## **Polypropylene Non-Spill Chemical Transfer Couplings**

The non-spill coupling virtually eliminates fluid loss upon disconnection. It is designed to help meet the demand for closed system transfer and dispensing of chemicals with minimal environmental contamination. The push-to-connect design allows ease of connection/disconnection and the flush valve enables ease of cleaning. They can be used with concentrated or diluted agricultural chemicals when transferring from bulk storage tanks, returnable containers, applicators, etc.

#### Materials:

- body polypropylene
- springs 316 stainless steel
- seals chemical resistant fluorocarbon

Sizo	Pressure Ratings	coupler		nipple	
Size	Fressure Raurigs	Part #	Price/E	Part #	Price/E
1/2"	100 PSI at 68°F	PFC50	\$71.80	PFN50	\$35.00
1"	60 PSI at 68°F	PFC100	86.80	PFN100	60.00
2"	100 PSI at 68°F	PFC200	233.30	PFN200	110.30





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Plastic

## **Acetal Push-In Fittings**

#### Construction:

- material acetal copolymer
- O-ring nitrile rubber
- three piece construction, body, collet and O-ring preassembled
- collets are produced with stainless steel locking teeth

#### Working Pressure and Temperature Range:

- temperature range: -20°F (-20°C) to 185°F (85°C)
- maximum water pressure: ½": 230 PSI; 3/8" and ½": 170 PSI

#### Advantages:

- FDA compliant and NSF 51 listed non toxic material
- Easy to install no tools required. Easy to disconnect and reuse

#### Applications:

- Water conditioning, filtration, reverse osmosis, soft drink, beer and condiment dispensing equipment where no metal contamination can be present.
- Industrial applications include low pressure pneumatic, hydraulic and vacuum lines commonly used in packaging systems, robotics, machine tools, agricultural spraying, car and industrial wash systems and air logic systems.

#### **Push-In Straight Unions**

#### tube x tube

Tube OD	Acetal	
Tube OD	Part #	Price/E
1/4"	462-4	\$3.40
3/8"	462-6	4.80
3/8" x 1/4"	462-64	4.65
1/2"	462-8	5.55
1/2" x 3/8"	462-86	5.60



#### **Push-In Union Tees**

#### tube x tube x tube

Tube	e OD	Acetal	
Run	Branch	Part #	Price/E
1/4"	1/4"	464-4	\$4.70
3/8"	3/8"	464-6	5.85
3/8"	1/4"	464-664	5.80
1/2"	1/2"	464-8	6.95
1/2"	3/8"	464-886	6.60



#### **Push-In Hose Barb Connectors**

#### tube x hose barb

Tuba OD	Acetal	
Tube OD	Part #	Price/E
1/4"	489-4	\$2.40
3/8"	489-6	3.05
1/2"	489-8	3.40



## **Acetal Push-In Fittings**

## **Push-In Female Adapters**



#### tube x female NPT

Tube	Female	Acetal	
OD	NPT	Part #	Price/E
1/4"	1/4"	466-4B	\$4.10
3/8"	1/4"	466-6B	5.15

## **Push-In Male Adapters**

#### tube x male NPT



Tube	Male	Acetal	
OD	NPT	Part #	Price/E
1/4"	1/8"	468-4A	\$2.70
1/4"	1/4"	468-4B	3.00
1/4"	3/8"	468-4C	3.50
3/8"	1/8"	468-6A	3.90
3/8"	1/4"	468-6B	4.55
3/8"	3/8"	468-6C	4.85
3/8"	1/2"	468-6D	5.15
1/2"	3/8"	468-8C	5.60
1/2"	1/2"	468-8D	6.15

#### **Push-In Male Elbows**

#### tube x 90° male NPT



Tube	Male	Acetal	
OD	NPT	Part #	Price/E
1/4"	1/8"	469-4A	\$3.45
1/4"	1/4"	469-4B	3.60
1/4"	3/8"	469-4C	3.80
3/8"	1/4"	469-6B	4.65
3/8"	3/8"	469-6C	5.00
1/2"	3/8"	469-8C	5.70
1/2"	1/2"	469-8D	6.35

#### **Push-In Union Elbows**

#### tube x 90° tube



Tube OD	Acetal	
Tube OD	Part #	Price/E
1/4"	465-4	\$4.00
3/8"	465-6	5.30
3/8" x 1/4"	465-64	5.15
1/2" x 3/8"	465-86	6.10
1/2"	465-8	6.55

## Push-In 360° Swivel Elbows

#### tube x 360° swivel male NPT



Tube	Male	Acetal	
OD	NPT	Part #	Price/E
1/4"	1/8"	469S-4A	\$5.80
1/4"	1/4"	469S-4B	5.85
3/8"	1/4"	469S-6B	8.15
3/8"	3/8"	469S-6C	8.35
1/2"	3/8"	469S-8C	9.20
1/2"	1/2"	469S-8D	9.30

## **Clear PVC Tubing**

Clear PVC Tubing is designed to be used with standard shank fittings.

Tubing sold only in lengths shown below.

#### domestic

Size		Working Pressure	Length	PVC	
ID	OD	@ 72°F	Longui	Part #	Price/length
3/16"	5/16"	55	100	CL0305	\$43.25
1/4"	3/8"	55	100	CL0406	50.60
1/4"	1/2"	60	100	CL0408	113.00
5/16"	7/16"	50	100	CL0507	58.60
3/8"	1/2"	40	100	CL0608	72.25
3/8"	5/8"	55	100	CL0610	149.00
1/2"	5/8"	30	100	CL0810	97.00
1/2"	3/4"	45	100	CL0812	180.00
5/8"	7/8"	40	100	CL1014	224.00
3/4"	1"	35	100	CL1216	258.00
1"	1-1/4"	28	100	CL1620	340.00
1-1/4"	1-3/4"	45	50	CL2028-50	430.00
1-1/2"	2"	40	50	CL2432-50	500.00

#### imported

Size		Working Pressure		PVC	
ID	OD	@ 72°F	Length	Part #	Price/length
1/4"	3/8"	50	100	ICL0406	\$25.50
3/8"	1/2"	35	100	ICL0608	35.45
1/2"	5/8"	35	100	ICL0810	46.30
1/2"	3/4"	50	100	ICL0812	96.55
3/4"	1"	35	100	ICL1216	136.90
1"	1-1/4"	30	100	ICL1620	178.55
1-1/2"	2"	15	50	ICL2432	290.55

#### Domestic

- produced from FDA materials, but not FDA approved
- for non-critical hospital use such as suction and draining
- maximum temperature:135°F
- shipped in individually boxed bundles



Plastic Fittings

#### Imported

- temperature range:
   14°F to 149°F
- shipped in bundles wrapped with PVC film

## **Clear PVC Braided Tubing**

Tubing sold only in lengths shown below.

#### domestic

Size		Working Pressure	l au auth	PVC	
ID	OD	@ 72°F	Length	Part #	Price/length
3/16"	3/8"	250	300	BR0306	\$299.50
1/4"	7/16"	250	300	BR0446	280.00
3/8"	5/8"	225	300	BR0609	589.45
1/2"	3/4"	200	300	BR0812	520.00
5/8"	7/8"	200	300	BR1014	820.00
3/4"	1-1/16"	150	300	BR1218	820.00
1"	1-5/16"	125	200	BR1621	1315.50
1-1/4"	1-11/16"	100	100	BR2027	825.00
1-1/2"	1-15/16"	100	100	BR2431	1730.75

#### imported

Size ID OD		Working Pressure	1	PVC		
		@ 72°F Length		Part #	Price/length	
1/4"	1/2"	142	300	IBR0446	\$191.00	
3/8"	5/8"	114	300	IBR0609	246.25	
1/2"	3/4"	100	300	IBR0812	310.00	
3/4"	1-1/16"	71	300	IBR1218	661.30	
1"	1-5/16"	71	200	IBR1621	513.10	

#### Domestic

- high grade tensile strength polyester yarn reinforcement
- temperature range: 27°F to 150°F
- shipped in coils



#### Imported

- temperature range:
   14°F to 149°F
- for various machine tools and transportation of chemicals
- shipped in bundles wrapped with PVC film

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### **PVC Tubing and Hose Cutters**



- rugged construction permits cutting up to 3/4" tubing or hose
- · corrosion resistant hardened steel blade ensures straight, crisp cuts for optimum fit

Part#	Price/E
TC97	\$17.00
TC97RB (replacement blade)	5.75



- cuts low pressure fabric reinforced hose up to 1" OD
- reversible blade

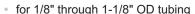
Part #	Price/E
HC90	\$26.55
HC90RB (replacement blade)	11.15



- cuts hose and tubing up to 2" OD; Polyethylene up to 1½" ID; PVC up to 1¼" ID
- stainless steel blade

Part #	Price/E
LHC95	\$47.70
LHC95RB (replacement blade)	19.00

# **Copper Tubing Cutters Hi-Duty Tube Cutter**



- rugged aluminum alloy body is nickel chrome plated
- Foldaway hardened steel reamer with turned cutting edge removes burrs cleanly, filing surface removes outside burrs.
- includes 2 general purpose cutter wheels
- chromium steel cutting wheels
- replacement parts available, contact the factory for more information

Description	Part #	Price/E
length 5", weight 6.5 oz.	TC-1000	\$104.10





- use cutter with or without handle snaps into place in seconds
- includes 1 general purpose cutter wheel
- Enclosed feed screw minimizes contamination ensuring continued smooth operation.
- corrosion resistant stainless steel rollers positioned at bottom of cutter allows for easier cutter engagement on tubing and smoother cutting action
- replacement parts available, contact the factory for more information

Description	Part #	Price/E
length with handle 4¾", weight 4 oz., 4" swing radius with handle	TC-1050RH	\$84.85



#### **Tube Cutter**

- for 3/8" through 1-1/8" OD tubing
- includes 2 general purpose cutter wheels
- replacement parts available, contact the factory for more information

Description	Part#	Price/E
length 2-11/16", weight 5 oz., 1-15/16" swing radius	174-F	\$98.65



## **Properties of Tuff-Lite Materials**

Nylon fittings should not be used with acid-based fertilizers, bromine, chlorine, fluorine, hydrochloric acid, iodine, nitric acid, phosphoric acid, sulfuric acid or xylene. Made with material approved by FDA. Nylon should not be used with compressed gas. Parts are white.

Polypropylene fittings should not be used with aromatic hydrocarbons, carbon tetra-chloride, gasoline, hexane, kerosene, nitric acid, sodium hydrochlorite, toluene, trichloroethylene or xylene. Polypropylene should not be used with compressed gas. Parts are black.



#### **Male Inserts**

Parts showing package quantities are sold in package quantities only.

#### hose shank x male NPT

		nose sna	ank x ma	ie NP	1		
Hose	Male	Nylon		Pkg	Polypropyle	ene	Pkg
Shank	NPT	Part #	Price/E	Qty	Part #	Price/E	Qty
	1/8"	TN21	\$0.68	50	PPN21	\$0.82	50
	1/4"	TN22	0.70	50	PPN22	0.81	50
1/4"	3/8"	TN23	0.76	50	PPN23	0.83	50
	1/2"	TN24	0.87	50	PPN24	0.87	50
	3/4"	TN26	0.91	50			
	1"	TN28	1.38	50			
5/16"	1/4"	TN252	0.70	50			
	1/8"	TN31	0.80	50	PPN31	0.82	50
	1/4"	TN32	0.88	50	PPN32	0.80	50
3/8"	3/8"	TN33	0.92	50	PPN33	0.81	50
	1/2"	TN34	1.00	50	PPN34	0.93	50
	3/4"	TN36	1.08	50	PPN36	0.90	50
	1/8"	TN41	0.75	50			
	1/4"	TN42	0.77	50	PPN42	0.83	50
1/2"	3/8"	TN43	0.79	50	PPN43	0.88	50
	1/2"	TN44	0.91	50	PPN44	0.72	50
	3/4"	TN46	1.03	50	PPN46	1.07	50
	3/8"	TN53	0.87	50			
5/8"	1/2"	TN54	0.94	50	PPN54	0.93	50
	3/4"	TN56	1.10	50	PPN56	1.12	50
	3/8"	TN63	0.83	50			
3/4"	1/2"	TN64	1.07	50	PPN64	1.00	50
	3/4"	TN66	1.17	50	PPN66	0.93	50
	1"	TN68	1.37	25	PPN68	1.38	25
1"	3/4"	TN86	1.29	25	PPN86	1.16	25
	1"	TN88	1.56	25	PPN88	1.49	25
	1"	TN158	2.35	15			
1-1/4"	1-1/4"	TN150	3.70	10	PPN150	3.11	10
	1-1/2"	TN1520	3.90	10			
1-1/2"	1-1/4"	TN2015	3.90	10			
	1-1/2"	TN200	4.00	10	PPN200	3.20	10
2"	2"	TN250	5.60	5	PPN250	4.55	5
			1			1	1







polypropylene

#### **Female Inserts**

#### hose shank x female NPT

Hose Size	Female NPT	Nylon		
Hose Size	remale NFT	Part #	Price/E	
1/4"	1/4"	TFS22	\$3.15	
1/4" 1/2"	1/2" 1/2"	TFS42 TFS44	3.30 2.90	
3/4"	3/4"	TFS66	3.65	



## **Tuff-Lite Female Barbed Fittings**



#### hose shank x female NPSM

ball seat type

Hose	Female	Nylon		
Size	NPSM	Part #	Price/E	
1/4" 3/8"	1/4" 3/8"	TF22 TF33	\$0.92 1.07	

### **Short Shank Couplings**

- · Parts showing package quantities are sold in package quantities only.
- female shipped with a red vinyl washer (TVW7), replacement washers on page 340

#### nylon short shank couplings





Hose	Thread	fem	female		le	Pkg
Shank	Size	Part #	Price/E	Part #	Price/E	Qty
1/4"	3/4" NPSM	TCF62	\$1.55	TN26	\$0.91	50
3/8"	3/4" NPSM	TCF63	1.55	TN36	1.08	50
1/2"	3/4" NPSM	TCF64	1.60	TN46	1.03	50
5/8"	3/4" NPSM	TCF65	1.60	TN56	1.10	50
3/4"	3/4" NPSM	TCF66	1.65	TN66	1.17	50
1/4"	3/4" GHT	TCF72	1.85	TCM72	0.94	
3/8"	3/4" GHT	TCF73	1.85	TCM73	0.98	
1/2"	3/4" GHT	TCF74	1.90	TCM74	1.03	
5/8"	3/4" GHT	TCF75	1.90	TCM75	1.04	
3/4"	3/4" GHT	TCF76	1.95	TCM76	1.04	

female shipped with a red vinyl washer (TVW7), replacement washers on page 340

#### polypropylene short shank couplings





Hose	Thread	female		mal	e
Shank	Size	Part #	Price/E	Part #	Price/E
1/4"	3/4" GHT	PPCF72	\$1.69		
3/8"	3/4" GHT	PPCF73	1.55	PPCM73	\$1.10
1/2"	3/4" GHT	PPCF74	1.57	PPCM74	1.11
5/8"	3/4" GHT	PPCF75	1.74	PPCM75	1.14
3/4"	3/4" GHT	PPCF76	1.75	PPCM76	1.18

### **Reducing Bushings**

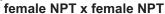
#### male NPT x female NPT



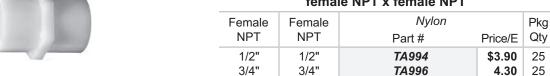
Male NPT	Female	Nylon			
iviale INP I	NPT	Part #	Price/E		
3/8"	1/4"	THB32	\$1.80		
1/2"	1/4"	THB42	1.75		
1/2"	3/8"	THB43	1.75		
3/4"	1/2"	THB64	2.05		
1"	3/4"	THB86	2.90		

#### **Couplers**

· Parts showing package quantities are sold in package quantities only.



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## **Tuff-Lite**Male GHT x Female NPT Adapters

Parts showing package quantities are sold in package quantities only.

#### male GHT x female NPT

Female	Nylon		Pkg	Polypro	ppylene	Pkg
NPT	Part #	Price/E	Qty	Part #	Price/E	Qty
1/4"	TA792	\$1.44	50	PPA792	\$2.93	50
3/8"	TA793	1.49	50			
1/2"	TA794	1.51	50	PPA794	2.85	50
3/4"	TA796	1.60	50	PPA796	2.98	25



## Female GHT x NPT Adapters

Parts showing package quantities are sold in package quantities only.

female GHT x male NPT

ຐຨຆ ເອົ້າ **2012** female GHT x female NPT

Male	Nylon		Pkg	Female	Nylon		Pkg
NPT	Part #	Price/E	Qty	NPT	Part #	Price	Qty
1/4"	TA972	\$1.46	50				
3/8"	TA973	1.49	50				
1/2"	TA974	1.53	50	1/2"	TA974F	\$3.90	50
3/4"	TA976	1.55	50	3/4"	TA976F	6.35	50



Plastic Fittings

### Male GHT x Male NPT Adapters

Parts showing package quantities are sold in package quantities only.

#### male GHT x male NPT

Male	Ny	lon	Pkg	Polypro	opylene	Pkg
NPT	Part #	Price/E	Qty	Part #	Price/E	Qty
1/4"	TA772	\$0.95	50			
3/8"	TA773	1.03	50	PPA773	\$1.15	50
1/2"	TA774	1.12	50	PPA774	1.14	50
3/4"	TA776	1.14	50	PPA776	1.14	50
1"	TA778	1.59	25			



nylon



**Male NPT x Female Swivel Adapters** 

• female shipped with a red vinyl washer (TVW7), replacement washers on page 340

#### male NPT x female threaded swivel nut

Male	Female	Nylo	on
NPT	Thread	Part #	Price/E
1/4"	3/4" GHT	TSA72	\$1.90
3/8"	3/4" GHT	TSA73	1.95
1/4"	3/4" NPS	TSA62	1.90
3/8"	3/4" NPS	TSA63	1.95



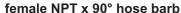
#### **Nuts**

#### female threaded swivel nuts

Thread	Nylon	
Size	Part #	Price/E
3/4" NPS	TCF6	\$0.65
3/4" GHT	TCF7	0.61



## Tuff-Lite Female NPT x 90° Hose Barb Elbows





Hose	Female	N	<i>l</i> on
Size	NPT	Part #	Price/E
1/2"	1/2"	TLFS44	\$2.65
1/2"	3/4"	TLFS64	3.05
3/4"	3/4"	TLFS66	3.25

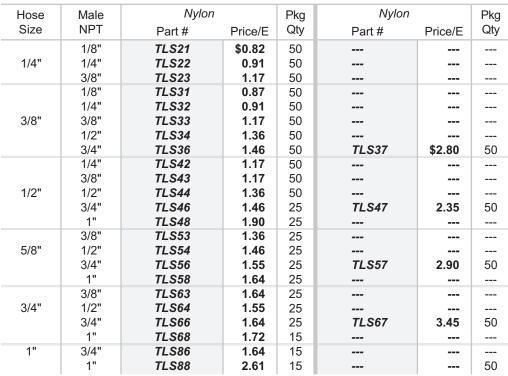
#### Male x 90° Hose Barb Elbows

Parts showing package quantities are sold in package quantities only.

#### New for 2012

#### male NPT x 90° hose barb

#### male GHT x 90° hose barb





#### **Street Elbows**

#### female NPT x 90° male NPT



Female	Male NPT	Nylon		
NPT	IVIAIE INF I	Part #	Price/E	
1/4"	1/4"	TSE22	\$3.70	
1/2"	1/2"	TSE44	3.55	
3/4"	3/4"	TSE66	4.85	

#### **GHT x Male NPT Elbows**

Parts showing package quantities are sold in package quantities only.





Male	Nylon		Pkg
NPT	Part #	Price/E	Qty
3/8"	TLT73	\$1.66	25
1/2"	TLT74	1.60	25
3/4"	TLT76	1.66	25

## Tuff-Lite Hose x Hose Elbows

 Parts showing package quantities are sold in package quantities only.

#### hose barb x 90° hose barb

Hose	Hose Nylon		Pkg	Pkg Polypropylene		
Shank	Part #	Price/E	Qty	Part #	Price/E	Qty
1/4"	TLSS22	\$1.17	50	PPLSS22	\$1.25	50
3/8"	TLSS33	1.21	50	PPLSS33	1.25	50
1/2"	TLSS44	1.35	50	PPLSS44	1.25	50
3/4"	TLSS66	1.42	50	PPLSS66	1.54	50





polypropylene

#### **Hose x Male NPT Tees**

 Parts showing package quantities are sold in package quantities only.

#### hose run x male NPT branch

Hose Size	Mala NDT	Nylon		Pkg
1 10se size	IVIAIC INF I	Part #	Price/E	Qty
1/4"	1/4"	TSST222	\$1.23	50
3/8"	3/8"	TSST333	1.35	50
1/2"	1/2"	TSST444	1.52	50
3/4"	3/4"	TSST666	1.68	25



Plastic Fittings

#### **Hose x Hose Tees**

 Parts showing package quantities are sold in package quantities only.

#### hose run x hose branch

Uasa Cina	Nylon	Pkg	
Hose Size	Part #	Price/E	Qty
1/4"	TSSS222	\$1.17	50
3/8"	TSSS333	1.21	50
1/2"	TSSS444	1.35	50
3/4"	TSSS666	1.42	25



#### **Menders**

 Parts showing package quantities are sold in package quantities only.

#### hose shank x hose shank

Hose Size	Nylon		Pkg	Polypropylene		Pkg
	Part #	Price/E	Qty	Part #	Price/E	Qty
1/4"	TM2	\$0.80	50	PPM2	\$0.76	50
5/16"	TM25	0.82	50			
3/8"	TM3	0.84	50	PPM3	0.78	50
1/2"	TM4	1.10	50	PPM4	0.91	50
5/8"	TM5	1.48	50	PPM5	1.00	50
3/4"	TM6	1.48	50	PPM6	1.18	50
1"	TM8	1.82	25	PPM8	1.47	50



nylon

polypropylene

## Tuff-Lite Washers for Garden Hose Fittings





 Parts showing package quantities are sold in package quantities only.

Description	Part #	Price/E	Opt Qty
red vinyl white styrene butadiene rubber	TVW7 TRW7	\$0.10 0.25	100 100

### **Close Nipples**

 Parts showing package quantities are sold in package quantities only.

## male NPT x male NPT



NPT Size	Nylon	Pkg	
INFT SIZE	Part #	Price/E	Qty
1/4"	TCN202	\$0.72	50
3/8"	TCN303	0.81	50
1/2"	TCN404	0.93	50
3/4"	TCN606	1.10	50

#### **Threaded Caps**

 Parts showing package quantities are sold in package quantities only.
 female NPT



Thread Size	Nylon		
Tilleau Size	Part #	Price/E	Qty
1/4" NPT	TTC2	\$0.47	50
3/8" NPT	TTC3	0.57	50
1/2" NPT	TTC4	0.71	50
3/4" NPT	TTC6	0.80	50
3/4" GHT	TTC7	0.80	50

### **Square Head Drain Plugs**

 Parts showing package quantities are sold in package quantities only.



Male NPT	Nylon		Pkg
	Part #	Price/E	Qty
1/8"	TPS1	\$0.55	50
1/4"	TPS2	0.57	50
3/8"	TPS3	0.68	50
1/2"	TPS4	0.76	50
3/4"	TPS6	0.90	50
1"	TPS8	1.12	50
11/4"	TPS10	1.67	25

male NPT

#### **Hex Head Drain Plugs**

 Parts showing package quantities are sold in package quantities only.



#### male NPT

Male NPT	Nylon Part # Price/E		
	1 dit II	1 1100/1	Qty
1/8"	TPX1	\$0.64	50
1/4"	TPX2	0.68	50
3/8"	TPX3	0.71	50
1/2"	TPX4	0.82	50
3/4"	TPX6	0.96	50
1"	TPX8	1.17	50
11/4"	TPX10	1.55	50

## Tuff-Lite Push-On Male Inserts

- Parts showing package quantities are sold in package quantities only.
- No clamps are needed when these fittings are used with push-on hose.

#### push-on hose shank x male NPT

Hose Size	Male NPT	Nylon		Pkg
		Part #	Price/E	Qty
	1/8"	TPN21	\$0.70	50
1/4"	1/4"	TPN22	0.72	50
	3/8"	TPN23	0.78	50
	1/4"	TPN32	0.74	50
3/8"	3/8"	TPN33	0.79	50
	1/2"	TPN34	0.93	50
1/2"	3/8"	TPN43	1.15	50
	1/2"	TPN44	1.15	50
	3/4"	TPN46	1.10	50



Plastic Fittings

#### **Push-On Female Inserts**

- Parts showing package quantities are sold in package quantities only.
- No clamps are needed when these fittings are used with push-on hose.

#### push-on hose shank x female NPT

Hose Size	Female	Nylon		
11036 3126	NPT	Part #	Price/E	Qty
1/4"	1/4"	TPF22	\$1.02	50
3/8"	1/4"	TPF32	1.26	50
	3/8"	TPF33	1.26	50
1/2"	3/8"	TPF43	1.13	50
	1/2"	TPF44	1.32	50



#### **Push-On Menders**

- Parts showing package quantities are sold in package quantities only.
- No clamps are needed when these fittings are used with push-on hose.

#### push-on hose shank x push-on hose shank

•	-		
Hose Size	Nylon		Pkg
HUSE SIZE	Part #	Price/E	Qty
1/4"	TPM2	\$0.65	50
3/8"	ТРМ3	0.71	50
1/2"	TPM4	0.87	50

