

Our JIANZHI malleable iron pipe fittings are FM and UL approved.

➤ Production Standard :

Fittings: ASME B16.3

Bushings/Plugs: ASME B16.14

Unions: ASME B16.39

Item	Standard Class	Dimension	Material	Galvanizing	Thread	Pressure Rating *	Federal / other
Fittings	Class 150	ANSI B16.3	ASTM A-197	ASTM A-153	ANSI B.1.20.1	ANSI B16.3	WW-P-521
Bushings / Plugs	Class 150	ANSI B16.14	ASTM A-197	ASTM A-153	ANSI B.1.20.1		WW-P-471
Unions	Class 150	ANSI B16.39	ASTM A-197	ASTM A-153	ANSI B.1.20.1	ANSI B16.39	WW-U-531

Pressure Rating:

Class 150 : 150 P.S.I. – Saturated Steam

300 P.S.I. – At 150 degrees W.O.G.

➤ Malleable cast iron standard : ASTM A197

Jianzhi brand thread pipe fitting uses Grand A malleable cast iron to ensure the top quality compared with other suppliers.

Tensile strength: $\geq 350\text{mpa}$

Elongation: $\geq 10\%$

Hardness: $\leq \text{HB150}$

Although the material of the 300-6 also meets the EU standards, we adopt higher standards to ensure that our products can be used in a wider and more severe environment, which is one of the reasons why the quality of our products is better than other brands.

	EN1562	Jianzhi standard
Malleable cast iron	300-6 or 350-10	350-10

➤ Thread standard: ASME B.1.20.1

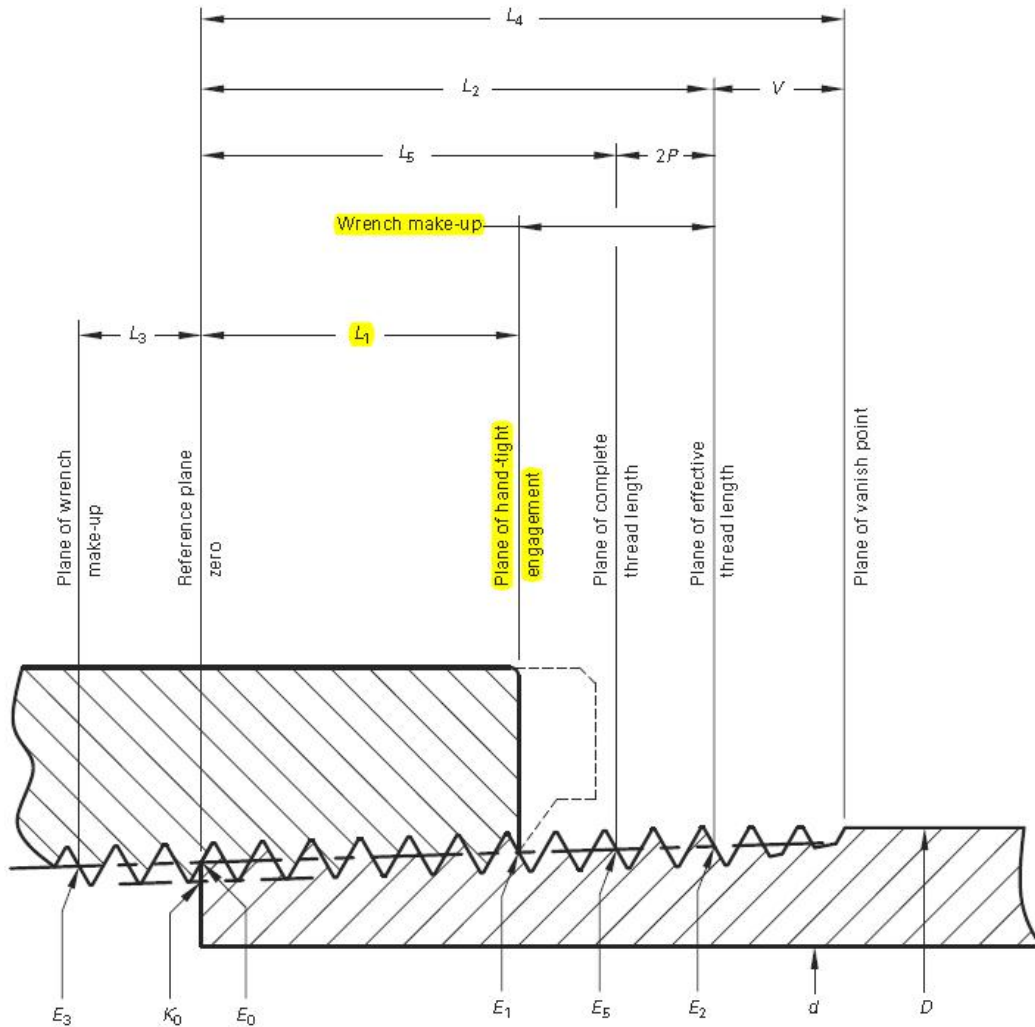
NPT Pipe thread

N = National (American) Standard

P = Pipe

T = Taper

American National Standard Taper Pipe Thread Notation



for backnuts, union nuts and their mating threads are in accordance with ISO228-1/ENISO228.

The axes of the screw thread is accurate to within $\pm 0.5^\circ$ of the specified angle according to ISO7-1, Jianjin axes of the screw thread accuracy is $\pm 0.3^\circ$, higher 40% than ISO7-1.

	ISO7-1/EN10226	Jianzhi standard
Axe angle	$\pm 0.5^\circ$	$\pm 0.3^\circ$

Basic Dimensions of American National Standard Taper Pipe Thread ,NPT

Nominal Pipe Size	O.D. of Pipe, D	Threads/Inch, n	Pitch of Thread, P	Pitch Diameter at Beginning of External Thread, E_3	Hand-tight Engagement		Effective Thread, External			Length, L_1 Plane to L_2 Plane, External Thread, $L_2 - L_1$		Wrench Make-Up Length, Internal Thread			Vanish Thread, V	Nominal Complete External Threads ⁵			Height of Thread, h	Change in Diameter per Turn of Thread, $0.0625/n$	Basic Minor ⁶ Diameter at Small End of Pipe, K_0		
					Length, L_1	Pitch Diameter, E_2	Length, L_2	Pitch Diameter, E_1	Length, L_3	Pitch Diameter, E_4	Length, L_4	Pitch Diameter, E_5	Length, L_5	Pitch Diameter, E_6		Length, L_6	Pitch Diameter, E_7						
																		in.				Threads	in.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
3/4	0.3125	27	0.03703704	0.27118	0.1600	4.32	0.28118	0.2611	7.05	0.28750	0.1011	2.73	0.1111	3	0.26424	0.1285	3.47	0.3896	0.1870	0.28287	0.02963	0.00231	0.2415
1/2	0.4050	27	0.03703704	0.36351	0.1615	4.36	0.37360	0.2639	7.13	0.38000	0.1024	2.76	0.1111	3	0.35656	0.1285	3.47	0.3924	0.1898	0.37537	0.02963	0.00231	0.3338
1/4	0.5400	18	0.05555556	0.47739	0.2278	4.10	0.49163	0.4018	7.23	0.50250	0.1740	3.13	0.1667	3	0.46697	0.1928	3.47	0.5946	0.2907	0.49556	0.04444	0.00347	0.4329
3/8	0.6750	18	0.05555556	0.61201	0.2400	4.32	0.62701	0.4078	7.34	0.63750	0.1678	3.02	0.1667	3	0.60160	0.1928	3.47	0.6006	0.2967	0.63056	0.04444	0.00347	0.5675
1/2	0.8400	14	0.07142857	0.75843	0.3200	4.48	0.77843	0.5337	7.47	0.79178	0.2137	2.99	0.2143	3	0.74504	0.2479	3.47	0.7815	0.3909	0.78286	0.05714	0.00446	0.7014
1	1.0500	14	0.07142857	0.96768	0.3390	4.75	0.98887	0.5457	7.64	1.00178	0.2067	2.89	0.2143	3	0.95429	0.2479	3.47	0.7995	0.4029	0.99288	0.05714	0.00446	0.9106
1 1/4	1.3150	11.5	0.08695652	1.21363	0.4000	4.60	1.23863	0.6828	7.85	1.25631	0.2828	3.25	0.2609	3	1.19733	0.3017	3.47	0.9845	0.5089	1.24544	0.06957	0.00543	1.1441
1 1/2	1.6400	11.5	0.08695652	1.55713	0.4200	4.83	1.58338	0.7068	8.13	1.60331	0.2868	3.30	0.2609	3	1.54083	0.3017	3.47	1.0005	0.5339	1.59044	0.06957	0.00543	1.4876
2	1.9900	11.5	0.08695652	1.79609	0.4200	4.83	1.82234	0.7235	8.32	1.84431	0.3035	3.49	0.2609	3	1.77978	0.3017	3.47	1.0252	0.5496	1.83044	0.06957	0.00543	1.7266
2 1/2	2.3750	11.5	0.08695652	2.26902	0.4360	5.01	2.29627	0.7565	8.70	2.31630	0.3205	3.69	0.2609	3	2.25272	0.3017	3.47	1.0582	0.5826	2.30543	0.06957	0.00543	2.1995
3	2.8750	8	0.12500000	2.71953	0.6820	5.46	2.76216	1.1375	9.10	2.79063	0.4555	3.64	0.2500	2	2.70391	0.4338	3.47	1.5712	0.8875	2.77500	0.10000	0.00781	2.6195
3 1/2	3.5000	8	0.12500000	3.34063	0.7660	6.13	3.38850	1.2000	9.60	3.41563	0.4340	3.47	0.2500	2	3.32500	0.4338	3.47	1.6337	0.9500	3.40000	0.10000	0.00781	3.2406
4	4.0000	8	0.12500000	3.83750	0.8210	6.57	3.88881	1.2500	10.00	3.91563	0.4290	3.43	0.2500	2	3.82188	0.4338	3.47	1.6837	1.0000	3.90000	0.10000	0.00781	3.7374
4 1/2	4.5000	8	0.12500000	4.33438	0.8440	6.75	4.38713	1.3000	10.40	4.41563	0.4560	3.65	0.2500	2	4.31875	0.4338	3.47	1.7337	1.0500	4.40000	0.10000	0.00781	4.2343
5	5.5630	8	0.12500000	5.39073	0.9370	7.50	5.44929	1.4063	11.25	5.47863	0.4693	3.75	0.2500	2	5.37511	0.4338	3.47	1.8400	1.1563	5.46300	0.10000	0.00781	5.2907
6	6.6250	8	0.12500000	6.44609	0.9580	7.66	6.50597	1.5125	12.10	6.54063	0.5545	4.44	0.2500	2	6.43047	0.4338	3.47	1.9462	1.2625	6.52500	0.10000	0.00781	6.3460
8	8.6250	8	0.12500000	8.43359	1.0630	8.50	8.50003	1.7125	13.70	8.54063	0.6495	5.20	0.2500	2	8.41797	0.4338	3.47	2.1462	1.4625	8.52500	0.10000	0.00781	8.3335
10	10.7500	8	0.12500000	10.54531	1.2100	9.68	10.62094	1.9250	15.40	10.66563	0.7150	5.72	0.2500	2	10.52969	0.4338	3.47	2.3587	1.6750	10.65000	0.10000	0.00781	10.4453
12	12.7500	8	0.12500000	12.53281	1.3600	10.88	12.61781	2.1250	17.00	12.66563	0.7850	6.12	0.2500	2	12.51719	0.4338	3.47	2.5587	1.8750	12.65000	0.10000	0.00781	12.4328
14	14.0000	8	0.12500000	13.77500	1.5620	12.50	13.87263	2.2500	18.00	13.91563	0.6880	5.50	0.2500	2	13.75938	0.4338	3.47	2.6837	2.0000	13.90000	0.10000	0.00781	13.6749
16	16.0000	8	0.12500000	15.76250	1.8120	14.50	15.87575	2.4500	19.60	15.91563	0.6380	5.10	0.2500	2	15.74688	0.4338	3.47	2.8837	2.2000	15.90000	0.10000	0.00781	15.4624
18	18.0000	8	0.12500000	17.75000	2.0000	16.00	17.87500	2.6500	21.20	17.91563	0.6500	5.20	0.2500	2	17.73438	0.4338	3.47	3.0837	2.4000	17.90000	0.10000	0.00781	17.6459
20	20.0000	8	0.12500000	19.73750	2.1250	17.00	19.87031	2.8500	22.80	19.91563	0.7250	5.80	0.2500	2	19.72188	0.4338	3.47	3.2837	2.6000	19.90000	0.10000	0.00781	19.6374
24	24.0000	8	0.12500000	23.71250	2.3750	19.00	23.86094	3.2500	26.00	23.91563	0.8750	7.00	0.2500	2	23.69688	0.4338	3.47	3.6837	3.0000	23.90000	0.10000	0.00781	23.6124

	ISO7-1/EN10226	Jianzhi standard
Turns of thread of external thread	± 1 -- $\pm 1 1/2$	Only ± 1
Turns of thread of internal thread	$\pm 1 1/4$ --- $\pm 1 1/2$	± 1

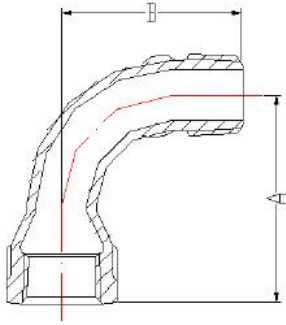
➤ Galvanization: According to ASTM A-153

Jianzhi pipe fitting can offer customer in black or galvanized finishing. The surface related mass of the zinc coating shall be not less than 500g/m², as an average of 5 fittings, this corresponds to a medium layer thickness of 70μm. Zinc coating on the internal surface of the fitting is continuous, the same thickness as external surface, with the exception of machined black internal thread. The zinc coating is free from zinc blisters, zinc burrs, non-metallic remainders. The surface of the fittings is free of polycyclic aromatic hydrocarbons.

➤ Dimensions and tolerances : EN10242

Please check our product pages or download our production catalog.

Dimensions samples(mm)



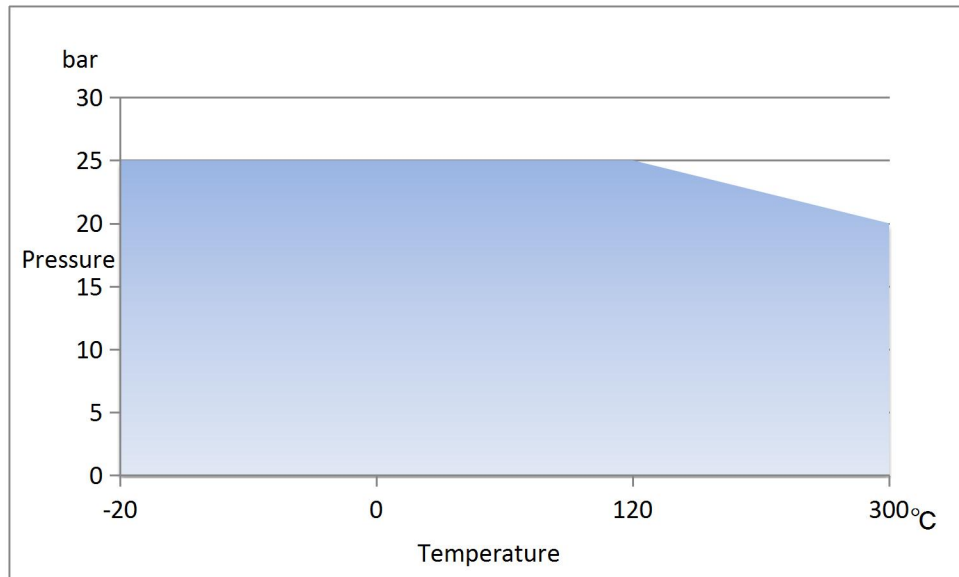
规格		A	B	规格		A	B
mm	in			mm	in		
10	3/8	48	42	40	1½	116	105
15	1/2	55	48	50	2	140	130
20	3/4	69	60	65	2½	176	165
25	1	85	75	80	3	205	190
32	1¼	105	95	100	4	260	245

Tolerance on length (mm)

Dimension	Tolerance
≤30	±1.5
>30≤50	±2.0
>50≤75	±2.5
>75≤100	±3.0
>100≤150	±3.5
>150≤200	±4.0
>200	±5.0

➤ Permissible working pressure and temperature

Jianzhi fittings of all sizes are suitable for the maximum permissible working pressure within the temperature ranges given in the following chart.



1bar = 100kPa = 14.5PSI = 0.1Mpa

➤ Test and inspection:

All Jianzhi pipe fittings are inspected strictly with the specifications of standard of

EN10242. Some points are higher than EN10242 to ensure our wonderful quality.

Air tightness test: higher 20% than EN10242, according EN10242 pipe fittings are test by one of the following methods


- a) An internal hydrostatic pressure of not less than 20 bar.
- b) An internal pneumatic pressure of not less than 5 bar.

Jianzhi adapt 6 bar pneumatic pressure, higher 20% than EN10242, to ensure each fittings with fantastic performance while using.

	EN10242	Jianzhi standard
Pneumatic pressure	5 bar / 0.5Mpa	6 bar / 0.6Mpa

➤ Marking:



All Jianzhi pipe fitting will mark  as our brand. Each pipe fittings with this brand marking is ensured with trustable quality and our highest compensation standard.

- Quality assurance system: ISO 9001:2015
- Occupational health and safety management system: OHSAS 18001:2007
- Environmental management system: ISO 14001:2015

➤ Fitting size and normal size(DN)

Fitting size	Normal size (DN)
1/8	6
1/4	8
3/8	10
1/2	15
3/4	20
1	25
1 1/4	32
1 1/2	40
2	50
2 1/2	65
3	80
4	100
5	125
6	150