

# Pioneer Enterprise ISO 9001:2008 Certified

101, Raudat Tahera Street,

Mumbai - 400 003. India.

Telephone : (91-22) 2347 2534

Telefax : (91-22) 2347 0325

## INDEX

[pionlace@vsnl.com](mailto:pionlace@vsnl.com); [pioneerfitting@yahoo.com](mailto:pioneerfitting@yahoo.com)

<http://www.instrumentation-fittings.com/>

### TECHNICAL INFORMATION

	Page 4	PPF/10K/A	Page 6	PPF/10K/HRN-NN		Page 8	PPF/10K/HP
		<b>ADAPTOR/1 OK</b> MALE - FEMALE		<b>HEX REDUCING NIPPLES/1 OK</b> NPT-NPT			<b>HEX PLUG/1 OK</b> NPT
	Page 4	PPF/10K/RA	Page 6	PPF/10K/HN-JJ		Page 9	PPF/1 OK/ME
		<b>REDUCING ADAPTOR/1 OK</b> MALE - FEMALE		<b>HEX NIPPLES/1 OK</b> JIC - JIC			<b>ELBOW/1 OK</b> MALE - MALE
	Page 5	PPF/10K/HC	Page 7	PPF/10K/HN-GN		Page 9	PPF/1 OK/MFE
		<b>HEX COUPLING/1 OK</b> FEMALE		<b>HEX NIPPLES/1 OK</b> BSPP - NPT			<b>ELBOW/1 OK</b> MALE - FEMALE
	Page 5	PPF/10K/HRC	Page 7	PPF/10K/HRN-GN		Page 9	PPF/1 OK/MT
		<b>HEX REDUCING COUPLING/1 OK</b> FEMALE		<b>HEX REDUCING NIPPLES/1 OK</b> BSPP - NPT			<b>TEE/1 OK</b> MALE
	Page 5	PPF/10K/HN-GG	Page 7	PPF/10K/HN-NJ		Page 10	PPF/1 OK/FE
		<b>HEX NIPPLES/1 OK</b> BSPP - BSPP		<b>HEX NIPPLES/1 OK</b> NPT - JIC			<b>ELBOW/1 OK</b> FEMALE - FEMALE
	Page 5	PPF/10K/HRN-GG	Page 8	PPF/10K/HNL		Page 10	PPF/1 OK/FT
		<b>HEX REDUCING NIPPLES/1 OK</b> BSPP - BSPP		<b>HEX NIPPLES/1 OK</b> LONG			<b>TEE/1 OK</b> FEMALE
	Page 6	PPF/10K/HN-NN	Page 8	PPF/1 OK/PC		Page 10	PPF/1 OK/FC
		<b>HEX NIPPLES/1 OK</b> NPT - NPT		<b>PIPE CAP/1 OK</b> NPT			<b>CROSS/1 OK</b> FEMALE - FEMALE

#### Warning for Your Safety

The system designer and user have the sole responsibility to select products suitable for their special application requirements to ensure the proper installation. Operation and maintenance of the product. Application details, material compatibility and product ratings should all be considered in the individual selection. Improper selection or use of products can cause property damage or personal injury. Pioneer accept no liability for any improper selection, installation, operation or maintenance.



## TECHNICAL INFORMATION

### APPLICATION

Pioneer fitting has been specifically designed for use on instrumentation, process and control systems, together with equipment employed in chemical, chromatography, petroleum, power generation and pulp & paper plants.

### MATERIALS

Pioneer fittings are available in Stainless Steel, Monel, Hastelloy C, Incoloy, Inconel 600. Straight fittings are machined from cold finished bar stock and shaped bodies are machined from close grain forgings. The raw materials used fully conform to the chemical requirements of one or more of the specifications listed.

#### TYPICAL RAW MATERIAL SPECIFICATIONS

Materials	Specification	
	Barstock	Forgings
316 Stainless Steel	PSTM A-276 PSTM A-479	PSTMA-182
316L Stainless Steel	PSTM A-479	

### HEAT CODE TRACEABILITY

For critical applications, stainless steel Pioneer fittings are manufactured as standard, with a unique heat code traceability number, either stamped, or etched on each individual fitting. Upon request, full material documentation is available, tracing the stainless steel back to the original cast or melt.

### DESIGN/FEATURES

Size range from 1/8" to 1".

Fittings are properly packaged with the exposed threads protected to ensure they are not damaged during delivery.

Working pressures calculated in accordance with Power Piping Code ANSI B 31.1, Refiner Piping Code PSME/PNSIB31.3 section VIII of PSME Boiler & Pressure Vessel Code.

1. Precision pipe fittings for instrumentation and process control.
2. Fine threads constructed to ensure leak-free & reliable systems
3. Male threads are protected with plastic cap,
4. Many choice of connections and configurations are available.
5. Safety factor is 1:4

### INSTALLATION INSTRUCTIONS

To ensure a leak-tight seal, Pioneer recommends the use of a pipe thread sealant on all NPT threads. The most effective sealing method is teflon tape. Tape should be used only on male tapered pipe threads. Do not use tape on flared, coned or tube fitting ends! Clean both male and female tapered threads. Wrap tape in the direction of the male tapered thread spiral.

Note: Two wraps are suggested for stainless steel tapered pipe threads. Make sure tape does not overhang the first thread, as the tape might shred and enter the fluid system. Cut off excess tape. The connection is now ready for proper makeup.

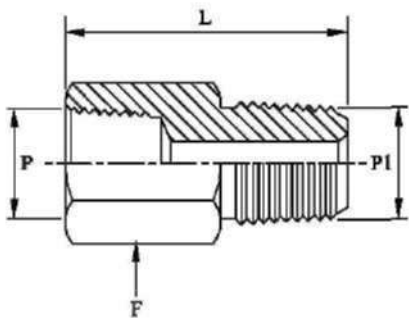
#### Warning for Your Safety

The system designer and user have the sole responsibility to select products suitable for their special application requirements to ensure the proper installation. Operation and maintenance of the product. Application details, material compatibility and product ratings should all be considered in the individual selection. Improper selection or use of products can cause property damage or personal injury. Pioneer accept no liability for any improper selection, installation, operation or maintenance.

# HIGH PRESSURE PIPE FITTINGS

## ADAPTOR/1 OK MALE - FEMALE

Design : PPF/1 OK/A



## REDUCING ADAPTOR/1 OK MALE - FEMALE

Design : PPF/1 OK/RA

PART No.	P NPTF	P1 NPTM	F HEX	L
PPF/10K/A/2-2I	1/8"	1/8"	3/4"	1.11"
PPF/10K/A/4-4I	1/4"	1/4"	7/8"	1.51"
PPF/10K/A/6-6I	3/8"	3/8"	1-1/8"	1.57"
PPF/10K/A/8-8I	1/2"	1/2"	1-3/8"	2.07"
PPF/1 OK/A/12-12I	3/4"	3/4"	1-3/4"	2.26"
PPF/1 OK/A/16-16I	1"	1"	2-1/4"	2.69"
PPF/10K/RA/2-4I	1/8"	1/4"	3/4"	1.29"
PPF/1 OK/RA/2-6I	1/8"	3/8"	3/4"	1.29"
PPF/10K/RA/2-8I	1/8"	1/2"	7/8"	1.42"
PPF/1 OK/RA/4-2I	1/4"	1/8"	7/8"	1.33"
PPF/10K/RA/4-6I	1/4"	3/8"	7/8"	1.51"
PPF/1 OK/RA/4-8I	1/4"	1/2"	7/8"	1.70"
PPF/10K/RA/4-12I	1/4"	3/4"	1-1/8"	1.70"
PPF/1 OK/RA/4-16I	1/4"	1"	1-3/8"	1.89"
PPF/10K/RA/6-2I	3/8"	1/8"	1-1/8"	1.39"
PPF/10K/RA/6-4I	3/8"	1/4"	1-1/8"	1.57"
PPF/10K/RA/6-8I	3/8"	1/2"	1-1/8"	1.76"
PPF/10K/RA/6-12I	3/8"	3/4"	1-1/8"	1.76"
PPF/10K/FW6-16I	3/8"	1"	1-3/8"	1.95"
PPF/10K/RA/8-2I	1/2"	1/8"	1-3/8"	1.70"
PPF/10K/RA/8-4I	1/2"	1/4"	1-3/8"	1.88"
PPF/10K/RA/8-6I	1/2"	3/8"	1-3/8"	1.88"
PPF/1 OK/RA/8-12I	1/2"	3/4"	1-3/8"	2.07"
PPF/10K/FW8-16I	1/2"	1"	1-3/8"	2.26"
PPF/1 OK/RA/12-4I	3/4"	1/4"	1-3/4"	2.06"
PPF/10K/FW12-6I	3/4"	3/8"	1-3/4"	2.06"
PPF/1 OK/RA/12-8I	3/4"	1/2"	1-3/4"	2.25"
PPF/1 OK/RA/12-16I	3/4"	1"	1-3/4"	2.44"
PPF/1 OK/RA/16-4I	1"	1/4"	2-1/4"	2.31"
PPF/1 OK/RA/16-6I	1"	3/8"	2-1/4"	2.31"
PPF/1 OK/RA/16-8I	1"	1/2"	2-1/4"	2.50"
PPF/1 OK/RA/16-12I	1"	3/4"	2-1/4"	2.50"

## Pioneer Enterprise

ISO 9001:2008 Certified

101, Raudat Tahera Street,  
Mumbai - 400 003. India.

Telephone : (91-22) 2347 2534

Telefax : (91-22) 2347 0325

[pionlace@vsnl.com](mailto:pionlace@vsnl.com); [pioneerfitting@yahoo.com](mailto:pioneerfitting@yahoo.com)

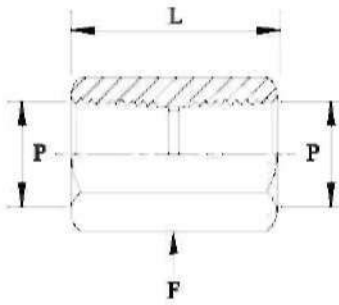
<http://www.instrumentation-fittings.com/>

### Warning for Your Safety

The system designer and user have the sole responsibility to select products suitable for their special application requirements to ensure proper installation. Operation and maintenance of the product. Application details, material compatibility and product ratings should all be considered in the individual selection. Improper selection or use of products can cause property damage or personal injury. Pioneer accepts liability for any improper selection, installation, operation or maintenance.

## HEX COUPLING/1 OK FEMALE

Design : PPF/10K/HC

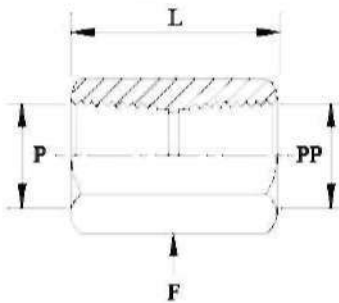


P A R T No.	P NPTF		F HEX	L
	PPF/10K/HC/2-2I	1/8"	1/8"	3/4"
PPF/10K/HC/4-4I	1/4"	1/4"	7/8"	1.13"
PPF/10K/HC/6-6I	3/8"	3/8"	1-1/8"	1.13"
PPF/10K/HC/8-8I	1/2"	1/2"	1-3/8"	1.50"
PPF/10K/HC/12-12I	3/4"	3/4"	1-3/4"	1.53"
PPF/10K/HC/16-16I	1"	1"	2-1/4"	1.89"

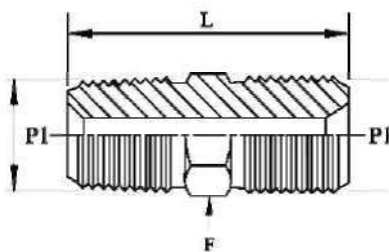


## HEX REDUCING COUPLING/1 O K FEMALE

Design : PPF/10K/HRC



P A R T No.	P NPTF	PP NPTF	F HEX	L
PPF/10K/HRC/4-2I	1/4"	1/8"	7/8"	0.95"
PPF/10MHRC/6-2I	3/8"	1/8"	1-1/8"	0.95"
PPF/10K/HRC/6-4I	3/8"	1/4"	1-1/8"	1.13"
PPF/10K/HRC/8-2I	1/2"	1/8"	1-3/8"	1.19"
PPF/10K/HRC/8-4I	1/2"	1/4"	1-3/8"	1.37"
PPF/10K/HRC/8-6I	1/2"	3/8"	1-3/8"	1.37"
PPF/10K/HRC/12-4I	3/4"	1/4"	1-3/4"	<b>1.40"</b>
PPF/10K/HRC/12-6I	3/4"	3/8"	1-3/4"	1.40"
PPF/10K/HRC/12-8I	3/4"	1/2"	1-3/4"	1.53"
PPF/10K/HRC/16-4I	1"	1/4"	2-1/4"	1.63"
PPF/10K/HRC/16-6I	1"	3/8"	2-1/4"	1.63"
PPF/10K/HRC/16-8I	1"	1/2"	2-1/4"	1.76"
PPF/10K/HRC/16-12I	1"	3/4"	2-1/4"	<b>1.76"</b>



## HEX NIPPLES/1 O K BSPP-BSPP

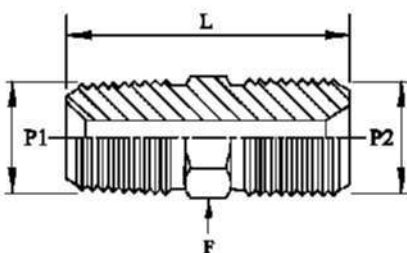
Design : PPF/10K/HN-GG

P A R T No.	P1 M A L E 60° Con	P1 M A L E 60° Con	F HEX	L
PPF/10K/HN-GG/2-2I	1/8"	1/8"	9/16"	1.02"
PPF/10K/HN-GG/4-4I	1/4"	1/4"	3/4"	1.34"
PPF/10K/HN-GG/6-6I	3/8"	3/8"	7/8"	1.38"
PPF/10K/HN-GG/8-8I	1/2"	1/2"	1-1/8"	1.82"
PPF/10K/HN-GG/12-12I	3/4"	3/4"	1-1/4"	1.90"
PPF/10K/HN-GG/16-16I	1"	1"	1-5/8"	<b>2.44"</b>



## HEX REDUCING NIPPLES/1 OK BSPP - BSPP

Design : PPF/10K/HRN-GG

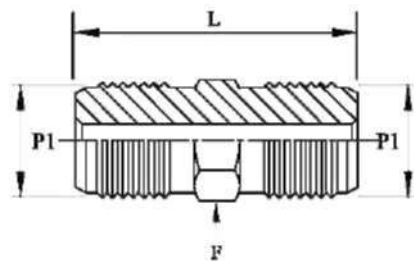
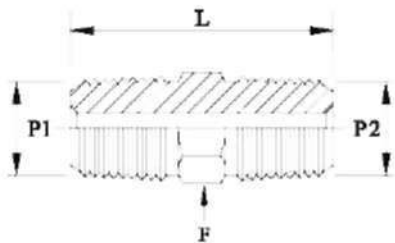
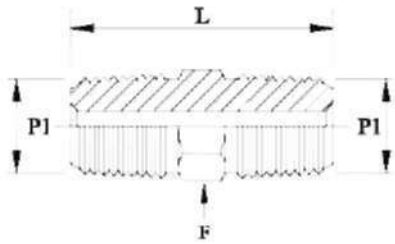


P A R T No.	P1 M A L E 60 Con	P2 M A L E 60 Con	F HEX	L
PPF/10K/HRN-GG/4-2I	<b>1/4"</b>	<b>1/8"</b>	<b>3/4"</b>	<b>1.18"</b>
PPF/10K/HRN-GG/6-4I	<b>3/8"</b>	<b>1/4"</b>	<b>7/8"</b>	<b>1.38"</b>
PPF/10K/HRN-GG/8-4I	<b>1/2"</b>	<b>1/4"</b>	<b>1-1/8"</b>	<b>1.62"</b>
PPF/10K/HRN-GG/8-6I	<b>1/2"</b>	<b>3/8"</b>	<b>1-1/8"</b>	<b>1.62"</b>
PPF/10K/HRN-GG/12-8I	<b>3/4"</b>	<b>1/2"</b>	<b>1-1/4"</b>	<b>1.90"</b>
<b>PPF/10K/HRN-GG/16-12I</b>	<b>1"</b>	<b>3/4"</b>	<b>1-5/8"</b>	<b>2.21"</b>

**Warning for Your Safety**

The system designer and user have the sole responsibility to select products suitable for their special application requirements to ensure the proper installation. Operation and maintenance of the product. Application details, material compatibility and product ratings should all be considered in the individual selection. Improper selection or use of products can cause property damage or personal injury. Pioneer accept no liability for any improper selection, installation, operation or maintenance

# HIGH PRESSURE PIPE FITTINGS



## HEX NIPPLES/1 O K NPT-NPT

Design : PPF/10K/HN-NN

PART No.	P1		F HEX	L
	NP™	NPTM		
PPF/10K/HN-NN/2-2I	1/8"	1/8"	7/16"	1.06"
PPF/10K/HN-NN/4-4I	1/4"	1/4"	5/8"	1.45"
PPF/10K/HN-NN/6-6I	3/8"	3/8"	3/4"	1.45"
PPF/10K/HN-NN/8-8I	1/2"	1/2"	7/8"	1.89"
PPF/10K/HN-NN/12-12I	3/4"	3/4"	1-1/8"	1.89"
PPF/10K/HN-NN/16-6I	1"	1"	1-3/8"	2.44"

## HEX REDUCING NIPPLES/1 O K NPT-NPT

Design : PPF/10K/HRN-NN

PART No.	P1	P2	F HEX	L
	NP™	NPTM		
PPF/10K/HRN-NN/4-2I	1/4"	1/8"	5/8"	1.27"
PPF/10K/HRN-NN/6-2I	3/8"	1/8"	3/4"	1.27"
PPF/10K/HRN-NN/6-4I	3/8"	1/4"	3/4"	1.45"
PPF/10K/HRN-NN/8-2I	1/2"	1/8"	7/8"	1.52"
PPF/10K/HRN-NN/8-4I	1/2"	1/4"	7/8"	1.70"
PPF/10K/HRN-NN/8-6I	1/2"	3/8"	7/8"	1.70"
PPF/10K/HRN-NN/12-4I	3/4"	1/4"	1-1/8"	1.69"
PPF/10K/HRN-NN/12-6I	3/4"	3/8"	1-1/8"	1.69"
PPF/10K/HRN-NN/12-8I	3/4"	1/2"	1-1/8"	1.89"
PPF/10K/HRN-NN/16-4I	1"	1/4"	1-3/8"	2.00"
PPF/10K/HRN-NN/16-8I	1"	3/8"	1-3/8"	2.00"
PPF/10K/HRN-NN/16-12I	1"	1/2"	1-3/8"	2.20"
PPF/10K/HRN-NN/16-16I	1"	3/4"	1-3/8"	2.20"

## HEX NIPPLES/1 O K JIC-JIC

Design : PPF/10K/HN-JJ

PART No.	P1		F HEX	L
	JIC 37° M A L E	JIC 37° MALE		
PPF/10K/HN-JJ/4-4I	7/16"-20TP	7/16"-20TP	9/16"	1.37"
PPF/10K/HN-JJ/5-5I	1/2"-20TP	1/2"-20TP	5/8"	1.37"
PPF/10K/HN-JJ/6-6I	9/16"-18TP	9/16"-18TP	3/4"	1.42"
PPF/10K/HN-JJ/8-8I	3/4"-16TP	3/4"-16TP	7/8"	1.62"
PPF/10K/HN-JJ/10-10I	7/8"-14TP	7/8"-14TP	15/16"	1.89"
PPF/10K/HN-JJ/12-12I	1-1/16"-12TP	1-1/16"-12TP	1-1/8"	2.16"
PPF/10K/HN-JJ/16-16I	1-5/16"-12TP	1-5/16"-12TP	1-1/2"	2.25"

### Pioneer Enterprise

ISO 9001:2008 Certified

101, Raudat Tahera Street,  
Mumbai - 400 003. India.

Telephone : (91-22) 2347 2534

Telefax : (91-22) 2347 0325

pioneer@vsnl.com; pioneerfitting@yahoo.com

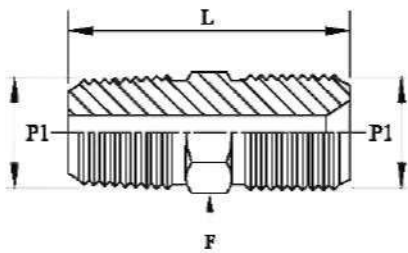
<http://www.instrumentation-fittings.com/>

#### Warning for Your Safety

The system designer and user have the sole responsibility to select products suitable for their special application requirements to ensure the proper installation. Operation and maintenance of the product. Application details, material compatibility and product ratings should all be considered in the individual selection. Improper selection or use of products can cause property damage or personal injury. Pioneer accept no liability for any improper selection, installation, operation or maintenance

## HEX NIPPLES/1 O K B S P P -NPT

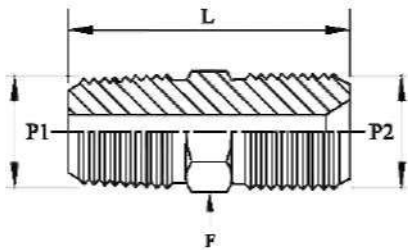
Design : PPF/10K/HN-GN



PART No.	P1 B S P P 60 Con N P T M		F HEX	L
PPF/10K/HN-GN/2-2I	1/8"	1/8"	9/16"	1.06"
PPF/10K/HN-GN/4-4I	1/4"	1/4"	3/4"	1.43"
PPF/10K/HN-GN/6-6I	3/8"	3/8"	7/8"	1.43"
PPF/10K/HN-GN/8-8I	1/2"	1/2"	1-1/8"	1.81"
PPF/10K/HN-GN/12-12I	3/4"	3/4"	1-3/8"	1.90"
PPF/10K/HN-GN/16-16I	1"	1"	1-6/8"	2.44"

## HEX REDUCING NIPPLES/1 O K B S P P -NPT

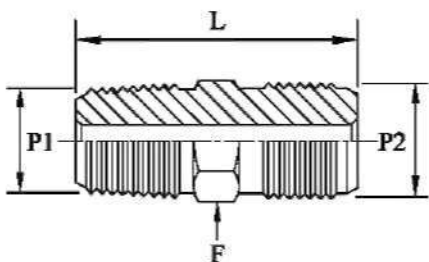
Design : PPF/10K/HRN-GN



PART No.	P1 B S P P 60 Con	P2 NPTM	F HEX	L
PPF/10K/HRN-GN/2-4I	1/8"	1/4"	5/8"	1.27"
PPF/10K/HRN-GN/4-2I	1/4"	1/8"	3/4"	1.27"
PPF/10K/HRN-GN/4-6I	1/4"	3/8"	3/4"	1.43"
PPF/10K/HRN-GN/6-4I	3/8"	1/4"	7/8"	1.43"
PPF/10K/HRN-GN/6-8I	3/8"	1/2"	7/8"	1.65"
PPF/10K/HRN-GN/8-6I	1/2"	3/8"	1-1/8"	1.65"
PPF/10K/HRN-G N/8-12I	1/2"	3/4"	1-1/8"	1.90"
PPF/10K/HRN-G N/12-8I	3/4"	1/2"	1-3/8"	1.90"
PPF/10K/HRN-GN/12-16	3/4"	1"	1-3/8"	2.20"
PPF/10K/HRN-GN/16-12	1"	3/4"	1-6/8"	2.20"

## HEX NIPPLES/1 O K N P T Jc-

Design : PPF/10K/HN-NJ



PART No.	P1 NPTM	P2 JIC37-MALE	F HEX	L
PPF/10K/HN-NJ/4-4I	1/4"	7/16"-20TP	5/8"	1.42"
PPF/10K/HN-NJ/4-5I	1/4"	1/2"-20TP	5/8"	1.42"
PPF/10K/HN-NJ/4-6I	1/4"	9/16"-18TP	5/8"	1.42"
PPF/10K/HN-NJ/6-4I	3/8"	7/16"-20TP	3/4"	1.45"
PPF/10K/HN-NJ/6-6I	3/8"	9/16"-18TP	3/4"	1.42"
PPF/10K/HN-NJ/6-8I	3/8"	3/4"-16TP	7/8"	1.53"
PPF/10K/HN-NJ/8-6I	1/2"	9/16"-18TP	7/8"	1.69"
PPF/10K/HN-NJ/8-8I	1/2"	3/4"-16TP	7/8"	1.81"
PPF/10K/HN-NJ/8-10I	1/2"	7/8"-14TP	15/16"	1.89"
PPF/10K/HN-NJ/8-12I	1/2"	1-1/16"-12TP	1-1/8"	2.05"
PPF/10K/HN-NJ/12-8I	3/4"	3/4"-16TP	1-1/8"	1.85"
PPF/10K/HN-NJ/12-10I	3/4"	7/8"-14TP	1-1/8"	1.96"
PPF/10K/HN-NJ/12-12I	3/4"	1-1/16"-12TP	1-1/8"	2.06"
PPF/10K/HN-NJ/12-16I	3/4"	1-6/16"-12TP	1-1/2"	2.13"
PPF/10K/HN-NJ/16-12I	1"	1-1/16"-12TP	1-1/2"	2.25"
PPF/10K/HN-NJ/16-16I	1"	1-6/16"-12TP	1-1/2"	2.30"

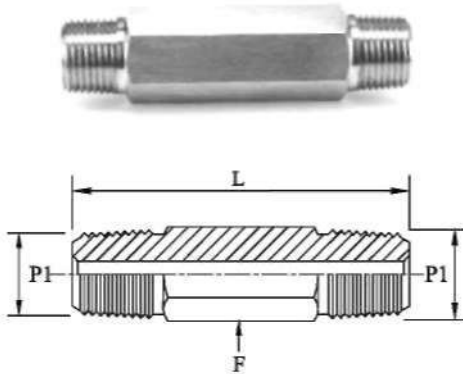
### Warning for Your Safety

The system designer and user have the sole responsibility to select products suitable for their special application requirements to ensure the proper installation. Operation and maintenance of the product. Application details, material compatibility and product ratings should all be considered in the individual selection. Improper selection or use of products can cause property damage or personal injury. Pioneer accept no liability for any improper selection, installation, operation or maintenance.

# HIGH PRESSURE PIPE FITTINGS

## HEX NIPPLES/10K LONG

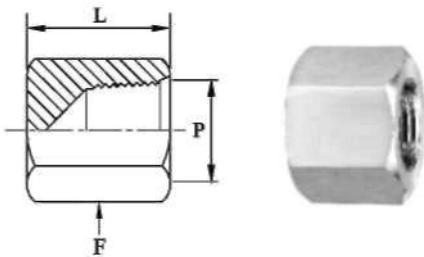
Design : PPF/10K/HNL



PART No.	P1 NPTM	LONG	F HEX	L
PPF/10K/HNL/2-3I	1/8"	3"	7/16"	3.00"
PPF/10K/HNLV4-3I	1/4"	3"	5/8"	3.00"
PPF/10K/HNLV4-4I	1/4"	4"	5/8"	4.00"
PPF/10K/HNLV4-6I	1/4"	6"	5/8"	6.00"
PPF/10K/HNL/6-3I	3/8"	3"	3/4"	3.00"
PPF/10K/HNL/6-4I	3/8"	4"	3/4"	4.00"
PPF/10K/HNL6-6I	3/8"	6"	3/4"	6.00"
PPF/10K/HNL/8-3I	1/2"	3"	7/8"	3.00"
PPF/10K/HNL/8-4I	1/2"	4"	7/8"	4.00"
PPF/10K/HNL/8-6I	1/2"	6"	7/8"	6.00"

## PIPE CAP/10K NPT

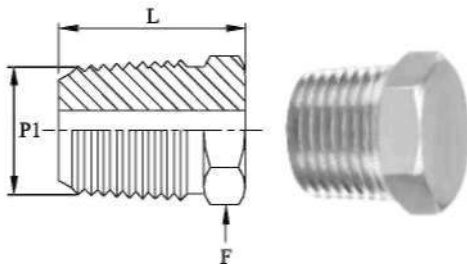
Design: PPF/10K/PC



PART No.	P NPTF	F HEX	L
PPF/10K/PC/2I	1/8"	3/4"	0.85"
PPF/10K/PC/4I	1/4"	7/8"	0.94"
PPF/10K/PC/6I	3/8"	1-1/8"	1.04"
PPF/10K/PC/8I	1/2"	1-3/8"	1.38"
PPF/10K/PC/12I	3/4"	1-3/4"	1.50"
PPF/10K/PC/16I	1"	2-1/4"	1.85"

## HEX PLUG/10K NPT

Design: PPF/10K/HP



PART No.	P1 NPTM	F HEX	L
PPF/10K/HP/2I	1/8"	7/16"	0.56"
PPF/10K/HP/4I	1/4"	5/8"	0.84"
PPF/10K/HP/6I	3/8"	3/4"	0.84"
PPF/10K/HP/8I	1/2"	7/8"	1.09"
PPF/10K/HP/12I	3/4"	1-1/8"	1.17"
PPF/10K/HP/16I	1"	1-3/8"	1.36"

## Pioneer Enterprise

ISO 9001:2008 Certified

101, Raudat Tahera Street,  
Mumbai - 400 003. India.

Telephone : (91-22) 2347 2534

Telefax : (91-22) 2347 0325

[pioneer@vsnl.com](mailto:pioneer@vsnl.com); [pioneerfitting@yahoo.com](mailto:pioneerfitting@yahoo.com)

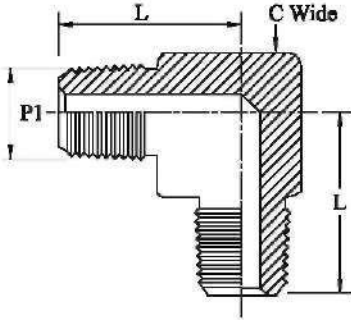
<http://www.instrumentation-fittings.com>

### Warning for Your Safety

The system designer and user have the sole responsibility to select products suitable for their special application requirements to ensure the proper installation. Operation and maintenance of the product. Application details, material compatibility and product ratings should all be considered in the individual selection. Improper selection or use of products can cause property damage or personal injury. Pioneer accept no liability for any improper selection, installation, operation or maintenance.

## ELBOW/1 OK MALE -MALE

Design : PPF/1 OK/ME

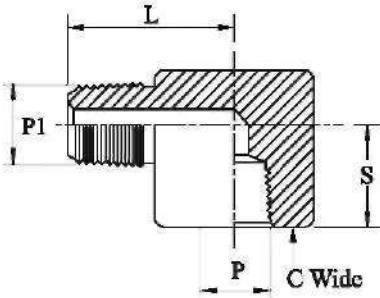


PART No.	P1 NPTM	L		C
PPF/10K/ME/2I	1/8"	0.69"	0.69"	0.63"
PPF/10K/ME/4I	1/4"	0.94"	0.94"	0.75"
PPF/10K/ME/6I	3/8"	0.97"	0.97"	0.87"
PPF/10K/ME/8I	1/2"	1.31"	1.31"	1.00"



## ELBOW/1 OK MALE - FEMALE

Design : PPF/10K/MFE

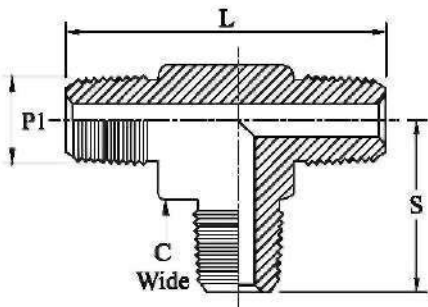


PART No.	P/P1 NPT-MF	L	S	C
PPF/10K/MFE/2I	1/8"	0.82"	0.76"	0.75"
PPF/10K/MFE/4I	1/4"	1.06"	1.00"	1.00"
PPF/10K/MFE/6I	3/8"	1.20"	1.06"	1.25"
PPF/10K/MFE/8I	1/2"	1.59"	1.25"	1.50"



## TEE/1 OK MALE

Design: PPF/10K/MT



PART No.	P1 NPTM	L	S	C
PPF/10K/MT/2I	1/8"	1.38"	0.69"	0.63"
PPF/10K7MT/4I	1/4"	1.88"	0.94"	0.75"
PPF/10K/MT/6I	3/8"	1.94"	0.97"	0.87"
PPF/10K/MT/8I	1/2"	2.62"	1.31"	1.00"

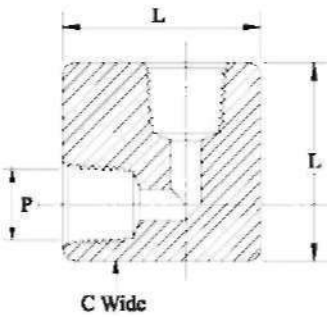
**Warning for Your Safety**

The system designer and user have the sole responsibility to select products suitable for their special application requirements to ensure the proper installation. Operation and maintenance of the product. Application details, material compatibility and product ratings should be considered in the individual selection. Improper selection or use of products can cause property damage or personal injury. Pioneer Enterprise is not liable for any improper selection, installation, operation or maintenance.

# HIGH PRESSURE PIPE FITTINGS

## ELBOW/1 OK FEMALE - FEMALE

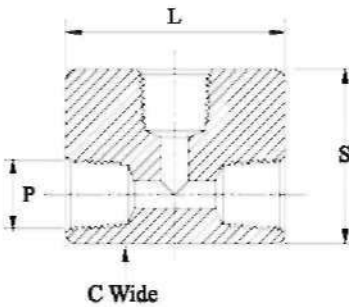
Design :PPF/10K/FE



PART No.	P NPTF	L		C
PPF/10K/FE/2I	1/8"	1.12"	1.12"	0.75"
PPF/10K/FE/4I	1/4"	1.50"	1.50"	1.00"
PPF/10K/FE/6I	3/8"	1.85"	1.85"	1.25"
PPF/10K/FE/8I	1/2"	2.25"	2.25"	1.50"

## TEE/1 OK FEMALE

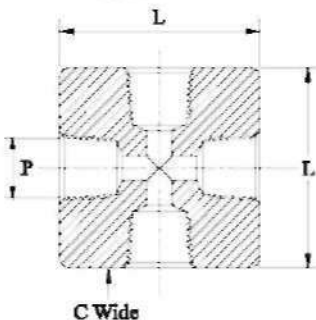
Desic n:PPF/1 OK/FT



PART No.	P NPTF	L	S	C
PPF/10K/FT/2I	1/8"	1.50"	1.12"	0.75"
PPF/10K/FT/4I	1/4"	2.00"	1.50"	1.00"
PPF/10K/FT/6I	3/8"	2.25"	1.95"	1.25"
PPF/10K/FT/8I	1/2"	2.50"	2.00"	1.50"

## CROSS/1 OK FEMALE - FEMALE

Design: PPF/10K/FC



PART No.	P NPTF	L		C
PPF/10K/FC/2I	1/8"	1.50"	1.50"	0,75"
PPF/10K/FC/4I	1/4"	2.00"	2.00"	1.00"
PPF/10K/FC/6I	3/8"	2.25"	2,25"	1.25"
PPF/10K/FC/8I	1/2"	2.50"	2.50"	1.50"

### Warning for Your Safety

The system designer and user have the sole responsibility to select products suitable for their special application requirements to ensure the proper installation. Operation and maintenance of the product. Application details, material compatibility and product ratings should all be considered in the individual selection. Improper selection or use of products can cause property damage or personal injury. Pioneer accept no liability for any improper selection, installation, operation or maintenance.

^^^H