIZE		INAL E ID	NOM HOS	INAL E OD	WOR	MUM KING SURE	BUI	MUM RST SURE	BE	MUM ND DIUS		RAGE GHT		LING SI	ERIES 2 PC
Hose	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-	SKIVE	SKIVE
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		69000N
H6016S	25	-16	25,4	1	37,5	1.48	420	6100	1680	24400	165	6.5	1,99	1.34	T7000		69000N
H6020S	31	-20	31,8	1.1/4	46,4	1.83	420	6100	1680	24400	220	8.7	2,97	2.00	T7000		69000N
H6024S	38	-24	38,1	1.1/2	53,1	2.09	420	6100	1680	24400	350	13.8	3,81	2.56		T9000	69000N
H6032S	51	-32	50,8	2	71,5	2.81	420	6100	1680	24400	400	15.8	7,10	4.77			69000N

#### 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			<b>I</b> ((		]((		Ç			<b>Ž</b>		$\mathcal{N}$	\(\frac{\zeta}{\psi}\)	<u>v</u>			
PART NO	HOSE	SIZE		INAL E ID	NOM HOS		WOR	MUM KING SURE	MINI BUI PRES		BE	MUM ND IUS	AVEF WEI	RAGE GHT		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
T13A	5	-03	4,8	3/16	11,7	0.46	250	3600	1000	14500	35	1.4	0,19	0.13	T2000		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	

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

<sup>\*\*</sup> 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.



## T1D EXTRA ABRASION RESISTANT FRAS ONE WIRE BRAID HOSE

### - 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™** 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 - I NON-SK			1		[(		Ç			Ĩ			(V	V			
PART NO	HOSE	SIZE	NOM HOS			INAL E OD	WOR	MUM KING SURE	BUI	MUM RST SURE	BE	MUM ND IUS	AVEF WEI	RAGE GHT		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
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	

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

<sup>\*\*</sup> 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.

#### BRAID

**T1S** 

EXTREMELY ABRASION RESISTANT ONE WIRE BRAID HOSE



#### **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.

T15 - NON-SK	SLIDE		1		[[		Ç		(	Ť		$\mathcal{Y}$	[	<u>v</u>		
PART NO	HOSE	SIZE		INAL E ID	NOM HOS	INAL E OD	WOR	MUM KING SURE	MINI BUI PRES		BE	MUM ND DIUS		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
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

<sup>\*</sup> 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.

#### BRAID





#### **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			<b>I</b> ((		[(		Ç		(	Ĭ		$\mathcal{J}$	\ <u>\</u>	V			
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS	INAL E OD		MUM KING SURE	BUI	MUM RST SURE	BE	MUM ND DIUS	AVEF WEI	RAGE GHT		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		

<sup>\*</sup> 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.



## T2D EXTRA ABRASION RESISTANT FRAS TWO WIRE BRAID HOSE



#### **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™** 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.

#### 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

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

T2D - I NON-SK			1		]((		Ç		(	Ť		$\mathcal{N}$	\(\frac{\z}{\v}\)	<b>V</b>			
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SURE	ВЕ	MUM ND DIUS	AVEF WEI			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
T24D	6	-04	6,3	1/4	14,9	0.59	420	6100	1680	24400	100	3.9	0,35	0.24	T2000		6000 (L000)
T25D	8	-05	7,9	5/16	16,5	0.65	350	5100	1400	20400	114	4.5	0,42	0.28	T2000		
T26D	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)
T28D	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)
T210D	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)
T212D	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)
T216D	25	-16	25,4	1	37,5	1.48	175	2500	700	10000	300	11.8	1,30	0.87	T2000	T7000	6000 (L000)
T220D	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)
T224D	38	-24	38,1	1.1/2	54,1	2.13	100	1450	400	5800	500	19.7	2,48	1.67	T2000	T7000	
T232D	51	-32	50,8	2	66,8	2.63	90	1300	360	5200	600	23.6	3,02	2.03	T2000	T7000	
T240D	63	-40	63,5	2.1/2	80,1	3.15	70	1000	280	4000	760	29.9	3,70	2.49	T2000		
T248D	76	-48	76,2	3	91,3	3.59	70	1000	280	4000	900	35.4	3,99	2.68	T2000		

<sup>\*</sup> When using B000 Series Field Attachable Couplings on T2D Series Hose, cover of hose must be skived at ends. Refer to the latest RYCO Crimp Charts for crimp diameter and mark lengths.

#### BRAID

**T2S** 

EXTREMELY ABRASION RESISTANT TWO WIRE BRAID HOSE



#### **RECOMMENDED FOR:**

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

#### **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		1		]((		Ç		Ç	Ť		$\searrow$	\[\v\]	v		
PART NO	HOSE	SIZE		INAL E ID	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND IUS	AVEF WEI	RAGE GHT		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



## T2C LOW TEMPERATURE HOSE

#### INVO ICEBREAKER T2C =====

#### **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.

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

#### **FEATURES:**

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.

T20 TEMPERA	LOW TURE I	HOSE	1		[[		Ç		(	Ĭ		$\mathcal{J}$	(V	v		
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SURE	BE	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
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

#### BRAID

## TXA2D

EXTRA ABRASION RESISTANT EXTRA HIGH PRESSURE FRAS

TWO WIRE BRAID HOSE



#### **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™** 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	ESSOR IVE HO	<b>≀</b>	NOM HOS		NOM HOS			KING	MINI BUI	MUM RST SURE	BE	MUM ND DIUS	AVEF WEI	RAGE	CO ONE I		G SERIES FIELD ATT
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.





# = IRYCO 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:**

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.

#### **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 -16) pages 188 to 208. Assembly Instructions page 498.

DF2A - I NON-SKI			1		]((		Ç		(	Ĭ		$\searrow$	[v	V	
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS	INAL E OD	WOR	MUM KING SURE	MINI BUI PRES		BE	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
DF24A	6	-04	6,3	1/4	13,4	0.53	420	6100	1680	24000	50	2.0	0,28	0.19	T2000
DF25A	8	-05	7,9	5/16	14,9	0.59	350	5100	1400	20400	56	2.2	0,41	0.27	T2000
DF26A	10	-06	9,5	3/8	17,3	0.68	350	5100	1400	20400	63	2.5	0,43	0.29	T2000
DF28A	12	-08	12,7	1/2	20,3	0.80	295	4250	1180	17000	88	3.5	0,51	0.34	T2000
DF210A	16	-10	15,9	5/8	23,6	0.93	250	3600	1000	14500	101	4.0	0,63	0.42	T2000
DF212A	19	-12	19,1	3/4	27,6	1.09	215	3100	860	12400	120	4.7	0,81	0.55	T2000
DF216A	25	-16	25,4	1	35,5	1.40	167	2400	668	9700	152	6.0	1,10	0.74	T2000

#### BRAID

TJ2D
ABRASION RESISTANT
FRAS
JACK HOSE



#### **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.

#### TURE

Black, oil resistant synthetic rubber.

#### **REINFORCEMENT:**

Two braids 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 T2000 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  $-40^{\circ}$ C to  $+49^{\circ}$ C ( $-40^{\circ}$ F to  $+120^{\circ}$ 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.

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PARI	Г NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS		WOR	MUM KING SURE	BUI	MUM RST SURE	MINI BE RAD		AVEF WEI	RAGE GHT	COUPLING SERIES  ONE PIECE
Но	se	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	kg/m	lb/ft	NON-SKIVE
TJ2	4D	6	-04	6,3	1/4	14.9	0.59	700	10000	1750	25000	100	3.9	0.35	0.24	T2000
TJ2	6D	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.





# - 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.

#### 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.

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

#### **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).

#### **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.

H12A - A' SPIRAL			1		](		Ç		(	<b>Ž</b>		$\mathcal{N}$	(V	V	
PART NO	HOSE	SIZE	NOM HOS		NOM HOS			MUM KING SURE	BUI	MUM RST SURE	MINI BE RAD		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
H1206A	10	-06	9,5	3/8	19,3	0.76	350	5100	1400	20400	127	5.0	0,61	0.41	T7000
H1208A	12	-08	12,7	1/2	22,7	0.89	350	5100	1400	20400	178	7.0	0,78	0.52	T7000
H1210A	16	-10	15,9	5/8	26,2	1.03	350	5100	1400	20400	200	7.9	0,98	0.66	T7000
H1212A	19	-12	19,1	3/4	30,0	1.18	350	5100	1400	20400	240	9.5	1,21	0.81	T7000
H1216A	25	-16	25,4	1	37,4	1.47	350	5100	1400	20400	300	11.8	1,84	1.24	T7000
H1220A	31	-20	31,8	1.1/4	45,7	1.80	275	4000	1100	16000	400	15.8	2,34	1.57	T7000
H1224A	38	-24	38,1	1.1/2	53,0	2.09	255	3700	1020	14800	500	19.7	3,04	2.04	T7000
H1232A	51	-32	50,8	2	66,0	2.60	210	3050	840	12400	600	23.6	4,23	2.84	T7000

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#### 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™** 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™** 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 - D SPIRAL		D	1		[(		Ç		(	Ť			ĺ	V	
PART NO	HOSE	SIZE		INAL E ID	NOM HOS		WOR	MUM KING SURE	BU	MUM RST SURE		MUM ND IUS	AVEF WEI		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





EXTREMELY ABRASION RESISTANT VERY HIGH PRESSURE MULTI-SPIRAL HOSE



#### **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:**

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.

#### **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).

#### **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.

H12S - S SPIRAL			1		](		Ç		(	Ť		$\searrow$	(V	<u>v</u>	
PART NO	HOSE	SIZE		INAL E ID	NOM HOS		WOR	MUM KING SURE	MINI BUI PRES		BE	MUM ND IUS		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
H1206S	10	-06	9,5	3/8	19,3	0.76	350	5100	1400	20400	127	5.0	0,61	0.41	T7000
H1208S	12	-08	12,7	1/2	22,7	0.89	350	5100	1400	20400	178	7.0	0,78	0.52	T7000
H1210S	16	-10	15,9	5/8	26,2	1.03	350	5100	1400	20400	200	7.9	0,98	0.66	T7000
H1212S	19	-12	19,1	3/4	30,0	1.18	350	5100	1400	20400	240	9.5	1,21	0.81	T7000
H1216S	25	-16	25,4	1	37,4	1.47	350	5100	1400	20400	300	11.8	1,84	1.24	T7000
H1220S	31	-20	31,8	1.1/4	45,7	1.80	275	4000	1100	16000	400	15.8	2,34	1.57	T7000
H1224S	38	-24	38,1	1.1/2	53,0	2.09	255	3700	1020	14800	500	19.7	3,04	2.04	T7000
H1232S	51	-32	50,8	2	66,0	2.60	210	3050	840	12400	600	23.6	4,23	2.84	T7000

#### 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.

#### TURF

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  $-40^{\circ}$ C to  $+150^{\circ}$ C ( $-40^{\circ}$ F to  $+302^{\circ}$ 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			1		<u>[(</u>		Ç	)		Ĭ		$\mathcal{N}$	[V	V			
PART NO	HOSE	SIZE		INAL E ID	NOM HOS		WOR	MUM KING SURE	BUI	MUM RST SURE	BE	MUM ND DIUS	AVEF WEI			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	900	13000	3600	52000	100	4.0	0,24	0.16	T2000		6000 (K000)
RQP15	8	-05	7,9	5/16	15,0	0.59	860	12480	3440	49920	114	4.5	0,27	0.18	T2000		
RQP16	10	-06	9,5	3/8	17,4	0.69	720	10400	2880	41600	127	5.0	0,34	0.23	T2000	T7000	6000 (K000)
RQP18	12	-08	12,7	1/2	20,5	0.81	640	9200	2560	36800	178	7.0	0,44	0.30	T2000	T7000	6000 (K000)
RQP110	16	-10	15,9	5/8	23,7	0.93	520	7600	2080	30400	200	8.0	0,51	0.34	T2000	T7000	6000 (K000)
RQP112	19	-12	19,1	3/4	27,6	1.09	480	6960	1920	27840	240	9.5	0,64	0.43	T2000	T7000	6000 (K000)
RQP116	25	-16	25,4	1	35,7	1.41	360	5200	1440	20800	300	12.0	0,98	0.66	T2000	T7000	6000 (K000)

<sup>\*</sup> 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.

## PRESSURE WASHER



RYCO TW1

#### **RECOMMENDED FOR:**

Hot Water Pressure Washer Machines.

#### TURE

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 WASHER			1		[(		Ç		(	<b>Ž</b>		$\overline{\mathcal{Y}}$	[V	v	
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS		WOR	MUM KING SURE	BU		MINI BE RAD		AVEF WEI		COUPLING SERIES  ONE PIECE
Hose	DN	Dash	mm	inch	mm	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





# = IRYCO PW2 PRESSURE WASHER ==

#### **RECOMMENDED FOR:**

Hot Water Pressure Washer Machines.

#### TURE

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 WASHE			1		[[		Ç		(	<b>Ž</b>			\(\v\)	V	
PART NO	HOSE	SIZE	NOM HOS	INAL E ID	NOM HOS		WOR	MUM KING SURE	BUI	MUM RST SURE	MINI BE RAD	ND	AVEF WEI		COUPLING SERIES ONE PIECE
Hose	DN	Dash	mm	inch	mm	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

## 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°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:**

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**

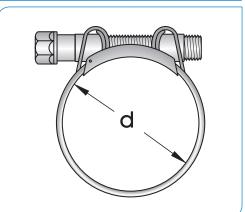
**T4000 Series** (sizes -12 and -16) pages 209 to 216. Assembly Instructions page 498.

SR - SUC RETUR			<b>I</b> ((		[(		C		(	<b>Ž</b>			)	(Hg	[v	V
PART NO	HOSE	SIZE		INAL E ID	NOM HOS	INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	VACI RAT			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		MENDED Ening Que
		d mm	N.m	ft.lbf
SR12	RSC-3134	31 to 34	20	15
SR16	RSC-3740*	37 to 40	20	15
3810	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.







#### **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.

 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.

 For Suction Applications, and High Pressure Delivery (up to 100% of Maximum Working Pressure).

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

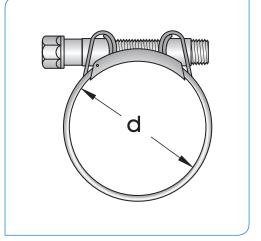
**T4000 Series** (sizes -12 to -32) pages 209 to 216. Assembly Instructions page 498.

SRF - SUCTION		NT COM RETUR		<b>I</b> ((		[(		Ç		(	Ĭ		$\sqrt{2}$	)	<b>(</b> Hg	\(\frac{1}{V}\)	V
PART	NO	HOSE	SIZE	NOM HOS		NOM HOS	INAL E OD	WOR	MUM KING SURE	BU	MUM RST SURE	BE	MUM ND DIUS	VACI RAT		AVEF WEI	
Hos	se	DN	Dash	mm	inch	mm	inch	bar	psi	bar	psi	mm	inch	mmHg	inHg	kg/m	lb/ft
SRF	12	19	-12	19,1	3/4	31,5	1.24	21	300	84	1200	63	2.5	635	25	0,82	0.55
SRF	16	25	-16	25,4	1	40,0	1.57	17	250	68	1000	75	2.9	635	25	1,00	0.67
SRF	20	31	-20	31,8	1.1/4	46,5	1.83	14	200	56	800	100	3.9	635	25	1,19	0.80
SRF	24	38	-24	38,1	1.1/2	53,1	2.09	10	150	40	600	125	4.9	635	25	1,39	0.93
SRF:	32	51	-32	50,8	2	65,5	2.58	7	100	28	400	150	5.9	635	25	1,94	1.30

HOSE PART NO	CLAMP PART NO	CLAMP ADJUSTMENT RANGE	TIGHT	MENDED Ening Que
		d mm	N.m	ft.lbf
SRF12	RSC-3134	31 to 34	20	15
SRF16	RSC-3740*	37 to 40	20	15
SKFIO	RSC-4043*	40 to 43	20	15
SRF20	RSC-4347*	43 to 47	20	15
SKF2U	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 PROTECTION - FS1072 FIRE SLEEVE

FS1072

FIRE SI FEVE



MEETS OR EXCEEDS THE PERFORMANCE REQUIREMENTS OF: SAE AEROSPACE STANDARD AS 1072.

#### **RECOMMENDED FOR:**

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  $\frac{BTU/^{\circ}F/hr/in2}{Cal/cm}$  1.20 K Value in  $\frac{Cal/cm}{sec-cm2-^{\circ}C}$ 

#### **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 @  $80^{\circ}F$  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.

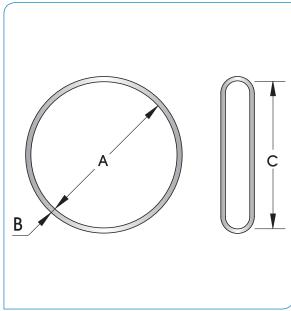
**FSTAPE-16** is supplied in a roll 25 mm WIDE x 11 metres LONG x 0,5 mm THICK (1 inch x 36 ft x 0.02 inch)



# HOSE PROTECTION - FS1072 FIRE SLEEVE

# **FS1072 FIRE SLEEVE SPECIFICATIONS**

PART NO		INAL D	WA	INAL LL (NESS	INSIDE	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			0.20	160,2	6.32	1,07	0.72			
FS1072-80	127,0	,		5,0 0.20		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.

н	OSE 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	E2	TJ2D	H12A/D/S	R4SHA/D	R4SPA/D	T5	D2B	MS1000	CS1000
3	1/8	-02																								
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			15,6	15,6					14,9	14,9		16,6			16,5	18,9				14,8			
10	3/8	-06		15,6	16,6	17,1	17,6		19,3	19,3	19,3	17,3	17,3	18,9	19,0		17,3	18,9		19,3		20,9	17,2			
12	1/2	-08	18,7	18,7	20,6	20,6	21,5		22,7	22,7	22,7		20,3		22,2		20,3	21,9		22,7		24,3	19,4		18,5	18,5
16	5/8	-10	23,4	23,4	23,4	24,8			24,9	-	26,2	23,6			25,2		_	25,1		26,2		27,8			22,1	22,1
19	3/4	-12	27,6		_	27,8			30,0			27,6					27,6	29,1		_	31,8	31,8	27,4		25,8	25,8
25	1	-16	34,8	34,8	35,2				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
31	1.1/4	-20						45,7	44,0		46,4	43,2		47,6	47,4					45,7	44,4	49,6	38,1		39,5	39,5
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
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												
70	J	10												93,4												
DN	inch	Dash	BT1	RQP1	RQP2	RQP5	RQP6	TW1	PW2	SR	SRF	RTH1	FB2	93,4 <b>W</b>	MP1	M2	PL1	PL1D	M2G	TP7, TP7N	TP7T, TP7TN	TP8, TP8N	TP8T, TP8TN	TP3000	TPGL	
			BT1	RQP1	RQP2	RQP5	RQP6	TW1	PW2	SR	SRF	RTH1	FB2	,	MP1	M2	PL1	PL1D	M2G	TP7, TP7N	TP7T, TP7TN	TP8, TP8N	TP8T, TP8TN	TP3000	8,3	
DN	inch	Dash	BT1	RQP1	RQP2	RQP5	RQP6	TW1	PW2	SR	SRF	ктн1	FB2	,	MP1	M2	PL1	PL1D	M2G	9,6 10,7 TP7N	TP7T, TP7TN	TP8, TP8N	TP8T, TP8TN	TP3000		
<b>DN</b> 3	<b>inch</b> 1/8	Dash -02	<b>13</b> ,3			13,2		TW1	<b>ZMA</b>	SR	SRF	9,4 9,4	FB2	,		<b>ZW</b>		12,3		9,6	12,2		•	000£dL		
<b>DN</b> 3 5	inch 1/8 3/16	<b>Dash</b> -02 -03						TW1		SR	SRF		FB2	LW						9,6			•			
<b>DN</b> 3 5 6	inch 1/8 3/16 1/4	<b>Dash</b> -02 -03 -04	13,3 14,9	13,4 15,0	15,0 16,6	13,2	12,7 14,3	17,4	15,0	SR	SRF			12,7		14,3	12,3	12,3 13,9		9,6 12,2 14,3	12,2	11,5	11,5			
<b>DN</b> 3 5 6 8	inch 1/8 3/16 1/4 5/16	<b>Dash</b> -02 -03 -04 -05	13,3 14,9	13,4 15,0 17,4	15,0 16,6	13,2 14,8	12,7 14,3 15,9		15,0 16,6	SR	SRF	9,4		12,7 14,3	13,5 17,5	14,3	12,3 13,9	12,3 13,9	14,3 19,0	9,6 12,2 14,3 16,0	12,2	11,5	11,5	12,2 16,6		
<b>DN</b> 3 5 6 8 10	inch 1/8 3/16 1/4 5/16 3/8	<b>Dash</b> -02 -03 -04 -05 -06	13,3 14,9 17,3 20,3	13,4 15,0 17,4	15,0 16,6 19,0 22,0	13,2 14,8 17,2 19,4	12,7 14,3 15,9	17,4	15,0 16,6	SR	SRF	9,4	19,0 23,0	12,7 14,3	13,5 17,5	14,3 19,0	12,3 13,9 15,5 19,0	12,3 13,9 15,5	14,3 19,0	9,6 12,2 14,3 16,0	12,2 14,3 16,0	11,5	11,5	12,2 16,6		
DN 3 5 6 8 10 12	inch 1/8 3/16 1/4 5/16 3/8 1/2	Dash -02 -03 -04 -05 -06 -08	13,3 14,9 17,3 20,3 23,6	13,4 15,0 17,4 20,5 23,7	15,0 16,6 19,0 22,0	13,2 14,8 17,2 19,4	12,7 14,3 15,9 19,8	17,4	15,0 16,6		<b>31</b> ,5	9,4 11,7 15,4	19,0 23,0	12,7 14,3	13,5 17,5 21,4 25,4	14,3 19,0 23,8	12,3 13,9 15,5 19,0	12,3 13,9 15,5 19,0 22,6	14,3 19,0 23,8	9,6 12,2 14,3 16,0 20,3	12,2 14,3 16,0	11,5	11,5	12,2 16,6		
DN 3 5 6 8 10 12 16	inch 1/8 3/16 1/4 5/16 3/8 1/2 5/8	Dash -02 -03 -04 -05 -06 -08 -10	13,3 14,9 17,3 20,3 23,6 27,6	13,4 15,0 17,4 20,5 23,7	15,0 16,6 19,0 22,0 25,2 29,1	13,2 14,8 17,2 19,4 23,4	12,7 14,3 15,9 19,8 23,0	17,4	15,0 16,6	31,5		9,4 11,7 15,4 18,4 22,1	19,0 23,0	12,7 14,3	13,5 17,5 21,4 25,4	14,3 19,0 23,8	12,3 13,9 15,5 19,0 22,6	12,3 13,9 15,5 19,0 22,6	14,3 19,0 23,8	9,6 12,2 14,3 16,0 20,3	12,2 14,3 16,0	11,5	11,5	12,2 16,6		
DN 3 5 6 8 10 12 16 19	inch 1/8 3/16 1/4 5/16 3/8 1/2 5/8 3/4	Dash -02 -03 -04 -05 -06 -08 -10 -12	13,3 14,9 17,3 20,3 23,6 27,6	13,4 15,0 17,4 20,5 23,7 27,6	15,0 16,6 19,0 22,0 25,2 29,1 37,7	13,2 14,8 17,2 19,4 23,4 27,4	12,7 14,3 15,9 19,8 23,0	17,4	15,0 16,6	31,5	31,5	9,4 11,7 15,4 18,4 22,1	19,0 23,0	12,7 14,3	13,5 17,5 21,4 25,4 28,6	14,3 19,0 23,8	12,3 13,9 15,5 19,0 22,6	12,3 13,9 15,5 19,0 22,6	14,3 19,0 23,8	9,6 12,2 14,3 16,0 20,3	12,2 14,3 16,0	11,5	11,5	12,2 16,6		
DN 3 5 6 8 10 12 16 19 25	inch 1/8 3/16 1/4 5/16 3/8 1/2 5/8 3/4	Dash -02 -03 -04 -05 -06 -08 -10 -12 -16	13,3 14,9 17,3 20,3 23,6 27,6	13,4 15,0 17,4 20,5 23,7 27,6	15,0 16,6 19,0 22,0 25,2 29,1 37,7 48,0	13,2 14,8 17,2 19,4 23,4 27,4 31,4	12,7 14,3 15,9 19,8 23,0	17,4	15,0 16,6	31,5	31,5	9,4 11,7 15,4 18,4 22,1	19,0 23,0	12,7 14,3	13,5 17,5 21,4 25,4 28,6 37,3	14,3 19,0 23,8	12,3 13,9 15,5 19,0 22,6	12,3 13,9 15,5 19,0 22,6	14,3 19,0 23,8	9,6 12,2 14,3 16,0 20,3	12,2 14,3 16,0	11,5	11,5	12,2 16,6		
DN 3 5 6 8 10 12 16 19 25 31	inch 1/8 3/16 1/4 5/16 3/8 1/2 5/8 3/4 1	Dash -02 -03 -04 -05 -06 -08 -10 -12 -16 -20	13,3 14,9 17,3 20,3 23,6 27,6	13,4 15,0 17,4 20,5 23,7 27,6	15,0 16,6 19,0 22,0 25,2 29,1 37,7 48,0 54,4	13,2 14,8 17,2 19,4 23,4 27,4 31,4 38,1	12,7 14,3 15,9 19,8 23,0	17,4	15,0 16,6	31,5	31,5 40,0 46,5	9,4 11,7 15,4 18,4 22,1	19,0 23,0	12,7 14,3	13,5 17,5 21,4 25,4 28,6 37,3	14,3 19,0 23,8	12,3 13,9 15,5 19,0 22,6	12,3 13,9 15,5 19,0 22,6	14,3 19,0 23,8	9,6 12,2 14,3 16,0 20,3	12,2 14,3 16,0	11,5	11,5	12,2 16,6		
DN 3 5 6 8 10 12 16 19 25 31 38	inch 1/8 3/16 1/4 5/16 3/8 1/2 5/8 3/4 1 1.1/4 1.1/2	Dash -02 -03 -04 -05 -06 -08 -10 -12 -16 -20 -24	13,3 14,9 17,3 20,3 23,6 27,6	13,4 15,0 17,4 20,5 23,7 27,6	15,0 16,6 19,0 22,0 25,2 29,1 37,7 48,0 54,4	13,2 14,8 17,2 19,4 23,4 27,4 31,4 38,1 44,5	12,7 14,3 15,9 19,8 23,0	17,4	15,0 16,6	31,5	31,5 40,0 46,5 53,1	9,4 11,7 15,4 18,4 22,1	19,0 23,0	12,7 14,3	13,5 17,5 21,4 25,4 28,6 37,3	14,3 19,0 23,8	12,3 13,9 15,5 19,0 22,6	12,3 13,9 15,5 19,0 22,6	14,3 19,0 23,8	9,6 12,2 14,3 16,0 20,3	12,2 14,3 16,0	11,5	11,5	12,2 16,6		
DN 3 5 6 8 10 12 16 19 25 31 38 51	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	Dash -02 -03 -04 -05 -06 -08 -10 -12 -16 -20 -24	13,3 14,9 17,3 20,3 23,6 27,6	13,4 15,0 17,4 20,5 23,7 27,6	15,0 16,6 19,0 22,0 25,2 29,1 37,7 48,0 54,4	13,2 14,8 17,2 19,4 23,4 27,4 31,4 38,1 44,5	12,7 14,3 15,9 19,8 23,0	17,4	15,0 16,6	31,5 40,0	31,5 40,0 46,5 53,1	9,4 11,7 15,4 18,4 22,1	19,0 23,0	12,7 14,3	13,5 17,5 21,4 25,4 28,6 37,3	14,3 19,0 23,8	12,3 13,9 15,5 19,0 22,6	12,3 13,9 15,5 19,0 22,6	14,3 19,0 23,8	9,6 12,2 14,3 16,0 20,3	12,2 14,3 16,0	11,5	11,5	12,2 16,6		

# HOSE PROTECTION - RCS CROCSLEEVE

## 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
	ř	Η̈́	1	Ϊ	ř	Ï	Ì	Ĩ	Ĭ	Ξ	œ	œ	È	i ii	ä
PART NO.							D	ash Siz	e						
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		
RCSB-73						-20			-20	-20		-20	-24	-20	-24
RCSB-93						-24	-24	-24	-24	-24	-24	-24	-32	-24	-93
RCSB-112						-32	-32	-32	-32	-32	-32	-32		-32	
RCSB-129										-40				-40	

# **CROCSLEEVE - SAFETY FIRST**

DESIGN FEATURES	BENEFITS
GREATER STRENGTH	CROCSLEEVE is made from high density PA (polyamide) for greater strength
FLAME RESISTANT - ABRASION RESISTANT	CROCSLEEVE is Flame Resistant and Anti-Static - FRAS
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)
STABLE	CROCSLEEVE is stable and has great resistance to sun, atmospheric agents and ageing
NON-TOXIC	CROCSLEEVE is non toxic
TOUGH	CROCSLEEVE is super tough
COLOURS	CROCSLEEVE comes in BLACK (RCSB) and RED (RCSR)
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
	Bacterium	Very Good	Ionic Metallic Solutions	Very Good
CHEMICALLY COMPATIBLE	Benzene	Very Good	Mineral Oil	Very Good
CHEMICALLY COMPATIBLE	Carbon Tetrachloride	Very Good	Moths	Very Good
	Chlorine Based Solvents	Very Good	Mould	Very Good
	Diluted Acids	Good	Oil	Very Good
	Diluted Bases	Very Good	Vegetable Oil	Very Good

## 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.

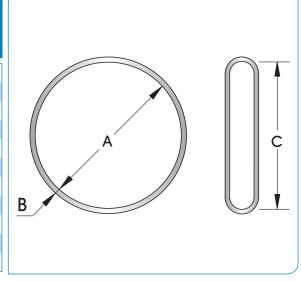
#### **STANDARD COIL LENGTHS:**

91,4 metre (300 ft) long coils; or cut lengths.



#### **RH RAWHIDE SPECIFICATIONS**

	R	AWHID	E NYLO	N HOSE	/E						
PART NO		INAL D	W.A	INAL ALL (NESS	INSIDI	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

RSG

POLYETHYLENE SPIRAL GUARD RSG (BLACK), RSGY (YELLOW), RSGF (FRAS)



#### **RECOMMENDED FOR:**

Lightweight, cost-effective protection of hoses and cables from abrasion and impact. It can also be used to bundle hoses together in groups. RSGF 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  $-40^{\circ}$ C to  $+120^{\circ}$ C ( $-40^{\circ}$ F to  $+248^{\circ}$ F).

#### **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

$$=\frac{18,9}{15,0}$$
 x 2,3 m = 2,90 metres

#### **HOW TO ORDER:**

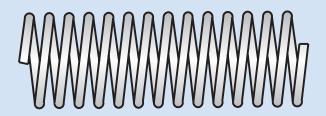
Complete the Part Number: RSG-16L, RSGY-75L, RSGF-50L etc.

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.

5	PIR/	AL G	UARI	D	HOSE SERIES																							
DASH SIZE	NOM II mm		NOM O mm		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	Т5	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
-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
-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																								
DASH SIZE	NOM II mm	INAL D inch	NOM O mm		BT1	RQP1	RQP2	RQP5	RQP6	TW1	PW2	SR	SRF	RTH1	FB2	M1	MP1	M2	PL1	PL1D	M2G	TP7, TP7N	TP7T, TP7TN	TP8, TP8N	трвт, трвти	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											
-63L	47,0	1.85	58,0	2.28			-24	-32					-20,-24															
-75L	61,0	2.40	73,0	2.87			-32						-32															
-90L	70,5	2.78	84,5	3.33								-40																
-110L	84,0	3.31	99,0	3.90								-48																

# 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 SE	RIES										
		D	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	T2A/D/S	T2C	TXA2D	DF2A	2	TJ2D	H12A/D/S	34SHA/D	R4SPA/D	10	D2B	MS1000	CS1000
PART NO	mm	inch	μ	μ	ř	Ë	ř	I	I	I	I	-	F	P	F	Δ	E2	P	I	œ	œ	75	Δ	Σ	Ü
RWA-12	12	0.47	4 5	4 -								4 5										4 5			
RWA-16	16 20	0.63	-4,-5	-4,-5	-4	-4	-4					-4,-5 -6	-4	4 5		-4	-4	4				-4,-5 -6			
RWA-20 RWA-21	20	0.78	-6 -8	-6 -8	-5,-6	-5,-6	-5,-6		-6	-6	-6	-6	-5 -6	-4,-5 -6		-6	-5 -6	-5				-6 -8		-8	-8
RWA-21	23	0.83	-0	-8	-8	-8	8		-0	-0	-0	-8	-8	-0	-8	-8	-8	-5	-6		-6	-8		-8	-8
							o		-8,				-8	-8,	-8				-		-			-10,	-10,
RWA-27	27	1.06	-10	-10	-10	-10			-10	-8	-8	-10		-10		-10	-10		-8		-8	-10		-12	-12
RWA-30	30	1.19	-12	-12	-12	-12				-10	-10	-12	-10		-10	-12			-10		-10	-12			
RWA-31	31	1.22								-12			-12	-12	-12		-12								
RWA-34	34	1.34							-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	Р6	-	2			7	-		_			D	ט	TP7, TP7N	TP7T, TP7TN	TP8, TP8N	TP8T, TP8TN	TP3000	я.
PART NO	mm	inch	BT1	RQP1	RQP2	RQP5	RQP6	TW1	PW2	SR	SRF	RTH1	FB2	Σ	MP1	M2	7	PL1D	M2G	1 1	1₽	₽	₽	Ĕ	TPGL
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		-6	-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			-8					-8		-8					-8	-8				
RWA-27	27	1.06	-10	-10		-10	-10					-12	-10		-10	-8	-10	-10	-8					-8	
RWA-30	30	1.19	-12	-12	-10	-12	-12								-12		-12	-12		-12					
RWA-31	31	1.22			-12							-16													
RWA-34	34	1.34				-16													-12						
RWA-39	39	1.52	-16							-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 - 750/760 SPRING GUARD

750/760 SPRING GUARD



#### **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:**

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).

