



CHINA WELL-KNOWN TRADE MADE MARK

# 济南玫德铸造有限公司

JINAN MEIDE CASTING CO., LTD.

# 济南玛钢股份有限公司

JINAN MALLEABLE IRON INCORPORATED COMPANY



## 济南玫德概况

### JINAN MEIDE BRIEF INTRODUCTION

我公司生产玛钢管件已有40多年的历史，年生产能力20万余吨。是目前中国、亚洲乃至世界最大的管路连接件专业生产厂家之一。


我公司主要生产迈克牌美标、德标、英标三大系列的玛钢管件。品种齐全，规格从1/8"到6"。广泛应用于各种煤气、蒸汽、水、油等管路的连接。我公司还引进台湾、南韩自动化生产设备，采用南韩优质钢管，生产玛钢管件配套的美标、英标、德标钢管接头接管。从1/8"到6"各种规格和长度均可生产，年产2万余吨。近年来，我公司又成功开发了球铁沟槽管件，生产能力已达4万吨。

为满足客户需求，我公司还备有铜管件、球铁管件、灰铸铁管件、Beam夹子、管道夹子、管道支架、框架连接件、手轮、接线盒和各种材料的阀体(玛钢、球铁、灰铁和青铜)等新产品。也可根据客户要求，开发各种玛钢、球铁、灰铸铁等铸造产品。

我公司严格按照ISO9001标准组织生产，已先后获得中国、美国、英国等多个国家的ISO9001质量体系认证证书。并获有美国UL/FM/NSF、加拿大CSA/CUL、德国DVGW/TUV、韩国KS、土耳其TSE、新加坡PSB、日本JIS、英国BSI、以色列SII等产品质量认证证书。通过环境治理取得ISO14001环境体系认证，我公司的“迈克”商标已在世界80多个国家注册，并被中国工商总局评为“中国驰名商标”。

“迈克”牌产品畅销五大洲，深得用户一致好评。

With a history of more than 40 years, and 200,000 Metric Tons annual output, we are one of the largest manufacturers of Malleable Iron Pipe Fitting in China, Asia and even in the world.

We produce Malleable Iron Pipe Fittings with "  " brand, which can be divided into three standards; American standard, Din standard and British standard. The sizes are from 1/8" to 6", widely used in various pipelines to convey gas, water, oil and so on. And we produce high quality American standard, British standard, Din standard Steel Pipe Nipples with automatic equipments from Taiwan and South Korea, by using high quality pipe from South Korea. The Diameter is from 1/8" to 6", length is in accordance with the order and requirement, the annual output is over 20,000 Metric Tons. Recently we succeeded in developing the Ductile Iron Grooved Couplings & Fittings with the output around 40,000 Metric Tons a Year.

In order to meet the requirement of customer, we have developed some new products: Cast bronze Fittings, Ductile Iron Threaded Pipe Fittings, Beam Clamps, Pipe Clamps, Pipe Hangers, Pipe Supporters and Rollers, Guardrail Clamps, Cast Iron Threaded Pipe Fittings, Handle Wheels and Electric Conduit Bodies, Valve Bodies (Malleable, Ductile and Cast Iron), etc. And we can produce other Malleable, Ductile and Cast Iron products according to customers requirements.

We have established the quality management system conforming to ISO 9001, and have got the certificates, certified by BVQI (France), recognized by China and America and Britain. In order to enhance our accountability for environment, the environmental management system to ISO 14001 has been assessed and registered by BVQI (France).

Part of our products have been tested, listed, approved by some predominant labs and bodies, such as UL (USA), FM (USA), NSF (USA), CUL (Canada), CSA (Canada), KS (Korea), DVGW (Germany), TUV (Germany), TSE (Turkey) and PSB (Singapore), JIS (Japan), BSI (England), SII (Israel).

The "China Well-Known Trade Mark" "  " has been registered over 80 countries, and distributed to these countries accordingly.



公司简介 BRIEF INTRODUCTION

产品认证 CERTIFICATE

玛钢管件螺纹基本尺寸

BASIC DIMENSIONS FOR MALLEABLE IRON THREADED FITTINGS

美标玛钢管件 MALLEABLE IRON PIPE FITTING WITH AMERICAN STANDARD

英标玛钢管件 MALLEABLE IRON PIPE FITTING WITH BRITISH STANDARD

德标玛钢管件 MALLEABLE IRON PIPE FITTING WITH DIN STANDARD

球铁管件 DUCTILE IRON PIPE FITTING

灰铸铁管件 CAST IRON PIPE FITTING

铜管件 BRONZE FITTING

框架连接件 PIPECLAMP FITTING

铜管接头 钢管接头 钢管接管

BRASS PIPE NIPPLE/STEEL PIPE INPPLE/STEEL MERCHANT COUPLING

玛钢煤气连接件 MALLEABLE IRON GAS FITTING

玛钢接线盒 MALLEABLE IRON CONDUIT BODY

球铁沟槽管件 DUCTILE IRON GROOVED FITTING

# 玫德产品认证

JINAN MEIDE CERTIFICATE

**CERTIFICATE**  
管理体系认证证书

注册号: CDM171407616-000

颁发  
济南玫德铸造有限公司  
/ 济南玛钢股份有限公司  
山东省济南市高新区经一路12号C10040

管理体系符合  
GB/T 19001-2008 idt ISO 9001:2008标准要求

认证范围见附件

证书号: 000002100101-1 | 有效期至: 2009-06-30

品控部: 董兆 二 中国认证认可协会

IAF, IAF, IAF

方圆标志认证集团

**CERTIFICATE**  
管理体系认证证书

注册号: CDM171407616-000

附件

附件名称	地址	邮编	发证日期
济南玫德铸造有限公司 济南高新区经一路12号C10040	济南市高新区经一路12号C10040	250014	2009-06-30
济南玛钢股份有限公司 济南市高新区经一路12号C10040	济南市高新区经一路12号C10040	250014	2009-06-30

证书号: 000002100101-1 | 有效期至: 2009-06-30

品控部: 董兆 二 中国认证认可协会

IAF, IAF, IAF

方圆标志认证集团

**- I-Net -**  
THE INTERNATIONAL CERTIFICATION NETWORK

**CERTIFICATE**

I-Net and CDM  
jointly certify that the organization  
Jinan Meide Casting Co., Ltd.  
(Jinan Malakite Iron Incorporated Company)  
No.3 Nanyuan Road, Pingyi County, Jinan City, Shandong  
P.R.China  
Postcode: 250400  
is in conformity with  
ISO 9001:2000 Standard

Cover the scope to the attachment

Issued on: 2008-06-14  
Validity date: 2009-06-11  
Registration Number: CDM-000002100101-1

Dr. Public Bureau  
President of I-Net

董兆 董兆  
CEO of CDM

IAF, IAF, IAF

**- I-Net -**  
THE INTERNATIONAL CERTIFICATION NETWORK

**CERTIFICATE**

I-Net and CDM  
jointly certify that the organization

Organization	Address	products	Scope of Certification
Jinan Meide Casting Co., Ltd. (Jinan Malakite Iron Incorporated Company)	No.3 Nanyuan Road, Pingyi County, Jinan City, Shandong, P.R.China	250400	Design, development, production, sales of foundry products and the associated service.
Jinan Malakite Iron Spun Pipe Manufacturing Co., Ltd.	Crown Road, 3 West Development Area, Pingyi County, Shandong P.R.China	270400	Design, development, production, sales of spun pipe and pipe.

Issued on: 2008-06-14  
Validity date: 2009-06-11  
Registration Number: 000002100101-1

Dr. Public Bureau  
President of I-Net

董兆 董兆  
CEO of CDM

IAF, IAF, IAF

**KITEMARK LICENCE**

No. KM 07015

颁发给  
Jinan Meide Casting Co., Ltd.  
No. 3 Nanyuan Road,  
Pingyi,  
250400,  
China

BSI 108 108999 000 10002  
Marking licence and cover design using Kitemark logo

The right and licence to use the Kitemark in conformity with the European Union Guidelines of Central Marking of the products, as well as the corresponding national laws, and of displaying the Kitemark logo on the products, are granted to the licensee for the period of validity of the licence.

The licence is granted to the licensee in the following conditions: the licensee shall ensure that the products are manufactured in accordance with the technical specifications of the licence.

品控部: 董兆 二 中国认证认可协会

IAF, IAF, IAF

方圆标志认证集团

**PSB**  
Certificate of Conformity  
PSB PRODUCT LISTING SCHEME

注册号: 000002100101-1

颁发给  
Jinan Meide Casting Co., Ltd.  
No. 3 Nanyuan Road,  
Pingyi,  
250400,  
China

品控部: 董兆 二 中国认证认可协会

IAF, IAF, IAF

方圆标志认证集团

**DVGW**  
Zertifikat über ein DIN-DVGW Prüfzeichen  
certificate for a DIN-DVGW test mark

颁发给  
Jinan Meide Casting Co., Ltd.  
No. 3 Nanyuan Road,  
Pingyi,  
250400,  
China

品控部: 董兆 二 中国认证认可协会

IAF, IAF, IAF

方圆标志认证集团

**DIN**  
Zertifikat über ein DIN-Prüfzeichen  
certificate for a DIN test mark

颁发给  
Jinan Meide Casting Co., Ltd.  
No. 3 Nanyuan Road,  
Pingyi,  
250400,  
China

品控部: 董兆 二 中国认证认可协会

IAF, IAF, IAF

方圆标志认证集团



### Dimension, External and internal Straight Pipe Thread for Locknut Connections, NPSL (Loose Fittings Mechanical Joints)

缩紧螺母连接用内、外直管螺纹, NPSL (自由配合的机械连接)

Dimensions in inches 尺寸: 英寸

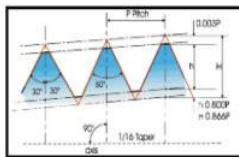
Nominal Pipe Size 公称管子尺寸	O.D. of Pipe D 管子外径	Threads Inch N 每英寸牙数	External Thread 外螺纹			Internal Threads 内螺纹		
			Maximum Major Diameter 最大大径	Pitch Diameter 中径		Minimum Minor Diameter 最小小径	Pitch Diameter 中径	
				Maximum 最大值	Minimum 最小值		Maximum 最大值	Minimum 最小值
1	2	3	4	5	6	7	8	9
1/8	0.405	27	0.409	0.384	0.3805	0.362	0.3863	0.3989
1/4	0.540	18	0.541	0.5038	0.4986	0.47	0.5073	0.5125
3/8	0.675	18	0.678	0.6409	0.9357	0.607	0.9444	0.6496
1/2	0.840	14	0.844	0.7963	0.7896	0.753	0.8008	0.8075
3/4	1.050	14	1.054	1.0067	1.0000	0.964	1.0112	1.0179
1	1.315	11.5	1.318	1.2604	1.2523	1.208	1.2658	1.2739
1 1/4	1.660	11.5	1.63	1.6051	1.5970	1.553	1.6106	1.6187
1 1/2	1.900	11.5	1.902	1.8441	1.8360	1.792	1.8495	1.8576
2	2.375	11.5	2.376	2.318	2.3099	2.265	2.3234	2.3315
2 1/2	2.875	8	2.877	2.7934	2.7817	2.718	2.8012	2.8129
3	3.500	8	3.503	3.4198	3.4081	3.344	3.4276	3.4393
3 1/2	4.000	8	4.003	3.9201	3.9084	3.845	3.9279	3.9396
4	4.500	8	4.502	4.4184	4.4067	4.343	4.4262	4.4379
5	5.563	8	5.564	5.4805	5.4688	5.405	5.4884	5.5001
6	6.625	8	6.62	6.5372	6.5255	6.462	6.545	6.5567

Note: This information is selected from the American Pipe Threads, ANSI/ASME B1.20.1-1983 Table 7: Dimension, External and Internal Straight Pipe Thread for Locknut Connections, NPSL Loose Fittings Mechanical Joints.

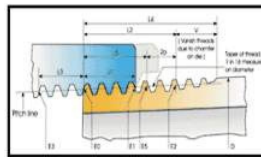
备注: 以上信息选自美国管螺纹标准: ANSI/ASME B1.20.1-1983, 表7: 缩紧螺母连接用内、外直管螺纹, NPSL (自由配合的机械连接)

### Basic dimensions for American Standard Malleable Iron Threaded Fittings

美国玛钢管件螺纹基本尺寸



Taper thread  
 $H = 0.866025 p = 0.866025/n$   
 $h = 0.800 p = 0.800/n$



Taper thread  
 $L2 = (0.8D + 6.8) 1/n = (0.80D + 6.8)p$

### Basic Dimensions of American National Standard Taper Pipe Thread, NPT

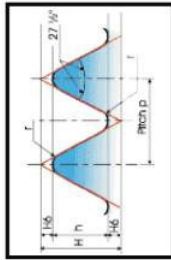
美国国家标准锥管螺纹基本尺寸

NPS 公称管子尺寸	O.D. of Pipe (D) 管子外径	Threads/in. (N)	Pitch of Thread (P) 螺距	Pitch Dia. at Beginning of External (E <sub>1</sub> ) 外螺纹起始端的中径	Handtight Engagement 手旋合		Effective Thread, External 有效螺纹, 外螺纹			Height of thread h 螺纹高度	
					Length (L) 长度		Length (L <sub>2</sub> ) 长度		Dia / (E <sub>2</sub> ) 直径		
					Inch 英寸	Thread 牙数	Inch 英寸	Thread 牙数			
1	2	3	4	5	6	7	8	9	10	11	22
1/8	0.405	27	0.037	0.363	0.161	4.36	0.373	0.263	7.12	0.38	0.029
1/4	0.540	18	0.055	0.477	0.227	4.1	0.491	0.401	7.23	0.502	0.044
3/8	0.675	18	0.055	0.612	0.612	4.32	0.627	0.407	7.34	0.637	0.044
1/2	0.840	14	0.071	0.758	0.758	4.48	0.778	0.533	7.47	0.791	0.057
3/4	1.050	14	0.071	0.967	0.967	4.75	0.988	0.545	7.64	1.001	0.057
1	1.315	11.5	0.086	1.213	1.213	4.6	1.238	0.682	7.85	1.256	0.069
1 1/4	1.660	11.5	0.086	1.557	1.557	4.83	1.583	0.706	8.13	1.601	0.069
1 1/2	1.900	11.5	0.086	1.796	1.796	4.83	1.822	0.723	8.32	1.841	0.069
2	2.375	11.5	0.089	2.269	2.269	5.01	2.296	0.756	8.7	2.316	0.069
2 1/2	2.875	8	0.125	2.719	2.719	5.46	2.762	1.137	9.1	2.79	0.1
3	3.500	8	0.125	3.34	3.34	6.13	3.388	1.2	9.6	3.415	0.1
3 1/2	4.000	8	0.125	3.837	3.837	6.57	3.388	1.25	10	3.915	0.1
4	4.500	8	0.125	4.334	4.334	6.75	4.387	1.3	10.4	4.415	0.1
5	5.563	8	0.125	5.39	5.39	7.5	5.449	1.406	11.25	5.478	0.1
6	6.625	8	0.125	6.446	6.446	7.66	3.505	1.512	12.21	6.54	0.1

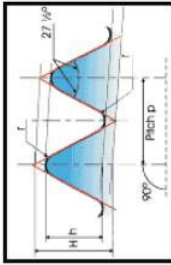
Note: This information is selected from the American Pipe Threads, ANSI/ASME B1.20.1-1983 Table 2 Basic Dimensions of American National Standard Taper Pipe Thread, NPT.

备注: 以上信息选自美国管螺纹标准: ANSI/ASME B1.20.1-1983, 表2: 美国国家标准锥管螺纹基本尺寸

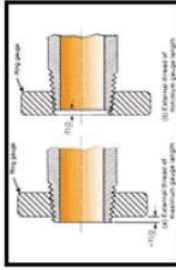
## Basic Dimensions for British and Din Standard Malleable Iron Threaded Fittings 英标、德标玛玛钢管件螺纹基本尺寸



**Fig 1 - Parallel thread**  
H = 0.960491 p  
h = 0.640327 p  
r = 0.137329 p



**Taper 2 - Taper thread**  
H = 0.960237 p  
h = 0.640327 p  
r = 0.137278 p



(a) External thread of maximum gauge length  
(b) External thread of minimum gauge length

## International Standard ISO7/1, Pipe Threads Dimensions ISO 7/1 准锥螺纹基本尺寸

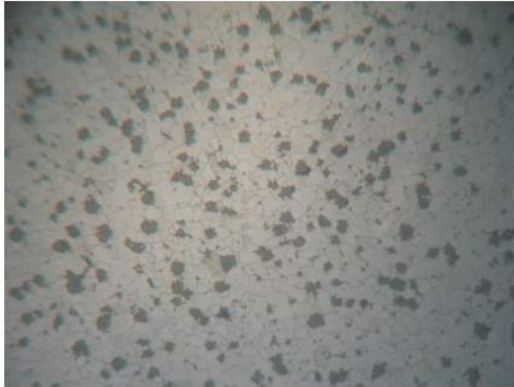
1 Designations of thread size 螺纹标称	2 Number of threads in 25.4mm 每25.4毫米的牙数	3 pitch P 螺距	4 Height of thread h 螺纹高度	5 Diameters at gauge plane 规准面直径		7 Minor d1 小径	8 Gauge Length [external thread] 规准长度 [外螺纹]		11 Maximum 最大	12 Minimum 最小	13 Tolerance on position of gauge 内螺纹规准位置	14 Tolerance ± T/2 公差		15 For Nominal gauge length 基本规准长度	16 For maximum gauge length 最大规准长度	17 For minimum gauge length 最小规准长度
				Major (gauge diameter) d 大径	Pitch d2 中径		Nominal 基本	Tolerance ± T1/2 公差				Turns of threads 牙数				
								0.9					Turns of threads 牙数			
1/8	28	0.907	0.581	9.728	9.147	8.566	4	1	4.9	3.1	1.7	1 1/4	6.5	7.4	5.6	
1/4	19	1.337	0.856	13.157	12.301	11.445	6	1.3	7.3	4.7	1.7	1 1/4	9.7	11	8.4	
3/8	19	1.337	0.856	16.662	15.806	14.95	6.4	1.3	7.7	5.1	1.7	1 1/4	10.1	11.4	8.8	
1/2	14	1.814	1.162	20.955	19.793	18.631	8.2	1.8	10	6.4	2.3	1 1/4	13.2	15	11.4	
3/4	14	1.814	1.162	26.441	25.279	21.117	9.5	1.8	10	7.7	2.3	1 1/4	14.5	16.3	12.7	
1	11	2.309	1.479	33.249	31.77	30.291	10.4	2.3	12.7	8.1	2.9	1 1/4	16.8	19.1	14.5	
1 1/4	11	2.309	1.479	41.91	40.431	38.952	12.7	2.3	15	10.4	2.9	1 1/4	19.1	21.4	16.8	
1 1/2	11	2.309	1.479	47.803	46.324	44.845	12.7	2.3	15	10.4	2.9	1 1/4	19.1	21.4	16.8	
2	11	2.309	1.479	59.614	58.135	56.656	15.9	2.3	18.2	13.6	2.9	1 1/4	23	25.7	21.1	
2 1/2	11	2.309	1.479	75.184	73.705	72.226	17.5	3.5	21	14	3.5	1 1/2	26.7	30.2	23.2	
3	11	2.309	1.479	87.884	86.405	84.926	20.6	3.5	24.1	17.1	3.5	1 1/2	29.8	33.3	26.3	
4	11	2.309	1.479	113.03	111.551	110.072	25.4	3.5	28.9	21.9	3.5	1 1/2	35.8	39.3	32.3	
5	11	2.309	1.479	138.43	136.951	135.472	28.6	3.5	32.1	25.1	3.5	1 1/2	40.1	43.6	36.6	
6	11	2.309	1.479	163.83	162.351	160.872	28.6	3.5	32.1	25.1	3.5	1 1/2	40.1	43.6	36.6	

Note: This information is selected from the International Standard ISO7/1:2000, Pipe threads where pressure-tight joints. Table 1.  
备注: 以上信息选自国际标准ISO7/1: 螺旋密封接头用管螺纹. 表1.

## Technical Information

### 1) Material

MECH Brand pipe fittings are made of black heart malleable cast iron.



Microstructure of the MECH Brand Black Heart Malleable Iron after annealing

### 2) Threads

- a. MECH Brand class 150 pipe fittings: ANSI B1.20.1, ISO 7/1
- b. MECH Brand extra heavy class 300 pipe fittings: ANSI B1.20.1, ISO 7/1

### 3) Pressure—Temperature Ratings

Pressure—Temperature Ratings are shown in the following table.

		Class 300, psig		
		Size	Size	Size
Temperature, °F	Class 150, psig	1/4-1	1 1/4-2	2 1/2-3
20 to 150	300	2000	1500	1000
200	265	1785	1350	910
250	225	1575	1200	825
300	185	1360	1050	735
350	150 Note (1)	1150	900	650
400	20 to 150	935	750	580
450	20 to 150	725	600	475
500	20 to 150	510	450	385
550	20 to 150	300	300	300

**NOTE:**

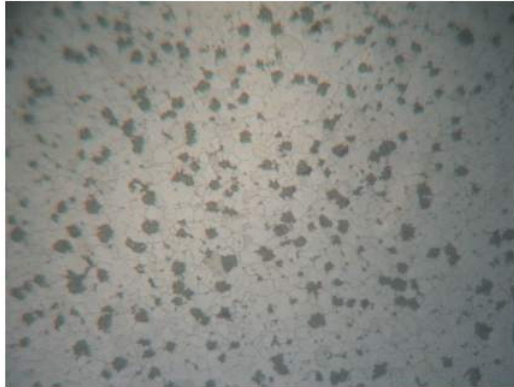
(1) Permissible for service temperature up to 366 ° F, reflecting the temperature of saturated steam at 150psig.



## 技术资料

### 材质

迈克牌玛钢管件的材质为黑心可锻铸铁。



退火后的黑心可锻铸铁金相图片

### 2) 螺纹

- a. 迈克牌150磅玛钢管件：ANSI B1.20.1, ISO 7/1
- b. 迈克牌300磅玛钢管件：ANSI B1.20.1, ISO 7/1

### 3) 压力和温度的关系

压力-温度的关系如下表所示：

		Class 300, psig		
		Size	Size	Size
Temperature, °F	Class 150, psig	1/4-1	1 1/4-2	2 1/2-3
20 to 150	300	2000	1500	1000
200	265	1785	1350	910
250	225	1575	1200	825
300	185	1360	1050	735
350	150 Note (1)	1150	900	650
400	20 to 150	935	750	580
450	20 to 150	725	600	475
500	20 to 150	510	450	585
550	20 to 150	300	300	300

### 备注:

(1) 最大允许的工作温度为366 ° F，即150psi下饱和蒸汽的温度。

## 玛钢管件

美 标

150磅玛钢管件






















材 质: ASTM A-197, ASTM A47  
外形尺寸: ASME B16.3, B16.14 UNION B16.39  
螺 纹: ANSI B1.20.1  
可供规格: 1/8"-6"

## MALLEABLE IRON PIPE FITTING

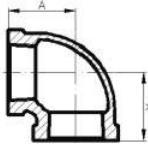
AMERICAN STANDARD

150 PSI MALLEABLE IRON PIPE FITTING

MATERIAL: ASTM A-197, ASTM A47  
DIMENSIONS: ASME B16.3, B16.14  
UNION DIMENSIONS: B16.39  
THREADS: ANSI B1.20.1  
SIZE AVAILABLE: 1/8"-6"

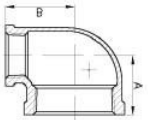
	90	Elbow, 90°		240	Reducing Socket
	90R	Elbow, 90° reducing		241	Bushing, outside head
	90U	180° Return Elbow		241N	Bushing, inside head
	92	Street Elbow, 90°		280	Hexagon Nipple, equal
	92L	Extended Street Elbow		291	Plug, cored
	120	Elbow, 45°		291S	Plug, solid
	121	Street Elbow, 45°, equal		291N	Plug, countersunk
	130 (同径)	Tee		291-4	Plug, bar head
	130R (侧大)	Tee, reducing		300	Cap
	130R (中小)	Tee, reducing		310	Locknut
	130R (中大)	Tee, reducing		321	Round Flange, with 4 bolt holes
	130R (异径)	Tee, reducing		321W	Round Flange, without bolt hole
	130R (侧小)	Tee, reducing		342	Union, conical joint, brass to iron seat
	T130	Tee		1221	Side Outlet Elbow, beaded
	134	Service Tee		1223	Side Outlet Tee
	165	Lateral Y Branches, 45°			
	180	Cross			
	180R	Cross, reducing			
	220	Socket			

90  
Elbow, 90°



Size/规格	Inch	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2
	mm	6	8	10	15	20	25	32	40	50	65	80	90
Dimensions /尺寸(mm.)	A	17.5	20.6	24.1	28.5	33.3	38.1	44.5	49.3	57.2	68.6	78.2	86.9
	B												

90R  
Elbow, 90° reducing



Size/规格	Inch	4x1/2	4x3/4	4x1	4x1 1/4	4x1 1/2	4x2	4x2 1/2	4x3	3/8x1/8	3/8x1/4	6x4	1/2x3/8
	mm	100x15	100x20	100x25	100x32	100x40	100x50	100x65	100x80	10x6	10x8	150x100	15x10
Dimensions /尺寸(mm.)	A	50	54	57	61	63	69	78	83.5	20.5	22	102	26
	B	79	80	83	86	86	87	90	91	21.5	22.5	125	26

Size/规格	Inch	1/2x1/8	1/2x1/4	3/4x3/8	3/4x1/2	3/4x1/8	3/4x1/4	1x3/8	1x1/2	1x3/4	1x1/4	1/2x3/8	1/2x1/2
	mm	15x6	15x8	20x10	20x15	20x6	20x8	25x10	25x15	25x20	25x8	32x10	32x15
Dimensions /尺寸(mm.)	A	22	24	28.5	30.5	26	26.5	30	32	34.5	27	32	34
	B	23	24	28.5	31	27	27	32	35.5	36.5	31	36.5	38.5

Size/规格	Inch	1/4x3/4	1/4x1	1/4x1/2	1/4x3/4	1/4x1	1/4x1/4	2x1/2	2x3/4	2x1	2x1/4	2x1/4	2/4x1/2
	mm	32x20	32x25	40x15	40x20	40x25	40x32	50x15	50x20	50x25	50x32	50x40	65x15
Dimensions /尺寸(mm.)	A	36.5	40	35	38.5	41.5	46	38	40.5	43.5	48	51	41
	B	41	42	42	44.5	45.5	47.5	48	50	51	53	54.5	57

Size/规格	Inch	2 1/2x3/4	2 1/2x1	2 1/2x1/4	2 1/2x1 1/2	2 1/2x2	3x1/2	3x3/4	3x1	3x1 1/4	3x1 1/2	3x2	3x2 1/2
	mm	65x20	65x25	65x32	65x40	65x50	80x15	80x20	80x25	80x32	80x40	80x50	80x65
Dimensions /尺寸(mm.)	A	44	48	52	55	60	43	46	50	55	58	64	71.5
	B	58	60	62	62	66	65	66	68	70	72	73	75.5

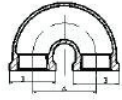
  

Size/规格	Inch	1/4x1/8											
	mm	8x6											
Dimensions /尺寸(mm.)	A	18.5											
	B	19											

美 标  
英 标  
德 标  
日 标  
球 铁  
灰 铁  
铜 管 件  
框 架  
接 管  
煤 气 件  
接 线 盒  
沟 槽

### 90U

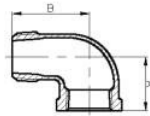
180° Return Elbow



Size/规格	Inch	2													
	mm	50													
Dimensions / 尺寸 (mm.)	A	101.6													
	B	75.1													

### 92

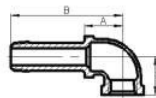
Street Elbow, 90°



Size/规格	Inch	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3		
	mm	6	8	10	15	20	25	32	40	50	65	80	100	
Dimensions / 尺寸 (mm.)	A	17.5	20.6	24.1	28.5	33.3	38.1	44.5	49.3	57.2	68.6	78.2	96.3	
	B	25.4	30.2	36.6	41.2	48.0	54.4	62.2	68.3	82.8	98.0	114.6	144.5	

### 92L

Extended Street Elbow



Size/规格	Inch	1/2												
	mm	15												
Dimensions / 尺寸 (mm.)	A	28.5												
	B	34												

### 120

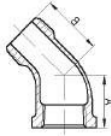
Elbow, 45°



Size/规格	Inch	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	6
	mm	6	8	10	15	20	25	32	40	50	65	80	100	150
Dimensions / 尺寸 (mm.)	A	16	18.5	20	22	24.5	28.5	32.5	36	42.5	49.5	55	66	88

### 121

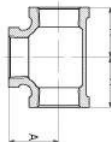
Street Elbow, 45°, equal



Size/规格	Inch	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
	mm	6	8	10	15	20	25	32	40	50	65	80	100
Dimensions / 尺寸 (mm.)	A	16	18.5	20	22	24.5	28.5	32.5	36	42.5	49.5	55	66
	B	21	24	26	29	32.5	37	43	47.5	56	56	76	94

### 130 (同径)

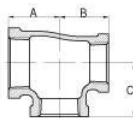
Tee



Size/规格	Inch	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	3	2 1/2	3	3 1/2
	mm	6	10	10	15	20	25	32	40	50	65	80	90
Dimensions / 尺寸 (mm.)	A	17.5	20.6	24.1	28.5	33.3	38.1	44.5	49.3	57.2	68.6	78.2	86.9
Size/规格	Inch	4	5	6									
	mm	100	125	150									
Dimensions / 尺寸 (mm.)	A	96.3	114.3	130.3									

### 130R (侧大)

Tee, reducing



Size/规格	Inch	3/4x1/2x1/2	1x1/2x1/2	1x3/4x3/4	1 1/2x1/2x1/2	1 1/2x3/4x3/4	1 1/2x1x1	1 1/2x1/2x1/2	1 1/2x3/4x3/4	1 1/2x1x1	1 1/2x1 1/4x1 1/4	2x3/4x3/4
	mm	20x15x15	25x15x15	25x20x20	32x15x15	32x20x20	32x25x25	40x15x15	40x20x20	40x25x25	40x32x32	50x20x20
Dimensions / 尺寸 (mm.)	A	30.5	32	34.8	34	36.8	40.1	37	38	41.9	46.2	41
	B	28.5	28.5	33.3	27	33.3	38.1	26	32	38.1	44.5	32
	C	31	35.5	36.8	38	41.2	42.4	43	43	45.1	47.8	49
Size/规格	Inch	2x1x1	2x1 1/2x1 1/2	2x1 1/4x1 1/4	2 1/2x2x2	3x2x2						
	mm	50x25x25	50x32x32	50x40x40	65x50x50	80x60x60						
Dimensions / 尺寸 (mm.)	A	46	48.3	51.3	60.7	64						
	B	44.5	44.5	49.3	57.2	57.2						
	C	47.5	53.3	54.9	66	73.4						

美标

英标

德标

日标

球铁

灰铁

铜管件

框架

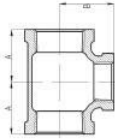
接管

煤气件

接线盒

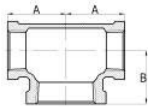
沟槽

### 130R (中小) Tee, reducing



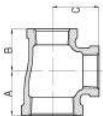
Size/规格	Inch	1/4x1/8	3/8x1/8	3/8x1/4	1/2x3/8	1/2x1/8	1/2x1/4	3/4x3/8	3/4x1/2	3/4x1/4	1x3/8	1x1/2	1x3/4	1x1/4
	mm	8x6	10x6	10x8	15x10	15x6	15x8	20x10	20x15	20x8	25x10	25x15	25x20	25x8
Dimensions / 尺寸 (mm.)	A	18.8	20.6	22.4	26.4	22	24.6	28.5	30.5	26.7	30	32	34.8	28
	B	19.3	21.6	22.9	26.2	23	24.9	28.7	31	27.4	32.3	35.5	36.8	31
Size/规格	Inch	1/2x3/8	1/2x1/2	1/2x3/4	1/2x1	1/2x1/4	1/2x3/8	1/2x1/2	1/2x3/4	1/2x1	1/2x1 1/2	2X3/8	2X1/2	2X3/4
	mm	32x10	32x15	32x20	32x25	32x8	40x10	40x15	40x20	40x25	40x32	50x10	50x15	50x20
Dimensions / 尺寸 (mm.)	A	32	34	36.8	40.1	30	34	35.8	38.6	41.9	46.2	37	37.9	40.6
	B	36.6	38.9	41.2	42.4	36.5	39	42.2	44.5	45.7	47.8	46	47.8	50
Size/规格	Inch	2X1	2X1 1/4	2X1 1/2	2 1/2X1/2	2 1/2X3/4	2 1/2X1	2 1/2X1 1/2	2 1/2X1 1/4	2 1/2X2	3X1 1/2	3X3/4	3X1	3X1 1/4
	mm	50x25	50x32	50x40	65x15	65x20	65x25	65x32	65x40	65x50	80x15	80x20	80x25	80x32
Dimensions / 尺寸 (mm.)	A	43.9	48.3	51.3	41	44.2	47.5	51.8	54.9	60.7	43	47.5	50.8	55.1
	B	51.3	53.3	54.9	57	58.9	60.2	62.7	63.8	66	65	66.3	67.6	69.6
Size/规格	Inch	3X1 1/2	3X2	3X2 1/2	4X1/2	4X3/4	4X1	4X1 1/4	4X1 1/2	4X2	4X2 1/2	4x3	6x3	6x4
	mm	80x40	80x50	80x65	100x15	100x20	100x25	100x32	100x40	100x50	100x65	100x80	150x80	150x100
Dimensions / 尺寸 (mm.)	A	58.2	64	71.9	50	54	57	61	63.8	69.6	77.5	83.8	92.5	104.9
	B	71.1	73.4	76	79	80	83	84	84.3	86.6	89.2	91.4	120.7	125.5

### 130R (中大) Tee, reducing



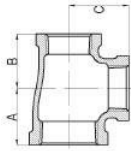
Size/规格	Inch	3/8x3/8x1/2	1/2x1/2x3/4	1/2x1/2x1	3/4x3/4x1	3/4x3/4x1 1/2	1x1x1/2	1x1x1	1x1x2	1 1/2x1 1/2x1 1/2	1 1/2x1 1/2x2	1 1/2x1 1/2x2 1/2	2x2x1 1/2
	mm	10x10x15	15x15x20	15x15x25	20x20x25	20x20x32	25x25x32	25x25x40	25x25x50	32x32x40	32x32x50	40x40x50	50x50x65
Dimensions / 尺寸 (mm.)	A	26.2	31	34.6	36.8	41.2	42.4	45.7	51.3	47.8	53.3	54.9	62
	B	26.4	30.5	32	34.8	36.8	40.1	41.9	48.9	46.2	48.3	51.3	55

### 130R (异径) Tee, reducing



Size/规格	Inch	3/4x1/2x1	1x1/2x3/4	1x3/4x1/2	1 1/2x1/2x3/4	1 1/2x1/2x1	1 1/2x3/4x1/2	1 1/2x3/4x1	1 1/2x1x1/2	1 1/2x1x3/4	1 1/2x1x1	1 1/2x1/2x3/4	1 1/2x1/2x1
	mm	20x15x25	25x15x20	25x20x15	32x15x20	32x15x25	32x20x15	32x20x25	32x25x15	32x25x20	32x25x40	40x15x20	40x15x25
Dimensions / 尺寸 (mm.)	A	38	34.8	32	35	40.1	40	40.1	34	36.8	48	40	44
	B	33	31	30.5	29	34.5	37	36.8	32	34.8	46	30	34
	C	34	36.8	35.5	38	42.4	42.5	42.4	38.9	41.2	46	43	46

**130R (异径)**  
Tee, reducing



Size/规格	Inch	1/2x1/2x1/4	1/2x3/4x1/2	1/2x3/4x1	1/2x3/4x1/4	1/2x1x1/2	1/2x1x3/4	1/2x1x1/2	1/2x1x1/4	1/2x1/2x1/2	1/2x1/2x3/4	1/2x1/2x1	1/2x1/2x2	2x1x1/2
	mm	40x15x32	40x20x15	40x20x25	40x20x32	40x25x15	40x25x20	40x25x32	40x25x15	40x20x20	40x20x25	40x20x32	40x25x30	50x25x40
Dimensions / 尺寸 (mm.)	A	48	38	46	46	37	40	46.2	35.8	38.6	41.9	55	51.3	
	B	38	29	42	41	32	35	42.4	34.5	36.3	40.1	53.5	45.7	
	C	49	41	41.5	48	41	43	47.8	42.2	44.5	45.7	51.5	54.9	

Size/规格	Inch	2x1/2x1	2x1/2x1/2	2x1/2x1/2	2x1/2x3/4	2x1/2x1	2x1/2x1/2	2x1/2x1/2					
	mm	50x25x25	50x25x40	50x40x15	50x40x20	50x40x25	50x40x20	66x40x20					
Dimensions / 尺寸 (mm.)	A	44	51.3	42	40.5	43.9	48.3	60.7					
	B	40	47.8	37	38.5	41.9	46.2	54.9					
	C	51	54.9	47	50	51.3	53.3	66					

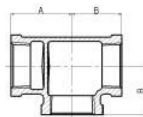
**130R (侧小)**  
Tee, reducing



Size/规格	Inch	1/2x3/8x1/2	1/2x1/4x1/2	3/4x1/2x3/4	1x1/2x1	1x3/4x1	1x1/4x1	1/2x1/2x1/2	1/2x3/4x1/2	1/2x1x1/2	1/2x1/2x1/2	1/2x3/4x1/2	1/2x1x1/2
	mm	15x10x15	15x8x15	20x15x20	25x15x25	25x20x25	25x8x25	32x15x32	32x20x32	32x25x32	40x15x40	40x20x40	40x25x40
Dimensions / 尺寸 (mm.)	A	28.5	28.5	33.3	38.1	38.1	38	44.5	44.5	44.5	49.3	49.3	49.3
	B	26.2	24.9	31.6	35.5	36.8	30	38.9	41.2	42.4	42.2	44.5	45.7
	C	28.5	28.5	33.3	38.1	38.1	38	44.5	44.5	44.5	49.3	49.3	49.3

Size/规格	Inch	1/2x1/2x1/2	2x1/2x2	2x3/4x2	2x1x2	2x1/2x2	2x1/2x2	2x1/2x2	2x1/2x2	2x1/2x2	3x2x3		
	mm	40x20x40	50x15x50	50x20x50	50x25x50	50x32x50	50x40x50	66x40x66	66x50x66	80x50x80			
Dimensions / 尺寸 (mm.)	A	49.3	57.2	57.2	57.2	57.2	57.2	68.6	68.6	78.2			
	B	47.8	47.8	50	51.3	53.3	54.8	63.8	66	73.4			
	C	49.3	57.2	57.2	57.2	57.2	57.2	68.6	68.6	78.2			

**T130**  
Tee



Size/规格	Inch	1 1/4										
	mm	32										
Dimensions / 尺寸 (mm.)	A	55										
	B	45.5										

美标

英标

德标

日标

球铁

灰铁

铜管件

框架

接管

煤气件

接线盒

沟槽

### 134

Service Tee



Size/规格	Inch	1/4	1/2	3/4	1	1 1/4	1 1/2	2					
	mm	8	15	20	25	32	40	50					
Dimensions / 尺寸 (mm.)	A	20.6	28.5	33.3	38.1	44.5	49.3	57.2					
	B	30.2	41.2	48	54.4	62.2	68.3	82.8					

### 165

Lateral Y Branches, 45°



Size/规格	Inch	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4		
	mm	10	15	20	25	32	40	50	65	80	100		
Dimensions / 尺寸 (mm.)	A	12.7	15.5	18.3	21.6	25.9	27.9	31.5	38.6	43.4	51.1		
	B	36.3	43.4	52.1	61.7	74.2	83.3	99.8	120.1	141	177		

### 180

Cross



Size/规格	Inch	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
	mm	6	8	10	15	20	25	32	40	50	65	80	100
Dimensions / 尺寸 (mm.)	A	17.5	20.6	24.1	28.5	33.3	38.1	44.5	49.3	57.2	68.6	78.2	96.3

### 180R

Cross, reducing

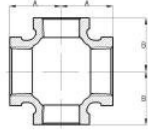


Size/规格	Inch	3/4x1/2	1x1/2	1x3/4	1 1/2x1/2	1 1/2x3/4	1 1/2x3/4	1 1/2x1	1 1/2x3/4	1 1/2x1	1 1/2x1/4	2x3/4	2x1
	mm	20x15	25x15	25x20	32x15	32x20	2x20x20	32x25	40x20	40x25	40x32	50x20	50x25
Dimensions / 尺寸 (mm.)	A	30.5	32	34.8	34	36.8	40	40.1	38.6	41.9	46.2	40.6	43.9
	B	31	35.5	36.8	38.9	41.2	34	42.4	44.5	45.7	47.8	50	51.3



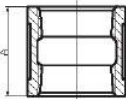


### 180R Cross, reducing



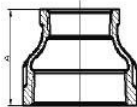
Size/规格	Inch	2x1/4	2x1/2	2 1/2 x1	2 1/2 x1/4	2 1/2 x1/2	2 1/2 x2	3x1	3x1 1/4	3x1 1/2	3x2	3x2 1/2	4x1
	mm	50x32	50x40	65x25	65x32	65x40	65x50	80x25	80x32	80x40	80x50	80x65	100x25
Dimensions /尺寸(mm.)	A	48.3	51.3	47.5	51.5	54.9	60.7	50.5	55	58	64	71.9	57
	B	53.3	54.9	60.2	62.5	63.8	66	67.5	69.5	71	73.4	76	83
Size/规格	Inch	4x1 1/4	4x1 1/2	4x2	4x2 1/2	4x3							
	mm	100x32	100x40	100x50	100x65	100x80							
Dimensions /尺寸(mm.)	A	61	63.5	69.5	77.5	83.8							
	B	84	84	86.5	89	91.4							

### 220 Socket



Size/规格	Inch	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
	mm	6	8	10	15	20	25	32	40	50	65	80	100
Dimensions /尺寸(mm.)	A	24.4	26.9	29.5	34.0	38.6	42.4	49.0	54.6	64.3	73.2	80.8	93.0

### 240 Reducing Socket



Size/规格	Inch	1/4x1/8	3/8x1/8	3/8x1/4	1/2x1/8	1/2x1/4	1/2x3/8	3/4x1/8	3/4x1/4	3/4x3/8	3/4x1/2	1x1/4	1x3/8	
	mm	8x6	10x6	10x8	15x6	15x8	15x10	20x6	20x8	20x10	20x15	25x8	25x10	
Dimensions /尺寸(mm.)	A	25.4	28.7	28.7	31.8	31.8	31.8	36.6	36.6	36.6	36.6	42.9	42.9	
Size/规格	Inch	1x1/2	1x3/4	1 1/4 x1/4	1 1/4 x3/8	1 1/4 x1/2	1 1/4 x3/4	1 1/2 x1	1 1/2 x1/4	1 1/2 x3/8	1 1/2 x1/2	1 1/2 x3/4	1 1/2 x1	
	mm	25x15	25x20	32x8	32x10	32x15	32x20	32x25	40x8	40x10	40x15	40x20	40x25	
Dimensions /尺寸(mm.)	A	42.9	42.9	52.3	52.3	52.3	52.3	52.3	58.7	58.7	58.7	58.7	58.7	
Size/规格	Inch	1 1/2 x1/4	2x3/8	2x1/2	2x3/4	2x1	2x1 1/4	2x1 1/2	2 1/2 x1/2	2 1/2 x3/4	2 1/2 x1	2 1/2 x1 1/4	2 1/2 x1 1/2	2 1/2 x2
	mm	40x32	50x10	50x15	50x20	50x25	50x32	50x40	65x15	65x20	65x25	65x32	65x40	65x50
Dimensions /尺寸(mm.)	A	58.7	71.4	71.4	71.4	71.4	71.4	71.4	82.6	82.6	82.6	82.6	82.6	82.6
Size/规格	Inch	3x1/2	3x3/4	3x1	3x1 1/4	3x1 1/2	3x2	3x2 1/2	4x1	4x1 1/4	4x1 1/2	4x2	4x2 1/2	4x3
	mm	80x15	80x20	80x25	80x32	80x40	80x50	80x65	100x25	100x32	100x40	100x50	100x65	100x80
Dimensions /尺寸(mm.)	A	93.7	93.7	93.7	93.7	93.7	93.7	93.7	111.3	111.3	111.3	111.3	111.3	111.3

美标

英标

德标

日标

球铁

灰铁

铜管件

框架

接管

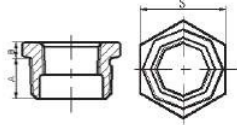
煤气件

接线盒

沟槽

## 241

Bushing, outside head

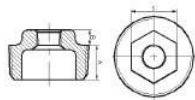


Size/规格	Inch	1/4x1/8	3/8x1/8	3/8x1/4	1/2x1/8	1/2x1/4	1/2x3/8	3/4x1/8	3/4x1/4	3/4x3/8	3/4x1/2	1x1/2	1x3/4	1 1/2x3/4
	mm	8x6	10x6	10x8	15x6	15x8	15x10	20x6	20x8	20x10	20x15	25x15	25x20	32x20
Dimensions / 尺寸 (mm.)	A	11.2	12.2	12.2	14.2	14.2	14.2	16	16	16	16	19.1	19.1	20.3
	B	3.6	4.3	4.1	4.8	4.8	4.8	5.6	5.6	5.6	5.6	6.4	6.4	7.1
	C	16.3	17.3	17.3	22.1	22.1	22.1	29.2	29.2	29.2	29.2	36.1	36.1	44.7

Size/规格	Inch	1 1/2x1	1 1/2x1	1 1/2x1 1/4	2x1 1/4	2x1 1/4	2 1/2x1 1/4	2 1/2x2	3x2	3 1/2x3	4x3	4x3 1/2	5x4	6x5
	mm	32x25	40x25	40x32	50x32	50x40	65x40	65x50	80x50	90x80	100x80	100x90	125x100	150x125
Dimensions / 尺寸 (mm.)	A	20.3	21.1	21.1	22.4	22.4	27.2	27.2	28.7	30	31	31	33.3	35.6
	B	7.1	7.9	7.9	8.6	8.6	11.2	9.4	12.2	10.9	12.7	12.7	12.7	16
	C	44.7	50.8	50.8	63	63	68.1	75.7	83.3	117.3	117.3	132.1	147.1	179.1

## 241N

Bushing, inside head



Size/规格	Inch	1x1/8	1x1/4	1x3/8	1 1/4x1/4	1 1/4x3/8	1 1/4x1/2	1 1/2x1/8	1 1/2x1/4	1 1/2x3/8	1 1/2x1/2	1 1/2x3/4	2x1/4
	mm	25x6	25x8	25x10	32x8	32x10	32x15	40x6	40x8	40x10	40x15	40x20	50x8
Dimensions / 尺寸 (mm.)	A	19.1	19.1	19.1	20.3	20.3	20.3	21.1	21.1	21.1	21.1	21.1	22.4
	B	7.6	7.6	7.6	8.6	8.6	8.6	9.4	9.4	9.4	9.4	9.4	10.4
	S	28.5	28.5	28.5	28.5	28.5	34	28.5	28.5	28.5	34	41.4	28.5

Size/规格	Inch	2x3/8	2x1/2	2x3/4	2x1	2 1/2x1/2	2 1/2x3/4	2 1/2x1	2 1/2x1 1/4	3x1/2	3x3/4	3x1	3x1 1/4
	mm	50x10	50x15	50x20	50x25	65x15	65x20	65x25	65x32	80x15	80x20	80x25	80x32
Dimensions / 尺寸 (mm.)	A	22.4	22.4	22.4	22.4	27.2	27.2	27.2	27.2	28.7	28.7	28.7	28.7
	B	10.4	10.4	10.4	10.4	11.2	11.2	11.2	11.2	12.2	12.2	12.2	12.2
	S	28.5	34	41.4	49.5	34	41.4	49.5	60.7	34	41.4	49.5	60.7

Size/规格	Inch	3x1 1/2	4x3/4	4x1	4x1 1/4	4x1 1/2	4x2	4x2 1/2	5x2	5x2 1/2	6x3	6x4
	mm	80x40	100x20	100x25	100x32	100x40	100x50	100x65	125x50	125x65	150x80	150x100
Dimensions / 尺寸 (mm.)	A	28.7	31	31	31	31	31	31	33.3	33.3	35.6	35.6
	B	12.2	17	15.2	15.2	15.2	15.2	15.2	15.2	15.2	19.1	19.1
	S	68.1	41.5	49.5	60.7	68.1	83.3	98	83.3	98	117.3	147.1