



# Betabite Fittings



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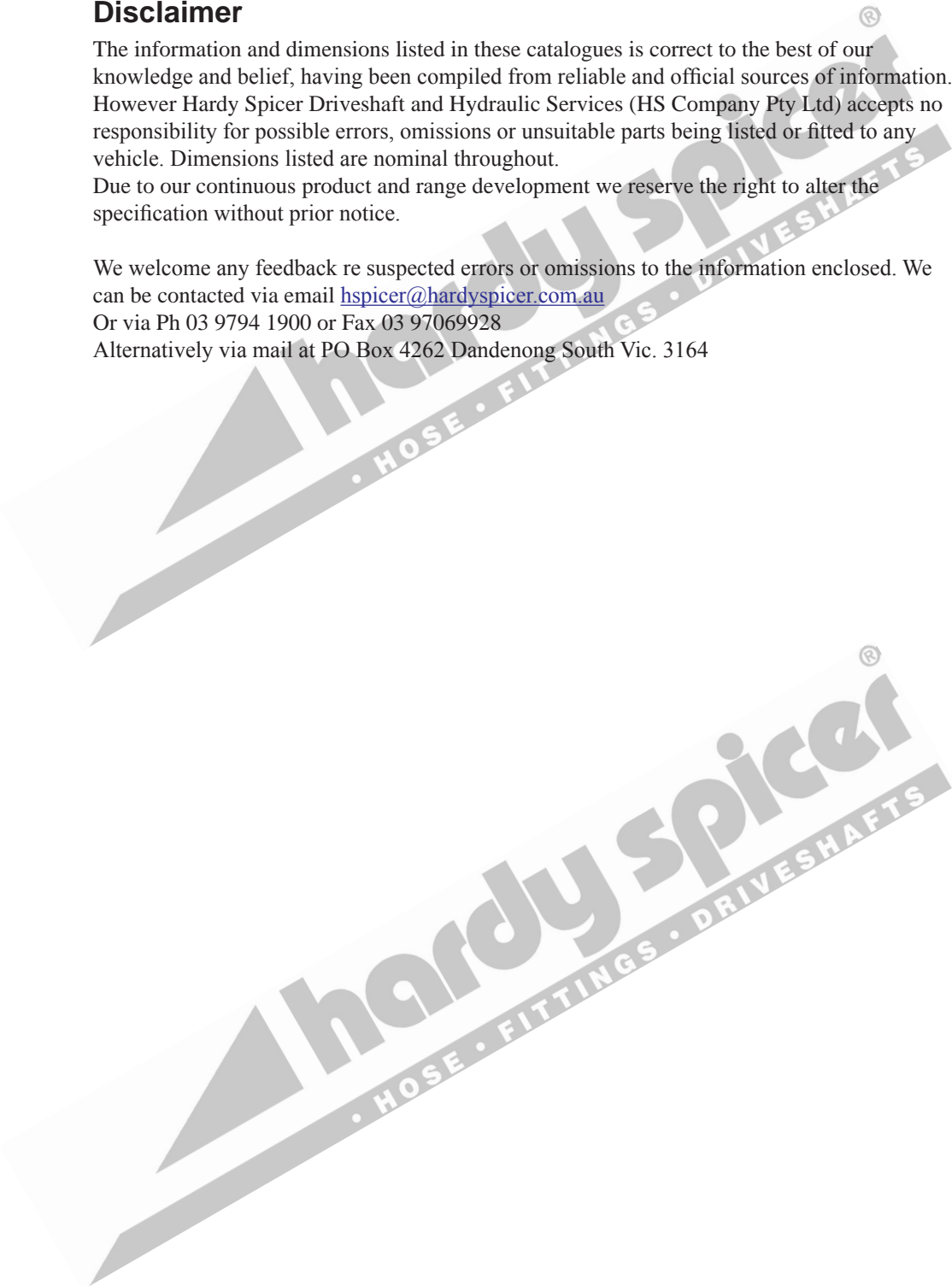
## BETABITE SYSTEM

### Disclaimer

The information and dimensions listed in these catalogues is correct to the best of our knowledge and belief, having been compiled from reliable and official sources of information. However Hardy Spicer Driveshaft and Hydraulic Services (HS Company Pty Ltd) accepts no responsibility for possible errors, omissions or unsuitable parts being listed or fitted to any vehicle. Dimensions listed are nominal throughout.

Due to our continuous product and range development we reserve the right to alter the specification without prior notice.

We welcome any feedback re suspected errors or omissions to the information enclosed. We can be contacted via email [hspicer@hardyspicer.com.au](mailto:hspicer@hardyspicer.com.au)  
 Or via Ph 03 9794 1900 or Fax 03 97069928  
 Alternatively via mail at PO Box 4262 Dandenong South Vic. 3164



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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM

### CONTENTS

#### IMPERIAL SIZES:

STRAIGHT COUPLINGS .....	D:6-8
BULKHEAD COUPLINGS .....	D:6-8
BSP PARALLEL MALE STUD COUPLINGS.....	D:6-9
BSP PARALLEL FEMALE STUD COUPLINGS .....	D:6-9
EQUAL ELBOWS .....	D:6-10
EQUAL TEES .....	D:6-10
BSP PARALLEL MALE STUD ELBOWS.....	D:6-11
BANJO COUPLINGS, type 'R'.....	D:6-11
BANJO COUPLINGS, type 'S'.....	D:6-12
BSP TAPER MALE STUD COUPLINGS.....	D:6-12
NPT TAPER MALE STUD COUPLINGS.....	D:6-13
NPT TAPER FEMALE STUD COUPLINGS.....	D:6-13
BSP TAPER MALE STUD ELBOWS.....	D:6-14
NPT TAPER MALE STUD ELBOWS.....	D:6-14
REDUCING COUPLINGS.....	D:6-15
REDUCING ADAPTORS .....	D:6-16
STUD STANDPIPE ADAPTORS.....	D:6-17
REDUCING STANDPIPES.....	D:6-17
NUTS AND FERRULES.....	D:6-18

#### METRIC SIZES:

STRAIGHT COUPLINGS .....	D:6-20
BSP TAPER MALE STUD COUPLINGS.....	D:6-21
BSP PARALLEL MALE STUD COUPLINGS.....	D:6-22
BSP PARALLEL FEMALE COUPLINGS .....	D:6-23
BULKHEAD COUPLINGS .....	D:6-24
EQUAL ELBOWS .....	D:6-25
BSP TAPER MALE STUD ELBOWS.....	D:6-26
BSP PARALLEL MALE STUD ELBOWS.....	D:6-26
BULKHEAD ELBOWS .....	D:6-27
SWIVEL ELBOWS .....	D:6-28
EQUAL TEES .....	D:6-29
BSP TAPER MALE BRANCH TEES .....	D:6-30
BSP PARALLEL MALE BRANCH TEES .....	D:6-30
BSP TAPER MALE BARREL TEES .....	D:6-31
BSP PARALLEL MALE BARREL TEES .....	D:6-31
SWIVEL BRANCH TEES .....	D:6-32
SWIVEL BARREL TEES .....	D:6-33
WELDING BOSSES .....	D:6-34
WELDING BULKHEADS .....	D:6-35
BLANKING PLUGS.....	D:6-36
STUD STANDPIPE ADAPTORS .....	D:6-37
BANJO COUPLINGS.....	D:6-38
REDUCING ADAPTORS 'L' SERIES.....	D:6-39
REDUCING ADAPTORS 'S' SERIES .....	D:6-40
NUTS & FERRULES.....	D:6-41

<b>HIGH PRESSURE VALVES .....</b>	<b>D:6-42</b>
-----------------------------------	---------------

<b>NON-RETURN VALVES .....</b>	<b>D:6-42</b>
--------------------------------	---------------

<b>SHUT-OFF VALVES.....</b>	<b>D:6-44</b>
-----------------------------	---------------

<b>COLD DRAWN SEAMLESS ANNEALED TUBE.....</b>	<b>D:6-46</b>
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www.hardyspicer.com.au

Document No:	HSYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM

We believe this concise catalogue covers effectively the essential range of mild steel tube couplings required by the majority of users of this type of equipment.

Due to the new characteristics of the "BETA-BITE" ferrule, ease of assembly is assured, and even relatively unskilled labour can simply and efficiently produce perfect pressure-tight joints.

Technical information is available at any time, regarding pressures, temperatures, materials, suitability, etc., and our technical representatives will be pleased to demonstrate these fittings. They will also offer advice on any relative problem which may be involved.

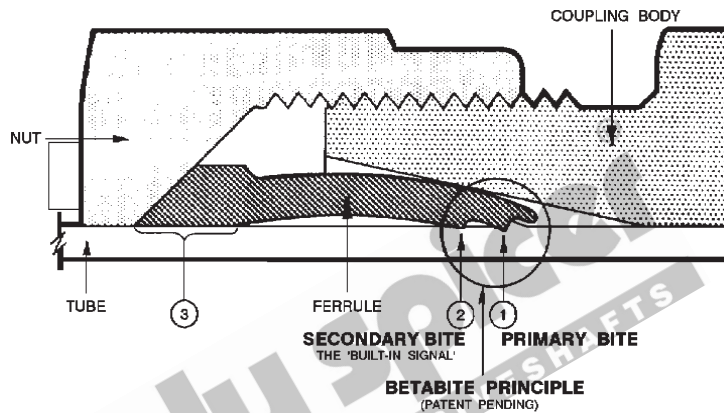
For use with both outside diameter and nominal bore steel tubes. These couplings are precisely manufactured to close tolerances and are carefully finished to present a first-class appearance when installed in position. By the use of the adaptors illustrated, specials are reduced to a minimum, although enquiries for types and sizes not listed are welcomed.

Every care is taken throughout each stage of manufacture to ensure that only first-class fittings leave our factory. This includes the use of crack detected materials for nuts and ferrules.



### The 'BETABITE SYSTEM' of modern tube couplings with a 'BUILT-IN SIGNAL'.

As the coupling nut is progressively tightened, the ferrule moves forward along the tube, and as the front outer portion of the ferrule is forced against the inner taper in the body of the coupling the front cutting edge (1) of the ferrule cuts cleanly into contact with the surface of the tube and a sharp increase in torque will occur. At this stage no further action is necessary. The rear end of the ferrule clamps firmly on to the tube (3) providing a perfect anti-vibration lock.



A person making the joint will "feel" when a perfect joint has been made. At this critical point there is a "built-in signal".

There will be considerably less possibility of over-tightening and "necking" of thin wall tubes will be avoided.

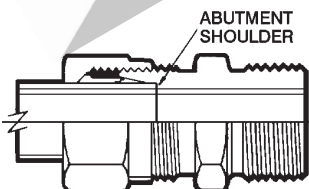
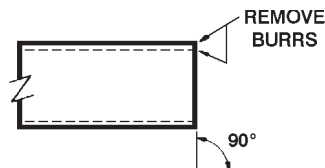
The joint may be broken and re-made repeatedly without affecting the sealing properties of the unit.

## ASSEMBLY INSTRUCTIONS

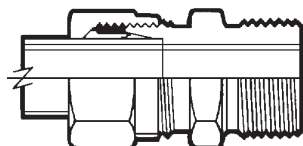
We always recommend that joints are pre-made whilst holding the coupling body in a bench vice whenever possible.

Always check that the moving parts are adequately lubricated before assembly.

Cut tube to length required, making sure ends are as square and as clean as possible.



Insert the tube into the body, making sure that it butts firmly onto the shoulder provided.



Holding the body portion in a vice or with a separate spanner, rotate the nut until a satisfactory joint has been completed.

www.hardyspicer.com.au	
Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM

### GENERAL INFORMATION

Betabite couplings may be used with either steel or copper tubes, but where high vibration stresses are involved, the use of copper tube is not recommended and a heavier gauge of steel tube is preferred. Two tables are shown giving details of tube wall thickness'. 1. Minimum wall thickness for which Betabite couplings are suitable (either steel or copper tubes) and 2. Recommended minimum wall thickness' where high vibration stresses are involved (steel tubes only).

1	OUTSIDE DIA. OF TUBE	MINIMUM WALL THICKNESS
	1/4 to 3/8	20 sg. 0.036
	1/2 to 5/8	18 sg. 0.48
	3/4 to 1-1/4	16 sg. 0.064
	1-1/2	14 sg. 0.90

2	OUTSIDE DIA. OF TUBE	MINIMUM WALL THICKNESS
	1/4 to 1/2	16 sg. 0.064
	5/8 to 1	14 sg. 0.80
	1-1/4 to 1-1/2	12 sg. 0.104

Betabite couplings are suitable for the following working pressures: up to and including:

1" O.D.	10,000 psi. hydraulic or 5,000 psi. gas.
1-1/4" O.D.	8,000 psi. hydraulic or 4,000 psi. gas.
1-1/2" O.D.	6,000 psi. hydraulic or 3,000 psi. gas.

Please note that the pressures for which Betabite couplings are suitable does not necessarily relate to the tube wall thickness tables listed above. Tubes of heavier gauge should be used for higher pressures and adverse working conditions.

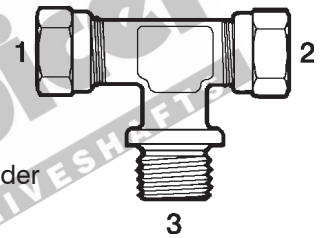
O.D. tubes are manufactured to close tolerances with a wide range of available sizes and a good surface finish and are eminently suitable for use with Betabite couplings.

### NOTES WHEN ORDERING

Whilst the range of fittings illustrated and listed in this catalogue is as comprehensive as is usually deemed necessary, we are always pleased to quote for items which are not listed.

To order non-listed items, please specify as follows:-

- Describe type of fitting, e.g., male coupling, male elbow, etc.
- Designate size of tube to be used.
- Specify connecting thread required (if applicable).
- in the case of tee fittings, specify each end of the tee in the order shown on the illustration.



### NOMINAL BORE FITTINGS

For NOMINAL BORE type couplings, contact your distributor.

Nominal bore fittings are suitable for nominal bore tubes with diameters as set out in British Standard Specifications BS. 1387:1957 medium or heavy or BS. 3602:1962.

To obtain the best results, solid drawn tube, annealed and descaled or electric resistance welded tube with an ultimate tensile strength of approximately 22 tons per square inch are preferable.

Nominal bore fittings are available to suit tubes 1/8" nominal bore to 1-1/2" nominal bore inclusive and are suitable for the following pressures:-

Up to and including:	
3/4" N.B.	10,000 psi. hydraulic or 5,000 psi. gas.
1" N.B.	8,000 psi. hydraulic or 4,000 psi. gas.
1-1/4" N.B.	6,000 psi. hydraulic or 3,000 psi. gas.
1-1/2" N.B.	5,000 psi. hydraulic or 2,500 psi. gas.

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007



## BETABITE SYSTEM

### BASIC DIMENSIONS OF NOMINAL BORE TUBES ( AS LISTED IN BS. 1387:1957)

NOMINAL BORE	FRACTIONAL OUTSIDE DIA.	MAXIMUM DIAMETER	MINIMUM DIAMETER
1/8	13/32	.411	.386
1/4	17/32	.547	.522
3/8	11/16	.685	.660
1/2	27/32	.856	.831
3/4	1-1/16	1.072	1.047
1	1-11/32	1.346	1.316
1-1/4	1-11/16	1.687	1.657
1-1/2	1-29/32	1.919	1.889

NOTE: IF API PIPING IS TO BE USED, BETABITE FITTINGS ARE SUITABLE FOR THE 1/8,1/4,3/8,1/2,3/4, and 1-1/2" SIZES.

For information regarding threads, method of ordering, etc., the notes on this and the previous page apply equally to both nominal bore and outside diameter fittings.

All fittings are precisely manufactured to close tolerances with every care taken to present a first-class finish. All parts are cadmium plated, and the couplings are suitably lubricated before dispatch. All male threaded couplings are fitted with suitable thread protectors.

## THREADS

Whilst the British Standard Taper Pipe Thread (abbreviated to BSTPT. or BSPT.) is still used in the U.K., by far the most popular in the U.K. and in certain Commonwealth countries is the British Standard Parallel Pipe Thread (abbreviated to BSPPT. or BSP). Unfortunately there are no equivalent interchangeable threads in the metric, unified or American thread ranges.

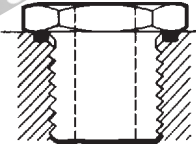
## GASKET SEALING OF THREADS

When copper washers are to be used for port thread sealing, it is recommended that for pressures above 1,000 p.s.i. the port thread entry should be counterbored to shroud the washer. For pressures above 2,500 p.s.i. it is recommended that steel/rubber bonded washers similar to the "Dowty" bonded washer, or the "O" ring method of sealing be adopted. Illustrations of these methods are shown below.

## THREAD SPECIFICATIONS



Illustration of port thread sealing using a standard copper washer.



For higher pressure it is recommended that the female thread should be counterbored to suit the copper washer.

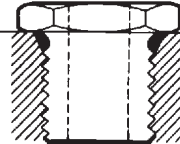


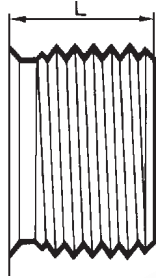
Illustration of 'O' Ring method of sealing, suitable for high pressure installation. Details of 'O' Ring seating supplied on request.

www.hardyspicer.com.au	
Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM

### BSP PARALLEL

The British Standard Parallel Pipe Thread, for use where pressure tight joints are not made on the threads is probably the most commonly used thread in the hydraulics industry. Either copper washers or bonded seals are necessary to obtain a pressure tight joint between the male thread hexagon and the port thread entrance.



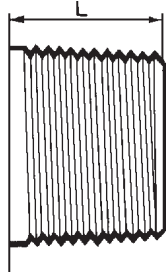
SIZE	TPI.	LENGTH
1/8	28	3/8
1/4	19	7/16
3/8	19	1/2
1/2	14	5/8
3/4	14	3/4
1	11	7/8
1-1/4	11	1
1-1/2	11	1

Threads to B.S. Spec: 2779:1956. Undercuts to B.S. Spec: 1936:1952

### BSP TAPER

The British Standard Taper Pipe Thread, for use where pressure tight joints are made on the threads.

A dryseal joint is not normally practicable with this thread, and the use of a suitable thread sealing compound is usually found to be necessary. It is common practice to use this taper male thread in conjunction with the parallel female thread.



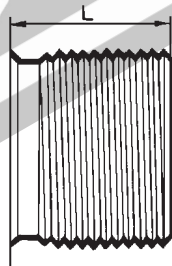
SIZE	TPI.	LENGTH
1/8	28	3/8
1/4	19	7/16
3/8	19	1/2
1/2	14	5/8
3/4	14	3/4
1	11	7/8
1-1/4	11	1
1-1/2	11	1

Threads to B.S. Spec: 21:1957

### UNIFIED

The unified thread series was established by representatives of the United Kingdom, America and Canada with the object of obtaining screw thread interchangeability among these countries.

Whilst this thread has excellent characteristics it has not as yet "caught on" to any appreciable extent in the hydraulics field.



SIZE	TPI.	LENGTH
7/16	20	7/16
9/16	18	1/2
3/4	16	9/16
7/8	14	5/8
1-1/8	12	3/4
1-1/4	12	3/4
1-3/8	12	3/4
1-1/2	12	13/16

Threads to B.S. Spec: 1580:1962. Undercuts suitable for 'O' Ring Sealing.

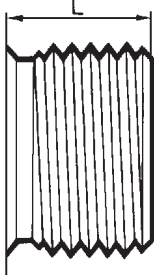
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Document No:	HSYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM

### SAE

The SAE (NF) series of threads established by the Society of Automotive Engineers of American for use throughout the automotive industry. Either copper washers, bonded seals of "O" rings are necessary to obtain a pressure tight joint between the male thread hexagon and the port thread hexagon and the port thread entrance.

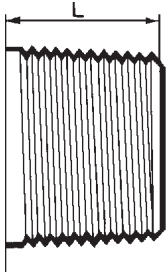


SIZE	TPI.	LENGTH
7/16	20	0.360
1/2	20	0.360
9/16	18	0.391
3/4	16	0.438
7/8	14	0.500
1-1/16	12	0.594
1-3/16	12	0.594
1-5/16	12	0.594
1-5/8	12	0.594

Threads to B.S. Spec: 2779:1956. Undercuts to B.S. Spec: 1936:1952

### NPTF. (DRYSEAL)

The American Dryseal Taper Pipe Thread (N.P.T.F) is based on the original Briggs system and is closely akin to the American Petroleum Institute Thread (A.P.I.) and the National Taper Pipe Thread (N.P.T.). When using this thread in conjunction with a taper female thread it is quite possible to obtain pressure tight joints without the use of a thread sealing compound.



SIZE	TPI.	LENGTH
1/8	27	3/8
1/4	18	3/8
3/8	18	9/16
1/2	14	9/16
3/4	14	3/4
1	11-1/2	15/16
1-1/4	11-1/2	31/32
1-1/2	11-1/2	1

Threads to B.S. Spec: 2779:1956. Undercuts to B.S. Spec: 1936:1952

www.hardyspicer.com.au

Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007



**BETABITE SYSTEM****STEEL AND STAINLESS STEEL  
HIGH PRESSURE TUBE COUPLINGS  
IMPERIAL SIZES****MILD STEEL COUPLINGS**

Betabite tube fittings manufactured from mild steel are suitable for outside diameter and nominal bore tubes.

These couplings conform to British Standard BS.2051, Part 3:1954, and are suitable for O.D. tubes 1/4" O.D. to 1-1/2" O.D. inclusive and 1/8" N.B. to 1-1/2" N.B. inclusive.

**MATERIAL**

In all cases the body portion and nut is manufactured from mild steel and cadmium plated. The ferrule is produced from a special controlled carbon steel, suitably heat treated and cadmium plated.

In all cases the nut and ferrule material is purchased in the crack detected condition. When fittings are to be used for installations where temperatures are in excess of 260 C, this information should be specified with full details of the conditions involved. All couplings supplied in the assembled condition have the compression threads suitably lubricated ready for use.

In all cases, male threaded couplings are fitted with suitable thread protectors. All nuts have the relevant tube size clearly marked apart from the coding symbol on the coupling body.

**STAINLESS STEEL COUPLINGS**

Betabite tube fittings are available manufactured from stainless steel and are suitable for both outside diameter and nominal bore tubes.

These couplings conform to British Standard BS.3439:1961, and are produced in sizes up to an including 1"O.D. and up to and including 3/4" N.B.

**MATERIAL**

In all cases the body portion is manufactured from stainless steel to Spec. EN 58J. The sealing ferrules are available in either Spec. S80 or Spec. FV520. (This latter specification being more resistant to corrosion). Under normal circumstances the nut is supplied in mild steel, cadmium plated, as this portion of the coupling does not come into contact with corrosive mediums passing through the tubes. However, where corrosive atmospheres apply or in cases where the nuts would come into direct contact with corrosive fluids or gases, stainless steel nuts are available.

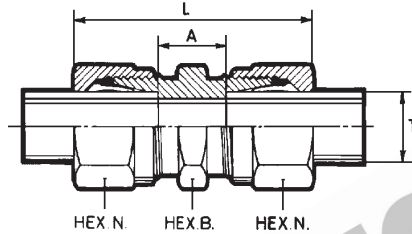
It should be noted with stainless steel nuts that there is a possibility of thread seizure due to the similar grades of material and extra care should be taken during assembly. Where fittings are to be used for installations where temperatures are in excess of 343 C this information should be specified with full details of the conditions involved.

**THE STAINLESS STEEL TYPES ARE IDENTIFIED BY THE SUFFIX "S.S".**

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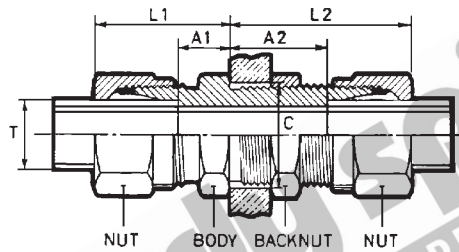
Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



### STRAIGHT COUPLINGS for O.D. Tubes

PART NUMBER T	TUBE DIAMETER N A/F	NUT HEXAGON B A/F	BODY HEXAGON A	TUBE ABUTMENT L	O/A LENGTH
SC4-4	1/4	.710	.600	5/16	1-23/32
SC5-5	5/16	.710	.710	3/8	1-25/32
SC6-6	3/8	.820	.710	3/8	1-13/16
SC8-8	1/2	.920	.820	7/16	1-15/16
SC10-10	5/8	1.10	.920	7/16	2
SC12-12	3/4	1.20	1.10	1/2	2-1/8
SC14-14	7/8	1.39	1.20	9/16	2-5/16
SC16-16	1	1.67	1.48	11/16	2-9/16
SC20-20	1-1/4	2.05	1.67	15/16	2-7/8
SC24-24	1-1/2	2.22	2.05	1	3-1/8



### BULKHEAD COUPLINGS for O.D. Tubes

PART No.	TUBE Dia. T	HEXAGONS A/F		TUBE ABUTMENT		OVERALL LENGTH		CLEARANCE HOLE Dia. C
		NUT	BODY & BACKNUT	A1	A2	L1	L2	
BH4-4	1/4	.710	.820	9/32	29/32	1	1-5/8	9/16
BH5-5	5/16	.710	.820	5/16	15/16	1-1/32	1-21/32	19/32
BH6-6	3/8	.820	.920	3/8	1	1-3/32	1-23/32	11/16
BH8-8	1/2	.920	1.10	13/32	1-1/32	1-5/32	1-25/32	13/16
BH10-10	5/8	1.10	1.20	3/8	1	1-5/32	1-25/32	15/16
BH12-12	3/4	1.20	1.39	7/16	1-1/16	1-1/4	1-7/8	1-1/16
BH14-14	7/8	1.39	1.48	1/2	1-1/8	1-3/8	2	1-3/16
BH16-16	1	1.67	1.86	19/32	1-7/32	1-17/32	2-5/32	1-7/16
BH20-20	1-1/4	2.05	11/16	1-5/16	1-21/32	2-9/32	1-11/16	
BH24-24	1-1/2	2.22	2.41	3/4	1-3/8	1-13/16	2-7/16	2

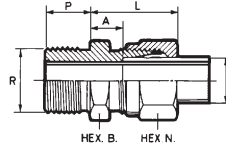
All dimensions are in INCHES

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Document No:	HSHYDCAT
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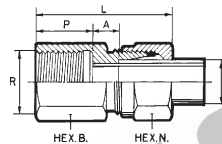
THE ABOVE COUPLINGS ARE SUITABLE FOR BULKHEADS WITH A MAXIMUM THICKNESS OF 1/2".

## BETABITE SYSTEM



### BSP PARALLEL MALE STUD COUPLINGS for O.D. Tubes

PART NUMBER	TUBE Dia. T	BSP THREAD R	NUT HEXAGON N	BODY HEXAGON B	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH L
MC4-2	1/4	1/8	.710	.600	9/32	3/8	31/32
MC4-4	1/4	1/4	.710	.710	9/32	7/16	31/32
MC4-6	1/4	3/8	.710	.920	11/32	1/2	1-1/32
MC5-4	5/16	1/4	.710	.710	5/16	7/16	1
MC6-4	3/8	1/4	.820	.710	5/16	7/16	1-1/32
MC6-6	3/8	3/8	.820	.920	3/8	1/2	1-3/32
MC6-8	3/8	1/2	.820	1.10	7/16	5/8	1-5/32
MC8-4	1/2	1/4	.920	.820	11/32	7/16	1-3/32
MC8-6	1/2	3/8	.920	.920	13/32	1/2	1-5/32
MC8-8	1/2	1/2	.920	1.10	15/32	5/8	1-7/32
MC8-12	1/2	3/4	.920	1.30	19/32	3/4	1-11/32
MC10-8	5/8	1/2	1.10	1.10	7/16	5/8	1-7/32
MC10-12	5/8	3/4	1.10	1.30	9/16	3/4	1-11/32
MC12-8	3/4	1/2	1.20	1.10	7/16	5/8	1-1/4
MC12-12	3/4	3/4	1.20	1.30	9/16	3/4	1-3/8
MC14-12	7/8	3/4	1.39	1.30	1/2	3/4	1-3/8
MC14-16	7/8	1	1.39	1.67	5/8	7/8	1-1/12
MC16-12	1	3/4	1.67	1.48	19/32	3/4	1-17/32
MC16-16	1	1	1.67	1.67	21/32	7/8	1-19/32
MC16-20	1	1-1/4	1.67	2.05	23/32	1	1-21/32
MC20-16	1-1/4	1	2.05	1.67	3/4	7/8	1-23/32
MC20-20	1-1/4	1-1/4	2.05	2.05	13/16	1	1-25/32
MC20-24	1-1/4	1-1/2	2.05	2.22	7/8	1	1-27/32
MC24-20	1-1/2	1-1/4	2.22	2.05	13/16	1	1-7/8
MC24-24	1-1/2	1-1/2	2.22	2.22	7/8	1	1-15/16



### BSP PARALLEL FEMALE STUD COUPLINGS for O.D. Tubes

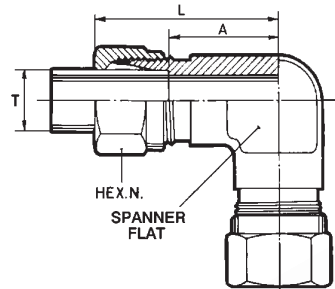
PART NUMBER	TUBE Dia. T	BSP THREAD R	NUT HEXAGON N	BODY HEXAGON B	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH L
FC4-2	1/4	1/8	.710	.600	7/32	3/8	1-9/32
FC4-4	1/4	1/4	.710	.710	7/32	7/16	1-11/32
FC4-6	1/4	3/8	.710	.920	7/32	1/2	1-13/32
FC6-4	3/8	1/4	.820	.710	1/4	7/16	1-13/32
FC6-6	3/8	3/8	.820	.920	1/4	1/2	1-15/32
FC6-8	3/8	1/2	.820	1.10	5/16	5/8	1-21/32
FC8-4	1/2	1/4	.920	.820	3/16	7/16	1-3/8
FC8-6	1/2	3/8	.920	.920	9/32	1/2	1-17/32
FC8-8	1/2	1/2	.920	1.10	11/32	5/8	1-23/32
FC8-12	1/2	3/4	.920	1.30	11/32	3/4	1-27/32
FC10-8	5/8	1/2	1.10	1.10	5/16	5/8	1-23/32
FC12-12	3/4	3/4	1.20	1.30	5/16	3/4	1-7/8
FC14-12	7/8	3/4	1.39	1.30	5/16	3/4	1-15/16
FC16-16	1	1	1.67	1.67	11/32	7/8	2-5/32
FC20-20	1-1/4	1-1/4	2.05	2.05	1/2	1	2-15/32
FC24-24	1-1/2	1-1/2	2.22	2.22	1/2	1	2-9/16

All dimensions are in INCHES

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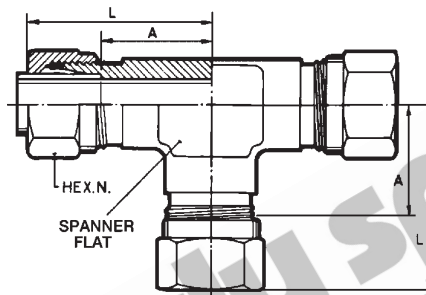
Document No:	HSYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



### EQUAL ELBOWS for O.D. Tubes

PART NUMBER	TUBE DIAMETER T	NUT HEXAGON N	A/F SPANNER FLAT	TUBE ABUTMENT A	O/A LENGTH L
E4-4	1/4	.710	.468	21/32	1-3/8
E5-5	5/16	.710	.600	23/32	1.7/16
E6-6	3/8	.820	.600	13/16	1-17/32
E8-8	1/2	.920	.710	31/32	1-23/32
E10-10	5/8	1.10	.820	1-1/16	1-27/32
E12-12	3/4	1.20	1.10	1-5/16	2-1/8
E14-14	7/8	1.39	1.10	1-7/16	2-5/16
E16-16	1	1.67	1.30	1-19/32	2-17/32
E20-20	1-1/4	2.05	1.56	1-15/16	2-29/32
E24-24	1-1/2	2.22	1.80	2-5/16	3-3/8



### EQUAL TEES for O.D. Tubes

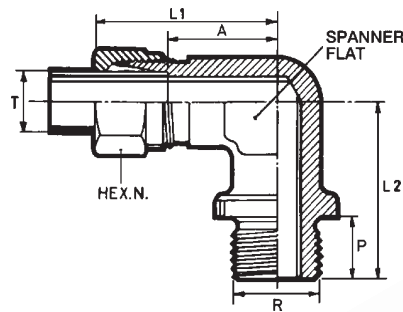
PART NUMBER	TUBE Dia. T	NUT HEXAGON N	A/F SPANNER FLAT	TUBE ABUTMENT A1	TUBE ABUTMENT A2	O/A LENGTH L1	O/A LENGTH L2
T4-4-4	1/4	.710	.50	21/32	15/32	1-3/8	1-3/16
T5-5-5	5/16	.710	.50	23/32	9/16	1-1/16	1-9/32
T6-6-6	3/8	.820	.710	13/16	5/8	1-17/32	1-11/32
T8-8-8	1/2	.920	.710	31/32	23/32	1-23/32	1-15/32
T10-10-10	5/8	1.10	.96	1-1/16	3/4	1-27/32	1-17/32
T12-12-12	3/4	1.20	.96	1-5/16	7/8	2-1/8	1-11/16
T14-14-14	7/8	1.39	1.10	1-7/16	15/16	2-5/16	1-13/16
T16-16-16	1	1.67	1.30	1-19/32	1-3/32	2-17/32	2-1/32
T20-20-20	1-1/4	2.05	1.56	1-15/16	1-3/8	2-29/32	2-11/32
T24-24-24	1-1/2	2.22	1.80	2-5/16	1-9/16	3-3/8	2-5/8

All dimensions are in INCHES

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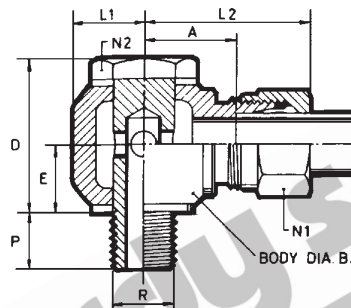
Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## BSP PARALLEL MALE STUD ELBOWS for O.D. Tubes

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	A/F SPANNER FLAT A	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH	
							L1	L2
ME4-2	1/4	1/8	.710	.468	11/16	3/8	1-3/8	1-1/32
ME4-4	1/4	.710	.600	25/32	7/16	1-15/32	1-3/16	
ME5-4	5/16	1/4	.710	.600	13/16	7/16	1-1/2	1-3/16
ME6-4	3/8	1/4	.820	.600	13/16	7/16	1-17/32	1-3/16
ME6-6	3/8	3/8	.820	.710	1-1/16	1/2	1-25/32	1-1/2
ME8-6	1/2	3/8	.920	.710	1-3/32	1/2	1-27/32	1-1/2
ME8-8	1/2	1/2	.920	.820	1-11/32	5/8	2-3/32	1-7/8
ME10-8	5/8	1/2	1.10	.820	1-5/16	5/8	2-3/32	1-7/8
ME12-8	3/4	1/2	1.20	1.10	1-5/16	5/8	2-1/8	1-7/8
ME12-12	3/4	3/4	1.20	1.10	1-9/16	3/4	2-3/8	2-1/4
ME14-12	7/8	3/4	1.39	1.10	1-15/32	3/4	2-11/32	2
ME16-12	1	3/4	1.67	1.30	1-19/32	3/4	2-17/32	2-1/4
ME16-16	1	1	1.67	1.56	1-27/32	7/8	2-25/32	2-9/16
ME20-20	1-1/4	1	2.05	1.56	1-15/16	7/8	2-29/32	2-9/16
ME20-20	1-1/4	1-1/4	2.05	1.80	2-5/16	1	3-9/32	3
ME24-24	1-1/2	1-1/2	2.22	1.80	2-3/8	1	3-7/16	3



## BANJO COUPLINGS, type 'R' for O.D. Tubes

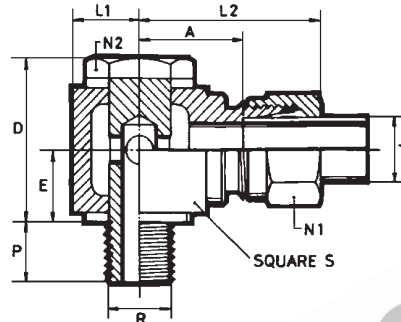
PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEX. N1	BOLT HEX. N2	TUBE ABUT. A	THREAD LENGTH P	C/L TO FACE E	LENGTH D	BODY DIA. B	O/A LENGTH	
										L1	L2
BJ4-2	1/4	1/8	.710	.600	11/16	5/16	15/32	1-1/8	1	7/16	1-13/32
BJ4-4	1/4	1/4	.710	.710	3/4	3/8	15/32	1-3/16	1-1/8	1/2	1-15/32
BJ5-4	5/16	1/4	.710	.710	3/4	3/8	17/32	1-5/16	1-1/8	1/2	1-15/32
BJ6-4	3/8	1/4	.820	.710	3/4	3/8	17/32	1-5/16	1-1/4	9/16	1-15/32
BJ6-6	3/8	3/8	.820	.920	7/8	7/16	17/32	1-5/16	1-3/8	5/8	1-19/32
BJ8-6	1/2	3/8	.920	.920	15/16	7/16	19/32	1-7/16	1-1/2	11/16	1-11/16
BJ8-8	1/2	1/2	.920	1.10	1-1/16	9/16	21/32	1-9/16	1-5/8	3/4	1-13/16
BJ10-8	5/8	1/2	1.10	1.10	1-1/16	9/16	3/4	1-3/4	1-3/4	13/16	1-27/32
BJ12-8	3/4	1/2	1.20	1.10	1-1/16	9/16	3/4	1-25/32	1-7/8	7/8	1-7/8
BJ12-12	3/4	3/4	1.20	1.30	1-3/16	11/16	3/4	1-13/16	2	7/8	2
BJ14-12	7/8	3/4	1.39	1.30	1-1/4	11/16	29/32	2-1/8	2-1/8	1	2-1/8
BJ14-16	7/8	1	1.39	1.67	1-1/2	13/16	29/32	2-5/16	2-3/8	1-1/8	2-3/8

All dimensions are in INCHES

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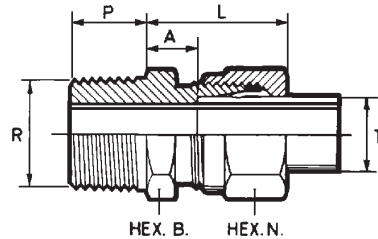
Document No:	HSYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## BANJO COUPLINGS, type 'S' for O.D. Tubes

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEX. N1	BOLT HEX. N2	TUBE ABUT. A	THREAD LENGTH P	C/L TO FACE E	LENGTH D	BODY DIA. S	O/A LENGTH	
										L1	L2
BJ16-12	1	3/4	1.67	1.30	1-23/32	11/16	1-13/32	3-3/16	2	1	2-21/32
BJ16-16	1	1	1.67	1.67	1-27/32	15/16	1-13/32	3-3/8	2-1/4	1-1/8	2-25/32
BJ20-16	1-1/4	1	2.05	1.67	1-15/16	15/16	1-13/32	3-3/8	2-1/4	1-1/8	2-29/32
BJ20-20	1-1/4	1-1/4	2.05	2.05	2-3/16	15/16	1-23/32	4-1/16	2-1/2	1-1/4	3-5/32
BJ24-20	1-1/2	1-1/4	2.22	2.05	2-3/16	15/16	1-23/32	4-1/16	2-1/2	1-1/4	3-1/4
BJ24-24	1-1/2	1-1/2	2.22	2.22	2-7/16	1-1/16	1-31/32	4-3/4	3	1-1/2	3-1/2



## BSP TAPER MALE STUD COUPLINGS for O.D. Tubes

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	BODY HEXAGON B	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH L
MC4-2T	1/4	1/8	.710	.600	9/32	3/8	31/32
MC4-4T	1/4	1/4	.710	.600	9/32	7/16	31/32
MC4-6T	1/4	3/8	.710	.710	9/32	1/2	31/32
MC5-4T	5/16	1/4	.710	.710	5/16	7/16	1
MC6-4T	3/8	1/4	.820	.710	5/16	7/16	1-1/16
MC6-6T	3/8	3/8	.820	.710	5/16	1/2	1-1/16
MC6-8T	3/8	1/2	.820	.920	3/8	5/8	1-1/16
MC8-4T	1/2	1/4	.920	.820	11/32	7/16	1-3/32
MC8-6T	1/2	3/8	.920	.820	11/32	1/2	1-3/32
MC8-8T	1/2	1/2	.920	.920	13/32	5/8	1-3/32
MC10-8T	5/8	1/2	1.10	9.20	3/8	5/8	1-5/32
MC12-8T	3/4	1/2	1.20	1.10	7/16	5/8	1-1/4
MC12-12T	3/4	3/4	1.20	1.10	7/16	3/4	1-1/4
MC14-12T	7/8	3/4	1.39	1.20	1/2	3/4	1-3/8
MC16-12T	1	3/4	1.67	1.48	19/32	3/4	1-17/32
MC16-16T	1	1	1.67	1.48	19/32	7/8	1-17/32
MC20-16T	1-1/4	1	2.05	1.67	3/4	7/8	1-3/4
MC20-20T	1-1/4	1-1/4	2.05	1.86	3/4	1	1-3/4
MC24-20T	1-1/2	1-1/4	2.22	2.05	13/16	1	1-7/8
MC24-24T	1-1/2	1-1/2	2.22	2.05	13/16	1	1-7/8

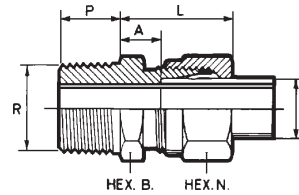
All dimensions are in INCHES

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

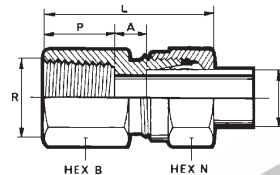


## BETABITE SYSTEM



### NPT TAPER MALE STUD COUPLINGS for O.D. Tubes

PART NUMBER	TUBE Dia. T	API. THREAD R	NUT HEXAGON N	BODY HEXAGON B	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH L
#MC4-2AT	1/4	1/8	.710	.600	9/32	13/32	31/32
#MC4-4AT	1/4	1/4	.710	.600	9/32	19/32	31/32
#MC4-6AT	1/4	3/8	.710	.710	9/32	5/8	31/32
#MC5-4AT	5/16	1/4	.710	.710	5/16	19/32	1
#MC6-4AT	3/8	1/4	.820	.710	5/16	19/32	1-1/16
#MC6-6AT	3/8	3/8	.820	.710	5/16	5/8	1-1/16
#MC6-8AT	3/8	1/2	.820	.920	3/8	25/32	1-3/32
#MC8-4AT	1/2	1/4	.920	.820	11/32	19/32	1-3/32
#MC8-6AT	1/2	3/8	.920	.820	11/32	5/8	1-3/32
#MC8-8AT	1/2	1/2	.920	.920	13/32	25/32	1-5/32
#MC10-8AT	5/8	1/2	1.10	.920	3/8	25/32	1-5/32
#MC12-8AT	3/4	1/2	1.20	1.10	7/16	25/32	1-1/4
#MC12-12AT	3/4	3/4	1.20	1.10	7/16	13/16	1-1/4
#MC14-12AT	7/8	3/4	1.39	1.20	1/2	13/16	1-3/8
#MC16-12AT	1	3/4	1.67	1.48	19/32	13/16	1-17/32
#MC16-16AT	1	1	1.67	1.48	19/32	1	1-17/32
#MC20-16AT	1-1/4	1	2.05	1.67	3/4	1	1-23/32
#MC20-20AT	1-1/4	1-1/4	2.05	1.86	13/16	1	1-25/32
#MC24-20AT	1-1/2	1-1/4	2.22	2.05	13/16	1	1-7/8
#MC24-24AT	1-1/2	1-1/2	2.22	2.05	13/16	1-1/32	1-7/8



### NPT TAPER FEMALE STUD COUPLINGS for O.D. Tubes

PART NUMBER	TUBE Dia. T	API. THREAD R	NUT HEXAGON N	BODY HEXAGON B	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH L
#FC4-2AT	1/4	1/8	.710	.600	7/32	13/32	1-5/16
#FC4-4AT	1/4	1/4	.710	.710	7/32	19/32	1-1/2
#FC4-6AT	1/4	3/8	.710	.920	7/32	5/8	1-17/32
#FC6-4AT	3/8	1/4	.820	.710	7/32	19/32	1-17/32
#FC6-6AT	3/8	3/8	.820	.920	1/4	5/8	1-19/32
#FC6-8AT	3/8	1/2	.820	1.10	9/32	25/32	1-25/32
#FC8-4AT	1/2	1/4	.920	.820	3/16	19/32	1-17/32
#FC8-6AT	1/2	3/8	.920	.920	1/4	5/8	1-5/8
#FC8-8AT	1/2	1/2	.920	1.10	11/32	25/32	1-7/8
#FC8-12AT	1/2	3/4	.920	1.30	11/32	13/16	1-29/32
#FC10-8AT	5/8	1/2	1.10	1.10	5/16	25/32	1-7/8
#FC12-12AT	3/4	3/4	1.20	1.30	1/4	13/16	1-7/8
#FC14-12AT	7/8	3/4	1.39	1.30	5/16	13/16	2
#FC16-16AT	1	1	1.67	1.67	13/32	1	2-11/32
#FC20-20AT	1-1/4	1-1/4	2.05	2.05	1/2	1	2-15/32
#FC24-24AT	1-1/2	1-1/2	2.22	2.22	15/32	1-1/32	2-9/16

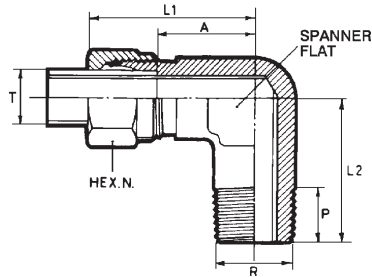
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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

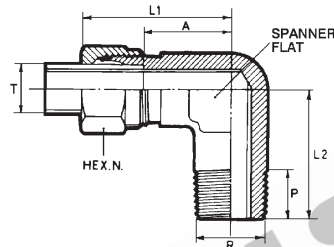
#INDENT ONLY

## BETABITE SYSTEM



## BSP TAPER MALE STUD ELBOWS for O.D. Tubes

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	A/F SPANNER FLAT	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH	
							L1	L2
ME4-2T	1/4	1/8	.710	.468	11/16	3/8	1-3/8	1-1/32
ME4-4T	1/4	1/4	.710	.468	11/16	7/16	1-1/2	1-3/32
ME5-4T	5/16	1/4	.710	.600	13/16	7/16	1-1/2	1-3/16
ME6-4T	3/8	1/4	.820	.600	13/16	7/16	1-17/32	1-3/16
ME6-6T	3/8	3/8	.820	.600	13/16	1/2	1-17/32	1-1/4
ME8-6T	1/2	3/8	.920	.710	1-3/32	1/2	1-27/32	1-3/8
ME8-8T	1/2	1/2	.920	.710	1-3/32	5/8	1-27/32	1-1/2
ME10-8T	5/8	1/2	1.10	.820	1-11/32	5/8	2-3/32	1-5/8
ME12-8T	3/4	1/2	1.20	1.10	1-5/16	5/8	2-1/8	1-5/8
ME12-12T	3/4	3/4	1.20	1.10	1-5/16	3/4	2-1/8	1-3/4
ME14-12T	7/8	3/4	1.39	1.10	1-15/32	3/4	2-11/32	1-3/4
ME16-12T	1	3/4	1.67	1.30	1-19/32	3/4	2-17/32	2
ME16-16T	1	1	1.67	1.30	1-19/32	7/8	2-17/32	2-1/8
ME20-16T	1-1/4	1	2.05	1.56	1-15/16	7/8	2-29/32	2-1/4
ME20-20T	1-1/4	1-1/4	2.05	1.56	1-15/16	1	2-7/8	2-3/8
ME24-20T	1-1/2	1-1/4	2.22	1.80	2-5/16	1	3-3/8	2-3/4
ME24-24T	1-1/2	1-1/2	2.22	1.80	2-5/16	1	3-3/8	2-2/4



## NPT TAPER MALE STUD ELBOWS for O.D. Tubes

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	A/F SPANNER FLAT	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH	
							L1	L2
#ME4-2AT	1/4	1/8	.710	.468	11/16	13/32	1-3/8	1-1/16
#ME4-4AT	1/4	1/4	.710	.468	11/16	19/32	1-1/2	1-1/4
#ME5-4AT	5/16	1/4	.710	.600	13/16	19/32	1-1/2	1-11/32
#ME6-RAT	3/8	1/4	.820	.600	13/16	19/32	1-17/32	1-11/32
#ME6-6AT	3/8	3/8	.820	.600	13/16	5/8	1-17/32	1-3/8
#ME8-6AT	1/2	3/8	.920	.710	1-3/32	5/8	1-27/32	1-1/2
#ME8-8AT	1/2	1/2	.920	.710	1-3/32	25/32	1-27/32	1-21/32
#ME10-8AT	5/8	1/2	1.10	.820	1-11/32	25/32	2-3/32	1-25/32
#ME12-8AT	3/4	1/2	1.20	1.10	1-5/16	25/32	2-1/8	1-25/32
#ME12-12AT	3/4	3/4	1.20	1.10	1-5/16	13/16	2-1/8	1-13/16
#ME16-12AT	1	3/4	1.67	1.30	1-19/32	13/16	2-17/32	2-1/16
#ME16-16AT	1	1	1.67	1.30	1-19/32	1	2-17/32	2-1/4
#ME20-16AT	1-1/4	1	2.05	1.56	1-15/16	1	2-29/32	2-3/8
#ME20-20AT	1-1/4	1-1/4	2.05	1.56	1-15/16	1	2-7/8	2-3/8
#ME24-20AT	1-1/2	1-1/4	2.22	1.80	2-5/16	1	3-3/8	2-3/4
#ME24-24AT	1-1/2	1-1/2	2.22	1.80	2-5/16	1-1/32	3-3/8	2-5/32

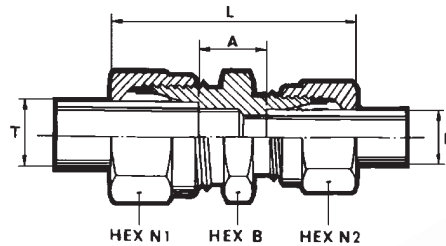
All dimensions are in INCHES

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

#INDENT ONLY

## BETABITE SYSTEM



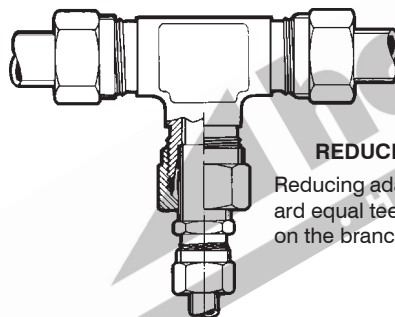
### REDUCING COUPLINGS for O.D. Tubes

PART NUMBER	TUBE Dia. T	TUBE Dia. D	NUT HEXAGON N	NUT HEXAGON N2	BODY HEXAGON B	TUBE ABUTMENT A	O/A LENGTH L
RC5-4	5/16	1/4	.710	.710	.600	11/32	1-23/32
RC6-4	3/8	1/4	.820	.710	.710	11/32	1-3/4
RC6-5	3/8	5/16	.820	.710	.710	3/8	1-25/32
RC8-4	1/2	1/4	.920	.710	.820	3/8	1-13/16
RC8-6	1/2	3/8	.920	.820	.820	13/32	1-7/8
RC10-8	5/8	1/2	1.10	.920	.920	15/32	2
RC12-6	3/4	3/8	1.20	.820	1.10	1/2	2-1/32
RC12-8	3/4	1/2	1.20	.920	1.10	17/32	2-3/32
RC12-10	3/4	5/8	1.20	1.10	1.10	1/2	2-2/32
RC14-12	7/8	3/4	1.39	1.20	1.20	9/16	2-1/4
RC16-8	1	1/2	1.67	.920	1.48	11/16	2-3/8
RC16-12	1	3/4	1.67	1.20	1.48	21/32	2-13/32
RC16-14	1	7/8	1.67	1.39	1.48	21/32	2-15/32
RC20-12	1-1/4	3/4	2.05	1.20	1.67	13/16	2-19/32
RC20-16	1-1/4	1	2.05	1.67	1.67	27/32	2-3/4
RC24-16	1-1/2	1	2.22	1.67	2.05	29/32	2-29/32
RC24-20	1-1/2	1-1/4	2.22	2.05	2.05	1	3-1/32

### ADAPTORS

To reduce the need for costly special fitting, a range of adaptors are available. Illustrated below are typical examples of their uses.

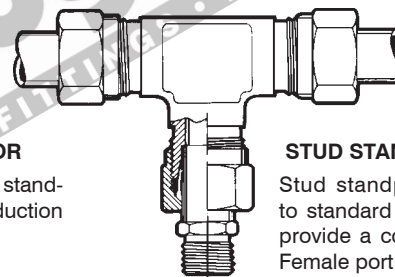
#### RA SERIES



#### REDUCING ADAPTOR

Reducing adaptor fitted to standard equal tee to give a reduction on the branch.

#### SA SERIES



#### STUD STANDPIPE ADAPTOR

Stud standpipe adaptor fitted to standard equal tee. This will provide a connection to a BSP. Female port or to a flexible hose end.



#### REDUCING STANDPIPE

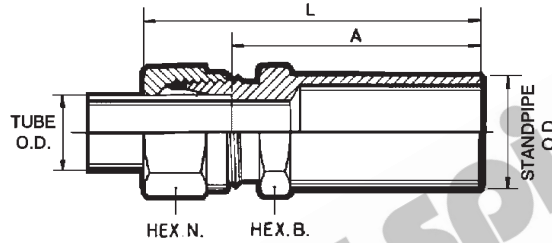
Increasing or reducing tube size in system by use of a reducing standpipe.

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



### REDUCING ADAPTORS for O.D. Tubes

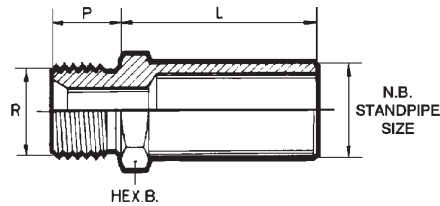
PART NUMBER	O.D. OF TUBE	O.D. OF STANDPIPE	NUT HEXAGON B	BODY HEXAGON L	A	L
RA4-6	1/4	3/8	.710	.600	1-11/32	2-1/32
RA4-8	1/4	1/2	.710	.600	1-13/32	2-3/32
RA6-8	3/8	1/2	.820	.710	1-7/16	2-5/32
RA4-10	1/4	5/8	.710	.710	1-15/32	2-5/32
RA6-10	3/8	5/8	.820	.710	1-1/2	2-7/32
RA8-10	1/2	5/8	.920	.820	1-17/32	2-9/32
RA6-12	3/8	3/4	.820	.820	1-1/2	2-7/32
RA8-12	1/2	3/4	.920	.820	1-17/32	2-9/32
RA10-12	5/8	3/4	1.10	.920	1-9/16	2-11/32
RA8-14	1/2	7/8	.920	.920	1-23/32	2-15/32
RA10-14	5/8	7/8	1.10	.920	1-11/16	2-15/32
RA12-14	3/4	7/8	1.20	1.10	1-3/4	2-9/16
RA8-16	1/2	1	.920	1.10	1-29/32	2-21/32
RA10-16	5/8	1	1.10	1.10	1-7/8	2-21/32
RA12-16	3/4	1	1.20	1.10	1-7/8	2-11/16
RA14-16	7/8	1	1.39	1.20	2	2-7/8
RA8-20	1/2	1-1/4	.920	1.30	2-3/16	2-15/16
RA10-20	5/8	1-1/4	1.10	1.30	2-5/32	2-15/16
RA12-20	3/4	1-1/4	1.20	1.30	2-5/32	2-31/32
RA14-20	7/8	1-1/4	1.39	1.30	2-5/32	3-1/32
RA16-20	1	1-1/4	1.67	1.48	2-3/16	3-1/8
RA12-24	3/4	1-1/2	1.20	1.67	2-5/16	3-1/8
RA14-24	7/8	1-1/2	1.39	1.67	2-5/16	3-3/16
RA16-24	1	1-1/2	1.67	1.67	2-11/32	3-9/32
RA20-24	1-1/4	1-1/2	2.05	1.67	2-7/16	3-3/32

All dimensions are in INCHES

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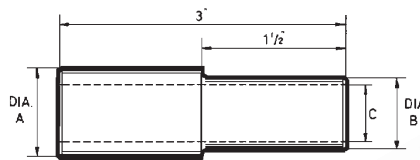
Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



### STUD STANDPIPE ADAPTORS for O.D. Tubes

PART NUMBER	BSP. THREAD	O.D. OF STANDPIPE	BODY HEXAGON	P	L
	R		B		
SA2-4	1/8	1/4	.600	3/8	1-1/4
SA4-4	1/4	1/4	.710	7/16	1-1/4
SA4-5	1/4	5/16	.710	7/16	1-9/32
SA4-6	1/4	3/8	7.10	7/16	1-5/16
SA6-6	3/8	3/8	.920	1/2	1-3/8
SA6-8	3/8	1/2	.920	1/2	1-7/16
SA8-8	1/2	1/2	1.10	5/8	1-9/16
SA8-10	1/2	5/8	1.10	5/8	1-9/16
SA8-12	1/2	3/4	1.10	5/8	1-5/8
SA12-12	3/4	3/4	1.30	3/4	1-3/4
SA12-14	3/4	7/8	1.30	3/4	1-13/16
SA12-16	3/4	1	1.30	3/4	1-15/16
SA16-14	1	7/8	1.67	7/8	1-7/8
SA16-16	1	1	1.67	7/8	2
SA16-20	1	1-1/4	1.67	7/8	2-5/32
SA20-20	1-1/4	1-1/4	2.05	1	2-7/32
SA20-24	1-1/4	1-1/2	2.05	1	2-5/16
SA24-24	1-1/2	1-1/2	2.22	1	2-3/8



### REDUCING STANDPIPES for O.D. Tubes

PART NUMBER	DIAMETER	DIAMETER	C
	A	B	
RS6-4	3/8	1/4	1/8
RS8-4	1/2	1/4	1/8
RS8-6	1/2	3/8	1/4
RS10-6	5/8	3/8	1/4
RS10-8	5/8	1/2	3/8
RS12-6	3/4	3/8	1/4
RS12-8	3/4	1/2	3/8
RS12-10	3/4	5/8	15/32
RS14-8	7/8	1/2	3/8
RS14-10	7/8	5/8	15/32
RS14-12	7/8	3/4	19/32
RS16-8	1	1/2	3/8
RS16-12	1	3/4	19/32
RS16-14	1	7/8	23/32
RS20-12	1-1/4	3/4	19/32
RS20-14	1-1/4	7/8	23/32
RS20-16	1-1/4	1	27/32
RS24-12	1-1/2	3/4	19/32
RS24-16	1-1/2	1	27/32
RS24-20	1-1/2	1-1/4	1-1/16

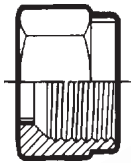
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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

**BETABITE SYSTEM**

**NUTS AND FERRULES for O.D. Tubes**



PART NUMBER	O.D. OF TUBE
N4	1/4
N5	5/16
N6	3/8
N8	1/2
N10	5/8
N16	7/8
N20	1-1/4
N24	1-1/2



PART NUMBER	O.D. OF TUBE
F4	1/4
F5	5/16
F6	3/8
F8	1/2
F10	5/8
F12	3/4
F14	7/8
F16	1
F20	1-1/4
F24	1-1/2

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007



**BETABITE SYSTEM**

**STEEL AND STAINLESS STEEL  
HIGH PRESSURE METRIC TUBE COUPLINGS**

**Light 'L' series**

**Heavy 'S' series**

This Section effectively covers the range of metric size steel tube couplings required by the majority of tube fittings users. The couplings are precisely manufactured to close tolerances and are carefully finished to present a first class appearance when installed in position. Every care is taken throughout each stage of manufacture to ensure that only first class fittings leave our factory. This includes the use of crack detected materials for nuts and ferrules.

“Betabite” metric tube fittings are manufactured in steel with hardened steel ferrules. All components are phosphated. These ranges of couplings conform to BS 4368 Parts 1 and 3 and additionally to the DIN 2353 and are interchangeable with other couplings manufactured to the same standard. The working pressures listed in the catalogue may be used as maximum working pressures under normal working and temperature conditions of 120 C.

If higher temperatures or surge pressures are involved then the working pressure should be decreased accordingly. Suitable thread protectors are fitted to all male threaded components and all couplings supplied in the assembled condition have the compression threads suitably lubricated ready for use.

O.D. TUBE mm	MPa RATING		Min. WALL THICKNESS mm
	'L' SERIES	'S' SERIES	
6	25.0	64.0	1.0
8	25.0	64.0	
10	25.0	64.0	
12	25.0	64.0	
14	-	64.0	1.2
15	25.0	-	
16	-	40.0	1.5
18	16.0	-	
20	-	40.0	
22	16.0	-	
25	-	40.0	
28	10.0	-	
30	-	25.0	
35	10.0	-	2.0
38	-	25.0	
42	10.0	-	

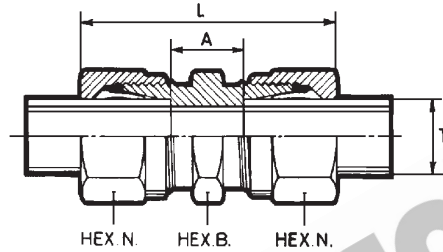
The ratings listed above are for hydraulic applications and are based on a safety factor (minimum) of 4:1. For pneumatic applications the safety factor is doubled to 8:1.

**All dimensions are in  
MILLIMETRES**

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## STRAIGHT COUPLINGS

### 'L' SERIES

PART NUMBER	TUBE DIA. T	TUBE ABUTMENT A	NUT HEXAGON N	BODY HEXAGON B	OVERALL LENGTH L
MSC6L	6	10	14	12	39
MSC8L	8	11	17	14	40
MSC10L	10	13	19	17	42
MSC12L	12	14	22	19	43
MSC15L	15	16	27	24	46
MSC18L	18	16	32	27	48
MSC22L	22	20	36	32	52
MSC28L	28	21	41	41	54
MSC35L	35	20	50	46	63
MSC42L	42	21	60	55	66

### 'S' SERIES

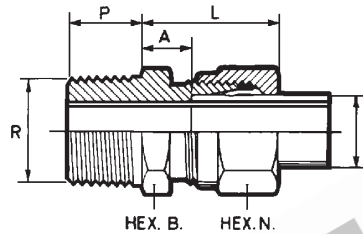
PART NUMBER	TUBE DIA. T	TUBE ABUTMENT A	NUT HEXAGON N	BODY HEXAGON B	OVERALL LENGTH L
MSC6	6	16	17	14	45
MSC8	8	18	19	17	47
MSC10	10	17	22	19	49
MSC12	12	19	24	22	51
MSC14	14	22	27	24	57
MSC16	16	21	30	27	57
MSC20	20	23	36	32	66
MSC25	25	26	46	41	74
MSC30	30	27	50	46	80
MSC38	38	29	60	55	90

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



### BSP TAPER MALE STUD COUPLINGS

#### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP THREAD R	NUT HEXAGON N	BODY HEXAGON B	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH L
MMC 6-2TL	6	1/8"	14	12	8.5	8	23
MMC 8-4TL	8	1/4"	17	17	10	12	25
MMC 10-4TL	10	1/4"	19	17	11	12	26
MMC 12-6TL	12	3/8"	22	19	12.5	12	27
MMC 15-8TL	15	1/2"	27	24	14	14	29
MMC 18-8TL	18	1/2"	32	27	14.5	14	31
MMC 22-12TL	22	3/4"	36	32	16.5	16	33
MMC 28-16TL	28	1"	41	41	17.5	18	34
MMC 35-20TL	35	1-1/4"	50	46	17.5	20	39
MMC 42-24TL	42	1-1/2"	60	55	19	22	42

#### 'S' SERIES

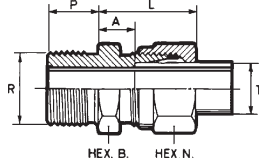
PART NUMBER	TUBE Dia. T	BSP THREAD R	NUT HEXAGON N	BODY HEXAGON B	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH L
MMC 6-4T	6	1/4"	17	17	11	12	30
MMC 8-4T	8	1/4"	19	17	13	12	32
MMC 10-6T	10	3/8"	22	19	12.5	12	32.5
MMC 12-6T	12	3/8"	24	22	14.5	12	34.5
MMC 14-8T	14	1/2"	27	24	16	14	38
MMC 16-8T	16	1/2"	30	27	15.5	14	38
MMC 20-12T	20	3/4"	36	32	17.5	16	44
MMC 25-16T	25	1"	46	41	20	18	50
MMC 30-20T	30	1-1/4"	50	46	20.5	20	54
MMC 38-24T	38	1-1/2"	60	55	25	22	63

All dimensions are in  
MILLIMETERS

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## BSP PARALLEL MALE STUD COUPLINGS

### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP THREAD R	NUT HEXAGON N	BODY HEXAGON B	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH L
MMC 6-2L	6	1/8"	14	14	8.5	8	23
MMC 8-2L	8	1/8"	17	14	9.5	8	25
MMC 8-4L	8	1/4"	17	19	10.0	12	25
MMC 10-2L	10	1/8"	19	17	10.5	8	26
MMC 10-4L	10	1/4"	19	19	11.0	12	26
MMC 12-4L	12	1/4"	22	19	12.0	12	27
MMC 12-6L	12	3/8"	22	22	12.5	12	27
MMC 15-6L	15	3/8"	27	24	13.5	12	29
MMC 15-8L	15	1/2"	27	27	14.0	14	29
MMC 18-6L	18	3/8"	32	27	14.0	12	31
MMC 18-8L	18	1/2"	32	27	14.5	14	31
MMC 18-12L	18	3/4"	32	32	14.5	16	31
MMC 22-8L	22	1/2"	36	32	18.5	14	35
MMC 22-12L	22	3/4"	36	32	16.5	16	33
MMC 28-12L	28	3/4"	41	41	17.5	16	34
MMC 28-16L	28	1"	41	41	17.5	18	34
MMC 35-16L	35	1"	50	46	17.5	18	39
MMC 35-20L	35	1-1/4"	50	50	17.5	20	39
MMC 42-20L	42	1-1/4"	60	55	19.0	20	40
MMC 42-24L	42	1-1/2"	60	55	19.0	22	42

### 'S' SERIES

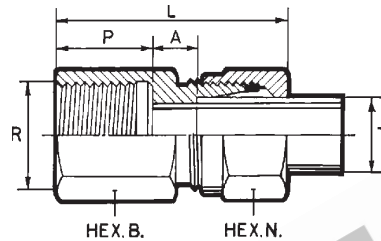
PART NUMBER	TUBE Dia. T	BSP THREAD R	NUT HEXAGON N	BODY HEXAGON B	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH L
MMC 6-2	6	1/8"	17	14	12.5	8	28
MMC 6-4	6	1/4"	17	19	13.0	12	28
MMC 6-6	6	3/8"	17	22	17.5	12	33
MMC 6-8	6	1/2"	17	27	18.0	14	33
MMC 8-2	8	1/8"	19	17	14.5	8	30
MMC 8-4	8	1/4"	19	19	15.0	12	30
MMC 8-6	8	3/8"	19	22	17.5	12	33
MMC 8-8	8	1/2"	19	27	18.0	14	33
MMC 10-4	10	1/4"	22	19	14.5	12	31
MMC 10-6	10	3/8"	22	22	15.0	12	31
MMC 10-8	10	1/2"	22	27	17.5	14	34
MMC 12-4	12	1/4"	24	22	17.0	12	33
MMC 12-6	12	3/8"	24	22	17.0	12	33
MMC 12-8	12	1/2"	24	27	17.0	14	33
MMC 14-6	14	3/8"	27	24	18.5	12	37
MMC 14-8	14	1/2"	27	27	19.0	14	37
MMC 16-6	16	3/8"	30	27	18.0	12	37
MMC 16-8	16	1/2"	30	27	18.5	14	37
MMC 16-12	16	3/4"	30	32	19.5	16	38
MMC 20-8	20	1/2"	36	32	20.5	14	42
MMC 20-12	20	3/4"	36	32	20.5	16	42
MMC 25-12	25	3/4"	46	41	23.0	16	47
MMC 25-16	25	1"	46	41	23.0	18	47
MMC 30-12	30	3/4"	50	46	23.5	16	50
MMC 30-16	30	1"	50	46	23.5	18	50
MMC 30-20	30	1-1/4"	50	50	23.5	20	50
MMC 38-16	38	1"	60	55	26.0	18	57
MMC 38-20	38	1-1/4"	60	55	26.0	20	57
MMC 38-24	38	1-1/2"	60	55	26.0	22	57

All dimensions are in  
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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



### BSP PARALLEL FEMALE STUD COUPLINGS

#### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP THREAD R	NUT HEXAGON N	BODY HEXAGON B	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH L
MFC 6-2L	6	1/8"	14	14	7	8	30
MFC 8-4L	8	1/4"	17	19	7	12	34
MFC 10-4L	10	1/4"	19	19	8	12	35
MFC 12-6L	12	3/8"	22	22	9	12	36
MFC 15-8L	15	1/2"	27	27	10	14	39
MFC 18-8L	18	1/2"	32	27	9.5	14	40
MFC 22-12L	22	3/4"	36	32	12.5	16	45
MFC 28-16L	28	1"	41	41	12.5	18	47
MFC 35-20L	35	1-1/4"	50	50	12.5	20	54
MFC 42-24L	42	1-1/2"	60	55	12	22	57

#### 'S' SERIES

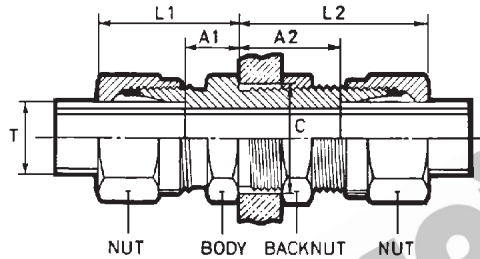
PART NUMBER	TUBE Dia. T	BSP THREAD R	NUT HEXAGON N	BODY HEXAGON B	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH L
MFC 6-4	6	1/4"	17	19	9	12	36
MFC 8-4	8	1/4"	19	19	9	12	36
MFC 10-6	10	3/8"	22	24	9.5	12	38
MFC 12-6	12	3/8"	24	24	9.5	12	38
MFC 14-8	14	1/2"	27	27	12	14	44
MFC 16-8	16	1/2"	30	27	11.5	14	44
MFC 20-12	20	3/4"	36	36	12.5	16	50
MFC 25-16	25	1"	46	41	13	18	55
MFC 30-20	30	1-1/4"	50	50	15.5	20	62
MFC 38-24	38	1-1/2"	60	60	15	22	68

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## BULKHEAD COUPLINGS

### 'L' SERIES

PART NUMBER	TUBE Dia. T	HEXAGONS A.F.			TUBE ABUTMENT		OVERALL LENGTH		CLEARANCE HOLE Dia. C
		NUT N	BODY	B/NUT	A1	A2	L1	L2	
MBH 6L	6	14	17	17	7	27	22	42	14
MBH 8L	8	17	19	19	8	27	23	42	16
MBH 10L	10	19	22	22	10	28	25	43	18
MBH 12L	12	22	24	24	10	29	25	44	20
MBH 15L	15	27	27	30	12	31	27	46	24
MBH 18L	18	32	32	36	13.5	33.5	30	49	28
MBH 22L	22	36	36	41	16.5	34.5	33	51	32
MBH 28L	28	41	41	46	18.5	35.5	35	52	38
MBH 35L	35	50	50	55	18.5	36.5	40	58	47
MBH 42L	42	60	60	65	19	36	42	59	54

The above couplings are suitable for bulkheads with a maximum thickness of 16mm.

### 'S' SERIES

PART NUMBER	TUBE Dia. T	HEXAGONS A.F.			TUBE ABUTMENT		OVERALL LENGTH		CLEARANCE HOLE Dia. C
		NUT N	BODY	B/NUT	A1	A2	L1	L2	
MBH 6	6	17	19	19	12	29	27	44	16
MBH 8	8	19	22	22	13	29	28	44	18
MBH 10	10	22	22	24	14.5	29.5	31	46	20
MBH 12	12	24	24	27	14.5	30.5	31	47	22
MBH 14	14	27	27	30	17	32	35	50	24
MBH 16	16	30	30	32	16.5	31.5	35	50	26
MBH 20	20	36	36	41	17.5	33.5	39	55	32
MBH 25	25	46	41	46	20	35	44	59	38
MBH 30	30	50	46	50	21.5	37.5	48	64	44
MBH 38	38	60	55	65	22	37	53	68	54

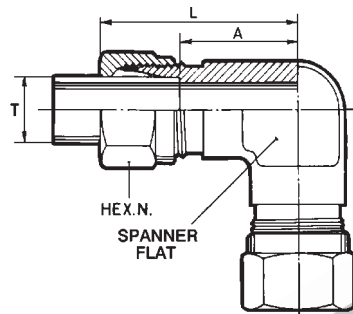
The above couplings are suitable for bulkheads with a maximum thickness of 16mm.

All dimensions are in  
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www.hardyspicer.com.au	
Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007



## BETABITE SYSTEM



## EQUAL ELBOWS

### 'L' SERIES

PART NUMBER	TUBE DIA. T	NUT HEXAGON A	SPANNER FLAT	TUBE ABUTMENT A	OVERALL LENGTH L
ME 6L	6	14	12	12	27
ME 8L	8	17	12	14	29
ME 10L	10	19	14	15	30
ME 12L	12	22	17	17	32
ME 15L	15	27	19	21	36
ME 18L	18	32	24	23.5	40
ME 22L	22	36	27	27.5	44
ME 28L	28	41	36	30.5	47
ME 35L	35	50	41	34.5	56
ME 42L	42	60	50	40	63

### 'S' SERIES

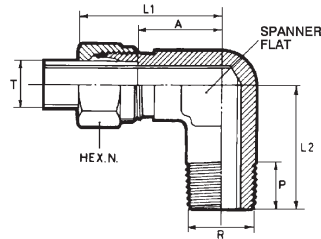
PART NUMBER	TUBE DIA. T	NUT HEXAGON A	SPANNER FLAT	TUBE ABUTMENT A	OVERALL LENGTH L
ME 6	6	17	12	16	31
ME 8	8	19	14	17	32
ME 10	10	22	17	17.5	34
ME 12	12	24	17	21.5	38
ME 14	14	27	19	22	40
ME 16	16	30	24	24.5	43
ME 20	20	36	27	26.5	48
ME 25	25	46	36	30	54
ME 30	30	50	41	35.5	62
ME 38	38	60	50	41	72

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Document No:	HSYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



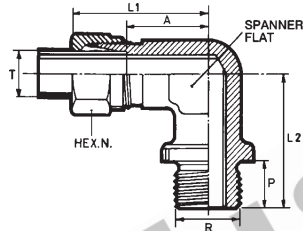
## BSP TAPER MALE STUD ELBOWS

### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	SPANNER FLAT A	TUBE ABUTMENT P	THREAD LENGTH	O/A LENGTH	
							L1	L2
MME 6-2TL	6	1/8"	14	12	12	8	27	20
MME 8-4TL	8	1/4"	17	12	14	12	29	26
MME 10-4TL	10	1/4"	19	14	15	12	30	27
MME 12-6TL	12	3/8"	22	17	17	12	32	28
MME 15-8TL	15	1/2"	27	19	21	14	36	34
MME 18-8TL	18	1/2"	32	24	23.5	14	40	36

### 'S' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	SPANNER FLAT A	TUBE ABUTMENT P	THREAD LENGTH	O/A LENGTH	
							L1	L2
MME 6-4T	6	1/4"	17	12	16	12	31	26
MME 8-4T	8	1/4"	19	14	17	12	32	27
MME 10-6T	10	3/8"	22	17	17.5	12	34	28
MME 12-6T	12	3/8"	24	17	21.5	12	38	28
MME 14-8T	14	1/2"	27	19	22	14	40	32
MME 16-8T	16	1/2"	30	24	24.5	14	43	32



## BSP PARALLEL MALE STUD ELBOWS

### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	SPANNER FLAT A	TUBE ABUTMENT P	THREAD LENGTH	O/A LENGTH	
							L1	L2
MME 22-12L	22	3/4"	36	27	27.5	16	44	42
MME 28-16L	28	1"	41	36	30.5	18	47	48
MME 35-20L	35	1-1/4"	50	41	34.5	20	56	54
MME 42-24L	42	1-1/2"	60	50	40	22	63	61

### 'S' SERIES

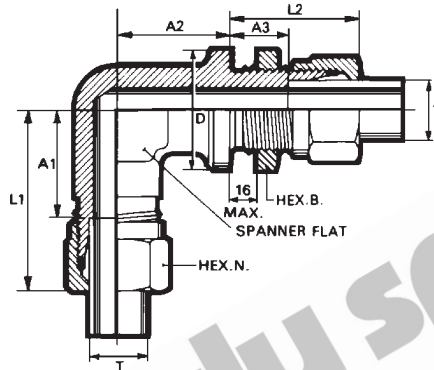
PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	SPANNER FLAT A	TUBE ABUTMENT A	THREAD LENGTH P	O/A LENGTH	
							L1	L2
MME 20-12	20	3/4"	36	27	26.5	16	48	42
MME 25-16	25	1"	46	36	30	18	54	48
MME 30-20	30	1-1/4"	50	41	35.5	20	62	54
MME 38-24	38	1-1/2"	60	50	41	22	72	61

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## BULKHEAD ELBOWS

### 'L' SERIES

PART NUMBER	TUBE DIA. T	HEXAGONS		SPANNER FLAT	TUBE ABUTMENT			DIA. D	OVERALL	
		NUT N	B/NUT		A1	A2	A3		L1	L2
MBHE 6L	6	14	17	12	12	14	27	17	27	42
MBHE 8L	8	17	19	12	14	17	27	19	29	42
MBHE 10L	10	19	22	14	15	18	28	22	30	43
MBHE 12L	12	22	24	17	17	20	29	24	32	44
MBHE 15L	15	27	30	19	21	23	31	27	36	46
MBHE 18L	18	32	36	24	23.5	24	32.5	32	40	49
MBHE 22L	22	36	41	27	27.5	30	34.5	36	44	51
MBHE 28L	28	41	46	36	30.5	34	35.5	42	47	52
MBHE 35L	35	50	55	41	34.5	39	36.5	50	56	58
MBHE 42L	42	60	65	50	40	43	36	60	63	59

The above couplings are suitable for bulkheads with a maximum thickness of 16mm.

### 'S' SERIES

PART NUMBER	TUBE DIA. T	HEXAGONS		SPANNER FLAT	TUBE ABUTMENT			DIA. D	OVERALL	
		NUT N	B/NUT		A1	A2	A3		L1	L2
MBHE 6	6	17	19	12	16	17	29	19	31	44
MBHE 8	8	19	22	14	17	18	29	22	32	44
MBHE 10	10	22	24	17	17.5	20	29.5	24	34	46
MBHE 12	12	24	27	17	21.5	21	30.5	27	38	47
MBHE 14	14	27	30	19	22	23	32	27	40	50
MBHE 16	16	30	32	24	24.5	24	31.5	30	43	50
MBHE 20	20	36	41	27	26.5	30	33.5	36	48	55
MBHE 25	25	46	46	36	30	34	35	42	54	59
MBHE 30	30	50	50	41	35.5	39	37.5	50	62	64
MBHE 38	38	60	65	50	41	43	37	60	72	68

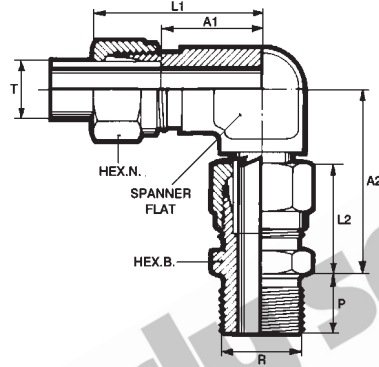
The above couplings are suitable for bulkheads with a maximum thickness of 16mm.

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Document No:	HSYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## SWIVEL ELBOWS

### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	HEXAGONS		SPANNER FLAT A	THREAD LENGTH P	TUBE ABUTMENT		O/A LENGTH	
			NUT N	BODY B			A1	A2	L1	L2
MSE 6-2L	6	1/8"	14	14	12	8	12	34.5	27	23
MSE 8-4L	8	1/4"	17	19	12	12	14	37	29	25
MSE 10-4L	10	1/4"	19	19	14	12	15	39.5	30	26
MSE 12-6L	12	3/8"	22	22	17	12	17	41.5	32	27
MSE 15-8L	15	1/2"	27	27	19	14	21	46	36	29
MSE 18-8L	18	1/2"	32	27	24	14	23.5	49.5	40	31
MSE 22-12L	22	3/4"	36	32	27	16	27.5	54.5	44	33
MSE 28-16L	28	1"	41	41	36	18	30.5	59	47	34
MSE 35-20L	35	1-1/4"	50	50	41	20	34.5	68.5	56	39
MSE 42-24L	42	1-1/2"	60	55	50	22	40	75	63	42

### 'S' SERIES

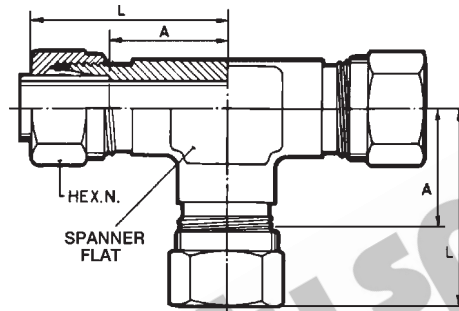
PART NUMBER	TUBE Dia. T	BSP. THREAD R	HEXAGONS		SPANNER FLAT A	THREAD LENGTH P	TUBE ABUTMENT		O/A LENGTH	
			NUT N	BODY B			A1	A2	L1	L2
MSE 6-4	6	1/4"	17	19	12	12	16	40	31	28
MSE 8-4	8	1/4"	19	19	14	12	17	42	32	30
MSE 10-6	10	3/8"	22	22	17	12	17.5	44.5	34	31
MSE 12-6	12	3/8"	24	22	17	12	21.5	47.5	38	33
MSE 14-8	14	1/2"	27	27	19	14	22	53.5	40	37
MSE 16-8	16	1/2"	30	27	24	14	24.5	54.5	43	37
MSE 20-12	20	3/4"	36	32	27	16	26.5	64.5	48	42
MSE 25-16	25	1"	46	41	36	18	30	72.5	54	47
MSE 30-20	30	1-1/4"	50	50	41	20	35.5	78.5	62	50
MSE 38-24	38	1-1/2"	60	55	50	22	41	89	72	57

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## EQUAL TEES

### 'L' SERIES

PART NUMBER	TUBE DIA. T	NUT HEXAGON N	SPANNER FLAT A	TUBE ABUTMENT L	OVERALL LENGTH
MT 6L	6	14	12	12	27
MT 8L	8	17	12	14	29
MT 10L	10	19	14	15	30
MT 12L	12	22	17	17	32
MT 18L	18	32	24	23.5	40
MT 22L	22	36	27	27.5	44
MT 28L	28	41	36	30.5	47
MT 35L	35	50	41	34.5	56
MT 42L	42	60	50	40	63

### 'S' SERIES

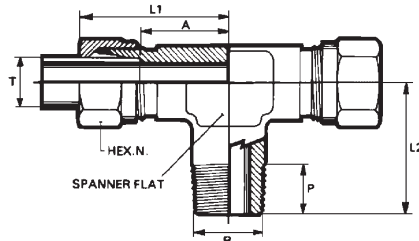
PART NUMBER	TUBE DIA. T	NUT HEXAGON N	SPANNER FLAT A	TUBE ABUTMENT L	OVERALL LENGTH
MT 6	6	17	12	16	31
MT 8	8	19	14	17	32
MT 10	10	22	17	17.5	34
MT 12	12	24	17	21.5	38
MT 14	14	27	19	22	40
MT 16	16	30	24	24.5	43
MT 20	20	36	27	26.5	48
MT 25	25	46	36	30	54
MT 30	30	50	41	35.5	62
MT 38	38	60	50	41	72

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



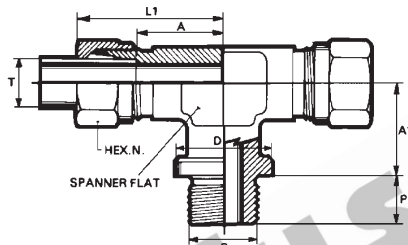
## BSP TAPER MALE BRANCH TEES

### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	SPANNER FLAT P	THREAD LENGTH A	TUBE ABUTMENT	O/A LENGTH	
							L1	L2
MMBT 6-2TL	6	1/8"	14	12	8	12	27	20
MMBT 8-4TL	8	1/4"	17	12	12	14	29	26
MMBT 10-4TL	10	1/4"	19	14	12	15	30	27
MMBT 12-6TL	12	3/8"	22	17	12	17	32	28
MMBT 15-8TL	15	1/2"	27	19	14	21	36	34
MMBT 18-8TL	18	1/2"	32	24	14	23.5	40	36

### 'S' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	SPANNER FLAT P	THREAD LENGTH A	TUBE ABUTMENT	O/A LENGTH	
							L1	L2
MMBT 6-4T	6	1/4"	17	12	12	16	31	26
MMBT 8-4T	8	1/4"	19	14	12	17	32	27
MMBT 10-6T	10	3/8"	22	17	12	17.5	34	28
MMBT 12-6T	12	3/8"	24	17	12	21.5	38	28
MMBT 14-8T	14	1/2"	27	19	14	22	40	32
MMBT 16-8T	16	1/2"	30	24	14	24.5	43	32



## BSP PARALLEL MALE BRANCH TEES

### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	SPANNER FLAT P	THREAD LENGTH	TUBE ABUTMENT		Dia. D	OVERALL LENGTH L1
						A1	A2		
MMBT 22-12L	22	3/4"	36	27	16	26	27.5	32	44
MMBT 28-16L	28	1"	41	36	18	30	30.5	39	47
MMBT 35-20L	35	1-1/4"	50	41	20	34	34.5	49	56
MMBT 42-24L	42	1-1/2"	60	50	22	39	40	55	63

### 'S' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	SPANNER FLAT P	THREAD LENGTH P	TUBE ABUTMENT		Dia. D	OVERALL LENGTH L1
						A1	A2		
MMBT 20-12	20	3/4"	36	27	16	26	26.5	32	48
MMBT 25-16	25	1"	46	36	18	30	30	39	54
MMBT 30-20	30	1-1/4"	50	41	20	34	35.5	49	62
MMBT 38-24	38	1-1/2"	60	50	22	39	41	55	72

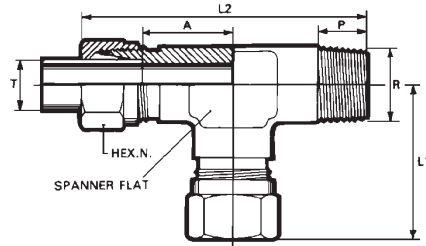
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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007



## BETABITE SYSTEM



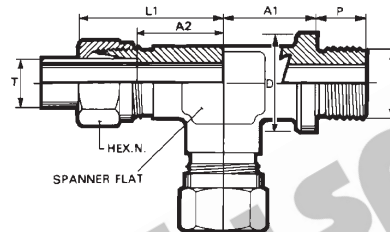
## BSP TAPER MALE BARREL TEES

### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	SPANNER FLAT P	THREAD LENGTH P	TUBE ABUTMENT A	O/A LENGTH	
							L1	L2
MMRT 6-2TL	6	1/8"	14	12	8	12	27	47
MMRT 8-4TL	8	1/4"	17	12	12	14	29	55
MMRT 10-4TL	10	1/4"	19	14	12	15	30	57
MMRT 12-6TL	12	3/8"	22	17	12	17	32	60
MMRT 15-8TL	15	1/2"	27	19	14	21	36	70
MMRT 18-8TL	18	1/2"	27	19	14	21	36	70

### 'S' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	SPANNER FLAT P	THREAD LENGTH P	TUBE ABUTMENT A	O/A LENGTH	
							L1	L2
MMRT 6-4T	6	1/4"	17	12	12	16	31	57
MMRT 8-4T	8	1/4"	19	14	12	17	32	59
MMRT 10-6T	10	3/8"	22	17	12	17.5	34	62
MMRT 12-6T	12	3/8"	24	17	12	21.5	38	66
MMRT 14-8T	14	1/2"	27	19	14	22	40	72
MMRT 16-8T	16	1/2"	30	24	14	24.5	43	75



## BSP PARALLEL MALE BARREL TEES

### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	SPANNER FLAT P	THREAD LENGTH P	TUBE ABUTMENT		Dia. D	OVERALL LENGTH L1
						A1	A2		
MMRT 22-12L	22	3/4"	36	27	16	26	27.5	32	44
MMRT 28-16L	28	1"	41	36	18	30	30.5	39	47
MMRT 35-20L	35	1-1/4"	50	41	20	34	34.5	49	56
MMRT 42-24L	42	1-1/2"	60	50	22	39	40	55	63

### 'S' SERIES

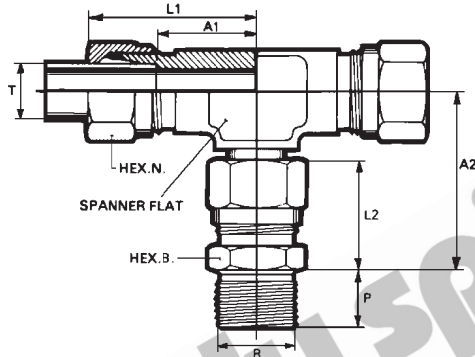
PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEXAGON N	SPANNER FLAT P	THREAD LENGTH P	TUBE ABUTMENT		Dia. D	OVERALL LENGTH L1
						A1	A2		
MMRT 20-12	20	3/4"	36	27	16	26	26.5	32	48
MMRT 25-16	25	1"	46	36	18	30	30	39	54
MMRT 30-20	30	1-1/4"	50	41	20	34	35.5	49	62
MMRT 38-24	38	1-1/2"	60	50	22	39	41	55	72

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Document No:	HSYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## SWIVEL BRANCH TEES

### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	HEXAGONS		SPANNER FLAT	THREAD LENGTH	TUBE ABUTMENT		OVERALL LENGTH	
			NUT N	BODY P			A1	A2	L1	L2
MSBT 6-2L	6	1/8"	14	14	12	8	12	34.5	27	23
MSBT 8-4L	8	1/4"	17	19	12	12	14	37	29	25
MSBT 10-4L	10	1/4"	19	19	14	12	15	39.5	30	26
MSBT 12-6L	12	3/8"	22	22	17	12	17	41.5	32	27
MSBT 15-8L	15	1/2"	27	27	19	14	21	46	36	29
MSBT 18-8L	18	1/2"	32	27	24	14	23.5	49.5	40	31
MSBT 22-12L	22	3/4"	36	32	27	16	27.5	54.5	44	33
MSBT 28-16L	28	1"	41	41	36	18	30.5	59	47	34
MSBT 35-20L	35	1-1/4"	50	50	41	20	34.5	68.5	56	39
MSBT 42-24L	42	1-1/2"	60	55	50	22	40	75	63	42

### 'S' SERIES

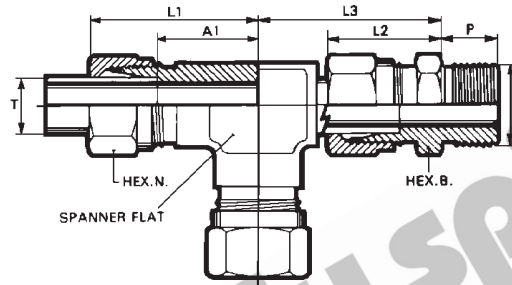
PART NUMBER	TUBE Dia. T	BSP. THREAD R	HEXAGONS		SPANNER FLAT	THREAD LENGTH	TUBE ABUTMENT		OVERALL LENGTH	
			NUT N	BODY P			A1	A2	L1	L2
MSBT 6-4	6	1/4"	17	19	12	12	16	40	31	28
MSBT 8-4	8	1/4"	19	19	14	12	17	42	32	30
MSBT 10-6	10	3/8"	22	22	17	12	17.5	44.5	34	31
MSBT 12-6	12	3/8"	24	22	17	12	21.5	47.5	38	33
MSBT 14-8	14	1/2"	27	27	19	14	22	53.5	43	37
MSBT 16-8	16	1/2"	30	27	24	14	24.5	54.5	43	37
MSBT 20-12	20	3/4"	36	32	27	16	26.5	64.5	48	42
MSBT 25-16	25	1"	46	41	36	18	30	72.5	54	47
MSBT 30-20	30	1-1/4"	50	50	41	20	35.5	78.5	62	50
MSBT 38-24	38	1-1/2"	60	55	50	22	41	89	72	57

All dimensions are in MILLIMETERS

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## SWIVEL BARREL TEES

### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	HEXAGONS		SPANNER FLAT	THREAD LENGTH	TUBE ABUTMENT A1	OVERALL LENGTH		
			NUT N	BODY P				A2	L1	L2
MSRT 6-2L	6	1/8"	14	14	12	8	12	27	23	34.5
MSRT 8-4L	8	1/4"	17	19	12	12	14	29	25	37
MSRT 10-4L	10	1/4"	19	19	14	12	15	30	26	39.5
MSRT 12-6L	12	3/8"	22	22	17	12	17	32	27	41.5
MSRT 15-8L	15	1/2"	27	27	19	14	21	36	29	46
MSRT 18-8L	18	1/2"	32	27	24	14	23.5	40	31	49.5
MSRT 22-12L	22	3/4"	36	32	27	16	27.5	44	33	54.5
MSRT 28-16L	28	1"	41	41	36	18	30.5	47	34	59
MSRT 35-20L	35	1-1/4"	50	50	41	20	34.5	56	39	68.5
MSRT 42-24L	42	1-1/2"	60	55	50	22	40	63	42	75

### 'S' SERIES

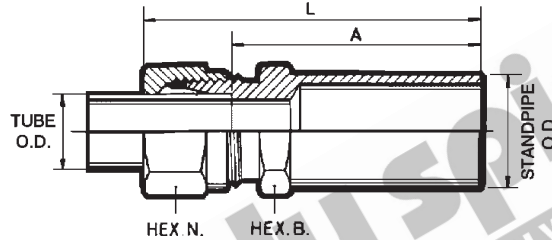
PART NUMBER	TUBE Dia. T	BSP. THREAD R	HEXAGONS		SPANNER FLAT	THREAD LENGTH	TUBE ABUTMENT A1	OVERALL LENGTH		
			NUT N	BODY P				A2	L1	L2
MSRT 6-4	6	1/4"	17	19	12	12	16	31	28	40
MSRT 8-4	8	1/4"	19	19	14	12	17	32	30	42
MSRT 10-6	10	3/8"	22	22	17	12	17.5	34	31	44.5
MSRT 12-6	12	3/8"	24	22	17	12	21.5	38	33	47.5
MSRT 14-8	14	1/2"	27	27	19	14	22	40	37	53.5
MSRT 16-8	16	1/2"	30	27	24	14	24.5	43	37	54.5
MSRT 20-12	20	3/4"	36	32	27	16	26.5	48	42	64.5
MSRT 25-16	25	1"	46	41	36	18	30	54	47	72.5
MSRT 30-20	30	1-1/4"	50	50	41	20	35.5	62	50	78.5
MSRT 38-24	38	1-1/2"	60	55	50	22	41	72	57	89

All dimensions are in  
MILLIMETERS

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## WELDING BOSSES

### 'L' SERIES

PART NUMBER	TUBE DIAMETER T	BOSS DIAMETER W	NUT HEXAGON N	BODY HEXAGON B	ABUTMENT LENGTH A	OVERALL LENGTH L
MWB 6L	6	10	14	12	14	29
MWB 8L	8	12	17	14	16	31
MWB 10L	10	14	19	17	18	33
MWB 12L	12	16	22	19	18	33
MWB 15L	15	19	27	22	22	37
MWB 18L	18	22	32	27	23.5	40
MWB 22L	22	27	36	32	28.5	45
MWB 28L	28	32	41	41	30.5	47
MWB 35L	35	40	40	46	32.5	54
MWB 42L	42	46	60	55	35	58

### 'S' SERIES

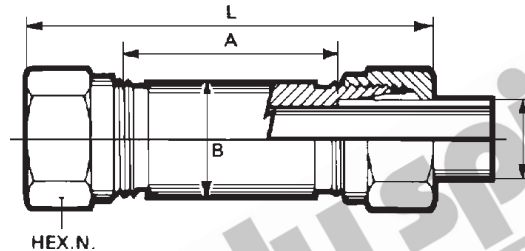
PART NUMBER	TUBE DIAMETER T	BOSS DIAMETER W	NUT HEXAGON N	BODY HEXAGON B	ABUTMENT LENGTH A	OVERALL LENGTH L
MWB 6	6	11	17	14	19	34
MWB 8	8	13	19	17	21	36
MWB 10	10	15	22	19	22.5	39
MWB 12	12	17	24	22	24.5	41
MWB 14	14	19	27	24	27	45
MWB 16	16	21	30	27	26.5	45
MWB 20	20	26	36	32	29.5	51
MWB 25	25	31	46	41	32	56
MWB 30	30	36	50	46	35.5	62
MWB 38	38	44	60	55	38	69

All dimensions are in  
MILLIMETERS

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## WELDING BULKHEADS

### 'L' SERIES

PART NUMBER	TUBE DIAMETER T	BODY DIAMETER B	NUT HEXAGON N	ABUTMENT LENGTH A	OVERALL LENGTH L
MWBH 6L	6	18	14	56	85
MWBH 8L	8	20	17	56	85
MWBH 10L	10	22	19	58	87
MWBH 12L	12	25	22	58	87
MWBH 15L	15	28	27	70	100
MWBH 18L	18	32	32	69	101
MWBH 22L	22	36	36	73	105
MWBH 28L	28	40	41	73	106
MWBH 35L	35	50	50	71	114
MWBH 42L	42	60	60	70	115

### 'S' SERIES

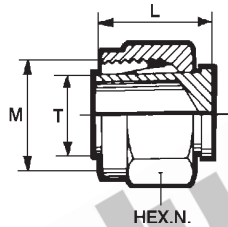
PART NUMBER	TUBE DIAMETER T	BODY DIAMETER B	NUT HEXAGON N	ABUTMENT LENGTH A	OVERALL LENGTH L
MWBH 6	6	20	17	60	89
MWBH 8	8	22	19	60	89
MWBH 10	10	25	22	59	91
MWBH 12	12	28	24	59	91
MWBH 14	14	30	27	72	107
MWBH 16	16	35	30	71	107
MWBH 20	20	38	36	71	114
MWBH 25	25	45	46	72	120
MWBH 30	30	50	50	73	126
MWBH 38	38	60	60	72	133

All dimensions are in  
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Document No:	HSYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## BLANKING PLUGS

### 'L' SERIES

PART NUMBER	TUBE DIAMETER	THREAD	NUT HEXAGON	OVERALL LENGTH	
	T	M	N	L	
MBP 6L	6	M12X1.5	14	24.5	
MBP 8L	8	M14X1.5	17	26.5	
MBP 10L	10	M16X1.5	19	27.5	
MBP 12L	12	M18X1.5	22	28.5	
MBP 15L	15	M22X1.5	27	26.5	
MBP 18L	18	M26X1.5	32	27.5	
MBP 22L	22	M30X2	36	28.5	
MBP 28L	28	M36X2	41	29.5	
MBP 35L	35	M45X2	50	34.5	
MBP 42L	42	M52X2	60	35.5	

### 'S' SERIES

PART NUMBER	TUBE DIAMETER	THREAD	NUT HEXAGON	OVERALL LENGTH	
	T	M	N	L	
MBP 6	6	M14X1.5	17	24.5	
MBP 8	8	M16X1.5	19	26.5	
MBP 10	10	M18X1.5	22	27.5	
MBP 12	12	M20X1.5	24	28.5	
MBP 14	14	M22X1.5	27	30.5	
MBP 16	16	M24X1.5	30	30.5	
MBP 20	20	M30X2	36	35.5	
MBP 25	25	M36X2	46	38.5	
MBP 30	30	M42X2	50	40.5	
MBP 38	38	M52X2	60	44.5	

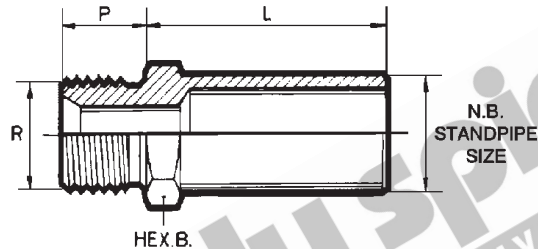
All dimensions are in  
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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007



## BETABITE SYSTEM



## STUD STANDPIPE ADAPTORS

### 'L' SERIES

PART NUMBER	BODY DIAMETER	BSP THREAD	BODY HEXAGON	THREAD LENGTH	LENGTH
	T	R	N	P	L
MSA 6-2L	6	1/8"	14	8	23.5
MSA 8-4L	8	1/4"	19	12	28
MSA 10-4L	10	1/4"	19	12	26
MSA 12-6L	12	3/8"	22	12	32.5
MSA 15-8L	15	1/2"	27	14	28
MSA 22-12L	22	3/4"	32	16	32.5
MSA 28-16L	28	1"	41	18	34
MSA 35-20L	35	1-1/4"	50	20	39.5
MSA 42-24L	42	1-1/2"	55	22	42

### 'S' SERIES

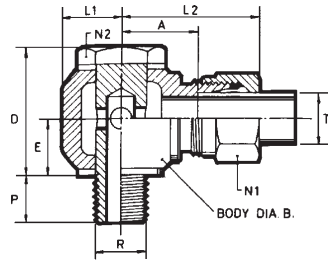
PART NUMBER	BODY DIAMETER	BSP THREAD	BODY HEXAGON	THREAD LENGTH	LENGTH
	T	B	N	A	L
MSA 6-4	6	1/4"	19	12	26
MSA 8-4	8	1/4"	19	12	26
MSA 10-6	10	3/8"	22	12	30
MSA 12-6	12	3/8"	22	12	30
MSA 14-8	14	1/2"	27	14	34
MSA 16-8	16	1/2"	27	14	34.5
MSA 20-12	20	3/4"	32	16	41
MSA 25-16	25	1"	41	18	45
MSA 30-20	30	1-1/4"	50	20	48
MSA 38-24	38	1-1/2"	55	22	55

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Document No:	HSYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



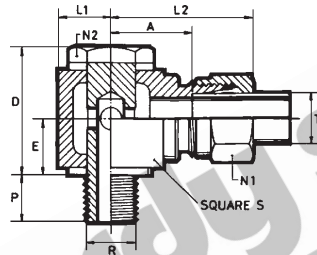
## BANJO COUPLINGS, type 'R'

### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEX. N1	BOLT HEX. N2	TUBE ABUT. A	THREAD LENGTH P	C/L TO FACE E	LENGTH D	BODY DIA. B	O/A LENGTH	
										L1	L2
MBJ 6-2L	6	1/8"	14	14	17	8	11.7	29.5	25	11	31.5
MBJ 8-4L	8	1/4"	17	19	20	12	12	30	28	12.7	35
MBJ 10-4L	10	1/4"	19	19	20	12	13.5	33	28	12.7	35
MBJ 12-6L	12	3/8"	22	22	22	12	13.5	33	35	16	37
MBJ 15-8L	15	1/2"	27	27	27	14	19	44	44	21	42
MBJ 18-8L	18	1/2"	32	27	27	14	19	44	44	21	43.5
MBJ 22-12L	22	3/4"	36	32	30	16	19	51	52	22	47.5

### 'S' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEX. N1	BOLT HEX. N2	TUBE ABUT. A	THREAD LENGTH P	C/L TO FACE E	LENGTH D	BODY DIA. B	O/A LENGTH	
										L1	L2
MBJ 6-4	6	1/4"	17	19	20	12	12	29	28	12.7	39
MBJ 8-4	8	1/4"	19	19	20	12	13.5	33	28	12.7	39
MBJ 10-6	10	3/8"	22	22	22	12	13.5	33	35	16	42
MBJ 12-6	12	3/8"	24	22	23	12	15	36	38	17	43
MBJ 14-8	14	1/2"	27	27	27	14	19	44	44	21	49
MBJ 16-8	16	1/2"	30	27	27	14	19	44	44	21	49.5
MBJ 20-12	20	3/4"	36	32	30	16	19	51	52	22	57.5



## BANJO COUPLINGS, type 'S'

### 'L' SERIES

PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEX. N1	BOLT HEX. N2	TUBE ABUT. A	THREAD LENGTH P	C/L TO FACE E	LENGTH D	BODY SQ. S	O/A LENGTH	
										L1	L2
MBJ 28-16L	28	1"	41	41	47	18	29.5	69	55	28	64.5
MBJ 35-20L	35	1-1/4"	50	50	55	20	33	78	65	32	76.5
MBJ 42-24L	42	1-1/2"	60	60	62	22	37	88	75	38	85

### 'S' SERIES

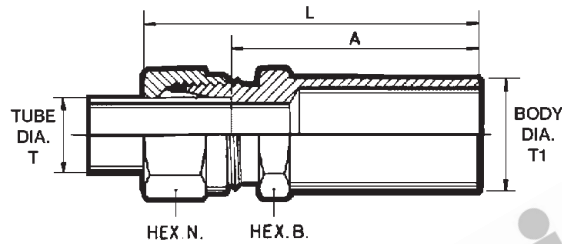
PART NUMBER	TUBE Dia. T	BSP. THREAD R	NUT HEX. N1	BOLT HEX. N2	TUBE ABUT. A	THREAD LENGTH P	C/L TO FACE E	LENGTH D	BODY SQ. S	O/A LENGTH	
										L1	L2
MBJ 25-16	25	1"	46	41	47	18	29.5	69	55	28	77
MBJ 30-20	30	1-1/4"	50	50	55	20	33	78	65	32	88.5
MBJ 38-24	38	1-1/2"	60	60	62	22	37	88	75	38	100

All dimensions are in MILLIMETERS

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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## REDUCING ADAPTORS

### 'L' SERIES

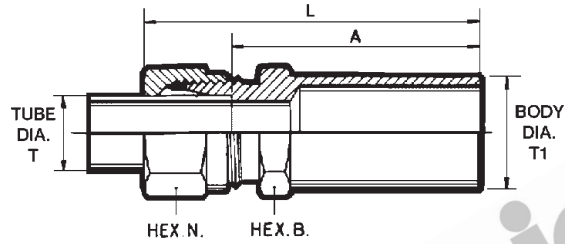
PART NUMBER	TUBE DIAMETER T	BODY DIAMETER T1	NUT HEXAGON N	BODY HEXAGON B	ABUTMENT A	LENGTH L
MRA 6-8L	6	8	14	12	27.5	42.5
MRA 6-10L	6	10	14	12	27.5	42.5
MRA 8-10L	8	10	17	14	28.5	43.5
MRA 6-12L	6	12	14	14	28.5	43.5
MRA 8-12L	8	12	17	14	28.5	43.5
MRA 10-12L	10	12	19	17	29.5	44.5
MRA 6-15L	6	15	14	17	28.5	43.5
MRA 8-15L	8	15	17	17	28.5	43.5
MRA 10-15L	10	15	19	17	29.5	44.5
MRA 12-15L	12	15	22	19	30.5	45.5
MRA 6-18L	6	18	14	19	30.5	45.5
MRA 8-18L	8	18	17	19	30.5	45.5
MRA 10-18L	10	18	19	19	31.5	46.5
MRA 12-18L	12	18	22	19	31.5	46.5
MRA 15-18L	15	18	27	24	32.5	47.5
MRA 6-22L	6	22	14	24	31.5	46.5
MRA 8-22L	8	22	17	24	31.5	46.5
MRA 10-22L	10	22	19	24	32.5	47.5
MRA 12-22L	12	22	22	24	32.5	47.5
MRA 15-22L	15	22	27	24	33.5	48.5
MRA 18-22L	18	22	32	27	34	50.5
MRA 6-28L	6	28	14	30	33.5	48.5
MRA 8-28L	8	28	17	30	33.5	48.5
MRA 10-28L	10	28	19	30	34.5	49.5
MRA 12-28L	12	28	22	30	34.5	49.5
MRA 15-28L	15	28	27	30	35.5	50.5
MRA 18-28L	18	28	32	30	35	51.5
MRA 22-28L	22	28	36	32	37	53.5
MRA 6-35L	6	35	14	36	39.5	54.5
MRA 8-35L	8	35	17	36	39.5	54.5
MRA 10-35L	10	35	19	36	40.5	55.5
MRA 12-35L	12	35	22	36	40.5	55.5
MRA 15-35L	15	35	27	36	41.5	56.5
MRA 18-35L	18	35	32	36	41	57.5
MRA 22-35L	22	35	36	36	43	59.5
MRA 28-35L	28	35	41	36	43	59.5
MRA 6-42L	6	42	14	46	41.5	56.5
MRA 8-42L	8	42	17	46	41.5	56.5
MRA 10-42L	10	42	19	46	42.5	57.5
MRA 12-42L	12	42	22	46	42.5	57.5
MRA 15-42L	15	42	27	46	43.5	58.5
MRA 18-42L	18	42	32	46	43	59.5
MRA 22-42L	22	42	36	46	45	61.5
MRA 28-42L	28	42	41	46	45	61.5
MRA 35-42L	35	42	50	46	44	65.5

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Document No:	HSYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## REDUCING ADAPTORS

### 'S' SERIES

PART NUMBER	TUBE DIAMETER T	BODY DIAMETER T1	NUT HEXAGON N	BODY HEXAGON B	ABUTMENT A	LENGTH L
MRA 6-8	6	8	17	14	31	46
MRA 8-10	8	10	19	17	33	48
MRA 6-10	6	10	17	14	32	47
MRA 10-12	10	12	22	19	34.5	51
MRA 8-12	8	12	19	17	35	50
MRA 6-12	6	12	17	14	33	48
MRA 12-14	12	14	24	22	38.5	55
MRA 10-14	10	14	22	19	36.5	53
MRA 8-14	8	14	19	17	37	52
MRA 6-14	6	14	17	17	37	52
MRA 14-16	14	16	27	24	40	58
MRA 12-16	12	16	24	22	38.5	55
MRA 10-16	10	16	22	19	36.5	53
MRA 8-16	8	16	19	17	37	52
MRA 6-16	6	16	17	17	37	52
MRA 16-20	16	20	30	27	44.5	63
MRA 14-20	14	20	27	24	45	63
MRA 12-20	12	20	24	22	43.5	60
MRA 10-20	10	20	22	22	43.5	60
MRA 8-20	8	20	19	22	44	59
MRA 20-25	20	25	36	32	49.5	71
MRA 16-25	16	25	30	27	47.5	66
MRA 14-25	14	25	27	27	48	66
MRA 12-25	12	25	24	27	46.5	63
MRA 10-25	10	25	22	27	46.5	63
MRA 25-30	25	30	46	41	54	78
MRA 20-30	20	30	36	32	51.5	73
MRA 16-30	16	30	30	32	51.5	70
MRA 14-30	14	30	27	32	52	70
MRA 12-30	12	30	24	32	50.5	67
MRA 30-38	30	38	50	46	58.5	85
MRA 25-38	25	38	46	41	58	82
MRA 20-38	20	38	36	41	57.5	79
MRA 16-38	16	38	30	41	57.5	76

Alternatively supplied with nut and ferrule at extra cost on standpipe end.

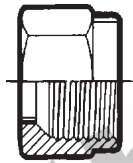
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Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM

### NUTS AND FERRULES for O.D. Tubes



PART NUMBER	O.D. OF TUBE
MN6	6
MN8	8
MN10	10
MN12	12
MN14	14
MN16	16
MN20	20
MN25	25
MN30	30



PART NUMBER	O.D. OF TUBE
MF6	6
MF8	8
MF10	10
MF12	12
MF14	14
MF16	16
MF20	20
MF25	25
MF30	30

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Document No:	HSYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM

### HIGH PRESSURE VALVES

Betabite High Pressure Shut-off Valves are designed for use in Hydraulic systems and are suitable for pressures up to 5,000 p.s.i. with flow in one direction. All Valves are tested to 7,500 p.s.i. before dispatch.

In the event that valves are to be used for systems other than Oil Hydraulics the medium to be passed through the Valve should be stated, together with the pressure involved, to enable a suitable gland packing to be fitted. The Valves listed are machined with integral Betabite connections or female tapped ports. Solid cone spindles are supplied as standard.

**MATERIAL:**

- BODY, STUFFING, RETAINING WASHER AND GLAND NUT ..... MILD STEEL, ZINC PLATED
- SPINDLE ..... STAINLESS STEEL 316
- GLAND PACKING..... P.T.F.E.
- HANDWHEEL..... POLYPROPYLENE OR METAL

These Valves are not suitable for use with steam.  
 Panel mounting of these Valves is possible by the provision of a panel mounting gland nut. Please specify when ordering.  
 The correct direction of flow is clearly marked by an arrow stamped on the Valve body.

### NON-RETURN VALVES

For use in Hydraulic Circuits to prevent reversal in the direction of flow. All Valves are tested for seating and spring pressure prior to dispatch. Valves are supplied with integral Betabite Tube connections.

**MATERIAL:**

- MALE AND FEMALE BODY ..... MILD STEEL, ZINC PLATED
- PISTON ..... EN8

Standard Valves are fitted with springs to lift at a pressure of 20 p.s.i. Springs can be fitted on request to list at alternative pressures.

**Pressure Rating:** As for Couplings.  
 These Valves are not suitable for gases or steam.

#### IMPERIAL O.D. TUBE SIZES

PART NUMBER	TUBE DIAMETER T	TUBE ABUTMENT B	O/A LENGTH L
NRV 4	1/4"	1-3/8"	2-25/32"
NRV 5	5/16"	1-7/16"	2-27/32"
NRV 6	3/8"	1-21/32"	3-3/32"
NRV 8	1/2"	2-1/32"	3-7/32"
NRV 10	5/8"	1-31/32"	3-7/32"
NRV 12	3/4"	2-13/16"	4-7/16"
NRV 14	7/8"	2-14/16"	4-9/16"
NRV 16	1"	3-5/16"	5-3/16"
NRV 20	1-1/4"	4-13/32"	6-11/32"
NRV 24	1-1/2"	4-31/32"	7-3/32"

#### IMPERIAL N.B. TUBE SIZES

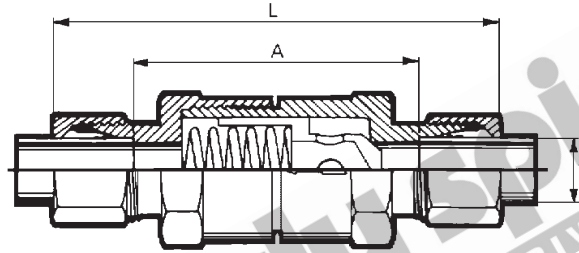
PART NUMBER	TUBE DIAMETER T	TUBE ABUTMENT B	O/A LENGTH L
NNRV 2	1/8"	1-1/2"	3"
NNRV 4	1/4"	1-21/32"	3-7/32"
NNRV 6	3/8"	1-31/32"	3-19/32"
NNRV 8	1/2"	2-13/16"	4-9/16"
NNRV 12	3/4"	3-5/6"	5-5/16"
NNRV 16	1"	4-13/32"	6-11/32"
NNRV 20	1-1/4"	5-3/32"	7-9/32"
NNRV 24	1-1/2"	5-19/32"	7-31/32"

www.hardyspicer.com.au

Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007



## BETABITE SYSTEM



## NON-RETURN VALVES

### METRIC TUBE SIZES 'L' SERIES

PART NUMBER	N.B. TUBE SIZE	TUBE ABUTMENT	OVERALL LENGTH
	T	A	L
MNRV 6L	6	40	70
MNRV 8L	8	43	73
MNRV 10L	10	48	82
MNRV 12L	12	50	83
MNRV 15L	15	60	96
MNRV 18L	18	60	96
MNRV 22L	22	81	124
MNRV 28L	28	95	143
MNRV 35L	35	125	178
MNRV 42L	42	133	195

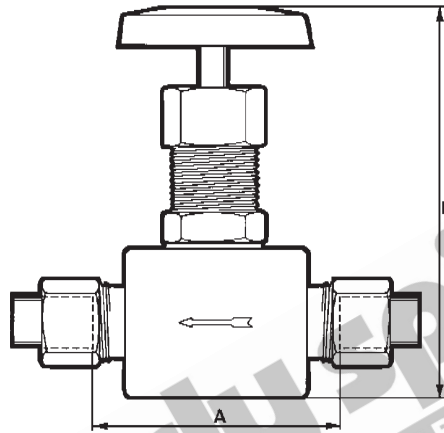
### METRIC TUBE SIZES 'S' SERIES

PART NUMBER	N.B. TUBE SIZE	TUBE ABUTMENT	OVERALL LENGTH
	T	A	L
MNRV 6S	6	43	73
MNRV 8S	8	43	73
MNRV 10S	10	50	83
MNRV 12S	12	50	83
MNRV 14S	14	60	97
MNRV 16S	16	60	97
MNRV 20S	20	81	124
MNRV 25S	25	95	143
MNRV 30S	30	119	172
MNRV 38S	38	133	195

www.hardyspicer.com.au

Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



### SHUT-OFF VALVES

#### IMPERIAL O.D. TUBE SIZES

PART NUMBER	O.D. TUBE CONNECTIONS	TUBE ABUTMENT A	APPROX. O.A. HEIGHT L	PANEL MOUNTING CLEARANCE HOLE D
SOV 4	1/4"	1-1/4"	3-1/4"	3/4"
SOV 6	3/8"	1-7/16"	3-5/16"	15/16"
SOV 8	1/2"	1-9/16"	3-3/8"	15/16"
SOV 12	3/4"	1-11/16"	3-5/8"	1-1/16"

#### IMPERIAL N.B. TUBE SIZES

PART NUMBER	N.B. TUBE CONNECTIONS	TUBE ABUTMENT A	APPROX. O.A. HEIGHT L	PANEL MOUNTING CLEARANCE HOLE D
NSOV 2	1/8"	1-7/16"	3-5/16"	15/16"
NSOV 4	1/4"	1-9/16"	3-3/8"	15/16"
NSOV 6	3/8"	1-11/16"	3-5/8"	1-1/16"
NSOV 8	1/2"	1-1/16"	3-5/8"	1-1/16"

#### VALVES WITH FEMALE TAPPED PORTS

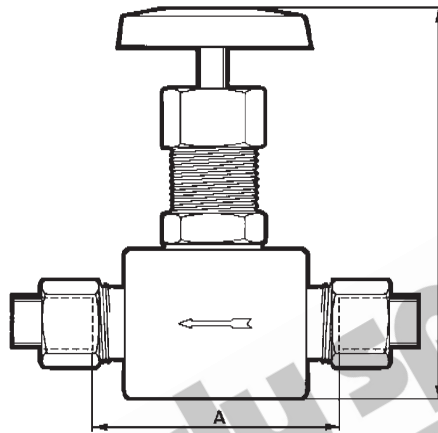
PART NUMBER	FEMALE PORT THREAD BSP	LENGTH B	APPROX. O.A. HEIGHT L	PANEL MOUNTING CLEARANCE HOLE D
FSOV 2	1/8"	1-5/8"	3-1/4"	3/4"
FSOV 4	1/4"	2"	3-1/4"	3/4"
FSOV 6	3/8"	2-3/8"	3-3/8"	15/16"
FSOV 8	1/2"	3-1/2"	3-5/8"	1-1/16"
FSOV 12	3/4"	3-1/2"	3-5/8"	1-1/16"

#### VALVES COMPLETE WITH BETABITE INTEGRAL TUBE CONNECTIONS

www.hardyspicer.com.au

Document No:	HSHYDCAT
Issue:	4
Issue Date:	01/02/2007

## BETABITE SYSTEM



## SHUT-OFF VALVES

### METRIC TUBE SIZES 'L' SERIES

PART NUMBER	METRIC TUBE CONNECTIONS	TUBE ABUTMENT	APPROX. O/A HEIGHT	PANEL MOUNTING CLEARANCE HOLE
	mm	A mm	L	D
MSOV 6L	6	32	83	20
MSOV 8L	8	32	83	20
MSOV 10L	10	36	84	24
MSOV 12L	12	36	84	24
MSOV 15L	15	40	86	24
MSOV 18L	18	43	92	27
MSOV 22L	22	43	92	27

### METRIC TUBE SIZES 'S' SERIES

PART NUMBER	METRIC TUBE CONNECTIONS	TUBE ABUTMENT	APPROX. O/A HEIGHT	PANEL MOUNTING CLEARANCE HOLE
	mm	A mm	L	D
MSOV 6S	6	32	83	20
MSOV 8S	8	32	83	20
MSOV 10S	10	36	84	24
MSOV 12S	12	36	84	24
MSOV 14S	14	40	86	24
MSOV 16S	16	43	92	27
MSOV 20S	20	43	92	27

VALVES COMPLETE WITH BETABITE INTEGRAL METRIC TUBE CONNECTIONS

www.hardyspicer.com.au

Document No:	HSYDCAT
Issue:	4
Issue Date:	01/02/2007

**BETABITE SYSTEM**

**COLD DRAWN SEAMLESS ANNEALED TUBE**

PART NO.	TUBE OD.INS	I.S.W.G.	W.P. BAR	W.P. PSI	DIMENSIONS mm			WEIGHT Kgs/m
					W.ins	W.mm	D.mm	
CDS-4-20	1/4	20	300	4300	0.036	0.914	6.35	0.122
CDS-6-18	3/8	18	260	3800	0.048	1.219	9.53	0.250
CDS-8-16	1/2	16	260	3800	0.064	1.626	12.7	0.445
CDS-10-16	5/8	16	210	3100	0.064	1.626	15.88	0.573
CDS-12-14	3/4	14	220	3200	0.080	2.032	19.05	0.852
CDS-16-16	1	16	260	1900	0.064	1.626	25.4	1.056
CDS-16-10	1	10	130	3800	0.128	3.251	25.4	1.775
CDS-20-10	1-1/4	10	210	3100	0.128	3.251	31.75	2.284
CDS-24-10	1-1/2	10	180	2600	0.128	3.251	38.1	2.793
CDS-32-07	2	7	180	2600	0.176	4.470	50.8	5.10

**SPECIFICATION ASTM A179**

Pressures shown are for tubes with U.T.S. Min. 3100 bar 45,000 psi.  
Working pressure (W.P) shown above based on 4:1 safety factor.  
For flaring details refer technical data section page 1/9.

**Tube weight = (O.D.-W.T.) W.T. x 0.02466 = Kg/Meter**  
O.D. = diameter in mm  
W.T. = Wall thickness in mm

- Hydraulic Steel Tube**
1. Supplied in 6.1 metre (20ft) lengths
  2. Other sizes and gauges available on request
  3. Weights kgs per metre are for reference purposes only.



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Document No:	HSHYDCAT
Issue:	4
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