# HIGH PRESSURE FITTINGS DIRECTORY











**≯ ← hydrasun** 





# **Multiple Solutions - One Company**

Established in 1976, Hydrasun has grown to become Europe's premier provider of Fluid Connectors, Hoses, Fittings and Process Control Instrumentation Products to a range of industries including Energy, Petrochemical, Utility, Defence, Marine and Utilities.

Headquartered in Aberdeen Hydrasun has further operational bases in the Glasgow, Edinburgh, Rosyth and Teesside. In addition the company has established a position in a small number of strategically targeted overseas markets including The Netherlands, Azerbaijan, Kazakhstan, Angola, Brazil and UAE. In further support of our international business development strategy Hydrasun has a sales office in Houston. We also have strategic partnerships in Trinidad and Egypt - all of which ensures Hydrasun offers clients unrivalled service solutions on an international scale whilst fulfilling their specific needs including speed of response, safety, service, quality, technical integrity, reliability, environmental protection and value for money.

We offer a large and comprehensive inventory of high quality, high technical integrity items including the following;

- Hoses and Flexible Pipes
- Hose Fittings and Adaptors
- Fluid Connectors and Transfer Systems
- Specialist Hose Assemblies
- Umbilical Assemblies

- Extruded Coatings
- Instrumentation and Process Controls
- Seals
- Filters and Filtration Systems
- Bespoke Manufactured Fittings

Through the company's continuous expansion and development, Hydrasun can now offer a considerable range of services and a unique capability that extends far beyond its broad product range. Our product offering now comes hand in hand with our integrated service solution, including unequalled technical and logistic support and the highest level of after sales service. This Integrated Service Solution covers Design, Engineering, Product Specification & Supply, Manufacture & Assembly, Installation & Testing, and the provision of full life cycle Hose Integrity Management services.

Hydrasun's expertise and reputation have been earned over many years of effective supply and support to technically demanding markets such as the UK North Sea, West Africa, South East Asia, the Gulf of Mexico, United Arab Emirates and the Caspian Sea region.

Our experience comes from working with our customers and fulfilling their specific needs such as Speed of Response, Safety, Service, Quality, Technical Integrity, Reliability, Environmental Protection and overall Value for Money.

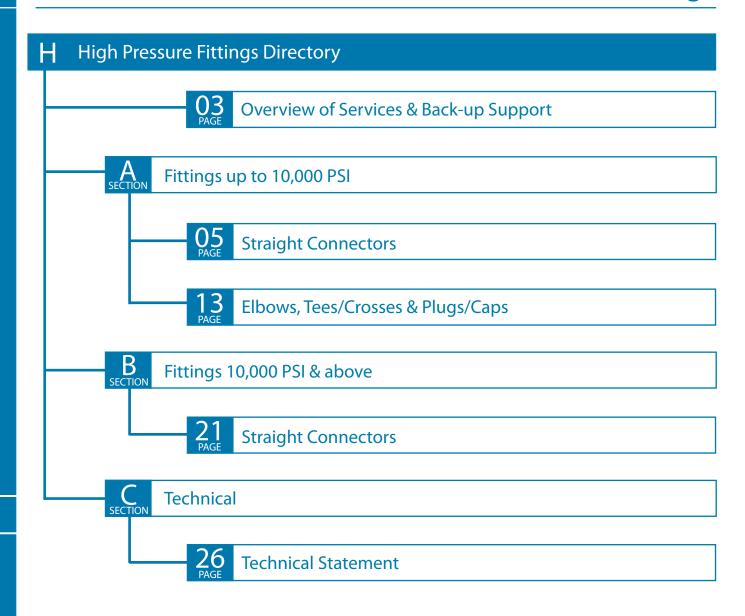
Our approach and attitude to fulfilment of Customer requirements is built on this experience.



#### Hydrasun Headquarters

The Group headquarters in Aberdeen incorporates three-storey office accommodation, state-of-the-art production facilities, engineering and manufacturing facilities, a training centre and warehousing.







# **Overview of Services & Back-up Support**

Our overall approach and commitment to Customer Service has been the prime competitive differentiator for Hydrasun since its inception.

This is based on the following key elements:

Focus on
Customer Needs

Quality of Products & Services

Range & Size of Inventory

Speed of Response

Value for Money

Our focus on the above areas has shaped the way our company has developed customer driven capabilities in Engineering, Manufacturing, Quality & Integrity Assurance, Supply Chain Management and overall Customer Service & Support.

These capabilities and the associated Value Added Services are outlined below:

### **Umbilical Assemblies**

Our umbilical assembly facilities have been developed for the production of multi line hydraulic and electro-hydraulic jumper bundles for a variety of both sub-sea and topside applications. Hydrasun can offer fast track turnaround and delivery of a wide range of umbilical assemblies due to its extensive stockholding of the required components for assembly combined with its in-house capability to manufacture bespoke or specialist end connections in both standard and exotic materials such as monel, inconel and super-duplex.

### **Focused Inventory Management**

The size and range of inventory managed and maintained by Hydrasun has been developed based on the specific needs and demands of our customers. This enables unrivalled speed of response and a high level of "off the shelf" demand fulfilment across our entire product range.

Further details of our inventory and the range of products that we can supply are described within our overall Product Directory and our High Pressure Fittings Directory.



### **Mobile Support**

In line with our commitment to ensure speed of response to our customer needs Hydrasun operates a fleet of Mobile Service Support vehicles. These vehicles carry a range of hose assembly equipment and stock which enables new hose assemblies to be delivered or repairs to be made quickly and efficiently on location by our team of skilled technicians.

### **Specialist Manufacturing**

In addition to producing a range of standard high pressure fittings, our manufacturing capability extends to tailored solutions to specific customer requirements. This includes specialist items manufactured to order as well as quick turnaround production of small batch non standard items.



# **Overview of Services & Back-Up Support**

### **Hose Integrity Management**

Hydrasun's Hose Management Service assures Technical Integrity and optimisation of Hose and Fitting service life. This is achieved through a process of component traceability, planned inspection and the identification of the need for replacement in a proactive and timely manner. By assigning a unique number to each Hose Assembly installed and tested this allows us to keep a complete through life service history for each component supplied.

In addition to assuring compliance with UKOOA and HSE Guidelines on Flexible Hose Management this process also ensures operational reliability and the minimisation of HSE related risks.

### **Innovation & Product Development**

Hydrasun is committed to a policy of continuous improvement and development regarding the services and products we provide. Our focus and emphasis on customer service is key to the effective implementation of this policy.

This has assisted in the further development of several key areas of our product range for example: the introduction of our extrusion and coatings facility and the production of many of our standard fittings in new materials which have enabled improved operational performance and extended component life.

### **Specialist Product Training**

In recognition of the range and specialist nature of our product inventory, combined with our commitment to competence assurance, Hydrasun provides ongoing product training both for our own personnel and customers.

In addition to a number of courses covering the main categories within our standard product range, specific training courses can be developed (for example covering application or installation based training) to suit specific customer requirements. These can be held at the most appropriate location whether this be onshore or at a particular offshore installation.

### **Extrusion & Coatings**

Our extrusion and coatings facility is capable of extruding either single hoses or hose bundles. In addition to enabling encapsulation of assembled hose bundles the extruded coating also assures operational reliability and extends hose service life.

### **Engineered Solutions**

We are able to provide specifically engineered solutions to fulfil particular customer requirements. Examples of these include the design and manufacture of specialist hose assemblies for deepwater applications and the modification of standard instrumentation and control fittings to improve operation and maintenance (e.g. by enabling easier access and operation by ROV's).



### Frame Agreements & Service Partnerships

Hydrasun's continuous expansion and development combined with the integrated service solutions we can now provide has led to the development of longer term frame agreements and "service partnerships" with a number of our major customers.

These type of arrangements, which embrace the full scope of our product and service offer are designed to achieve continuous performance improvement, supply chain efficiency improvements and Added Value for both parties on a mutual "win-win" basis.







By focusing on and assuring the delivery of all of the above within our overall approach and commitment to Customer Service and Support, Hydrasun's aim is to continue to be the premier provider of our range of specialist products and associated services to the industries in which we operate.



### **Overview**

Hydrasun can offer a complete line of fluid handling components including Nipples, Adaptors and Couplings for applications up to 10,000 PSI.

These are available ex-stock in stainless steel or carbon steel whilst other materials are also available on request.

Hydrasun can also offer specially designed connections in line with your specific requirements.

#### Nipples:

Nipples or Male to Male Adaptors are designed to join two Female connections of any combination.

**Straight Connectors** 

#### Adaptors:

Male/Female Adaptors are designed to join either a Female or Male connection directly to another size and/or type of connection.

#### Coupling:

Couplings or Female to Female connectors are designed to join two Male to Male connections.

#### **Nomenclature**

Hydrasun 10K fitting part numbers are constructed from symbols that identify the threads, size and style of fitting and material used.

#### Example

NJ4-4ME10K-SS-FG is the part number for a 1/4 NPT x 4JIC 90° Male Elbow, Stainless Steel, Forged Body.

Thread Type End 1	Thread Type End 2	Thread Type End 1	Thread Type End 2	Fitting Type	Pressure Rating	Material	Body Type
N	J	4	4	ME	10K	SS	FG

### **Thread Types**

N	В	J	SO
NPT	BSPP	JIC	SAE

### **Thread Sizes**

NPT

2	4	6	8	12	16
1/8"-27	1/4"-18	3/8"-18	1/2"-14	3/4"-14	1"-11.5

#### **BSPP**

2	4	6	8	10	12	16
1/8"-28	1/4"-19	3/8"-19	1/2"-14	5/8"-14	3/4"-14	1"-11

### JIC

4	5	6	8	10	12	16	
7/16"-20	1/2"-20	9/16"-18	3/4"-16	7/8"-14	1 1/16"-12	1 5/16"-12	

### **Fitting Type**

HN	Hex Nipple
ME	Male Elbow
FE	Female Elbow
FME	Female/Male Elbow
FT	Female Tee
MT	Male Tee
FC	Female Cross
HP	Hex Plug
BP	Bleed Plug
FMA	Female/Male Adaptor

FFSE	Female Swivel Elbow
SS	Male/Female Swivel Elbow
FFS	Female Swivel Adaptor
FMS	Female Swivel/Male Adaptor
PC	Pipe Cap
FST	Female Swivel Tee
HLN	Hex Long Nipple
HC	Hex Coupling
MFS	Male/Female Swivel Adaptor

### **Body Type**

BK	Block Body
FG	Forged Body

### Material

S	316 S11 Stainless Steel
SS	Carbon Steel



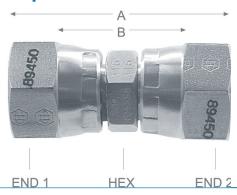
# JIC 37° Male x Male Hexagon Barstock Nipple



Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	Size ins.
J4-4HN10K-SS	7/16"-20 TPI	7/16"-20 TPI	1.37	1/2
J5-5HN10K-SS	1/2"-20 TPI	1/2"-20 TPI	1.37	9/16
J6-4HN10K-SS	9/16"-18 TPI	7/16"-20 TPI	1.40	5/8
J6-6HN10K-SS	9/16"-18 TPI	9/16"-18 TPI	1.41	5/8
J8-4HN10K-SS	3/4"-16 TPI	7/16"-20 TPI	1.51	13/16
J8-6HN10K-SS	3/4"-16 TPI	9/16"-18 TPI	1.52	13/16
J8-8HN10K-SS	3/4"-16 TPI	3/4"-16 TPI	1.62	13/16
J10-10HN10K-SS	7/8"-14 TPI	7/8"-14 TPI	1.88	15/16
J12-12HN10K-SS	1 1/16"-12 TPI	1 1/16"-12 TPI	2.16	1 1/8
J16-16HN10K-SS	1 5/16"-12 TPI	1 5/16"-12 TPI	2.25	1 3/8

**Straight Connectors** 

### JIC Female Swivel x Female Swivel Hexagon Barstock Adaptor



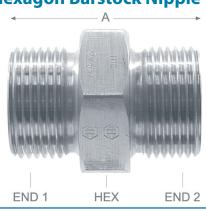
Part Number	Thread	Thread	A	B	Hex
	Size End 1	Size End 2	ins.	ins.	A/F ins.
J4-4 FFS10K-SS J6-4 FFS10K-SS J6-6 FFS10K-SS J8-4 FFS10K-SS J8-6 FFS10K-SS J8-8 FFS10K-SS J12-12 FFS10K-SS J16-16 FFS10K-SS	7/16"-20 TPI 9/16"-18 TPI 9/16"-18 TPI 3/4"-16 TPI 3/4"-16 TPI 3/4"-16 TPI 1 1/16" TPI 1 5/16" TPI	7/16"-20 TPI 7/16"-20 TPI 9/16"-18 TPI 7/16"-20 TPI 9/16"-18 TPI 3/4"-16 TPI 1 1/16" TPI 1 5/16" TPI	1.63 1.90 1.95 2.02 2.07 2.19 3.11 3.29	1.23 1.12 1.47 1.18 1.25 1.31 1.96 2.12	9/16 5/8 13/16 3/4 3/4 3/4 1 5/8

### JIC Female x Male Swivel Hexagon Barstock Adaptor



Part Number	Thread	Thread	A	B	Hex
	Size End 1	Size End 2	ins.	ins.	A/F ins.
J4-4FMS 10K-SS J4-6FMS 10K-SS J4-8FMS 10K-SS J5-4FMS 10K-SS J6-4FMS 10K-SS J6-6FMS 10K-SS J6-8FMS 10K-SS J8-4FMS 10K-SS J8-6FMS 10K-SS J8-8FMS 10K-SS J8-12FMS10K-SS J12-8FMS10K-SS	7/16"-20 TPI 7/16"-20 TPI 7/16"-20 TPI 1/2"-20 TPI 9/16"-18 TPI 9/16"-18 TPI 9/16"-18 TPI 3/4"-16 TPI 3/4"-16 TPI 3/4"-16 TPI 1/16" TPI	7/16"-20 TPI 9/16"-18 TPI 3/4"-16 TPI 7/16"-20 TPI 7/16"-20 TPI 9/16"-18 TPI 3/4"-16 TPI 7/16"-20 TPI 9/16"-18 TPI 3/4"-16 TPI 1 1/16" TPI 3/4"-16 TPI	1.63 1.64 1.74 1.68 1.68 1.69 1.79 1.80 1.81 1.91 2.25 2.41	1.23 1.24 1.34 1.28 1.30 1.31 1.41 1.36 1.37 1.47 1.81	9/16 5/8 13/16 9/16 5/8 5/8 13/16 3/4 3/4 13/16 1 1/8 1 5/8

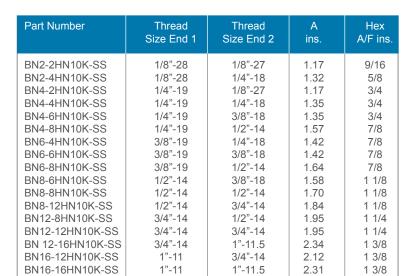
# BSPP Male x Male 60° Cone Hexagon Barstock Nipple



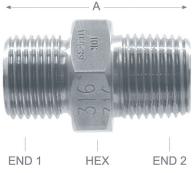
Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	Size ins.
B2-2HN10K-SS B4-2HN10K-SS B4-4HN10K-SS B6-4HN10K-SS B6-6HN10K-SS B8-4HN10K-SS B8-6HN10K-SS B8-8HN10K-SS B12-8HN10K-SS B12-12HN10K-SS B16-12HN10K-SS	1/8"-28 1/4"-19 1/4"-19 3/8"-19 3/8"-19 1/2"-14 1/2"-14 1/2"-14 3/4"-14 3/4"-14 1" -11 1"-11	1/8"-28 1/8"-28 1/4"-19 1/4"-19 3/8"-19 1/4"-19 3/8"-19 1/2"-14 1/2"-14 3/4"-14 3/4"-14	1.17 1.22 1.27 1.34 1.41 1.50 1.57 1.63 1.81 1.91 2.12 2.18	9/16 3/4 3/4 7/8 7/8 1 1/16 1 1/16 1 1/16 1 1/4 1 1/4 1 5/8 1 5/8



# **Straight Connectors**

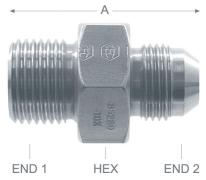


# BSPP Male 60° Cone x NPT Male Hexagon Barstock Nipple



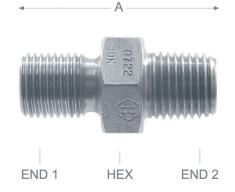
Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	A/F ins.
BJ4-4HN10K-SS	1/4"-19	7/16"-20 TPI	1.17	9/16
BJ4-6HN10K-SS	1/4"-19	9/16"-18 TPI	1.22	3/4
BJ8-8HN10K-SS	1/2"-14	3/4"-16 TPI	1.27	3/4
BJ12-6HN10K-SS	3/4"-14	9/16"-18 TPI	1.34	7/8

### BSPP Male 60° Cone x JIC Male Hexagon Barstock Nipple



Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	A/F ins.
BN04LT04HN1 OK-SS	1/4"-19	1/4"-18	1.52	3/4
BN04LT06HN10K-SS	1/4"-19	3/8"-18	1.52	3/4
BN04LT08H N10K-SS	1/4"-19	1/2"-14	1.77	7/8
BN06LT06HN10K-SS	3/8"-1	3/8"-18	1.64	7/8
BN06LT08HN10K-SS	3/8"-1	1/2"-14	1.89	7/8

### BSPP Male 60° x NPT Cone Long Thread Hexagon Barstock Nipples







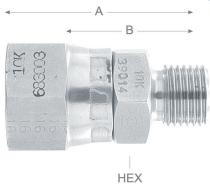
# **BSPP Female Swivel, 60° Coned Seat Barstock Adaptor**



Part Number	Thread Size End 1	A ins.	Hex A/F ins.
B4-4FFS10K-SS	1/4"-19	1.71	5/8
B6-6FFS10K-SS	3/8"-19	2.07	3/4
B8-8FFS10K-SS	1/2"-14	2.66	7/8

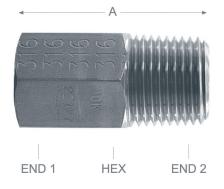
**Straight Connectors** 

### BSPP Female Swivel x Male 60° Coned Seat Barstock Adaptor



Part Number	Thread	A	B	Hex
	Size End 1	ins.	ins.	A/F ins.
B4-4FMS10K-SS	1/4"-19	1.50	1.31	3/4
B6-6FMS10K-SS	3/8"-19	1.75	1.35	7/8

# BSPP Female x NPT Male Nipple Hexagon Barstock Adaptor



Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	Size ins.
BN4-8FMA10K-SS	1/4"-19	1/2"-14	1.70	7/8

# NPT Female x BSPP Male Hexagon Barstock Adaptor



Part Number	Thread Size End 1	Thread Size End 2	A ins.	Hex Size ins.
BN8-8MFA10K-SS	1/2"-14	1/2"-14	1.69	1 3/8



12-12FMA10K-SS

12-16FMA10K-SS

16-4FMA10K-SS

16-6FMA10K-SS

16-8FMA10K-SS

16-12FMA10K-SS

16-16FMA10K-SS

# **Straight Connectors**

#### Part Number Thread Thread Hex Size End 1 Size End 2 ins. Size ins. 2-2FMA10K-SS 1/8"-27 1/8"-27 7/8 1 11 2-4FMA10K-SS 1/8"-27 1/4"-18 1.29 7/8 1/8"-27 2-6FMA10K-SS 3/8"-18 1.29 7/8 1/8"-27 2-8FMA10K-SS 1/2"-14 1.42 7/8 1/4"-18 1/8"-27 1.33 4-2FMA10K-SS 7/8 1/4"-18 4-4FMA10K-SS 1/4"-18 1.51 7/8 4-6FMA10K-SS 1/4"-18 3/8"-18 1.51 7/8 1/4"-18 1/2"-14 4-8FMA10K-SS 1.70 7/8 1/4"-18 4-12FMA10K-SS 3/4"-14 1.70 1 1/8 4-16FMA10K-SS 1/4"-18 1"-11.5 1.89 1 3/8 3/8"-18 1.39 1 1/8 6-2FMA10K-SS 1/8"-27 6-4FMA10K-SS 3/8"-18 1/4"-18 1.57 1 1/8 3/8"-18 6-6FMA10K-SS 3/8"-18 1.57 1 1/8 6-8FMA10K-SS 3/8"-18 1/2"-14 1.76 1 1/8 3/8"-18 3/4"-14 6-12FMA10K-SS 1.76 1 1/8 3/8"-18 6-16FMA10K-SS 1"-11.5 1.95 1 3/8 8-2FMA10K-SS 1/2"-14 1/8"-27 1.70 1 3/8 1/2"-14 1/4"-18 1 3/8 8-4FMA10K-SS 1.88 8-6FMA10K-SS 1/2"-14 3/8"-18 1.88 1 3/8 1/2"-14 1/2"-14 8-8FMA10K-SS 2 07 1 3/8 8-12FMA10K-SS 1/2"-14 3/4"-14 2.07 1 3/8 1/2"-14 1"-11.5 8-16FMA10K-SS 2.26 1 3/8 3/4"-14 12-4FMA10K-SS 1/4"-18 2.06 1 3/4 12-6FMA10K-SS 3/4"-14 3/8"-18 2.06 1 3/4 1/2"-14 3/4"-14 1 3/4 12-8FMA10K-SS 2 25

3/4"-14

1"-11.5

1/4"-18

3/8"-18

1/2"-14

3/4"-14

1"-11.5

2.25

2 44

2.31

2.31

2.50

2.50

2 69

1 3/4

1 3/4

2 1/4

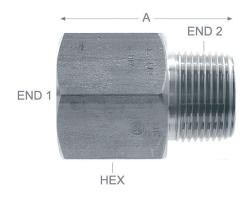
2 1/4

2 1/4

2 1/4

2 1/4

### NPT Female x Male Hexagon Barstock Adaptor



Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	Size ins.
NJ8-4FFS10K-SS	1/2"-14	7/16"-20 TPI	1.69	1/4
NJ8-8FFS10K-SS	1/2"-14	3/4"-16 TPI	1.82	1/4

3/4"-14

3/4"-14

1"-11.5

1"-11.5

1"-11.5

1"-11.5

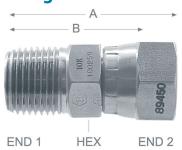
1"-11.5

# NPT Female x JIC Female Swivel Hexagon Barstock





# NPT Male x JIC Female Swivel Hexagon Barstock Adaptor



Part Number	Thread	Thread	A	B	C
	Size End 1	Size End 2	ins.	ins.	A/F ins.
NJ4-4MFS10K-SS	1/4"-18	7/16"-20 TPI	1.66	1.26	5/8
NJ4-5MFS10K-SS	1/4"-18	1/2"-20 TPI	1.71	1.31	5/8
NJ4-6MFS10K-SS	1/4"-18	9/16"-18 TPI	1.71	1.33	5/8
NJ6-6MFS10K-SS	3/8"-18	9/16"-18 TPI	1.71	1.33	3/4
NJ8-8M FS10K-SS	1/2"-14	3/4"-16 TPI	2.08	1.64	7/8
NJ8-12MFS10K-SS	1/2"-14	11/16"-12TPI	2.50	1.93	1 5/8

**Straight Connectors** 

# NPT Male x Male Hexagon Extended Barstock Nipple



Part Number	Thread	A	Hex
	Size End 1	ins.	A/F ins.
2-2HLN10K-SS 3 4-4HLN10K-SS 3 4-4HLN10K-SS 4 4-4HLN10K-SS 6 6-6HLN10K-SS 3 6-6HLN10K-SS 4 6-6HLN10K-SS 6 8-8HLN10K-SS 3 8-8HLN10K-SS 4 8-8HLN10K-SS 6	1/8"-27 1/4"-18 1/4"-18 1/4"-18 3/8"-18 3/8"-18 3/8"-18 1/2"-14 1/2"-14	3.00 3.00 4.00 6.00 3.00 4.00 6.00 3.00 4.00 6.00	7/16 5/8 5/8 5/8 3/4 3/4 3/4 7/8 7/8 7/8

# NPT Male x Male Hexagon Barstock Nipple



Part Number	Thread Size End 1	Thread Size End 2	A ins.	Hex Size ins.
2-2HN10K-SS 4-2HN10K-SS 4-4HN10K-SS 6-2HN10K-SS 6-4HN10K-SS 6-6HN10K-SS 8-2HN10K-SS 8-4HN10K-SS 8-6HN10K-SS 12-4HN10K-SS 12-6HN10K-SS 12-8HN10K-SS 12-12HN10K-SS 16-16HN10K-SS 16-16HN10K-SS 16-16HN10K-SS 16-16HN10K-SS	1/8"-27 1/4"-18 1/4"-18 3/8"-18 3/8"-18 3/8"-14 1/2"-14 1/2"-14 1/2"-14 3/4"-14 3/4"-14 3/4"-14 3/4"-15 1"-11.5	1/8" -27 1/8" -27 1/4"-18 1/8"-27 1/4"-18 3/8"-18 1/8"-27 1/4"-18 3/8"-18 1/2"-14 1/4"-18 3/8"-18 1/2"-14 1/4"-18 3/8"-18	1.06 1.22 1.45 1.27 1.45 1.45 1.70 1.70 1.89 1.73 1.97 1.96 1.92 2.11 2.34 2.53	7/16 5/8 5/8 3/4 3/4 3/4 7/8 7/8 7/8 1 1/8 1 1/8 1 1/8 1 1/8 1 1/8 1 3/8 1 3/8 1 3/8 1 3/8



NJ16-12HN10K-SS

NJ16-16HN10K-SS

Part Number		Thread	Thread	A	Hex
		Size End 1	Size End 2	ins.	A/F ins.
	NJ2-4HN10K-SS NJ4-4HN10K-SS NJ4-5HN10K-SS NJ4-6HN10K-SS NJ4-8HN10K-SS NJ6-4HN 10K-SS NJ6-6HN10K-SS NJ6-10HN10K-SS NJ8-4HN10K-SS NJ8-4HN10K-SS NJ8-8HN10K-SS NJ8-10HN10K-SS NJ8-12HN10K-SS NJ12-8HN10K-SS NJ12-10HN10K-SS NJ12-10HN10K-SS NJ12-10HN10K-SS	1/8" -27 1/4"-18 1/4"-18 1/4"-18 1/4"-18 3/8"-18 3/8"-18 3/8"-18 3/8"-14 1/2"-14 1/2"-14 1/2"-14 1/2"-14 1/2"-14 1/2"-14 1/2"-14 1/2"-14 1/2"-14 1/2"-14 1/2"-14 3/4"-14 3/4"-14	7/16"-20 TPI 7/16"-20 TPI 1/2"-20 TPI 9/16"-18 TPI 3/4"-16 TPI 7/16"-20 TPI 9/16"-18 TPI 3/4"-14 TPI 7/16"-20 TPI 9/16"-18 TPI 3/4"-16 TPI 7/8"-14 TPI 1 1/16"-12 TPI 3/4"-16 TPI 7/8"-14 TPI 1 1/16"-12 TPI 1 1/16"-12 TPI 1 1/16"-12 TPI 1 5/16"-12 TPI	1.22 1.42 1.43 1.53 1.44 1.45 1.55 1.69 1.69 1.70 1.80 2.06 1.85 1.95 2.06 2.25	1/2 5/8 5/8 5/8 13/16 3/4 3/4 13/16 15/16 7/8 7/8 7/8 15/16 1 1/8 1 1/8 1 1/8 1 1/8
	NJ16-6HN10K-SS	1"-11.5	9/16"-18 TPI	1.95	1 3/8
	NJ16-8HN10K-SS	1"-11.5	3/4"-16 TPI	2.05	1 3/8

1 1/16"-12 TPI

1 5/16"-12 TPI

2.25

2.30

1 3/8

1 3/8

1"-11.5

1"-11.5

# **Straight Connectors**

### NPT Male x 37° Male Hexagon Barstock Nipple



Part Number	Thread Size End 1	Thread Size End 2	A ins.	Hex A/F ins.
2-2HC10K-SS 4-2HC10K-SS 4-4HC10K-SS 6-2HC10K-SS 6-4HC10K-SS 6-6HC10K-SS 8-2HC10K-SS 8-4HC10K-SS 8-6HC10K-SS 12-4HC10K-SS 12-6HC10K-SS	1/8"-27 1/4"-18 1/4"-18 3/8"-18 3/8"-18 3/8"-18 1/2"-14 1/2"-14 1/2"-14 1/2"-14 3/4"-14 3/4"-14	1/8"-27 1/8"-27 1/4"-18 1/8"-27 1/4"-18 3/8"-18 1/8"-27 1/4"-18 3/8"-18 1/2"-14 1/4"-18 3/8"-18	0.88 1.04 1.13 1.10 1.38 1.50 1.40 1.50 1.56 1.88 1.68 1.88	7/8 7/8 7/8 1 1/8 1 1/8 1 1/8 1 3/8 1 3/8 1 3/8 1 3/8 1 3/4 1 3/4
12-8HC10K-SS 12-12HC10K-SS 16-4HC10K-SS 16-6HC10K-SS 16-8HC10K-SS 16-12HC10K-SS 16-16HC10K-SS	3/4"-14 3/4"-14 1"-11.5 1"-11.5 1"-11.5 1"-11.5	1/2" -14 3/4"-14 1/4"-18 3/8"-18 1/2"-14 3/4"-14 1"-11.5	1.93 2.25 1.94 1.94 2.13 2.25 2.50	1 3/4 1 3/4 2 1/4 2 1/4 2 1/4 2 1/4 2 1/4

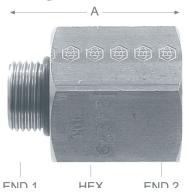
# NPT Female x Female Barstock Couplings



END 1



### SAE Male x NPT Female Hexagon Barstock Adaptor



Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	Size ins.
SONF04-04MFA10K-SS	7/16"-20 TPI	1/4"-18	1.31	7/8
SONF08-08MFA10K-SS	3/4"-16 TPI	1/2"-14	1.76	13/8

**Straight Connectors** 

# SAE Male x JIC Male Barstock Nipple



Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	Size ins.
SOJ04-04HN10K-SS	7/16"-20 TPI	7/16"-20 TPI	1.23	9/16
SOJ04-06HN10K-SS	7/16"-20 TPI	9/16"-18 TPI	1.24	11/16
SOJ06-04HN10K-SS	9/16"-18 TPI	7/16"-20 TPI	1.30	11/16
SOJ06-06HN10K-SS	9/16"-18 TPI	9/16"-18 TPI	1.30	11/16
SOJ08-08HN10K-SS	3/4"-16 TPI	3/4"-16 TPI	1.48	7/8

# SAE Male x NPT Male Hexagon Barstock Nipple



Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	Size ins.
SON04-04HN10K-SS	7/16"-20 TPI	1/4"-18	1.25	5/8
SON08-08HN10K-SS	3/4"-16 TPI	1/2"-14	1.58	7/8

# SAE Male x BSPP Male 60° Hexagon Barstock Nipple



Part Number	Thread Size End 1	Thread Size End 2	A ins.	Hex Size ins.
SOB04-04HN10K-SS	7/16"-20 TPI	1/4"-19	1.16	3/4
SOB08-08HN10K-SS	3/4"-16 TPI	1/2"-14	1.60	1 1/16



### **Overview**

To compliment the connectors range Hydrasun can supply various sizes/types of Elbows, Tees/Crosses and Plugs/Caps.

These fittings feature excellent threaded or mechanical compression connections and offer excellent flow capabilities.

They are available in a range of materials whilst special custom designs are available on request.

**Elbows, Tees/Crosses & Plugs/Caps** 

### **Nomenclature**

Hydrasun 10K fitting part numbers are constructed from symbols that identify the threads, size and style of fitting and material used.

### Example

NJ4-4ME10K-SS-FG is the part number for a 1/4 NPT x 4JIC 90° Male Elbow, Stainless Steel, Forged Body.

Thread Type End 1	Thread Type End 2	Thread Type End 1	Thread Type End 2	Fitting Type	Pressure Rating	Material	Body Type
Ν	J	4	4	ME	10K	SS	FG

### **Thread Type**

N	В	J	SO
NPT	BSPP	JIC	SAE

### **Thread Sizes**

NPT

2	4	6	8	12	16
1/8"-27	1/4"-9	3/8"-18	1/2"-14	3/4"-14	1"-11.5

#### BSPP

2	4	6	8	10	12	16
1/8"-28	1/4"-19	3/8"-19	1/2"-14	5/8"-14	3/4"-14	1"-11

### JIC

4	5	6	8	10	12	16
7/16"-20	1/2"-20	9/16"-18	3/4"-16	7/8"-14	1 1/16"-12	1 5/16"-12

### **Thread Type**

HN	Hex Nipple
ME	Male Elbow
FE	Female Elbow
FME	Female/Male Elbow
FT	Female Tee
MT	Male Tee
FC	Female Cross
HP	Hex Plug
BP	Bleed Plug
FMA	Female/Male Adaptor

FPSE	Female Swivel Elbow
MFSE	Male/Female Swivel Elbow
FFS	Female Swivel Adaptor
FMS	Female Swivel/Male Adaptor
PC	Pipe Cap
FST	Female Swivel Tee
HLN	Hex Long Nipple
HC	Hex Coupling
MFS	Male/Female Swivel Adaptor

### **Body Type**

BK	Blocked Body
FG	Forged Body

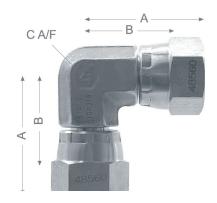
#### Material

SS	316 S11 Stainless Steel
S	Carbon Steel



# **Elbows, Tees/Crosses & Plugs/Caps**

# JIC Female Swivel 90° Forged Elbow



Part Number	Thread	A ins.	B ins.	C A/F ins.
J4-4FFSE10K-SS-FG	7/16"-20 TPI	1.33	0.93	0.55
J6-6FFSE10K-SS-FG	9/16"-18 TPI	1.38	1.00	0.55
J8-8FFSE10K-SS-FG	3/4"-16 TPI	1.64	1.20	0.75

# JIC Male x Male 90° Forged Elbow



Part Number	Thread	A ins.	B ins.	C A/F ins.
J4-4ME10K-SS-FG	7/16"-20TPI	1.13	1.13	0.55
J6-6ME10K-SS-FG	9/16"-18 TPI	1.15	1.15	0.55
J8-8ME10K-SS-FG	3/4"-16 TPI	1.42	1.42	0.87

# JIC Male x Female Swivel 90° Forged Elbow



Part Number	Thread	A ins.	B ins.	C A/F ins.
J4-4MFSE10K-SS-FG	7/16"-20 TPI	1.13	1.35	0.55
J6-6MFSE10K-SS-FG	9/16"-18TPI	1.14	1.40	0.55
J8-8MFSE10K-SS-FG	3/4"-16 TPI	1.44	1.72	0.87
J12-12MFSE10K-SS-FG	1 1/16"-12 TPI	2.32	1.82	1.3
J16-16MFSE10K-SS-FG	1.5/16"-12 TPI	2.65	2.16	1.61



# **Elbows, Tees/Crosses & Plugs/Caps**

Part Number	Thread	A ins.	B ins.	Hex A/F ins.
B4-4FFSE10K-SS-FG	1/4"-19	1.27	1.27	0.55
B6-6FFSE10K-SS-FG	3/8"-19	1.59	1.59	0.75
B8-8FFSE10K-SS-FG	1/2"-14	2.06	2.06	1.06
B12-12FFSE10K-SS-FG	3/4"-14	2.08	2.08	1.06
B16-16FFSE10K-SS-FG	1 "-11	2.91	2.91	1.61

### BSPP Female Swivel, 60° Coned Seat Forged Body 90° Elbow



Part Number	Thread	A ins.	C A/F ins.
B4-4MFSE10K-SS-FG	1/4"-19	1.41	0.75
B6-6MFSE10K-SS-FG	3/8"-19	1.59	0.75
B8-8MFSE10K-SS-FG	1/2"-14	2.06	1.06

### **BSPP Male x Female Swivel 80° Elbow**



Part Number	Thread	A ins.	B ins.	C A/F ins.
2FE10K-SS-BK	1/8"-27	1.12	1.12	0.75
4FE10K-SS-BK	1/4"-18	1.50	1.50	1.00
6FE10K-SS-BK	3/8"-18	1.95	1.95	1.25
8FE10K-SS-BK	1/2"-14	2.00	2.00	1.50
12FE10K-SS-BK	3/4"-14	2.50	2.50	2.00
16FE10K-SS-BK	1"-11.5	3.00	3.00	2.25

### **NPT Female Barstock Elbow**



Part Number	Thread	A ins.	B ins.	C A/F ins.
2FE10K-SS-FG	1/8"-27	1.50	1.50	0.75
4FE10K-SS-FG	1/4"-18	2.00	2.00	1.00
6FE10K-SS-FG	3/8"-18	2.50	2.50	1.25
8FE10K-SS-FG	1/2" -14	2.50	2.50	1.50

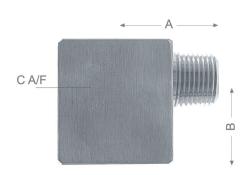
# **NPT Female Forged Elbow**



16



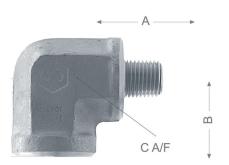
### **NPT Male x Female Barstock Elbow**



Part Number	Thread	A ins.	B ins.	C A/F ins.
4FME10K-SS-BK	1/4"-18	1.06	1.00	1.00
8FME10K-SS-BK	1/2"-14	1.59	1.25	1.50

**Elbows, Tees/Crosses & Plugs/Caps** 

# **NPT Male x Female Forged Elbow**



Part Number	Thread	A ins.	B ins.	C A/F ins.
2FME10K-SS-FG	1/8"-27	1.22	0.95	0.88
4FME10K-SS-FG	1/4"-18	1.55	1.13	1.08
6FME10K-SS-FG	3/8"-18	1.62	1.28	1.38
8FME10K-SS-FG	1/2"-14	1.90	1.47	1.65

### **NPT Male Barstock Elbow**



Part Number	Thread	A ins.	B ins.	C A/F ins.
2ME10K-SS-BK	1/8"-27	0.69	0.69	0.63
4ME10K-SS-BK	1/4"-18	0.94	0.94	0.75
6ME10K-SS-BK	3/8"-18	0.97	0.97	0.75
8ME10K-SS-BK	1/2"-14	1.31	1.31	1.00

# **NPT Male Forged Elbow**



Part Number	Thread	A ins.	B ins.	C A/F ins.
2ME10K-SS-FG	1/8"-27	0.96	0.96	0.55
4ME10K-SS-FG	1/4"-18	1.14	1.14	0.55
6ME10K-SS-FG	3/8"-18	1.28	1.28	0.75
8ME10K-SS-FG	1/2"-14	1.51	1.51	0.87



# **Elbows, Tees/Crosses & Plugs/Caps**

Part Number	Thread	Thread	A	B	C
	Size End 1	Size End 2	ins.	ins.	A/F ins.
NJ2-4ME10K-SS-FG NJ4-4ME10K-SS-FG NJ6-4ME10K-SS-FG NJ6-6ME10K-SS-FG NJ6-8ME10K-SS-FG NJ8-6ME10K-SS-FG NJ8-8ME10K-SS-FG	1/8"-27 1/4"-18 3/8"-18 3/8"-18 3/8"-18 1/2"-14 1/2"-14	7/16"-20 TPI 7/16"-20 TPI 7/16"-20 TPI 9/16"-18 TPI 3/4"-16 TPI 9/16"-18 TPI 3/4"-16 TPI	1.13 1.13 1.27 1.28 1.42 1.40 1.42	0.96 1.14 1.28 1.28 1.40 1.59	0.55 0.55 0.75 0.75 0.87 0.87

# NPT Male x JIC Male Forged Elbow



Part Number	Thread	A ins.	B ins.	Hex A/F ins.
B4FST10K-SS-FG	1/4"-19	2.54	1.27	0.55
B6FST10K-SS-FG	3/8"-19	3.18	1.59	0.75
B8FST10K-SS-FG	1/2"-14	4.12	2.06	1.06
B10FST10K-SS-FG	5/8"-14	4.16	2.08	1.06
B12FST10K-SS-FG	3/4"-14	4.86	2.43	1.30
B16FST10K-SS-FG	1 "-11	5.82	2.91	1.61

# **BSPP Female Swivel, 60° Coned Seat Forged Body Tee**



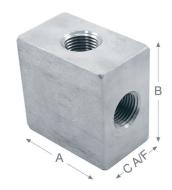
Part Number	Thread	A ins.	B ins.	Hex A/F ins.
2FT-10K-SS-FG	1/8"-27	1.80	0.90	0.87
4FT-10K-SS-FG	1/4"-18	2.00	1.00	1.06
6FT-10K-SS-FG	3/8"-18	2.20	1.10	1.30
8FT-10K-SS-FG	1/2"-14	2.50	1.25	1.61

### **NPT Female Forged Tee**



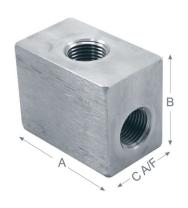
Part Number	Thread	A ins.	B ins.	C A/F ins.
2FT10K-SS-BK	1/8"-27	1.50	1.12	0.75
4FT10K-SS-BK	1/4"-18	2.00	1.50	1.00
6FT10K-SS-BK	3/8"-18	2.50	1.95	1.25
8FT10K-SS-BK	1/2"-14	2.50	2.00	1.50
12FT10K-SS-BK	3/4"-14	3.00	2.50	2.00
16FT10K-SS-BK	1"-11.5	3.74	3.00	2.25

### **NPT Female Barstock Tee**





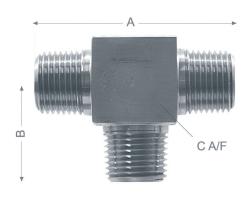
### **NPT Female Barstock Cross**



Part Number	Thread	A ins.	B ins.	C A/F ins.
2FC10K-SS-BK	1/8"-27	1.50	1.50	0.75
4FC10K-SS-BK	1/4"-18	2.00	2.00	1.00
6FC10K-SS-BK	3/8"-18	2.50	2.50	1.25
8FC10K-SS-BK	1/2"-14	2.50	2.50	1.50

**Elbows, Tees/Crosses & Plugs/Caps** 

### **NPT Male Barstock Tee**



Part Number	Thread	A ins.	B ins.	C A/F ins.
2MT-10K-SS-BK	1/8"-27	1.38	0.69	0.63
4MT-10K-SS-BK	1/4"-18	1.88	0.94	0.75
6MT-10K-SS-BK	3/8"-18	1.94	0.97	0.75
8MT-10K-SS-BK	1/2"-14	2.62	1.31	1.00

### **NPT Male Forged Tee**



Part Number	Thread	A ins.	B ins.	C A/F ins.
2FT-10K-SS-FG	1/8"-27	1.92	0.96	0.55
4FT-10K-SS-FG	1/4"-18	2.28	1.14	0.55
6FT-10K-SS-FG	3/8"-18	2.56	1.28	0.75
8FT-10K-SS-FG	1/2"-14	2.94	1.47	0.87

# **JIC Male Hexagon Barstock Plug**



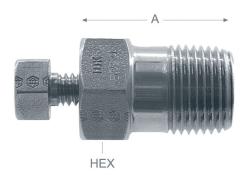
Part Number	Thread	A ins.	Hex A/F ins.
J4HP10K-SS J5HP10K-SS J6HP10K-SS J8HP10K-SS J10HP10K-SS J12HP10K-SS J16HP10K-SS	7/16"-20 TPI 1/2"-20 TPI 9/16"-18 TPI 3/4"-16 TPI 7/8"-14 TPI 1 1/16"-12 TPI 1 5/16"-12 TPI	0.86 0.86 0.87 0.97 1.13 1.31	1/2 9/16 5/8 13/16 15/16 1 1/8 1 3/8



# **Elbows, Tees/Crosses & Plugs/Caps**

Part Number	Thread	A ins.	Hex A/F ins.
4BP10K-SS	1/4"-18	1.13	5/8
6BP10K-SS	3/8"-18	1.13	3/4
8BP10K-SS	1/2"-14	1.13	15/16

# **NPT Male Hexagon Barstock Bleed Plug**



Part Number	Thread	A ins.	Hex A/F ins.
B2HP10K-SS	1/8"-28	0.73	5/8
B4HP10K-SS	1/4"-19	0.79	3/4
B6HP10K-SS	3/8"-19	0.86	7/8
B8HP10K-SS	1/2"-14	0.99	1 1/16
B12HP10K-SS	3/4"-14	1.16	1 1/4
B16HP10K-SS	1"-11	1.37	1 5/8

# **BSPP Male Hexagon Barstock Plug**



Part Number	Thread	A ins.	Hex A/F ins.
2PC10K-SS	1/8"-27	0.85	7/8
4PC10K-SS	1/4"-18	0.94	7/8
6PC10K-SS	3/8"-18	1.04	1 1/8
8PC10K-SS	1/2"-14	1.38	1 3/8
12PC10K-SS	3/4"-14	1.50	1 3/4
16PC10K-SS	1"-11.5	1.85	2 1/4

# **NPT Female Hexagon Barstock Plug**



Part Number	Thread	A ins.	Hex A/F ins.
2HP10K-SS	1/8"-27	0.56	1/2
4HP10K-SS	1/4"-18	0.84	5/8
6HP10K-SS	3/8"-18	0.84	3/4
8HP10K-SS	1/2"-14	1.09	7/8
12HP10K-SS	3/4"-14	1.17	1 1/8
16HP10K-SS	1"-11.5	1.36	1 3/8

# **NPT Male Hexagon Barstock Plug**





# **JIC Female Swivel Hexagon Barstock Cap**



Part Number	Thread	A	Hex
	Size End 1	ins.	A/F ins.
J4PC10K-SS	7/16"-20 TPI	0.79	5/8
J5PC10K-SS	1/2"-20 TPI	0.85	11/16
J6PC10K-SS	9/16"-18 TPI	0.96	3/4
J8PC10K-SS	3/4"-16 TPI	1.12	15/16
J10PC10K-SS	7/8"-14 TPI	1.48	1 1/8
J12PC10K-SS	1 1/16"-12 TPI	1.67	1 1/4
J16PC10K-SS	1 5/16"-12 TPI	1.90	1 5/8

# **BSPP Female Swivel Hexagon Barstock Cap**



Part Number	Thread Size End 1	A ins.	Hex A/F ins.
B2PC10K-SS	1/8"-28	0.61	9/16
B4PC10K-SS	1/4"-19	0.71	7/8
B6PC10K-SS	3/8"-19	0.75	1 1/16
B8PC10K-SS	1/2"-14	0.76	1 1/5
B12PC10K-SS	3/4"-14	1.06	1 3/8
B16PC10K-SS	1"-11	1.12	1 5/8



### **Overview**

Hydrasun can also offer a complete line of Nipples in a a variety of thread configurations and sizes for applications at 10,000 PSI and above.

These are available ex-stock in stainless steel whilst other materials are also available upon request.

Hydrasun can also offer specially designed connections in line with your specific requirements.

**Straight Connectors** 

### **Nomenclature**

Hydrasun 10K and above fittings part numbers are constructed from symbols that identify the threads, size and style of fitting and material used.

### Example

10-4NM-4MM-316 is the part number for a 1/4 NPT Male x 1/4 Medium Pressure Male Adaptor, 316 Stainless Steel.

Pressure	Thread Size End 1	Thread Size End 2	Thread Size End 1	Thread Size End 2	Material
10	4	NM	4	MM	316

### **Pressure Ratings**

10	10000psi
15	15000psi
20	20000psi
30	30000psi

### **Thread Sizes**

#### NPT

2	4	6	8	12	16
1/8"-27	1/4"-19	3/8"-18	1/2"-14	3/4"-14	1"-11.5

#### BSPP

2	4	6	8	10	12	16
1/8"-28	1/4"-19	3/8"-19	1/2"-14	5/8"-14	3/4"-14	1"-11

#### JIC

4	5	6	8	10	12	16
7/16"-20	1/2"-20	9/16"-18	3/4"-16	7/8"-14	1 1/16"-12	1 5/16"-12

#### Medium Pressure

4	7/16"x20 UNF R/H
6	9/16"x18 UNF R/H
9	13/16"x 16 UNF R/H
12	3/4"x14 NPS R/H
16	1 3/8"x 12 UNF R/H

#### High Pressure

4	9/16"x 18 UNF R/H
6	3/4"x16 UNF R/H
9	1 1/8"x12 UNF R/H

### UNF 59° Cone

4	6	8
7/16"-20	9/16"-18	3/4"-16

### **Thread Types**

NM	NPT Male
JM	JIC 37° Flare Male
ВМ	BSPP Inverted 60° Cone Male
СМ	BSPP Male 120° Cone Male

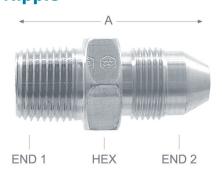
# MM Medium Pressure Male HM High Pressure Male UM UNF 59° Inverted Male

### **Material**

316 S 11 Stainless Steel
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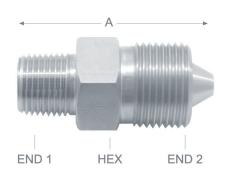
# NPT Male x MP Male Hexagon Nipple



Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	Size ins.
10-4NM-4MM-316 10-4NM-6MM-316 10-4NM-9MM-316 10-6NM-6MM-316 10-6NM-9MM-316 10-8NM-9MM-316	1/4"-18 1/4"-18 1/4"-18 3/8"-18 3/8"-18 1/2"-14	7/16"x20UNF R/H 9/16"x18 UNF R/H 13/16"x16 UNF R/H 9/16"x16 UNF R/H 13/16"x16 UNF R/H 13/16"x16 UNF R/H	1.63 1.87 1.91 1.87 1.91 2.14	5/8 3/4 1 3/4 1

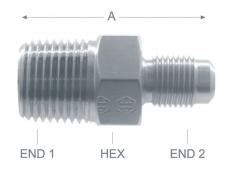
**Straight Connectors** 

### **NPT Male x HP Male Hex Nipple**



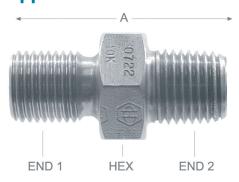
Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	A/F ins.
10-4NM-4HM-316	1/4"-18	9/16" x 18 UNF R/H	1.58	3/4
10-4NM-6HM-316	1/4"-18	3/4" x 16 UNF R/H	1.93	13/16
10-4NM-9HM-316	1/4"-18	1 1/8" x 12 UNF R/H	2.34	1.2
10-6NM-6HM-316	3/8"-18	3/4" x 16 UNF RIH	1.93	13/16
10-6NM-9HM-316	3/8"-18	1 1/8" x 12 UNF R/H	2.34	1.2
10-8NM-9HM-316	1/2"-14	1 1/8" x 12 UNF R/H	2.53	1.2

# NPT Male x BSP Male 120° Cone Hexagon Nipple



Part Number	Thread Size End 1	Thread Size End 2	A ins.	Hex A/F ins.
10-4NM-4CM-316	1/4"-18	1/4"-19	1.72	3/4
10-6NM-4CM-316	3/8"-18	1/4"-19	1.72	3/4
10-8NM-4CM-316	1/2"-14	1/4"-19	1.91	7/8

# BSPP Male 60° x NPT Male Cone Long Thread Hexagon Barstock Nipples



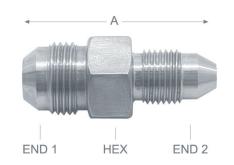
Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	A/F ins.
BN04LT04HN10K-SS	1/4"-19	1/4"-18	1.52	3/4
BN04LT06HN10K-SS	1/4"-19	3/8"-18	1.52	3/4
BN04LT08HN10K-SS	1/4"-19	1/2"-14	1.77	7/8
BN06LT06HN10K-SS	3/8"-19	3/8"-18	1.64	7/8
BN06LT08HN10K-SS	3/8"-19	1/2"-14	1.89	7/8



Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	A/F ins.
15-4JM-4MM-316	7/16"-20 TPI	7/16"x20 UNF R/H	1.62	3/4
15-4JM-6MM-316	7/16"-20 TPI	9/16"x18 UNF R/H	1.86	3/4
15-4JM-9MM-316	7/16"-20 TPI	13/16"x16 UNF R/H	1.90	1
15-6JM-4MM-316	9/16"-18 TPI	7/16"x20 UNF R/H	1.62	5/8
15-6JM-6MM-316	9/16"-18 TPI	9/16"x18 UNF R/H	1.86	3/4
15-6JM-9MM-316	9/16"-18 TPI	13/16"x16 UNF R/H	1.90	1
15-8JM-4MM-316	3/4"-16 TPI	7/16"x20 UNF R/H	1.73	13/16
15-8JM-6MM-316	3/4"-16 TPI	9/16"x18 UNF R/H	1.97	13/16
15-8JM-9MM-316	3/4"-16 TPI	13/16"x16 UNF R/H	2.01	1 1

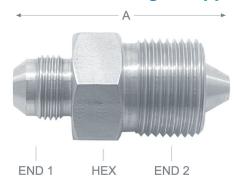
# **JIC Male x MP Hexagon Nipple**

**Straight Connectors** 



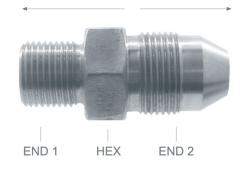
Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	A/F ins.
15-4JM-4HM-316 15-4JM-6HM-316 15-4JM-9HM-316 15-6JM-4HM-316 15-6JM-6HM-316 15-6JM-9HM-316 15-8JM-4HM-316 15-8JM-6HM-316 15-8JM-9HM-316	7/16"-20 TPI 7/16"-20 TPI 7/16"-20 TPI 9/16"-18 TPI 9/16"-18 TPI 9/16"-18 TPI 3/4"-16 TPI 3/4"-16 TPI	9/16"x18 UNF R/H 3/4"x16 UNF R/H 1-1/8"x12 UNF R/H 9/16"x18 UNF R/H 3/4"x16 UNF R/H 1-1/8"x12 UNF R/H 9/16"x18 UNF R/H 3/4"x16 UNF R/H 1-1/8"x12 UNF R/H	1.55 1.92 2.33 1.55 1.92 2.33 1.66 2.03 2.44	3/4 13/16 1.2 3/4 13/16 1.2 13/16 13/16

# IC Male x HP Male Hexagon Nipple



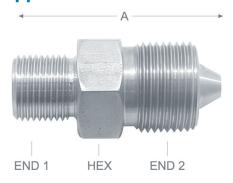
Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	A/F ins.
20-4BM-4MM-316 20-4BM-6MM-316 20-4BM-9MM-316 20-6BM-4MM-316 20-6BM-6MM-316 20-6BM-9MM-316 20-8BM-4MM-316 20-8BM-6MM-316 20-8BM-9MM-316 20-8BM-12MM-316	1/4"-19 1/4"-19 1/4"-19 3/8"-19 3/8"-19 3/8"-19 1/2"-14 1/2"-14 1/2"-14	7/16"x20 UNF R/H 9/16"x18 UNF R/H 13/16"x16 UNF R/H 7/16"x20 UNF R/H 9/16"x18 UNF R/H 13/16"x16 UNF R/H 7/16"x20 UNF R/H 9/16"x18 UNF R/H 13/16"x16 UNF R/H	1.70 1.94 1.98 1.75 1.99 2.03 1.84 2.08 2.14 2.54	3/4 3/4 1 15/16 15/16 1 1/16 1 1/16 1 1/16 1 1/8

# **BSPP Male x MP Hexagon Nipple**





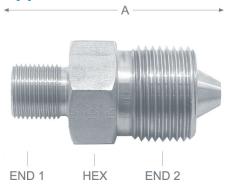
# **BSPP Male x HP Male Hexagon Nipple**



Part Number	Thread Size End 1	Thread Size End 2	A ins.	Hex A/F ins.
20-8BM-4HM-316	1/2"-14	9/16"x18 UNF R/H	1.77	1 1/16
20-8BM-6HM-316	1/2"-14	3/4"x16 UNF R/H	2.14	1 1/16
20-8BM-9HM-316	1/2"-14	1-1/8"x12 UNF R/H	2.57	1.2

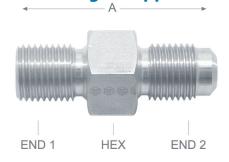
**Straight Connectors** 

# **BSPP Male x HP Male Hexagon Nipple**



Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	A/F ins.
30-4BM-4HM-316	1/4"-19	9/16"x18 UNF R/H	1.55	3/4
30-4BM-6H M-316	1/4"-19	3/4"x16 UNF R/H	1.92	13/16
30-4BM-9HM-316	1/4"-19	1-1/8"x12 UNF R/H	2.33	1.2
30-6BM-4HM-316	3/8"-19	9/16"x18 UNF R/H	1.55	3/4
30-6BM-6HM-316	3/8"-19	3/4"x16 UNF R/H	1.92	13/16
30-6BM-9HM-316	3/8"-19	1-1/8"x12 UNF R/H	2.33	12

### BSPP Male x BSPP Male 120° Cone Hexagon Nipple



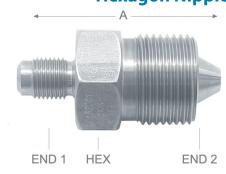
Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	ins.
30-4BM-4CM-316	1/4"-19	1/4"-19	1.79	3/4



Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	A/F ins.
30-4CM-4HM-316	1/4"-19	9/16"x18 UNF R/H	1.85	3/4
30-4CM-6HM-316	1/4"-19	3/4"x16 UNF R/H	2.09	13/16
30-4CM-9HM-316	1/4"-19	1-1/8"x12 UNF R/H	2.50	1.2

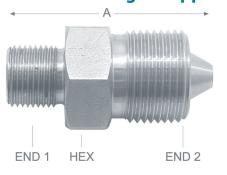
# BSPP Male 120° Cone x HP Male Hexagon Nipple

**Straight Connectors** 



Part Number	Thread	Thread	A	Hex
	Size End 1	Size End 2	ins.	A/F ins.
30-6UM-4HM-316 30-6UM-6HM-316 30-6UM-9HM-316 30-8UM-4HM-316 30-8UM-6HM-316	9/16"-18UN 9/16"-18UN 9/16"-18UN 3/4"-16UN 3/4"-16UN 3/4"-16UN	9/16"x18 UNF RIH 3/4"x16 UNF R/H 1-1/8"x12 UNF R/H 9/16"x18 UNF R/H 3/4"x16 UNF R/H 1-1/8"x12 UNF R/H	1.50 1.87 2.28 1.69 2.06 2.47	3/4 13/16 1.2 13/16 13/16 1.2

### 60° Inverted Cone Male x HP Male Hexagon Nipple





### **NPT Pressure Rating Statement**

When selecting the proper fitting for a specific pressure application, the key characteristics to evaluate is the manner in which the seal is formed. Although National Pipe Thread (NPT) fittings are the most common connections used on pressure instruments, they suffer limitations which render them inadequate for high pressure applications.

However, there is no universally accepted definition for high pressure the term is usually associated with levels in excess of 10,000 PSI.

On NPT fittings, the angle of the thread line (thread pitch) is tapered so that the seal is actually formed by the inter-meshing of the threads. To improve the seal and lubricate the threads, sealants such as PTFE tape or liquid seal are often used. This type of seal is simple and least susceptible to wear, however due to the gauging tolerances and sealing compounds used, it is very limited in its ability to maintain a complete seal at higher pressures.

Our recommendations for normal hydraulic service are 10,000 PSI maximum. The exception being Waterblast service, where the 2:5:1 safety factor can be applied, allowing 15,000 PSI working pressure. We restrict this to 1/4, 3/8 and 1/2 Male fittings only.

### **Thread Sizes**

The BSPP and NPT thread sizes stated in this catalogue are nominal sizes. For actual thread size see the following tables.

#### **NPT**

Inch Dash		Nominal Thread Size	Male Thread O.D. (Inch)		Female Thread I.D. (inch)	
Size Size	Fraction		Decimal	Fraction	Decimal	
1/8	-2	1/8-27	13/32	0.41	3/8	0.38
1/4	-4	1/4-18	17/32	0.54	1/2	0.49
3/8	-6	3/8-18	11/16	0.68	5/8	0.63
1/2	-8	1/2-14	27/32	0.84	25/32	0.77
3/4	-12	3/4-14	1 1/16	1.05	1	0.98
1	-16	1-11 1/2	1 5/16	1.32	1 1/4	1.24

#### **BSPP**

Inch	Dash	Nominal Thread	Male Thread O.D. (Inch)		Female Thread I.D. (inch)	
Size	Size	Size	mm	inch	mm	inch
1/8	-2	1/8-28	10.3	0.41	9.4	0.37
1/4	-4	1/4-19	13.7	0.54	12.4	0.49
3/8	-6	3/8-19	17.3	0.68	15.7	0.62
1/2	-8	1/2-14	21.3	0.84	19.3	0.76
5/8	-10	5/8-14	22.9	0.90	21.1	0.83
3/4	-12	3/4-14	26.9	1.06	24.9	0.98
1	-16	1-11	33.3	1.31	31.5	1.24













