

# 1 Hydraulic Hose

## Hydraulic Hose

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## Hydraulic Pressure Hose Selection Chart

Hose Series	SAE J517 Specification	Dash Size Range <sup>(2)</sup>	Recommended Pressure Range @ Safety Factor		Temperature Range		Key Features and Applications
			4:1	3:1	F°	C°	
			psi	bar			
<b>Low Pressure Hose</b>							
3630	—	-3 to -16	250-300		-10 to 150	-23 to 66	Pneumatic Tools, Industrial Water Supply
3R30	100R3 <sup>(1)</sup>	-3 to -8	1,000-1,750		-40 to 212	-40 to 100	Low Pressure Hydraulic Equipment
<b>Medium Pressure Hose</b>							
3000	100R7	-3 to -16	1,000-3,250		-40 to 212	-40 to 100	General Hydraulics, Reusable Couplings, Excellent Chemical Resistance
3130	100R7	-2 to -16 <sup>(3)</sup>	1,000-3,000	92-276	-40 to 212	-40 to 100	General Hydraulics/Pneumatics, Best Value 100R7 Hose
3580	100R1, R7 <sup>(1)</sup>	-4 to -12	2,250-3,500		-40 to 225	-40 to 107	Wire Reinforced, Cut Resistant, Rugged, Heavy Design
31B0	100R7	-3 to -6	2,250-3,000	207-276	-40 to 212	-40 to 100	General Hydraulics/Pneumatics, Best Value 100R7 Hose
37B0	100R7	-3 to -12	1,250-3,000	115-276	-65 to 212	-54 to 100	General Hydraulics, Material Handling
37AL	ANSI	-3 to -8	3,000		-65 to 212	-54 to 100	General Hydraulics, Aerial Lift Equipment, Complies with ANSI A 92.2
<b>Constant Pressure Hose</b>							
31N0	—	-4 to -8	1,500		-40 to 212	-40 to 100	Low Volumetric Expansion - Pilot Lines
Spectra 30CT	100R18	-3 to -10	3,000	276	-65 to 200	-54 to 94	General Hydraulics, Material Handling, Freezer Applications
<b>High Pressure Hose</b>							
3R80	100R8	-3 to -16	2,000-5,000	184-460	-40 to 212	-40 to 100	Long Life in Impulse Cycling and Flexing, Reusable Couplings
3E80	100R8	-3 to -16	2,000-5,000		-40 to 212	-40 to 100	Non-Conductive Specification, Reusable Couplings, Aerial Equipment
3800	100R8	-2 to -8	3,500-6,000	322-552	-40 to 212	-40 to 100	100R8 Hose Performance With 100R7 Dimensions – Coupling Versatility
3840	100R8	-3 to -8	3,500-5,000		-40 to 212	-40 to 100	Non-Conductive Specification, Aerial Equipment – Coupling Versatility
<b>Very High Pressure Hose</b>							
3V10	—	-3 to -6	8,000-10,000	735-919	-40 to 150	-40 to 66	High Pressure Performance, Hydraulic Jacks
3VE0	—	-3 to -6	8,000-10,000	735-919	-40 to 150	-40 to 66	Non-Conductive Specification, High Pressure Performance, Safety Near High Voltage Sources

<sup>(1)</sup> Meets or Exceeds Specifications in Performance

<sup>(2)</sup> Dash Size = Hose I.D. in 16ths of One Inch. Ex.: -3 = 3/16 inch I.D.

<sup>(3)</sup> SAE 100R7 Does Not Apply to -2 Size

# Hydraulic Pressure Hose Selection Chart

Hose Series	Hose Cover	Reinforcement Material	Core Tube	Bonded Layers	Twin-Line or Multi-Line	Coupling Series
<b>Low Pressure Hose</b>						
3630	PVC	SF	PVC	•	•	390C, 3903, 390H, 7903
3R30	U	SF	Nylon-Lined	•	•	3903, 390A, 390P, 7903
<b>Medium Pressure Hose</b>						
3000	U	SF	Nylon		•	3901, 3903, 390A, 7903, 390P
3130	U	SF	Nylon	•	•	3903, 390A, 7903, 390P
3580	U	Steel Wire	Polyester	•	•	3903, 390A, 7903, 390P
31B0	U	SF	Nylon	•	•	3903, 390A, 7903, 390P
37B0	Polyester	SF	U	•	•	3903, 7903, 390A, 390P
37AL	U	SF	Polyester	•	•	3903, 7903, 390A, 3902
<b>Constant Pressure Hose</b>						
31N0	U	SF	Nylon	•	•	3903, 390A, 7903, 390P
Spectra 30CT	Polyester	SF	Polyester	•	•	3903, 390H, 7903, 790H, 390A, 390L
<b>High Pressure Hose</b>						
3R80	U	SF	Nylon	• <sup>(5)</sup>	•	390H, 390L, 790H, 390J, 390S, 390K
3E80	U	SF	Nylon	• <sup>(5)</sup>	•	390H, 390L, 790H, 390J, 390S, 390K
3800	U	Aramid	Nylon-Lined	•	•	3903, 390A, 7903, 390P
3840	U	Aramid	Nylon-Lined	•	•	3903, 390A, 7903, 390P
<b>Very High Pressure Hose</b>						
3V10	U	Aramid	Nylon-Lined	•	•	390V
3VE0	U	Aramid	Nylon-Lined	•	•	390V

U = Polyurethane      PVC = Polyvinylchloride      SF = Synthetic Fiber

<sup>(4)</sup> -2 Size Is a Nylon, Single Wall Design

<sup>(5)</sup> Not All Sizes Are Bonded

## Standard Hose

### 3R30 Low Pressure Hose

Meets SAE 100R3 Performance Specification



#### Features

- Temperature Range: -40°F to 212°F (-40°C to 100°C) or to 150°F (66°C), With Water-Based or Fire Resistant Fluids
- Low Volumetric Expansion
- Rugged Design

#### Applications

- Low Pressure Hydraulics (Hospital Beds)
- Hand Tools: Air Power Tools (Impact Tools, Nail Guns, Stapler Guns, Tire Inflation)
- Lubrication Systems
- High Pressure Pneumatic Systems
- Pressure Wash Hose
- Water Hand Cooling Systems

#### Construction

- Black Perforated Polyurethane Cover
- Spiraled Synthetic Fiber Reinforcement (-03 thru -06, -08 is braided)
- Nylon-Lined Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure		Minimum Burst Pressure		Weight		Swage Die Part No. 4540	Permanent Coupling Series* Steel
	in	mm	in	mm	in	mm	psi	bar	psi	bar	lbs/100 ft	kg/100 m		
3R30-03	3/16	4.8	.384	9.8	1	25	1,750	120	7,000	480	3.6	5.4	3W3	3903/7903
3R30-04	1/4	6.4	.487	12.4	1-1/4	32	1,500	103	6,000	414	5.3	7.9	3W4	3903/7903
3R30-06	3/8	9.5	.637	16.2	2	51	1,250	86	5,000	344	8.1	12.1	3W6	3903/7903
3R30-08	1/2	12.7	.818	20.8	3	76	1,000	69	4,000	276	14.1	21.0	308	3903/7903

\*Steel Couplings Shown on Pages 7.3-7.25. For Stainless Steel and Monel Coupling Availability, See Hose Coupling Selection Chart on Page 7.1.

### 3000 Medium Pressure Hose

Meets or Exceeds SAE 100R7 Specification



#### Features

- Temperature Range: -40°F to 212°F (-40°C to 100°C) or to 150°F (66°C), With Water-Based or Fire Resistant Fluids
- Excellent Chemical and Oil Resistance
- Low Gas Permeability
- Designed for Permanent or Reusable Couplings

#### Applications

- General Hydraulics
- High Pressure Gas Transfer
- Chemical Transfer

#### Construction

- Black Perforated Polyurethane Cover
- Braided Synthetic Fiber Reinforcement
- Solid Nylon Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure		Minimum Burst Pressure		Weight		Swage Die Part No. 4540	Permanent Coupling Series* Steel	Reusable Coupling Series* Steel
	in	mm	in	mm	in	mm	psi	bar	psi	bar	lbs/100 ft	kg/100 m			
3000-03	3/16	4.8	.425	10.8	2-1/2	64	3,250	224	13,000	896	5.1	7.6	303	3903/7903	3901
3000-04	1/4	6.4	.508	12.9	2-3/4	70	3,000	207	12,000	827	6.6	9.8	304	3903/7903	3901
3000-05	5/16	7.9	.564	14.3	3-1/4	83	2,500	172	10,000	689	7.5	11.2	305	3903/7903	3901
3000-06	3/8	9.5	.647	16.4	4-1/2	114	2,250	155	9,000	620	9.4	14.0	306	3903/7903	3901
3000-08	1/2	12.7	.795	20.2	6	152	2,000	138	8,000	552	13.4	19.9	308	3903/7903	3901
3000-12	3/4	19.1	1.049	26.6	9-1/2	241	1,250	86	5,000	345	18.5	27.5	312	3903/7903	3901
3000-16	1	25.4	1.317	33.5	12	305	1,000	69	4,000	276	24.6	36.6	316	3903/7903	3901

\*Steel Couplings Shown on Pages 7.3-7.25. For Stainless Steel and Monel Coupling Availability, See Hose Coupling Selection Chart on Page 7.1.

## 3130 Medium Pressure Hose

Meets SAE 100R7 Specifications



### Features

- Temperature Range: -40°F to 212°F (-40°C to 100°C) or to 150°F (66°C), With Water-Based or Fire Resistant Fluids
- Long Continuous Lengths
- Low Elongation
- Best Value 100R7 Hose

### Applications

- General Hydraulics
- Material Handling
- Forklift
- High Pressure Gas Transfer
- Chemical Transfer

### Construction

- Black Perforated Polyurethane Cover
- Spiraled or Braided Synthetic Fiber Reinforcement
- Nylon-Lined Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure @ Safety Factor		Minimum Burst Pressure		Weight		Swage Die Part No. 4540	Permanent Coupling Series* Steel
	in	mm	in	mm	in	mm	4:1 psi	3:1 bar	psi	bar	lbs/100 ft	kg/100 m		
	3130-02**	1/8	3.2	.335	8.5	1/2	13	2,500	230	10,000	689	2.5	3.7	302
3130-03	3/16	4.8	.427	10.8	3/4	19	3,000	276	12,000	827	4.6	6.8	303	3903/7903
3130-04	1/4	6.4	.510	13.0	1-1/4	32	3,000	276	12,000	827	5.7	8.5	304	3903/7903
3130-05	5/16	7.9	.594	15.1	1-3/4	44	2,500	230	10,000	689	6.9	10.3	305	3903/7903
3130-06	3/8	9.5	.669	17.0	2	51	2,250	207	9,000	620	9.5	14.1	306	3903/7903
3130-08	1/2	12.7	.816	20.7	3	76	2,000	184	8,000	552	14.1	21.0	308	3903/7903
3130-12	3/4	19.1	1.067	27.1	5	127	1,250	115	5,000	345	19.3	28.7	312	3903/7903
3130-16	1	25.4	1.340	34.0	8	203	1,000	92	4,000	276	26.4	39.3	316	3903/7903

\*Steel Couplings Shown on Pages 7.3-7.25. For Stainless Steel and Monel Coupling Availability, See Hose Coupling Selection Chart on Page 7.1.

\*\* SAE specification 100R7 does not apply to 1/8 inch size: The nylon core tube is a single-wall design and is not bonded to the reinforcement.

## 3580 Medium Pressure Hose

Meets or exceeds SAE 100 R1 and R7 Performance Specifications  
Steel Wire Reinforcement



### Features

- Temperature Range: -40°F to 225°F (-40°C to 107°C) or to 140°F (60°C), With Water-Based or Fire Resistant Fluids
- Single Permanent Coupling Series Fits All Sizes
- SAE 100R7 Dimensions
- Cut Resistant – Heavy Duty Design
- Crush Resistant

### Applications

- Lubrication Systems
- Mobile General Hydraulics
- Agriculture Equipment

### Construction

- Black Polyurethane Non-Perforated Cover
- Braided Bronze Coated Steel Wire Reinforcement
- Polyester Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure		Minimum Burst Pressure		Weight		Swage Die Part No. 4540	Permanent Coupling Series* Steel
	in	mm	in	mm	in	mm	psi	bar	psi	bar	lbs/100 ft	kg/100 m		
	3580-04	1/4	6.4	.485	12.3	1-3/4	44	3,500	241	14,000	965	10.3	15.3	3W4
3580-06	3/8	9.5	.645	16.4	2-1/4	57	3,250	221	13,000	884	18.1	26.9	306	3903/7903
3580-08	1/2	12.7	.765	19.4	3-1/4	83	3,000	207	12,000	827	20.7	30.8	308	3903/7903
3580-12	3/4	19.1	1.065	27.1	6	152	2,250	155	9,000	620	33.6	50.0	312	3903/7903

\*Steel Couplings Shown on Pages 7.3-7.25. For Stainless Steel and Monel Coupling Availability, See Hose Coupling Selection Chart on Page 7.1.

## 31B0 Medium Pressure Hose

Meets SAE 100R7 Specification



### Features

- Temperature Range: -40°F to 212°F (-40°C to 100°C) or to 150°F (66°C), With Water-Based or Fire Resistant Fluids
- Low Elongation
- Best Value 100R7 Hose

### Applications

- General Hydraulics
- High Pressure Gas Transfer
- Chemical Transfer

### Construction

- Black Perforated Polyurethane Cover
- Braided Synthetic Fiber Reinforcement
- Nylon Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure @ Safety Factor		Minimum Burst Pressure		Weight		Swage Die Part No. 4540	Permanent Coupling Series* Steel
	in	mm	in	mm	in	mm	4:1	3:1	psi	bar	lbs/100 ft	kg/100 m		
	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar
31B0-03	3/16	4.8	.429	10.9	3/4	19	3,000	276	12,000	827	4.6	6.8	303	3903/7903
31B0-04	1/4	6.4	.512	13.0	1-1/4	32	3,000	276	12,000	827	5.7	8.5	304	3903/7903
31B0-05	5/16	7.9	.596	15.1	1-3/4	44	2,500	230	10,000	689	6.9	10.3	305	3903/7903
31B0-06	3/8	9.5	.662	16.8	2	51	2,250	207	9,000	620	9.5	14.1	306	3903/7903

\*Steel Couplings Shown on Pages 7.3-7.25. For Stainless Steel and Monel Coupling Availability, See Hose Coupling Selection Chart on Page 7.1.

## 37B0 Medium Pressure Hose

Meets or exceeds SAE 100R7 Specification



### Features

- Temperature Range: -65°F to +212°F (-54°C to +100°C) or -65°F to +150°F (-54°C to +66°C) Maximum, With Water-Based or Fire Resistant Fluids
- For Use With Petroleum or Synthetic Base Hydraulic Fluids
- Very Flexible at Low Temperatures
- Abrasion Resistant Cover

### Applications

- Forklifts Working in Cold Storage Areas
- General Hydraulics
- Mobile Equipment
- Lift Truck Hydraulic Systems
- Cold Temperature Motion Control

### Construction

- Black Perforated Polyester Cover
- Braided Synthetic Fiber Reinforcement
- Polyurethane Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure @ Safety Factor		Minimum Burst Pressure		Weight		Swage Die Part No. 4540	Permanent Coupling Series* Steel
	in	mm	in	mm	in	mm	4:1	3:1	psi	bar	lbs/100 ft	kg/100 m		
	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar	psi	bar
37B0-03	3/16	4.8	.429	10.9	3/4	20	3,000	276	12,000	827	4.8	7.1	303	3903/7903
37B0-04	1/4	6.4	.512	13.0	1-1/4	32	3,000	276	12,000	827	6.0	8.9	304	3903/7903
37B0-05	5/16	7.9	.596	15.1	1-3/4	45	2,500	230	10,000	689	7.5	11.2	305	3903/7903
37B0-06	3/8	9.5	.662	16.8	2	51	2,250	207	9,000	620	9.5	14.1	306	3903/7903
37B0-08	1/2	12.7	.818	20.8	3	77	2,000	184	8,000	552	14.3	21.3	308	3903/7903
37B0-12	3/4	19.1	1.069	27.2	5	127	1,250	115	5,000	345	19.7	29.3	312	3903/7903

\*Steel Couplings Shown on Pages 7.3-7.25. For Stainless Steel and Monel Coupling Availability, See Hose Coupling Selection Chart on Page 7.1.

## 31N0 Constant Pressure Hose



### Features

- Temperature Range: -40°F to 212° F (-40°C to 100°C) or to 150°F (66°C) With Water-Based or Fire Resistant Fluids
- 1,500 PSI Rating – All Sizes
- Very Low Volumetric Expansion

### Applications

- Hydraulic Pilot Lines
- Hydraulic Tools
- Marine Steering

### Construction

- Black Non-Stick Perforated Polyurethane Cover
- Braided Synthetic Fiber Reinforcement
- Nylon Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure		Minimum Burst Pressure		Weight		Swage Die Part No. 4540	Permanent Coupling Series* Steel
	in	mm	in	mm	in	mm	psi	bar	psi	bar	lbs/100 ft	kg/100 m		
	31N0-04	1/4	6.4	.418	10.6	1-9/16	40	1,500	103	6,000	414	4.4	6.5	104
31N0-05	5/16	8.1	.530	13.5	2	51	1,500	103	6,000	414	6.4	9.5	105	3903/7903
31N0-06	3/8	9.5	.570	14.5	2-3/8	60	1,500	103	6,000	414	7.0	10.4	106	3903/7903
31N0-08	1/2	12.7	.710	18.0	3-3/16	80	1,500	103	6,000	414	10.6	15.8	108	3903/7903

\*Steel Couplings Shown on Pages 7.3-7.25. For Stainless Steel and Monel Coupling Availability, See Hose Coupling Selection Chart on Page 7.1.

## Spectra 30CT Constant Pressure Hose

Meets or Exceeds SAE 100 R18 Specification



### Features

- Temperature Range: -65°F to 200°F (-54°C to 94°C), With Water-Based or Fire Resistant Fluids
- Highly Flexible, Even in Cold Temperatures
- Small OD
- Lightweight Yet Rugged Construction

### Applications

- Forklift
- Construction
- General Hydraulics
- Chemical and Gas Transfer
- Agricultural Equipment
- Material Handling
- Freezer Applications
- Machines Tools and Robotics
- Lubrication Equipment
- Portable Hydraulic Tools

### Construction

- Black Non-Stick Perforated Polymeric Cover.
- Braided Synthetic Fiber Reinforcement
- Polymeric Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure @ Safety Factor		Minimum Burst Pressure		Weight		Swage Die Part No. 4540	Permanent Coupling Series* Steel
	in	mm	in	mm	in	mm	4:1 psi	3:1 bar	psi	bar	lbs/100 ft	kg/100 m		
	30CT-03	3/16	4.8	.420	10.7	1	25.4	3,000	276	12,000	828	5.3	7.9	303
30CT-04	1/4	6.4	.478	12.1	1-1/4	31.8	3,000	276	12,000	828	6.0	8.9	3W4	3903/7903
30CT-05	5/16	7.9	.610	15.5	1-1/2	38.1	3,000	276	12,000	828	9.9	14.7	305	3903/7903
30CT-06	3/8	9.5	.660	16.8	2	50.8	3,000	276	12,000	828	12.2	18.2	306	3903/7903
30CT-08	1/2	12.7	.850	21.6	3-1/2	88.9	3,000	276	12,000	828	16.6	24.6	A08	3903/7903
30CT-10	5/8	16.0	1.062	27.0	4	101.6	3,000	276	12,000	828	27.8	41.2	N10	390N

\*Steel Couplings Shown on Pages 7.3-7.25. For Stainless Steel and Monel Coupling Availability, See Hose Coupling Selection Chart on Page 7.1.

# 3R80 High Pressure Hose

Meets SAE 100R8 Specification



## Features

- Temperature Range:-40°F to 212° F (-40°C to 100°C) or to 150°F (66°C), With Water-Based or Fire Resistant Fluids
- Long Life in Impulse Cycling and Flexing
- Designed for Permanent or Reusable Couplings

## Applications

- General Hydraulic Systems
- Hydraulic Tools
- Mobile Equipment
- High Pressure Pneumatic Systems
- High Pressure Chemical Transfer

## Construction

- Black Perforated Polyurethane Cover
- Braided Synthetic Fiber Reinforcement
- Nylon Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure @ Safety Factor		Minimum Burst Pressure		Weight		Swage Die Part No. 4540	Permanent Coupling Series* Steel	Reusable Coupling Series* Steel
							4:1	3:1			lbs/100 ft	kg/100 m			
	in	mm	in	mm	in	mm	psi	bar	psi	bar	psi	bar			
3R80-03	3/16	4.8	.515	13.1	1-1/2	38	5,000	460	20,000	1,379	7.7	11.5	H03	390H/790H	390J
3R80-04	1/4	6.4	.625	15.9	2	51	5,000	460	20,000	1,379	11.8	17.6	H04	390H/790H	390J
3R80-06	3/8	9.5	.765	19.4	2-1/2	64	4,000	368	16,000	1,103	14.8	22.0	H06	390H/790H	390J
3R80-08	1/2	12.7	.892	22.7	4	102	3,500	322	14,000	965	19.0	28.3	H08	390H/790H	390J
3R80-12	3/4	19.1	1.138	28.9	6-1/2	165	2,250	207	9,000	620	25.6	38.1	H12	390H/790H	390J
3R80-16	1	25.4	1.468	37.3	10	254	2,000	184	8,000	552	38.5	57.3	H16	390H	390J

\*Steel Couplings Shown on Pages 7.3-7.25. For Stainless Steel and Monel Coupling Availability, See Hose Coupling Selection Chart on Page 7.1.

# 3800 High Pressure Hose

Meets SAE 100R8 Specifications



## Features

- Temperature Range:-40°F to 212° F (-40°C to 100°C) or to 150°F (66°C) With Water-Based or Fire Resistant Fluids
- 100R8 Hose Performance With 100R7 Hose Dimensions – For Coupling Versatility
- Low Volumetric Expansion

## Applications

- General Hydraulics
- High Pressure Gas and Chemical Transfer
- Machine Tools
- Mobile Equipment
- Agricultural Equipment
- Marine Steering

## Construction

- Black Perforated Polyurethane Cover
- Braided High Tensile Aramid Fiber Reinforcement
- Nylon Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure @ Safety Factor		Minimum Burst Pressure		Weight		Swage Die Part No. 4540	Permanent Coupling Series* Steel
							4:1	3:1			lbs/100 ft	kg/100 m		
	in	mm	in	mm	in	mm	psi	bar	psi	bar	psi	bar		
3800-02	1/8	3.2	.335	8.5	13/16	20	6,000	552	24,000	1,655	3.2	4.8	302	398E
3800-03	3/16	4.8	.432	11.0	1-1/2	38	5,000	460	20,000	1,379	5.6	8.3	303	3903/7903
3800-04	1/4	6.4	.532	13.5	2	51	5,000	460	20,000	1,379	7.9	11.8	304	3903/7903
3800-06	3/8	9.5	.667	16.9	2-1/2	64	4,000	368	16,000	1,103	10.6	15.8	306	3903/7903
3800-08	1/2	12.7	.837	21.3	4	102	3,500	322	14,000	965	14.6	21.7	308	3903/7903

\*Steel Couplings Shown on Pages 7.3-7.25. For Stainless Steel and Monel Coupling Availability, See Hose Coupling Selection Chart on Page 7.1.



# 3V10 Very High Pressure Hose



## Features

- Temperature Range: -40°F to 150° F (-40°C to 66°C)
- Compact Size
- Low Elongation
- Designed for Permanent High Pressure Couplings With Hose Guards
- Lightweight

## Applications

- High Pressure Hydraulic Tools
- Rescue Equipment and Tools
- High Pressure Test Equipment

## Construction

- Black Perforated Polyurethane Cover
- Spiraled High Tensile Aramid Fiber Reinforcement
- Nylon Lined Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure @ Safety Factor		Minimum Burst Pressure		Weight		Swage Die Part No.	Permanent Coupling Series
	in	mm	in	mm	in	mm	4:1	3:1	psi	bar	lbs/100 ft	kg/100 m		
							psi	bar	psi	bar				
3V10-03	3/16	4.8	.520	13.2	1-1/2	38	10,000	919	40,000	2,758	8.1	12.1	Synflex 3V10 Hose is Available Only as Completed Assemblies Through the Factory or Eaton Performance Plastics Authorized Assemblers.	
3V10-04	1/4	6.4	.595	15.1	2-1/2	64	10,000	919	40,000	2,758	10.6	15.8		
3V10-06	3/8	9.5	.780	19.8	3	76	8,000	735	32,000	2,205	16.4	24.4		

## 3V10 Hose Assembly Construction

- 3V10 Hose
- 390V Permanent Steel Coupling
- 45J0 Hose Guard
- Warning Tag



# 3770 Twin-Line and Multi-Line Hose

Multiple Pressure Hoses in One Design



## Features

- Eliminates Abrasion Caused by Relative Movement of Adjacent Hoses
- Flat Profile is Flexible and Compact
- Broad Temperature and Pressure Ranges Using Standard Hose Series
- Special Separation Tool to Prevent Hose Damage: Part No. 4574-01000

## Applications

- General Hydraulics and Pneumatic Systems
- Mobile Machinery
- Hose Retractors and Sheave Routings

## Construction

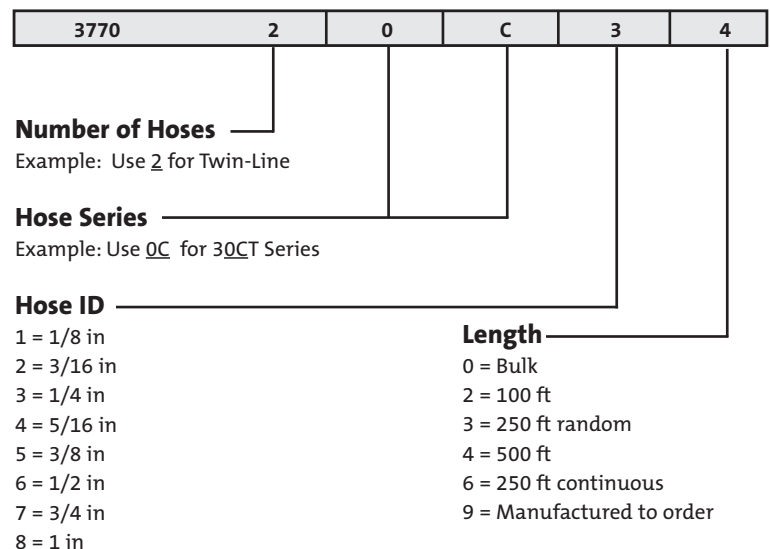
- Most Synflex® Hoses Can Be Permanently Joined to Form Twin-Line or Multi-Line Designs
- Hoses Form Flat Assembly

## Typical Standard Designs

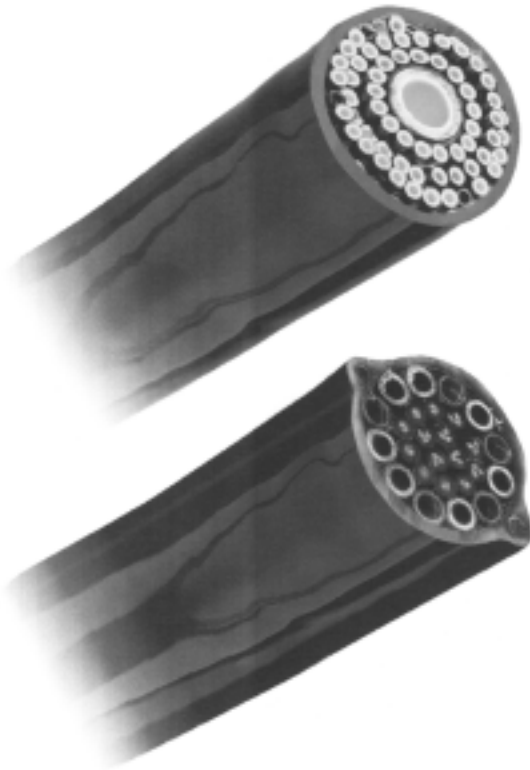
Part Number	Number of Hoses	Nominal I.D.		Synflex Hose Series
		in	mm	
3770-20C33	2	1/4	6.4	30CT
3770-20C43	2	5/16	7.9	30CT
3770-20C53	2	3/8	9.5	30CT

\* See Hydraulic Hose Selection Chart for Hose Series vs. Twin-Line or Multi-Line Availability – Page 1.2.

## Same Size Hose Part Number Derivation



# Control Bundles



## Bundle Designs\* Can Contain:

- Multiple Hydraulic Hoses in Broad Pressure Ranges
- Continuous Lengths to 6,000 Feet
- Combinations of Sizes and Materials
- Cabled or Parallel Designs
- Tensile Strength Members
- Electrical Power or Signaling Cables

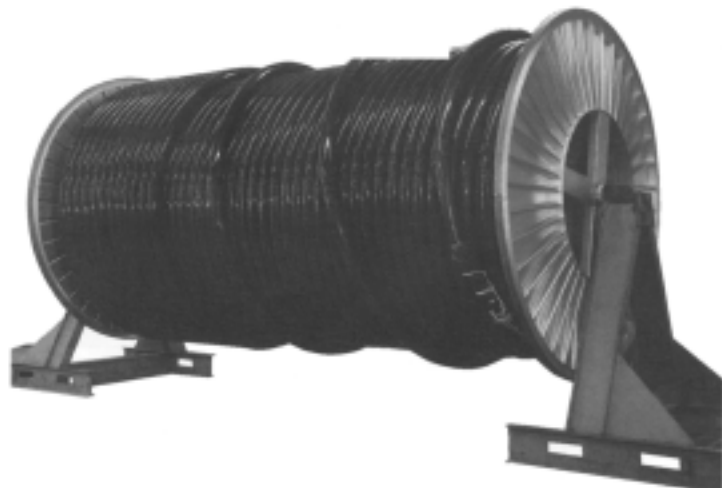
## Applications

- Special Hose Bundle Designs for the Oil and Gas Industry
- Blow Out Preventer (BOP) Bundles
- Research Umbilical Supply Lines
- Off-Shore Exploration
- On-Shore Construction
- Jacking Systems
- Directional Boring Equipment

## Typical Control Bundle Hose Specifications

Hose	Nominal I.D.		Nominal O.D.		Recommended Working Pressure		Swage Die Part No.	Permanent Coupling Series	Pusher 4599
	in	mm	in	mm	in	mm	4540	Stainless Steel	
37LV-03	3/16	4.8	.350	8.9	3,000	207	EO3	390E-03544-C05	FP017
38LV-03	3/16	4.8	.380	9.7	5,000	345	803	398E-03544-C05	FP017
3380-16	1	25.4	1.610	40.9	3,000	207	816	398E-16556-C05	FP009
37LV-16	1	25.4	1.468	37.3	3,000	207	B1600-001	390E-16556-C05	FP039
38LV-16	1	25.4	1.468	37.3	5,000	345	B1600-001	390E-16556-C05	FP039

\*Control Bundles Are Engineered Designs Available Only Through Synflex Direct Sales Offices.



## Non-Conductive Hose

### 37AL Non-Conductive Medium Pressure Hose

Complies With ANSI A92.2 for Vehicle Mounted Aerial Devices



SYNFLEX® 37AL

#### Features

- SAE J517 Non-Conductive Hose Construction
- Less Than 50 Micro-Amperes Leakage When Subjected to 75,000 volts/ft for 5 Minutes
- Temperature Range: -65°F to 212°F (-54°C to 100°C) or to 140°F (60°C), With Water-Based or Fire Resistant Fluids
- Flexible in Low Temperatures
- Abrasion Resistant Cover
- UV Resistant Cover
- Can Use Both Permanently Attached and Reusable Couplings
- Long Continuous Lengths

#### Applications

- Electric Utility Truck Hydraulic Systems
- Mobile Equipment (Picker, Utility Vehicles)

#### Construction

- Orange Nonperforated Non-Stick Polyurethane Cover
- Braided Synthetic Fiber Reinforcement
- Polyester Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure		Minimum Burst Pressure		Weight		Swage Die Part No. 4540	Permanent Coupling Series* Steel
	in	mm	in	mm	in	mm	psi	bar	psi	bar	lbs/100 ft	kg/100 m		
37AL-03	3/16	4.8	.425	10.8	3/4	19	3,000	207	12,000	827	4.8	7.1	303	3903/7903
37AL-04	1/4	6.4	.485	12.3	1-1/4	32	3,000	207	11,000	759	6.0	8.9	3W4	3903/7903
37AL-05	5/16	7.9	.580	14.7	1-3/4	44	3,000	207	10,000	689	7.5	11.2	305	3903/7903
37AL-06	3/8	9.5	.635	16.1	2	51	3,000	207	9,000	620	9.5	14.1	306	3903/7903
37AL-08	1/2	12.7	.815	20.7	3	76	3,000	207	9,000	620	14.3	21.3	308	3903/7903

\*Steel Couplings Shown on Pages 7.3-7.25. For Stainless Steel and Monel Coupling Availability, See Hose Coupling Selection Chart on Page 7.1.

### 3E80 Non-Conductive High Pressure Hose

Meets SAE 100R8 Specification



SYNFLEX® 3E80

#### Features

- SAE J517 Non-Conductive Hose Construction. Less Than 50 Micro-Amperes Leakage When Subjected to 75,000 volts/ft for 5 Minutes
- Temperature Range: -40°F to 212°F (-40°C to 100°C) or to 150°F (66°C), With Water-Based or Fire Resistant Fluids
- Long Life for Impulse Cycling and Flexing
- UV Resistant Cover
- Designed for Permanent and Reusable Couplings

#### Applications

- General Hydraulic Systems That May Contact High Voltage Sources
- Aerial Equipment
- Mobile Machinery
- Rescue Tools

#### Construction

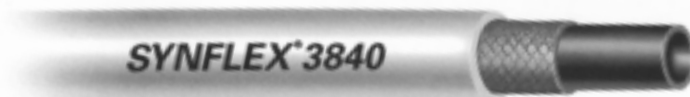
- NON-CONDUCTIVE Marking and Color Code
- Orange Polyurethane Non-Perforated Cover
- Braided Synthetic Fiber Reinforcement
- Nylon Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure		Minimum Burst Pressure		Weight		Swage Die Part No. 4540	Permanent Coupling Series* Steel	Reusable Coupling Series* Steel
	in	mm	in	mm	in	mm	psi	bar	psi	bar	lbs/100 ft	kg/100 m			
3E80-03	3/16	4.8	.515	13.1	1-1/2	38	5,000	345	20,000	1,379	7.7	11.5	H03	390H/790H	390J
3E80-04	1/4	6.4	.625	15.9	2	51	5,000	345	20,000	1,379	11.8	17.6	H04	390H/790H	390J
3E80-06	3/8	9.5	.765	19.4	2-1/2	64	4,000	276	16,000	1,103	14.8	22	H06	390H/790H	390J
3E80-08	1/2	12.7	.892	22.7	4	102	3,500	241	14,000	965	19	28.3	H08	390H/790H	390J
3E80-12	3/4	19.1	1.138	28.9	6-1/2	165	2,250	155	9,000	620	25.6	38.1	H12	390H/790H	390J
3E80-16	1	25.4	1.468	37.3	10	254	2,000	138	8,000	552	38.5	57.3	H16	390H/790H	390J

\*Steel Couplings Shown on Pages 7.3-7.25. For Stainless Steel and Monel Coupling Availability, See Hose Coupling Selection Chart on Page 7.1.

## 3840 Non-Conductive High Pressure Hose

Meets SAE 100R8 Specification



### Features

- SAE J517 Non-Conductive Hose Construction. Less Than 50 Micro-Amperes Leakage When Subjected to 246,000 volts/m for 5 Minutes
- Temperature Range: -40°F to 212°F (-40°C to 100°C) or to 150°F (66°C), With Water-Based or Fire Resistant Fluids
- 100R8 Hose Performance With 100R7 Hose Dimensions for Coupling Versatility
- Low Volumetric Expansion
- UV Resistant Cover

### Applications

- General Hydraulic Systems That May Contact High Voltage Sources
- Aerial Equipment
- Mobile Machinery
- Rescue Tools

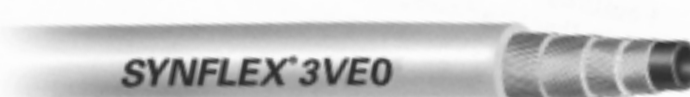
### Construction

- NON-CONDUCTIVE Marking and Color Code
- Orange Polyurethane Non-Perforated Cover
- Braided High Tensile Aramid Fiber Reinforcement
- Nylon Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure		Minimum Burst Pressure		Weight		Swage Die Part No. 4540	Permanent Coupling Series* Steel
	in	mm	in	mm	in	mm	psi	bar	psi	bar	lbs/100 ft	kg/100 m		
3840-03	3/16	4.8	.432	11.0	1-1/2	38	5,000	345	20,000	1,379	5.6	8.3	303	3903/7903
3840-04	1/4	6.4	.532	13.5	2	51	5,000	345	20,000	1,379	7.9	11.8	304	3903/7903
3840-06	3/8	9.5	.667	16.9	2-1/2	64	4,000	276	16,000	1,103	10.6	15.8	306	3903/7903
3840-08	1/2	12.7	.837	21.3	4	102	3,500	241	14,000	965	14.6	21.7	308	3903/7903

\*Steel Couplings Shown on Pages 7.3-7.25. For Stainless Steel and Monel Coupling Availability, See Hose Coupling Selection Chart on Page 7.1.

## 3VE0 Non-Conductive Very High Pressure Hose



### Features

- SAE J517 Non-Conductive Hose Construction. Less Than 50 Micro-Amperes Leakage When Subjected to 75,000 volts/ft for 5 Minutes
- Temperature Range: -40°F to 150°F (-40°C to 66°C)
- Compact Size
- Low Elongation
- UV Resistant Cover
- Designed for Permanent High Pressure Couplings With Hose Guards

### Applications

- General Hydraulic Systems That May Contact High Voltage Sources
- Rescue Equipment and Tools
- Mobile Machinery
- Aerial Equipment

### Construction

- NON-CONDUCTIVE Marking and Color Code
- Orange Polyurethane Non-Perforated Cover
- Spiraled High Tensile Aramid Fiber Reinforcement
- Nylon Lined Core Tube

Part Number	Nominal I.D.		Maximum O.D.		Minimum Bend Radius		Recommended Working Pressure @ Safety Factor		Minimum Burst Pressure		Weight		Swage Die Part No.	Permanent Coupling Series
	in	mm	in	mm	in	mm	4:1 psi	3:1 bar	psi	bar	lbs/100 ft	kg/100 m		
3VE0-03	3/16	4.8	.520	13.2	1-1/2	38	10,000	919	40,000	2,758	8.1	12.1	Synflex 3VE0 Hose is Available Only as Completed Assemblies Through the Factory or Eaton Performance Plastics Authorized Assemblers.	
3VE0-04	1/4	6.4	.595	15.1	2-1/2	64	10,000	919	40,000	2,758	10.6	15.8		
3VE0-06	3/8	9.5	.780	19.8	3	76	8,000	735	32,000	2,205	16.4	24.4		

### 3VE0 Hose Assembly Construction

- 3VE0 Hose
- 390V Permanent Steel Coupling
- 45J0 Hose Guard
- Warning Tag



# 3770 Non-Conductive Twin-Line and Multi-Line Hose

Multiple Non-Conductive Pressure Hoses In One Design



## Features

- SAE J517 Non-Conductive Hose Construction. Less Than 50 Micro-Amperes Leakage When Subjected to 75,000 volts/ft for 5 Minutes
- Eliminates Abrasion Caused by Relative Movement of Adjacent Hoses
- Flat Profile Is Flexible and Compact
- Broad Temperature and Pressure Ranges
- Special Separation Tool to Prevent Damage: Part No. 4574-01000

## Applications

- General Hydraulics Systems That May Contact High Voltage Sources
- Aerial Equipment
- Mobile Machinery
- Hose Retractors and Sheave Routings
- Rescue Tools

## Construction

- NON-CONDUCTIVE Marking and Color Code
- Orange Polyurethane Non-Perforated Cover
- Most Synflex Non-Conductive Hoses Can Be Permanently Joined to Form Twin-Line or Multi-Line Design
- Hoses Form Flat Assembly

## Typical Standard Designs

Part Number	Number of Hoses	Nominal I.D.		Synflex Hose Series
		in	mm	
3770-27A33	2	1/4	6.4	37AL
3770-27A53	2	3/8	9.5	37AL
3770-27A63	2	1/2	12.7	37AL

\* See Hose and Tubing Selection Chart for Hose Series vs. Twin-Line or Multi-Line Availability – Page 1.2.

## Same Size Hose Part Number Derivation

3770	2	7	A	3	3
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### Number of Hoses

Example: Use 2 for Twin-Line

### Hose Series

Example: Use 7A for 37AL Series

### Hose ID

- 1 = 1/8 in
- 2 = 3/16 in
- 3 = 1/4 in
- 4 = 5/16 in
- 5 = 3/8 in
- 6 = 1/2 in
- 7 = 3/4 in
- 8 = 1 in

### Length

- 0 = Bulk
- 2 = 100 ft
- 3 = 250 ft random
- 4 = 500 ft
- 6 = 250 ft continuous
- 9 = Manufactured to order