

# Design Reimagined.



*Powering Business Worldwide*

# Empowering without limitations



Higher performing. More configurations. Lower cost.

Eaton's Synflex Optimum thermoplastic hydraulic hoses and fittings empower OEMs to reimagine design. Our system engineered portfolio offers streamlined product configurations that make it easy to find the perfect combination for every application. And our commitment to innovation includes the design and technical support needed to develop more efficient, safe and productive systems.

[www.eaton.com/synflexoptimum](http://www.eaton.com/synflexoptimum)

To learn more about the Synflex Optimum thermoplastic hydraulic hose and fittings portfolio.



100R7

100R8

100R18

3TR7 / 3TR7N Non-conductive

3TR8 / 3TR8N Non-conductive

3TR18CT



**UV / Ozone protection**

The thermoplastic polyurethane and polyester outer-cover resists ozone, ultraviolet light and aging.



**Chemical resistance**

Thermoplastic composition paired with nylon lining prevents absorption of most oils and hydraulic fluids.



**Easier routing and installation**

Eaton Synflex Optimum 100R7 and 100R8 hose covers were formulated to require 50% less routing force reducing the chance of kinking.



**Flexible design**

Lightweight hose design drives performance efficiencies, reducing vehicle power requirements.



**Temperature resistance**

Improved hose functionality over a wide temperature range – from 40°C (-40°F) to +100°C (212°F).



**Lighter weight**

Synthetic reinforced thermoplastic hoses are about 2x lighter than equivalent wire braided rubber hose.



**Custom thermoforming**

Ability to mold into configurations that match system design.



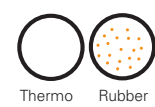
**Bonding capabilities**

Synflex thermoplastic hoses can be permanently joined without the use of any mechanical devices.



**Higher abrasion resistance**

The new TPU and polyester cover increases abrasion resistant by 10%.



**System Cleanliness**

Thermoplastic hose will not degrade or create contaminants in filters and valves to help you maintain a clean system.



**Powerful performance**

Lift and handle heavy loads with hose power ranges extending from 1,015 psi to 5,000 psi.



**Noise reduction**

Special reinforcements on the thermoplastic hoses help reduce machine noise.

**Fittings**



100R7 100R8 100R18

**4TA series**

Optimized one-piece fitting crimps directly to Synflex 100R7, 100R8 and 100R18 hoses for the most robust economic connection.



100R7 100R8

**TTC / Z series (with sleeve)**

Leverage Eaton's bestselling or existing high volume fitting on 100R7 and 100R8 hoses by adding a sleeve.



100R7

**902 series**

Field attachable reusable fitting that can be assembled with hand tools made specifically for R7 hose.

Fittings being rationalized from the portfolio include **903, 90H, 90N and U series.**

## 3TR7



## 3TR7N Non-conductive



92.2 ANSI (-4 thru -10)

Part #	Hose I.D.		Hose O.D. (nominal)		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight			
	mm	in	mm	in	SAE		ANSI		bar	psi	mm	in	kg/m	lbs/ft
					bar	psi	bar	psi						
3TR7-04 3TR7N-04	6,4	0.25	12,5	0.49	192	2800			759	11000	31,8	1.25	0,09	0.06
					192	2800	207	3000						
3TR7-05 3TR7N-05	7,9	0.31	14,6	0.57	175	2550			690	10000	38,1	1.50	0,13	0.08
					175	2550	207	3000						
3TR7-06 3TR7N-06	9,5	0.38	16,5	0.65	157	2300			621	9000	50,8	2.00	0,15	0.10
					157	2300	207	3000						
3TR7-08 3TR7N-08	12,7	0.50	20,8	0.82	140	2050			621	9000	69,9	2.75	0,21	0.14
					140	2050	207	3000						
3TR7-10 3TR7N-10	16,0	0.63	23,6	0.93	105	1525			421	6100	101,6	4.00	0,24	0.16
					105	1525	140	2050						
3TR7-12 3TR7N-12	19,0	0.75	26,4	1.04	87	1250			348	5000	108,0	4.25	0,26	0.17
					87	1250								
3TR7-16 3TR7N-16	25,4	1.00	33,7	1.33	70	1000			280	4000	190,5	7.50	0,40	0.27
					70	1000								

### Operating temperature

**For oil-based fluids:** -40°C to +100°C (-40°F to +212°F)

**For water-based fluids:** -40°C to +66°C (-40°F to +150°F)

### Approved fittings



### 3TR7 supersedes

3130, 3160

### 3TR7N supersedes

3740, 37AL

### Inner tube

Nylon

### Reinforcement:

1-textile braid

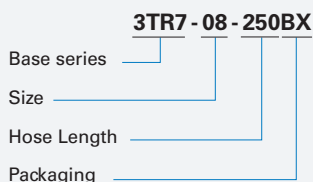
### Cover

Nonstick polyurethane

### Typical platforms

- Agriculture
- Horticulture
- Chemical transfer
- Foam systems
- Food processing
- Forestry delimeter
- General construction
- General hydraulic systems
- Lubrication systems
- Marine steering
- Utility vehicles and pickers
- Rescue apparatus & tools
- Water jetter drain/sewer

### How to order/ part # structure



**BC:** continuous length in box

**BX:** 2 lengths per box, no length less than 20 ft.

**RL:** random length reel, 2 lengths per reel, no length less than 20 ft.

**R:** continuous length on reel

## 3TR8



## 3TR8N Non-conductive



Part #	Hose I.D.		Hose O.D. (nominal)		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
3TR8-04 3TR8N-04	6,4	0.25	15,0	0.59	350	5100	1400	20400	38,1	1.50	0,16	0.11
3TR8-06 3TR8N-06	9,5	0.38	19,0	0.75	280	4500	1120	16200	57,2	2.25	0,23	0.15
3TR8-08 3TR8N-08	12,7	0.50	22,8	0.90	245	3550	980	14200	76,2	3.00	0,29	0.20
3TR8-12 3TR8N-12	19,0	0.75	28,8	1.13	157	2300	628	9200	114,3	4.50	0,38	0.25
3TR8-16 3TR8N-16	25,4	1.00	36,2	1.43	140	2050	560	8200	196,9	7.75	0,57	0.38

### Operating temperature

For oil-based fluids: -40°C to +100°C (-40°F to +212°F)

For water-based fluids: -40°C to +66°C (-40°F to +150°F)

### Approved fittings



4TA series



TTC/Z series with sleeve (FF91064)



### 3TR8 supersedes

3R80 and 3800

### 3TR8N supersedes

3E80

### Inner tube

Nylon

### Reinforcement:

2-textile braid

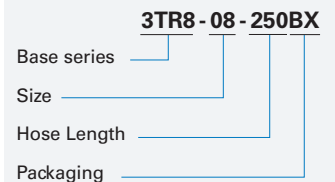
### Cover

Nonstick polyurethane

### Typical platforms

- Air tools
- Cooling/misting/dust suppression
- Forestry delimeter
- General construction
- General hydraulic
- High pressure chemical transfer
- Marine steering
- Mobile machinery
- Utility vehicles
- Recreational vehicles
- Rescue tools & equipment

### How to order/ part # structure



- BC:** continuous length in box
- BX:** 2 lengths per box, no length less than 20 ft.
- RL:** random length reel, 2 lengths per reel, no length less than 20 ft.
- R:** continuous length on reel

## 3TR18CT



Part #	Hose I.D.		Hose O.D. (nominal)		Working Pressure		Min. Burst Pressure		Min. Bend Radius		Weight	
	mm	in	mm	in	bar	psi	bar	psi	mm	in	kg/m	lbs/ft
3TR18CT-04	6,4	0.25	12,2	0.48	210	3050	840	12200	31,8	1.25	0,09	0.06
3TR18CT-05	7,9	0.31	14,8	0.58	210	3050	840	12200	38,1	1.50	0,15	0.10
3TR18CT-06	9,5	0.38	16,8	0.66	210	3050	840	12200	50,8	2.00	0,16	0.11
3TR18CT-08	12,7	0.50	21,6	0.85	210	3050	840	12200	69,9	2.75	0,25	0.17
3TR18CT-10	16,0	0.63	26,8	1.06	210	3050	840	12200	101,6	4.00	0,41	0.28

### Operating temperature

**For oil-based fluids:** -54°C to +100°C (-65°F to +212°F)

**For water-based fluids:** -54°C to +66°C (-65°F to +150°F)

### Approved fittings



4TA series

### 3TR18CT supersedes

30CT

### Inner tube

Polyester

### Reinforcement

2-synthetic fiber braid

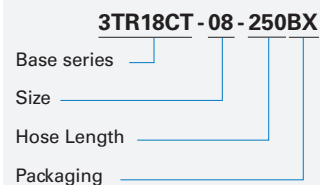
### Cover

Nonstick polyester

### Typical platforms

- Agriculture
- Horticulture
- Chemical & gas transfer
- Forestry delimeter
- Forklifts
- Freezer applications
- General construction
- General hydraulics
- Lubrication systems
- Machine tools & robotics
- Portable hydraulic tools

### How to order/ part # structure



- BC:** continuous length in box
- BX:** 2 lengths per box, no length less than 20 ft.
- RL:** random length reel, 2 lengths per reel, no length less than 20 ft.
- R:** continuous length on reel

Available to bond up to 6 lines, see examples below of twin-line for each hose series.

## 3TR7 Twin-line



Part #	Number of hose
3TR7-04-2-250BX	2
3TR7-05-2-250BX	2
3TR7-06-2-250BX	2
3TR7-08-2-250BX	2
3TR7-10-2-250BX	2
3TR7-12-2-250BX	2
3TR7-16-2-250BX	2

## 3TR7N Twin-line Non-conductive



Part #	Number of hose
3TR7N-04-2-250BX	2
3TR7N-05-2-250BX	2
3TR7N-06-2-250BX	2
3TR7N-08-2-250BX	2
3TR7N-10-2-250BX	2
3TR7N-12-2-250BX	2
3TR7N-16-2-250BX	2

## 3TR8 Twin-line



Part #	Number of hose
3TR8-04-2-250BX	2
3TR8-06-2-250BX	2
3TR8-08-2-250BX	2
3TR8-12-2-250BX	2
3TR8-16-2-250BX	2

## 3TR8N Twin-line Non-conductive



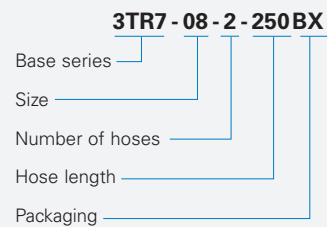
Part #	Number of hose
3TR8N-04-2-250BX	2
3TR8N-06-2-250BX	2
3TR8N-08-2-250BX	2
3TR8N-12-2-250BX	2
3TR8N-16-2-250BX	2

## 3TR18CT Twin-line



Part #	Number of hose
3TR18CT-04-2-250BX	2
3TR18CT-05-2-250BX	2
3TR18CT-06-2-250BX	2
3TR18CT-08-2-250BX	2
3TR18CT-10-2-250BX	2

### How to order/part # structure

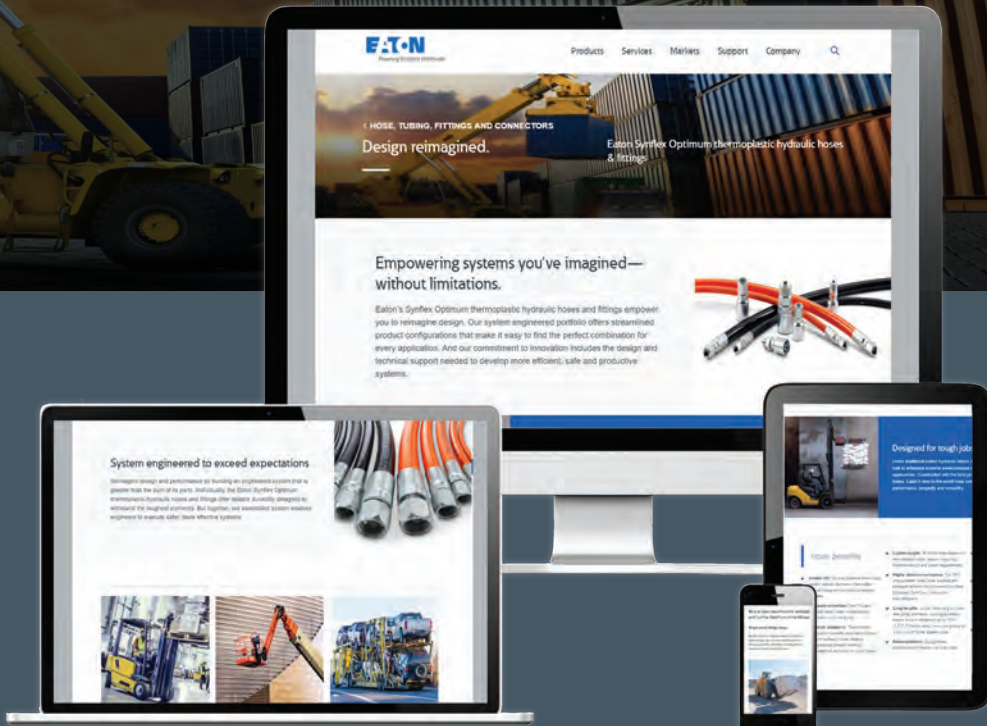


- BC:** continuous length in box
- BX:** 2 lengths per box, no length less than 20 ft.
- RL:** random length reel, 2 lengths per reel, no length less than 20 ft.
- R:** continuous length on reel

< HOSE, TUBING, FITTINGS AND CONNECTORS

# Design reimaged.

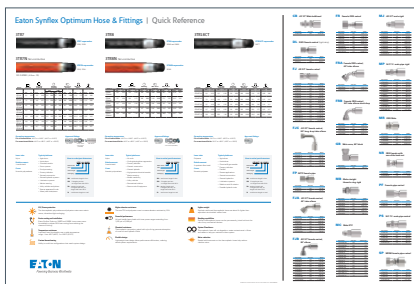
Eaton Synflex Optimum thermoplastic hoses & fittings



- Effortless implementation and assembly
- High endurance and reduced leak points
- Smooth installations and total quality control
- Convenient delivery and reduced cost

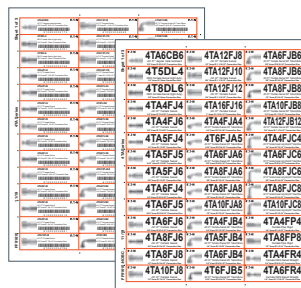
## Additional collateral

### Synflex Optimum wall chart



Synflex Optimum wall chart  
Hose and fittings (36 x 24 in.)  
E-EQCR-BB003-E1

### 4TA label sets



4TA label sets  
FF91610 (with bar codes)  
FF91610\_NOBC (without bar codes)

### Synflex Optimum sales kit



Synflex Optimum sale kit  
FF17673 Hose and Fitting samples,  
4TA cutaway, thermoformed sample and  
Synflex Optimum brochure

[www.eaton.com/synflexoptimum](http://www.eaton.com/synflexoptimum)

To learn more about the Synflex Optimum thermoplastic hydraulic hose and fittings portfolio.



## Designed for tough jobs.

As the pioneers of thermoforming technology, Eaton Synflex has taken the lead in overcoming hose routing and installation obstacles. Our application engineers work with customers developing designs and configurations that solve problems and improve manufacturing throughput.

### Advantages

#### Flexibility

Our application engineers work with customer CAD models and develop routing best practices into customer's systems.

#### Speed

Quick turnaround of design proposals and quotations.

#### Hands-on support

Our field engineers can be on site for prototype installation and initial production runs.

#### Cutting edge technology

State of the art 3D printing for molds and fixtures providing quick design and prototype turnaround time.

### Benefits

#### Smooth installations and quality control

Product manufacturing and design done in house, by Eaton, combined with custom labeled and marked assemblies makes for easy installation.

#### Reduced cost and complexity

Elimination of fittings, connections and other attachments reduces leak points and provides an overall cost savings.

#### Variety of capabilities

Thermoforming can be done with almost all of Eaton's thermoplastic hose and tube products creating endless combinations and opportunities.

#### Best routing practices

Ideal for tight fitting spaces and routing away from heat sources and abrasion points.



## Designed for efficiency.

Over 500+ combinations of terminal ends.



## Best-in-class features come standard.

### Seamless compatibility

Synflex Optimum fittings are optimized to work together with Synflex Optimum thermoplastic hydraulic hoses.

### Single piece design

Synflex Optimum 4TA fittings follow a simple one-piece design that reduces matching errors during assembly, eliminates brazing failure risks and lowers assembly time.

### Captive nut

A captive nut eliminates the weak spots found in other fittings. And it evenly distributes the force applied during assembly, helping prevent cracks and leaks that halt workflows and lead to unplanned downtime.

### Easy assembly

Easier insertion, less force needed during assembly to push fitting onto hose

### More configurations

Over 500+ combinations of terminal ends

## Designed for ease of use.

### Smaller profile

They have a compact design and smaller profile making it easier for routing and assembly installation, especially in tight spaces.

New compact design & smaller profile



### Easy identification

Part numbers printed on fittings for easy identification.

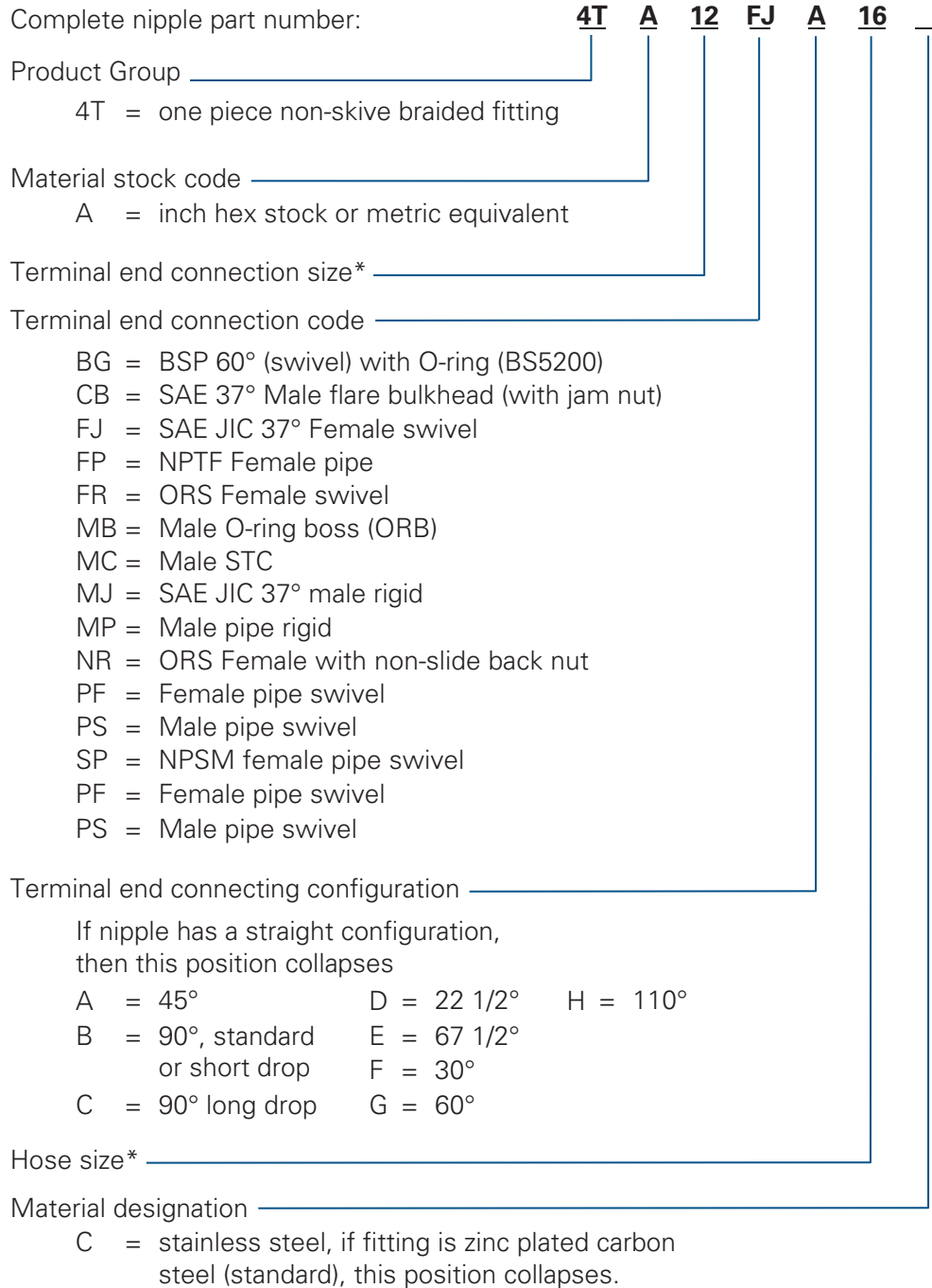
## Designed to last.

### Corrosion resistance

Dura-Kote™ plating comes standard in our Synflex Optimum fittings. Dura-Kote plating delivers up 3x the corrosion protection on carbon steel fittings as compared to competitive hose fittings. And provides up to 1,000 hours of corrosion resistance. This is a huge step forward in metal fitting corrosion protection.



Corrosion comparison after 650 hours of exposure to salt spray testing.



\* When ordering sizes 3, 4, 5, 6 and 8 the part number requires only single digits

## CB



JIC 37° male flare bulkhead (with jam nut)

Part number	Hose size	Thread
4TA6CB6	-06	9/16-18

## DL



DKO female swivel (light duty)

Part number	Hose size	Thread
4T5DL4	-04	12mm
4T8DL6	-06	16mm

## FJ



JIC/37° female swivel

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA4FJ4	-04	7/16-20	4TA8FJ6	-06	3/4-16
4TA4FJ6	-06	7/16-20	4TA8FJ8	-08	3/4-16
4TA5FJ4	-04	1/2-20	4TA10FJ8	-08	7/8-14
4TA5FJ5	-05	1/2-20	4TA12FJ8	-08	1 1/16-12
4TA5FJ6	-06	1/2-20	4TA12FJ10	-10	1 1/16-12
4TA6FJ4	-04	9/16-18	4TA12FJ12	-12	1 1/16-12
4TA6FJ5	-05	9/16-18	4TA16FJ16	-16	1 5/16-12
4TA6FJ6	-06	9/16-18			

## FJA



JIC/37° female swivel, 45° tube elbow

Part number	Hose size	Thread
4TA4FJA4	-04	7/16-20
4T6FJA5	-05	9/16-18
4TA6FJA6	-06	9/16-18
4TA8FJA6	-06	7/8-14
4TA8FJA8	-08	3/4-16
4TA10FJA8	-08	7/8-14

## FJB



JIC/37° female swivel, 90° elbow

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA4FJB4	-04	7/16-20	4TA8FJB6	-06	3/4-16
4TA5FJB4	-04	1/2-20	4TA8FJB8	-08	3/4-16
4TA6FJB4	-04	9/16-18	4TA10FJB8	-08	1 7/8-12
4T6FJB5	-05	9/16-18	4TA12FJB12	-12	1 1/16-12
4TA6FJB6	-06	9/16-18			

## FJC



JIC/37° female swivel, 90° long drop tube elbow

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA4FJC4	-04	7/8-14	4TA8FJC8	-08	3/4-16
4TA6FJC6	-06	9/16-18	4TA10FJC8	-08	7/8-14
4TA8FJC6	-06	3/4-16			

## FP



NPTF female pipe

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA4FP4	-04	1/4-18	4TA8FP8	-08	1/2-14

## FR



Female ORS swivel

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA4FR4	-04	9/16-18	4TA8FR8	-08	13/16-16
4TA6FR4	-04	11/16-16	4TA10FR8	-08	1-14
4TA6FR6	-06	11/16-16	4TA10FR10	-10	1-14
4TA8FR6	-06	13/16-16	4TA12FR12	-12	1 3/16-12

## FRA



Female ORS swivel, 45° tube elbow

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA4FRA4	-04	9/16-18	4TA6FRA6	-06	11/16-12

## FRB



Female ORS swivel, 90° tube elbow short drop

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA4FRB4	-04	9/16-18	4TA6FRB6	-06	11/16-16
4TA6FRB4	-04	11/16-16	4TA8FRB8	-08	13/16-12

## GB



Male cone, 60° Block

Part number	Hose size	Thread
4TA6GB6	-06	3/8-19

## MB



Male straight thread o-ring rigid

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA4MB4	-04	7/16-20	4TA6MB5	-05	1/2-20
4TA5MB4	-04	1/2-20	4TA6MB6	-06	9/16-18
4TA6MB4	-04	9/16-18	4TA8MB6	-06	3/4-16

## MC



Male STC

Part number	Hose size	Terminal end	Part number	Hose size	Terminal end
4TA10MCA8	-08	-10	4TA6MC6	-06	-06
4TA10MCB8	-08	-10	4TA6MC4	-04	-06
4TA10MC8	-08	-10	4TA6MCA4	-04	-06
4TA8MCB8	-08	-08	4TA6MCB4	-04	-06
4TA8MC8	-08	-08	4TA12MCB12	-12	-12
4TA6MCA6	-06	-06	4TA12MC12	-12	-12
4TA6MCB6	-06	-06	4TA10MC10	-10	-10

## MJ



JIC/37° male rigid

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA4MJ4	-04	7/16-20	4TA6MJ6	-06	9/16-18
4TA5MJ4	-04	1/2-20	4TA8MJ6	-06	3/4-16
4TA5MJ5	-05	1/2-20	4TA8MJ8	-08	3/4-16
4TA6MJ4	-04	9/16-18	4TA10MJ8	-08	7/8-14
4TA6MJ5	-05	9/16-18			

## MP



N.P.T.F. male pipe rigid

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA2MP4	-04	1/8-27	4TA6MP6	-06	3/8-18
4TA4MP4	-04	1/4-18	4TA6MP8	-08	3/8-18
4T4MP5	-05	1/4-18	4TA8MP6	-06	1/2-14
4TA4MP6	-06	1/4-18	4TA8MP8	-08	1/2-14
4TA6MP4	-04	3/8-18	4TA12MP12	-12	3/4-14
4T6MP5	-05	3/8-18	4TA16MP16	-16	1-11 1/2

## MR



ORS Male

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA4MR4	-04	9/16-18	4TA8MR6	-06	13/16-16
4TA6MR6	-06	11/16-16	4TA8MR8	-08	13/16-16

## NR



ORS female with non-slide back nut

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA6NR6	-06	1 11/16-16	4TA10NR10	-10	1-14

## PF



Female pipe swivel

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA4PF4	-04	1/4-18	4TA6PF6	-06	3/8-18

## PS



N.P.T.F. male pipe swivel

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA4PS4	-04	1/4-18	4TA8PS8	-08	1/2-14
4TA4PS5	-05	1/4-18	4TA12PS12	-12	3/4-14
4TA6PS6	-06	3/8-18			

## SP



NPSM female pipe swivel

Part number	Hose size	Thread	Part number	Hose size	Thread
4TA4SP4	-04	1/4-18	4TA8SP8	-08	1/2-14
4TA6SP6	-06	3/8-18	4TA16SP16	-16	1-11 1/2



■ 100R7 
 ■ 100R8 
 ■ 100R18



T-400

Dash size	Part type	Part number	Fitting					TTC/Z w/ sleeve (FF91064)			
			4TA								
Hose			3TR7	3TR7N	3TR8	3TR8N	3TR18CT	3TR7	3TR7N	3TR8	3TR8N
-04	Machine Bowl	T-400-8	X	X	X	X	X	X	X		
	Collet	T-400-109C	X	X	X	X	X				
	Collet	T-400-121C						X	X		
	Spacer Ring	T-400-37					X				
	Spacer Ring	ET313SR-045A	X	X							
	Spacer Ring	ET1000SR-M190D			X	X					
	Spacer Ring	T-400-46						X	X		
-05	Machine Bowl	T-400-8	X	X			X				
	Collet	T-400-121C	X	X			X				
	Spacer Ring	ET1000SR-M190D					X				
	Spacer Ring	T-400-47R	X	X							
-06	Machine Bowl	T-400-8	X	X	X	X	X	X	X	X	X
	Collet	T-400-110C	X	X	X	X	X				
	Collet	ET401DC-M195S						X	X	X	X
	Spacer Ring	ET1000SR-M100A					X				
	Spacer Ring	ET313SR-045A	X	X							
	Spacer Ring	ET313SR-060D			X	X					
	Spacer Ring	T-400-37						X	X		
-08	Machine Bowl	T-400-8	X	X	X	X	X	X	X	X	X
	Collet	T-400-41C	X	X	X	X	X				
	Collet	ET401DC-M230S						X	X	X	X
	Spacer Ring	ET1000SR-M265D					X				
	Spacer Ring	ET1000SR-M190D	X	X							
	Spacer Ring	ET1000SR-M395D			X	X					
	Spacer Ring	T-400-62								X	X
	Spacer Ring	T-400-10						X	X		

For additional crimp machine configurations and all crimp specs, please visit:  
[eatonpowersource.com](http://eatonpowersource.com)



100R7 100R8 100R18



T-460



T-462



T-465

Dash size	Part type	Part number	Fitting					TTC/Z w/ sleeve (FF91064)			
			4TA								
			Hose	3TR7	3TR7N	3TR8	3TR8N	3TR18CT	3TR7	3TR7N	3TR8
-04	Machine Bowl	Intergrated	X	X	X	X	X	X	X		
	Collet	T-400-109C	X	X	X	X	X				
	Collet	T-400-121C						X	X		
	Spacer Ring	T-400-37					X				
	Spacer Ring	ET313SR-045A	X	X							
	Spacer Ring	ET1000SR-M190D			X	X					
	Spacer Ring	T-400-46						X	X		
-05	Machine Bowl	Intergrated	X	X			X				
	Collet	T-400-121C	X	X			X				
	Spacer Ring	ET1000SR-M190D					X				
	Spacer Ring	T-400-47R	X	X							
-06	Machine Bowl	Intergrated	X	X	X	X	X	X	X	X	X
	Collet	T-400-110C	X	X	X	X	X				
	Collet	ET401DC-M195S						X	X	X	X
	Spacer Ring	ET1000SR-M100A					X				
	Spacer Ring	ET313SR-045A	X	X							
	Spacer Ring	ET313SR-060D			X	X					
	Spacer Ring	T-400-37						X	X		
-08	Machine Bowl	Intergrated	X	X	X	X	X	X	X	X	X
	Collet	T-400-41C	X	X	X	X	X				
	Collet	ET401DC-M230S						X	X	X	X
	Spacer Ring	ET1000SR-M265D					X				
	Spacer Ring	ET1000SR-M190D	X	X							
	Spacer Ring	ET1000SR-M395D			X	X					
	Spacer Ring	T-400-62						X	X		
	Spacer Ring	T-400-10								X	X

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100R7 100R8 100R18



T-420

Dash size	Part type	Part number	Fitting					TTC/Z w/ sleeve (FF91064)			
			4TA								
			Hose	3TR7	3TR7N	3TR8	3TR8N	3TR18CT	3TR7	3TR7N	3TR8
-04	Machine Bowl	T-420-26	X	X	X	X	X	X	X		
	Adapter Bowl	T-420-25	X	X	X	X	X	X	X		
	Collet	T-400-109C	X	X	X	X	X				
	Collet	T-400-121C						X	X		
	Spacer Ring	T-400-37					X				
	Spacer Ring	ET313SR-045A	X	X							
	Spacer Ring	ET1000SR-M190D			X	X					
	Spacer Ring	T-400-46						X	X		
-05	Machine Bowl	T-420-26	X	X			X				
	Adapter Bowl	T-420-25	X	X			X				
	Collet	T-400-121C	X	X			X				
	Spacer Ring	ET1000SR-M190D					X				
	Spacer Ring	T-400-47R	X	X							
-06	Machine Bowl	T-420-26	X	X	X	X	X	X	X	X	X
	Adapter Bowl	T-420-25	X	X	X	X	X	X	X	X	X
	Collet	T-400-110C	X	X	X	X	X				
	Collet	ET401DC-M195S						X	X	X	X
	Spacer Ring	ET1000SR-M100A					X				
	Spacer Ring	ET313SR-045A	X	X							
	Spacer Ring	ET313SR-060D			X	X					
	Spacer Ring	T-400-37						X	X		
-08	Machine Bowl	T-420-26	X	X	X	X	X	X	X	X	X
	Adapter Bowl	T-420-25	X	X	X	X	X	X	X	X	X
	Collet	T-400-41C	X	X	X	X	X				
	Collet	ET401DC-M230S						X	X	X	X
	Spacer Ring	ET1000SR-M190D	X	X							
	Spacer Ring	ET1000SR-M395D			X	X					
	Spacer Ring	T-400-62						X	X		
	Spacer Ring	T-400-10								X	X
-10	Machine Bowl	T-420-26	X	X			X				
	Collet	ET1000DC-M250S	X	X			X				
	Spacer Ring	T-400-46R					X				
	Spacer Ring	ET420SR-M495A	X	X							
-12	Machine Bowl	T-420-26	X	X	X	X		X	X	X	X
	Collet	T-420-30C	X	X	X	X					
	Collet	ET1000DC-M295S						X	X		
	Collet	T-420-86C								X	X
	Spacer Ring	T-420-29	X	X							
	Spacer Ring	T-400-10			X	X					
	Spacer Ring	ET1000SR-M115D						X	X		
-16	Machine Bowl	T-420-26	X	X	X	X		X	X	X	X
	Collet	T-421-10C	X	X	X	X					
	Collet	ET1001DC-M390S						X	X	X	X
	Spacer Ring	ET420SR-M660A	X	X							
	Spacer Ring	ET425SR-240A			X	X					
	Spacer Ring	ET420SR-M215A						X	X	X	X

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100R7 100R8 100R18



T-480



Dash size	Part type	Part number	Fitting					TTC/Z w/ sleeve (FF91064)			
			4TA								
			3TR7	3TR7N	3TR8	3TR8N	3TR18CT	3TR7	3TR7N	3TR8	3TR8N
-04	Machine Bowl	T-420-26	X	X	X	X	X	X	X		
	Adapter Bowl	T-420-25	X	X	X	X	X	X	X		
	Collet	T-400-109C	X	X	X	X	X				
	Collet	T-400-121C						X	X		
	Spacer Ring	T-400-37	X	X			X				
	Spacer Ring	ET1000SR-M190D			X	X					
	Spacer Ring	T-400-46						X	X		
-05	Machine Bowl	T-420-26	X	X			X				
	Adapter Bowl	T-420-25	X	X			X				
	Collet	T-400-121C	X	X			X				
	Spacer Ring	ET1000SR-M190D	X	X			X				
-06	Machine Bowl	T-420-26	X	X	X	X	X	X	X	X	X
	Adapter Bowl	T-420-25	X	X	X	X	X	X	X	X	X
	Collet	T-400-110C	X	X	X	X	X				
	Collet	ET401DC-M195S						X	X	X	X
	Spacer Ring	ET1000SR-M100A	X	X			X				
	Spacer Ring	ET313SR-060D			X	X					
	Spacer Ring	T-400-37						X	X		
-08	Machine Bowl	T-420-26	X	X	X	X	X	X	X	X	X
	Adapter Bowl	T-420-25	X	X	X	X	X	X	X	X	X
	Collet	T-400-41C	X	X	X	X	X				
	Collet	ET401DC-M230S						X	X	X	X
	Spacer Ring	ET1000SR-M265D					X				
	Spacer Ring	ET1000SR-M190D	X	X							
	Spacer Ring	ET1000SR-M395D			X	X					
	Spacer Ring	T-400-62						X	X		
	Spacer Ring	T-400-10								X	X
	Spacer Ring	T-400-10									
-10	Machine Bowl	T-420-26	X	X			X				
	Collet	ET1000DC-M250S	X	X			X				
	Spacer Ring	T-400-46R	X	X			X				
	Spacer Ring	ET420SR-M495A									
-12	Machine Bowl	T-420-26	X	X	X	X		X	X	X	X
	Collet	T-420-30C	X	X	X	X					
	Collet	ET1000DC-M295S						X	X		
	Collet	T-420-86C								X	X
	Spacer Ring	T-420-29	X	X							
	Spacer Ring	T-400-10			X	X					
	Spacer Ring	ET1000SR-M115D						X	X		
-16	Machine Bowl	T-420-26	X	X	X	X		X	X	X	X
	Collet	T-421-10C	X	X	X	X					
	Collet	ET1001DC-M390S						X	X	X	X
	Spacer Ring	ET420SR-M660A	X	X							
	Spacer Ring	ET425SR-240A			X	X					
	Spacer Ring	ET420SR-M215A						X	X	X	X

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100R7 100R8 100R18



ET4000



ET4001

Dash size	Part type	Fitting Part number	4TA					TTC/Z w/ sleeve (FF91064)			
			3TR7	3TR7N	3TR8	3TR8N	3TR18CT	3TR7	3TR7N	3TR8	3TR8N
-04	Machine Bowl	ET4000AR-001	X	X	X	X	X	X	X		
	Adapter Bowl	T-410-25	X	X	X	X	X	X	X		
	Collet	T-400-109C	X	X	X	X	X				
	Collet	T-400-121C						X	X		
	Spacer Ring	T-410-39					X				
	Spacer Ring	ET4000SR-M100A	X	X							
	Spacer Ring	ET4000SR-M190D			X	X					
	Spacer Ring	T-410-78R						X	X		
-05	Machine Bowl	ET4000AR-001	X	X			X				
	Adapter Bowl	T-410-25	X	X			X				
	Collet	T-400-121C	X	X			X				
	Spacer Ring	ET4000SR-M190D					X				
	Spacer Ring	T-440-79R	X	X							
-06	Machine Bowl	ET4000AR-001	X	X	X	X	X	X	X	X	X
	Adapter Bowl	T-410-25	X	X	X	X	X	X	X	X	
	Collet	T-400-110C	X	X	X	X	X				
	Collet	ET401DC-M195S						X	X	X	X
	Spacer Ring	ET4000SR-M100A	X	X			X				
	Spacer Ring	T-440-79R			X	X					
	Spacer Ring	T-410-39						X	X		
	Spacer Ring	T-400-10								X	X
-08	Machine Bowl	ET4000AR-001	X	X	X	X	X	X	X	X	X
	Adapter Bowl	T-410-25	X	X	X	X	X	X	X	X	X
	Collet	T-400-41C	X	X	X	X	X				
	Collet	ET401DC-M230S						X	X	X	X
	Spacer Ring	T-410-10					X				
	Spacer Ring	ET4000SR-M190D	X	X							
	Spacer Ring	T-410-11			X	X					
	Spacer Ring	T-410-41						X	X		
-10	Machine Bowl	ET4000AR-001									
	Collet	T-440-85C					X				
	Spacer Ring	ET4000SR-M405A					X				
	Machine Bowl	ET4000AR-001	X	X	X	X		X	X	X	X
	Collet	T-440-85C	X	X	X	X					X
-12	Collet	ET4000DC-M320S						X	X		
	Collet	T-440-86C								X	
	Spacer Ring	ET4000SR-M405A	X	X							
	Spacer Ring	ET4000SR-M180A			X	X				X	X
	Spacer Ring	ET4000SR-M560A						X	X		
	Machine Bowl	ET4000AR-001	X	X	X	X		X	X	X	X
-16	Collet	T-470-16C	X	X	X	X					
	Collet	ET4001DC-M380S						X	X	X	X
	Spacer Ring	ET4000SR-M560A	X	X							
	Spacer Ring	ET525SR-195A			X	X					
	Spacer Ring	T-440-82R						X	X	X	X

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T410 & T440



Dash size	Part type	Part number	Fitting					TTC/Z w/ sleeve (FF91064)				
			4TA									
			3TR7	3TR7N	3TR8	3TR8N	3TR18CT	3TR7	3TR7N	3TR8	3TR8N	
-04	Machine Bowl	T-410-26	X	X	X	X	X	X				
	Adapter Bowl	T-410-25	X	X	X	X	X	X	X			
	Collet	T-400-109C	X	X	X	X	X					
	Collet	T-400-121C						X	X			
	Spacer Ring	T-410-39								X		
	Spacer Ring	ET4000SR-M100A	X	X								
	Spacer Ring	ET4000SR-M190D			X	X						
	Spacer Ring	T-410-78R						X	X			
-05	Machine Bowl	T-410-26	X	X			X					
	Adapter Bowl	T-410-25	X	X			X					
	Collet	T-400-121C	X	X			X					
	Spacer Ring	ET4000SR-M190D					X					
	Spacer Ring	T-440-79R	X	X								
-06	Machine Bowl	T-410-26	X	X	X	X	X	X	X	X	X	X
	Adapter Bowl	T-410-25	X	X	X	X	X	X	X	X	X	X
	Collet	T-400-110C	X	X	X	X	X					
	Collet	ET401DC-M195S						X	X	X	X	
	Spacer Ring	ET4000SR-M100A	X	X			X					
	Spacer Ring	T-440-79R			X	X						
	Spacer Ring	T-410-39						X	X			
	Spacer Ring	T-400-10									X	X
-08	Machine Bowl	T-410-26	X	X	X	X	X	X	X	X	X	X
	Adapter Bowl	T-410-25	X	X	X	X	X	X	X	X	X	X
	Collet	T-400-41C	X	X	X	X	X					
	Collet	ET401DC-M230S						X	X	X	X	
	Spacer Ring	T-410-10					X				X	X
	Spacer Ring	ET4000SR-M190D	X	X								
	Spacer Ring	T-410-11			X	X						
	Spacer Ring	T-410-41						X	X			
-10	Machine Bowl	T-410-26					X					
	Collet	T-440-85C					X					
	Spacer Ring	ET4000SR-M405A					X					
-12	Machine Bowl	T-410-26	X	X	X	X		X	X	X	X	
	Collet	T-440-85C	X	X	X	X						
	Collet	ET4000DC-M320S						X	X			
	Collet	T-440-86C								X	X	
	Spacer Ring	ET4000SR-M405A	X	X								
	Spacer Ring	ET4000SR-M180A			X	X				X	X	
-16	Machine Bowl	T-410-26	X	X	X	X		X	X	X	X	
	Collet	T-470-16C	X	X	X	X						
	Collet	ET4001DC-M380S						X	X	X	X	
	Spacer Ring	ET4000SR-M560A	X	X								
	Spacer Ring	ET525SR-195A			X	X						
	Spacer Ring	T-440-82R						X	X	X	X	

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■ 100R7 
 ■ 100R8 
 ■ 100R18



ET1000

Dash size	Part type	Part number	Fitting					TTC/Z w/ sleeve (FF91064)			
			4TA								
			3TR7	3TR7N	3TR8	3TR8N	3TR18CT	3TR7	3TR7N	3TR8	3TR8N
-04	Adapter Bowl	ET1000AR-001	X	X	X	X	X	X	X		
	Collet	T-400-109C	X	X	X	X	X				
	Collet	T-400-121C						X	X		
	Collet	ET401DC-M195S									
	Spacer Ring	T-400-37	X	X			X				
	Spacer Ring	ET1000SR-M190D			X	X					
	Spacer Ring	T-400-46						X	X		
-05	Adapter Bowl	ET1000AR-001	X	X			X				
	Collet	T-400-121C	X	X			X				
	Spacer Ring	ET1000SR-M190D	X	X			X				
-06	Adapter Bowl	ET1000AR-001	X	X	X	X	X	X	X	X	X
	Collet	T-400-110C	X	X	X	X	X				
	Collet	ET401DC-M195S						X	X	X	X
	Spacer Ring	ET1000SR-M100A	X	X			X				
	Spacer Ring	ET313SR-060D			X	X					
	Spacer Ring	T-400-37						X	X		
	Spacer Ring	ET1000C-0012								X	X
-08	Adapter Bowl	ET1000AR-001	X	X	X	X	X	X	X	X	X
	Collet	T-400-41C	X	X	X	X	X				
	Collet	ET401DC-M230S						X	X	X	X
	Spacer Ring	ET1000SR-M265D					X				
	Spacer Ring	ET1000SR-M190D	X	X							
	Spacer Ring	ET1000SR-M395D			X	X					
	Spacer Ring	T-400-62						X	X		
-10	Spacer Ring	T-400-10								X	X
	Collet	ET1000DC-M250S	X	X			X				
	Spacer Ring	T-400-46R	X	X			X				
-12	Collet	T-420-30C	X	X	X	X					
	Collet	ET1000DC-M295S						X	X		
	Collet	T-420-86C								X	X
	Spacer Ring	T-420-29	X	X							
	Spacer Ring	ET1000C-0012			X	X					
	Spacer Ring	ET1000SR-M115D						X	X		
	Spacer Ring	ET420SR-M215A								X	X
-16	Collet	T-421-10C	X	X	X	X					
	Collet	ET1001DC-M390S						X	X	X	X
	Spacer Ring	ET420SR-M660A	X	X							
	Spacer Ring	ET425SR-240A			X	X					
	Spacer Ring	ET420SR-M215A						X	X	X	X

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FT1380



ET1187



FT1390

Target setting in matrix

For additional variable crimp specs for other machines, please visit: [eatonpowersource.com](http://eatonpowersource.com)

Dash size	Machine	Fitting	4TA					TTC/Z w/ sleeve (FF91064)				
			Hose					TTC/Z w/ sleeve (FF91064)				
			3TR7	3TR7N	3TR8	3TR8N	3TR18CT	3TR7	3TR7N	3TR8	3TR8N	
		Die cage part number										
-04	FT1380 ET1187	FT1380-200-M150	40	40			40	80	80			
		FT1380-200-M165			45	45						
		FT1380-275-M150	40	40			40	80	80			
-05	FT1390	FT1307-200-M150	328	328	271	271	323	246	246			
		FT1380	FT1380-200-M150	100	100			108				
		ET1187	FT1380-275-M150	100	100			108				
-06	FT1390	FT1307-200-M150	262	262			270					
		FT1380	FT1380-200-M180	55	55	35	35	60	105	105		
		ET1187	FT1380-275-M180	55	55	35	35	60	105	105		
-06	FT1390	FT1307-200-M180	221	221	279	279	225	271	271			
		ET1187	FT1380-200-M200			35						
		FT1380	FT1380-275-M200			35	35					
-06	FT1390	FT1307-200-M210								35	35	
		ET1187	FT1380-200-M210							35	35	
		FT1380	FT1380-275-M210								35	35
-08	FT1390	FT1307-200-M210	243	243	288	288	260					
		ET1187	FT1380-200-M210	80	80	115	115	90				
		FT1380	FT1380-275-M210	80	80	115	115	90				
-08	FT1390	FT1307-200-M240						50	50	100	100	
		ET1187	FT1380-200-M240						50	50	100	100
		FT1380	FT1380-275-M240						50	50	100	100
-10	FT1390	FT1307-200-M240	263	263				223	223	237	237	
		ET1187	FT1380-200-M280					15				
		FT1380	FT1380-275-M280					15				
-12	FT1390	FT1307-200-M240	263	263				223	223	237	237	
		ET1187	FT1381-200-M280					15				
		FT1380	FT1380-200-M240	94	94							
-12	FT1390	FT1307-200-M240	263	263				223	223	237	237	
		ET1187	FT1380-200-M240	94	94							
		FT1380	FT1380-275-M240	94	94							
-12	FT1390	FT1307-200-M280	160	160	224	224		363	363			
		ET1187	FT1380-200-M280	15	15	50	50					
		FT1380	FT1380-275-M280	15	15	50	50					
-16	FT1390	FT1307-200-M280	160	160	224	224		363	363			
		ET1187	FT1381-200-M280			50	50		35	35	50	50
		FT1380	FT1380-200-M320						35	35	50	50
-16	FT1390	FT1307-200-M320						205	205	241	241	
		ET1187	FT1380-200-M320						35	35	50	50
		FT1380	FT1380-275-M320						35	35	50	50
-16	FT1390	FT1307-200-M320	211	211	223	223		329	329	334	334	
		ET1187	FT1381-200-M370						155	155	45	45
		FT1380	FT1381-275-M370						155	155	45	45
-16	FT1390	FT1307-200-M370	211	211	223	223		329	329	334	334	
		ET1187	FT1382-200-M370						155	155	45	45
		FT1380	FT1382-275-M370						155	155	45	45

# Chemical resistance data

This chart is intended to serve as a guide and does not guarantee suitability of hose material with the chemicals listed. Final selection of materials is dependent on many factors including variations in temperature, pressure and duration of exposure.

Hose Material Key		Resistance Rating Key			
N = Nylon	H = Polyester	G = Good	P = Poor		
		L = Limited	NT = Not Tested		
	N H		N H		N H
Acetaldehyde	G G	Carbon Bisulfide	G L	†Ethylene Glycol	G G
Acetic Acid	L L	Carbon Disulfide	G L	Ethylene Oxide	G L
Acetic Anhydride	L L	Carbon Monoxide	G G	Fatty Acid	G G
Acetone	G L	Carbon Tetrachloride	G P	Ferric Chloride	L NT
Acetyl Bromide	P P	Carbonic Acid	G L	Ferric Sulphate	G G
Acetyl Chloride	P P	Castor Oil	G L	Fluoboric Acid	NT P
Acetylene	G G	Caustic Potash (>20%)	L L	Fluorine	P P
Air	G G	Caustic Potash (<20%)	G L	Fluorosilicic	NT NT
*Alcohols	G L	Caustic Soda (>20%)	L L	Formaldehyde	G L
Aluminum Chloride	P NT	Caustic Soda (<20%)	G L	Formic Acid	P P
Aluminum Sulphate	G NT	Cellusolves Union Carbide	G P	Freon	G L
Alums	P NT	Cellulubes Celanese (Hydraulic		*Fruit Juices	G G
Ammonia Gas	P P	Fluid, Phosphate Ester Base)	G P	Fuel Oil (Aromatic Gas)	
Ammonium Chloride	G G	Chloracetic Acid	P P	100 Octane	G G
Ammonium Hydroxide	P P	Chloroform	G P	Fuel Oil	G G
Ammonium Nitrate	G L	Chlordane	G G	Furfuryl Alcohol	G G
Ammonium Phosphate	G L	Chlorinated Solvents	G P	Galic Acid (<20%)	G L
Ammonium Sulphate	G L	Chlorine (Dry)	P P	** Gas (Natural)	G G
Amyl Acetate	G L	Chlorine (Water) (<20%)	L P	Gas Oil	G GL
Amyl Alcohol	G G	Chromic Acid	P P	Gasoline	G G
Anethole	G NT	Chromium Salts	G G	Gasoline (Aromatic)	G G
Aniline	L P	*Cider	G G	Gasoline (Non-Aromatic)	G G
Animal Oils	G G	Citric Acid	G L	Gelatin	G G
Antimony Salts	G G	Coal Gas	G G	Glucose	G G
Apoclor Monsanto (Chlorinated		Copper Chloride	L G	Glue (Depends on type)	G G
Hydrocarbon Hydraulic		Copper Sulphate	G G	†Glycerine	G G
Fluid)	G L	*Corn Oil	G G	†Glycol	G G
Aromatic Hydrocarbons	G L	Cottonseed Oil	G G	Greases	G G
Arsenic Salts	G G	Creosote	P P	Heavy Water (D2O)	G G
Asphalt	G G	Cresols	P P	Heptane	G G
Auto Transmission Fluid	G G	Cresylic Acid	P P	Hexane	G G
Barium Chloride	G G	Crude Petroleum Oil	G L	†Houghto Safe Houghton 600	
Barium Salts	G G	Cupric Sulphate	L L	Series (Hyd. Fluid Water	
Basic Copper Arsenate	G G	Cyclohexane	G G	Glycol Base)	G L
Benzaldehyde	G G	Cyclohexanone	G G	†Houghto Safe Houghton 1000	
Benzene	G L	Decalin	G NT	Series (Phosphate Ester	
Benzoic Acid	G P	Diacetone Alcohol	G L	Base)	G L
Benzol (Benzene)	G L	Diammonium Phosphate	G L	Hydraulic Fluid Petroleum Base	G G
Benzyl Alcohol	L L	Dibutyl Phthalate	G L	†Hydraulic Fluid Water Glycol	
Borax	G G	Diesel Fuel	G G	Base	G G
Bordeaux Mixture	G G	Diethanolamine (20% conc.)	G L	†Hydraulic Fluid	
Boric Acids	G G	Diethyl Ether	G L	Phosphate Ester	G L
Boric Copper Sulphate	G G	Diocetyl Phosphate	G L	Hydraulic Oil	G G
Bromine	P P	Diocetylphthalate	G L	Hydrochloric Acid (10%)	G P
Butanol	G G	Enamels	G G	Hydrocyanic Acid	P NT
* Butter	G G	Essential Oils	G G	Hydrofluoric Acid	P P
Butyl Acetate	G L	* Ethanol	G L	Hydrogen Gas	G G
Calcium Arsenate	G G	Ether	G L	Hydrogen Peroxide (dil.)	G G
Calcium Bisulphide	G G	Ethyl Acetate	G L	Hydrogen Peroxide (conc.)	P P
Calcium Chloride	G G	* Ethyl Alcohol	G L	Hydrogen Sulphide	L L
Calcium Hydroxide (<20%)	G L	Ethyl Chloride	G P	†Hydrolube Union Carbide—	
Calcium Hypochlorite	G L	Ethylene Chlorhydrin	P P	(Hydraulic Fluid Water Glycol	
Calcium Salts	G G	Ethylene Dichloride	G P	Base)	G L
Carbolic Acid	P P				

N H		N H		N H	
†Irus Shell 902 Hydraulic Fluid (Water-Oil Emulsion)	G G	Oleic Acid	G G	Sodium Sulphate	G G
Isocyanates	G G	OS 45 Monsanto Hydraulic Fluid (Silicate Ester Base)	G L	Sodium Sulphide	G G
Isopropyl Acetate	G L	Oxalic Acid (-30%)	G L	Sodium Thiosulphate	G G
Kerosene	G G	Oxygen	Refer to Factory	Solutions/Emulsions 2-4D	
Ketones	G L	Ozone	G G	DDT Preparation Hydroxy	
Lacquer Solvents	G L	Paint (Oil Base)	G G	Quinoline	G NT
Lactic Acid	G NT	Paint Solvents (Oil Base)	G L	Stannous Chloride	L G
Lard	G G	Palmitic Acid	G G	Steam	P P
Lead Arsenate	G G	Pentane	G G	Stearic Acid	G G
Lead Sulphate	G G	Perchloric Acid	P P	Stearin	G G
Lead Tetramethyl	G G	Perchlorethylene	G P	Stoddard Solvent	G P
Lime	G G	Petroleum Oils (Sour)	G L	Styrene	G L
Linseed Cake	G G	Petroleum Oils (Refined)	G G	Sulphur	G G
Linseed Oil	G G	Phenolates	L L	Sulphur Dioxide	P P
Lubricating Oils, Petroleum Base	G G	Phenols	P P	Sulphur Trioxide	L P
†Lubricating Oils, Diester Base	G L	Phosphoric Acid	G P	Sulphuric Acid (dil.)	L LP
Magnesium Chloride	G G	Picric Acid	L P	Sulphuric Acid (conc.)	P P
Magnesium Hydroxide (<20%)	G L	Potash (Potassium Hydroxide)	L P	Sulphurous Acid	P LP
Magnesium Sulphate	G G	Potassium Chloride	G G	Tannic Acid	G L
Maleic Acid	G L	Potassium Hydroxide (50% conc.)	L P	Tar Oil	G G
Mercuric Chloride	G G	Potassium Nitrate	G G	Tartaric Acid	G G
Mercury	G G	Potassium Permanganate		Toluene	G L
**Methane	G G	(5% conc.)	P P	Toluol	G L
Methanol	G L	Potassium Sulphate	G G	Tributyl Phosphate	G L
Methyl Acetate	G L	Propane	G G	Tricesylphosphate	G L
Methyl Bromide	L P	†Pydraul (Stauffer) F-9, 150, 600, 625	G L	Trichloroacetic Acid	P P
Methyl Chloride	G P	Pyrethrum	G G	Trichloroethylene	G P
Methyl Sulphate	G G	Pyridine	L L	†Trisodium Phosphate Solution	G L
Methylethylketone (MEK)	G L	†Sea Water	G G	Turpentine	G G
Methylisobutylketone (MIBK)	G L	†Skydrol Monsanto 500, 7000	G P	†Ucon Union Carbide (Hydraulic Fluid Water Glycol Base)	G L
*Milk	G G	†Soap Solution (conc.)	G G	Urea	G L
Mineral Oil	G G	* † Soda Water	G G	Uric Acid	G P
Molasses	G G	Sodium Bicarbonate	G G	Varnish	G G
Mustard	G G	Sodium Bisulfite	G G	Vinegar	G L
Naphtha	G L	Sodium Borate	G G	† Water (150°F)	G G
Naphthalene	G L	Sodium Carbonate	G G	White & Bagley No. 2190 Cutting Oil	G NT
Nickel Chloride	P P	Sodium Chloride	G G	*Wine	G G
Nicotine	G G	Sodium Cyanide	G G	Wool Oil	G G
Nitric Acid (<20%)	L L	Sodium Hydroxide (<20%)	G L	Xylol	G L
Nitric Acid (>20%)	L P	Sodium Hypochlorite	L L	Xylene	G L
Nitrobenzene	G P	Sodium Nitrate	G G	Zinc Chloride	G G
* Nitrous Oxide	G G	†Sodium Phosphate Solution	G G	Zinc Hydrate	P L
Oil	G G	Sodium Silicate	G G	Zinc Sulphate	P L
* Oil of Turpentine	G G				

\* Does not imply NSF or FDA compliance

† Recommended operating temperature not to exceed +150°F (+66°C)

\*\* Does not imply AGA or UL compliance

‰ Recommended operating temperature not to exceed +100°F (+37.8°C)

### Hose Material Reference Chart

Series	Core
3TR7	Nylon
3TR7N	Nylon
3TR8	Nylon
3TR8N	Nylon
3TR18CT	Polyester



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