



Making Pipe Fittings Durable FOREVER

WHO IS JIANZHI?

Founded in 1982, Jianzhi is a leading manufacturer Cooperating with distributors all over the world and supplier of cast iron pipe fittings. Till now, Jianzhi has about 4,500 employees and more than 350 technical engineers with distributors covering over 100 countries around the world.

Jianzhi is committed to building a safer world by bringing premium cast iron pipe fittings to every household and building.



4,500 employees



BUSINESS MODEL OF JIANZHI:

and working to make the list grow is the business model of Jianzhi. Helping all partners to unleash their untapped potential and make profits is the service philosophy of Jianzhi.

On the manufacturing side, Jianzhi strictly controls the cost to ensure a stable supply of high-quality products and fast delivery. On the marketing side, Jianzhi helps the customers to formulate their marketing strategies.

The over 90% reorder rate shows the recognition from every customer.

SOCIAL CONTRIBUTIONS OF JIANZHI:

Higher revenue for all partners;

Continuously innovative and strict quality control to ensure the safety of every pipeline system;

Driving forces for the stable development of the foundry industry as a standing member of China Foundry Association;

Eco-friendly manufacturing procedures to promote sustainable development; More job opportunities.





99.96% Qualified rate

1 in 44000 return rate







COMPANY HISTORY

Founded in 1982, a century-old enterprise



- 1982-Established and named "Yutian first plumbing plant".
- 1993-Renamed as "Tang Shan malleable water plumbing industries LTD"
- 1994-Invent "Chain Link Type Quality Control"
- 1996-"JIANZHI" was awarded as a famous brand product in Hebei Province of China
- 2000-Renamed as "TangShan JIANZHI Malleable Ltd"
- 2002-Passed international quality management system certification
- 2005-PRenamed as "Hebei JIANZHI Casting Group Ltd"
- 2007-JIANZHI's first generation hydraulic testing machine was developed successfully
- 2008-Passed UL, Took part in the building project for the 2008 Beijing Olympic Games
- 2010-Passed CE
- 2011 Built a new factory in Chifeng
- 2013-JIANZHI pipe fitting has been named the "Chinese Malleable Pipe Fitting Famous Brand"
- 2013-Passed Turkey TSE
- **2014**-Completed two factories and a galvanizing plant in Chifeng Brand "JIANZHI" has been named the "China Famous Brand" Passed ISO 9001, ISO 14001 and ISO 18000
- 2015-Passed Brazil ABNT
 - Passed American FM
 - Grooved fitting passed CCC certification
- 2017-JIANZHI introduced the world's most advanced DISA line.
- **2019-**JIANZHI cooperates with the Foundry College of The Open University of China, become the Teaching practice base of the college and solve our demand for technological talents.
- **2020-**Gold Award for high quality castings
- 2021-Single champion product of manufacturing industry

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CERTIFICATES ...

CERTIFICATE OF COMPLIANCE

Report Reference EX27485-20180620 Issue Date 2018-JUNE-21

Issued to: HEBEI JIANZHI CASTING GROUP LTD

Pangzhuangzi Southeast Of Yutian County Tangshan Hebei 064000 CHINA

This is to certify that FITTINGS, RUBBER GASKETED

representative samples of See Addendum Page

Have been investigated by UL in accordance with the

Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 213, Rubber Gasketed Fittings for Fire-Protection

See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Certification Mark should be considered as being covered by UL's Certification and Follow-Up Service.

Look for the UL Certification Mark on the product.

Bamely

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其他事项参见分面

Bruce Mahrenholz, Director North American Certification Program









This certificate is issued for the following:

Non-Gasketed Pipe Fittings for Use with Aboveground Fire Protection Systems

Malleable Iron 90° Elbow Malleable Iron 90° Reducing Elbow Malleable Iron Equal Tee

Malleable Iron Reducing Cross Malleable Iron Reducing Tee Malleable Iron Equal Cross

Prepared for: Hebei Jianzhi Casting Group Co Ltd Pang Zhuang Zi Southeast of Yutian County Tangshan City, Hebei Province 064100

1151 Boston-Providence Turnpike

Norwood, MA 02062 USA

FM Approvals Class: 1920 - "Pipe Couplings and Fittings for Aboveground Fire Protection Systems" Approval Granted: May 5, 2017 Approval Identification: 3058846

To verify the availability of the Approved product, please refer to www.approvalguide.com Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

AVP, Manager of Fire Protection FM Approvals





Certificate of Compliance This certificate is issued for the following:

Non-Gasketed Pipe Fittings for Aboveground Fire Protection Systems Grooved Reducing Tee Model XGQT03 90 Degree Grooved Elbow 45 Degree Grooved Elbow Model XGQT11 Model XGQT11S Threaded Concentric Reducer Grooved Concentric Reducer Model XGQT05

Prepared for: Hebei Jianzhi Casting Group Co Ltd Pang Zhuang Zi Southeast of Yutian County Tangshan City, Hebei Province 064100

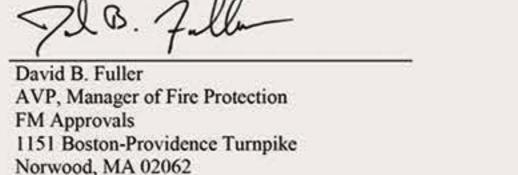
22.5 Degree Grooved Elbow

FM Approvals Class: 1920 - "Pipe Couplings and Fittings for Aboveground Fire Projection Systems" Approval Identification: 3054543

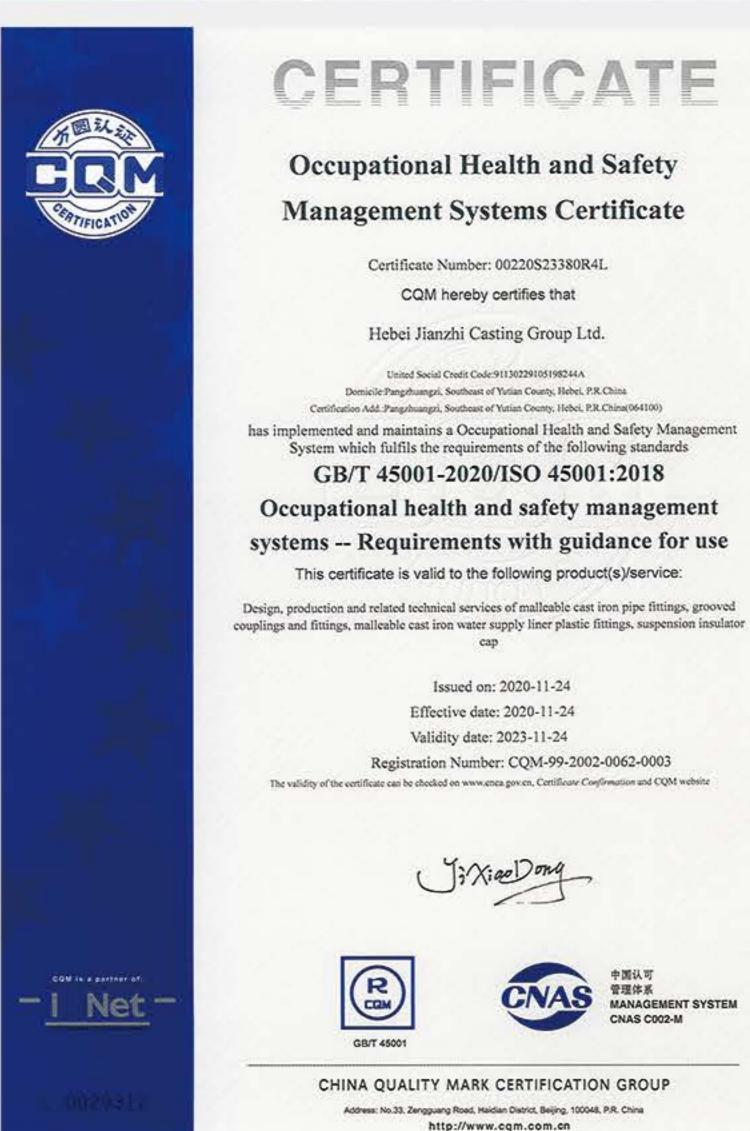
To verify the availability of the Approved product, please refer to www.approvalguide.com Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.

Member of the FM Global Group















7 ADVANTAGES OF THE PRODUCT

PART1

Improve the mechanical properties

Compare with the EN 10242 standard, JIANZHI malleable iron pipe fitting have higher performance.

For the JIANZHI "KTH-350-10" level products, The tensile strength can catch 350mPa, 17% higher than EN 10242 standard (300mPa)

The elongation can catch 10%, 67% higher than EN 10242 standard (6%)

PART 3

Pipe thread has strict requirements in accuracy

JIANZHI keep the axis angle of thread in ±0.3°, 40% higher than the EN10242 standard (±0.5°)

PART 5

High inspection costs to ensure the quality of each product.

JIANZHI develops strict QC rules, exam all products one by one. Keep the qualified rate above 99.5%.

PART 2

IGood appearance quality

The raw material is first grade of washed out sand to ensure that the surface finish, also has introduced the most advanced automatic sand mixing system and advanced testing instruments to ensure the quality.

PART 4

Strict control the pipe thread shaft angle

According to the EN 10242 standard, the tolerance for thread is ±1-1/4 turns.

JIANZHI keep the thread tolerance in ±1turns.

*Following the market developing, JIANZHI

PART 6

Good air-tightness

We need to increase the air pressure test to above 0.6MPA.

PART 7

Install inexpensive

We need to increase the air pressure test to above 0.6MPA.

A BRIEF INTRODUCTION TO SOME OF JIANZHI'S BUSINESS PARTNERS.

























CHINA GAS is one of the largest trans-regional energy service enterprises in China.

China State Construction Engineering is the largest construction company in the world by revenue and the 8th largest general contractor in terms of overseas sales, as of 2020. In the 2022 Fortune Global 500, CSCEC was ranked as the ninth-largest public company in the world.

CHINA WATER is one of the largest integrated water affairs operators providing raw water, tap water, sewage treatment and related value-added services.

China Railway Construction Corporation Limited (abbreviated CRCC) is a listed construction enterprise based in Beijing, China, that was the second largest construction and engineering company in the world by revenue in 2014.

KunLun, is directly affiliated with China National Petroleum Corporation. CNPC was ranked fourth in the 2022 Fortune Global 500, a global ranking of the largest corporations by revenue.

WANDA GROUP is a Chinese multinational conglomerate founded in Dalian, Liaoning and headquartered in Beijing. It is a private property developer and owner of Wanda Cinemas and the Hoyts Group. Wanda Group ranks 28th on the 2020 China Top 500 Private Enterprises List.

Vanke is a large residential real estate developer in China. Vanke was also ranked 96th in the Forbes Global 2000 in 2020.

XINFANGSHENG GROUP is one of China's leading industrial product service platforms. The company focuses on platform creation, all-category sales of industrial products, and international trade.

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ADVANCED PRODUCTION EQUIPMENT

High-quality products and sophisticated equipment are the mostbasic production guarantee. All production workshops of JIANZHIare equipped with advanced production and testing equipment. Including the DISA vertical molding line imported from Denmark, the horizontal automatic molding line imported from Japan, and the FONDARC sand mixer imported from France Independent CNC numerical control ce+nter for mold processing. At the same time, thereis also self-developed laboratory testing equipment and so on.



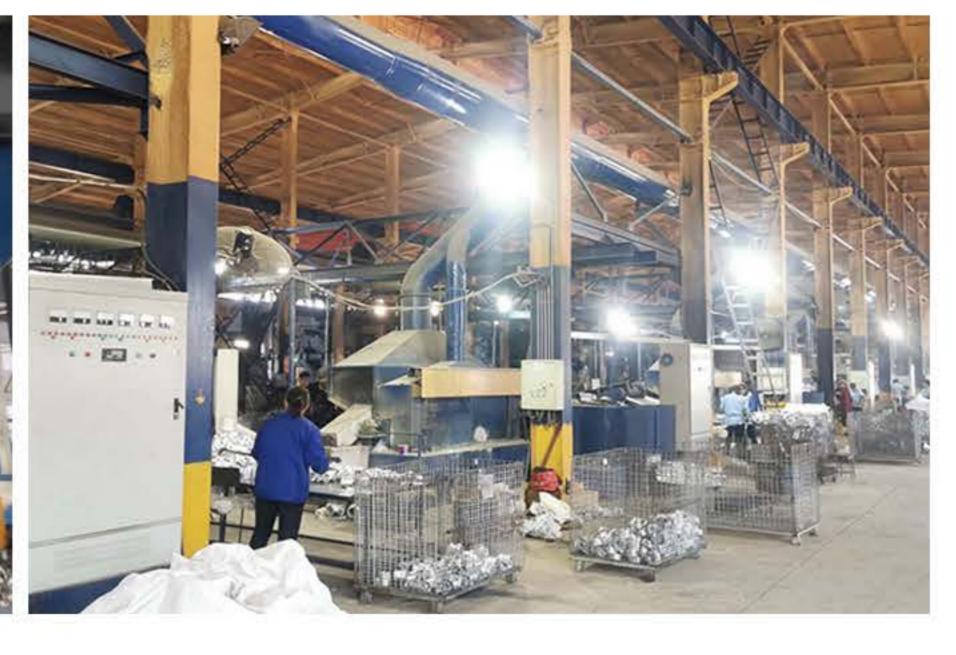


















OVERVIEW

Material:	EN1562 Or ISO5922	Pressure /Tempera	ature Ratings
Design & Dimensions:	EN10242 Or ISO49	Temp F°	PSI
Threads:	EN10226 Or ISO7-1	-20 to 150	363
Tensile Strength:	350 MPA	200	265
Elongation:	10%	250	225
Zinc Coating:	$70 \mu m$	300	185
Working Pressure:	363 PSI	350	150
Size Available	1/8"-6"	366	150
Types	Heavy Duty Banded, Medium Duty Banded, Light Duty Beaded	400	110
Surface Treatment	Hot-dip Galvanized, Electrogalvanization, Black	450	75

FAMOUS CASES

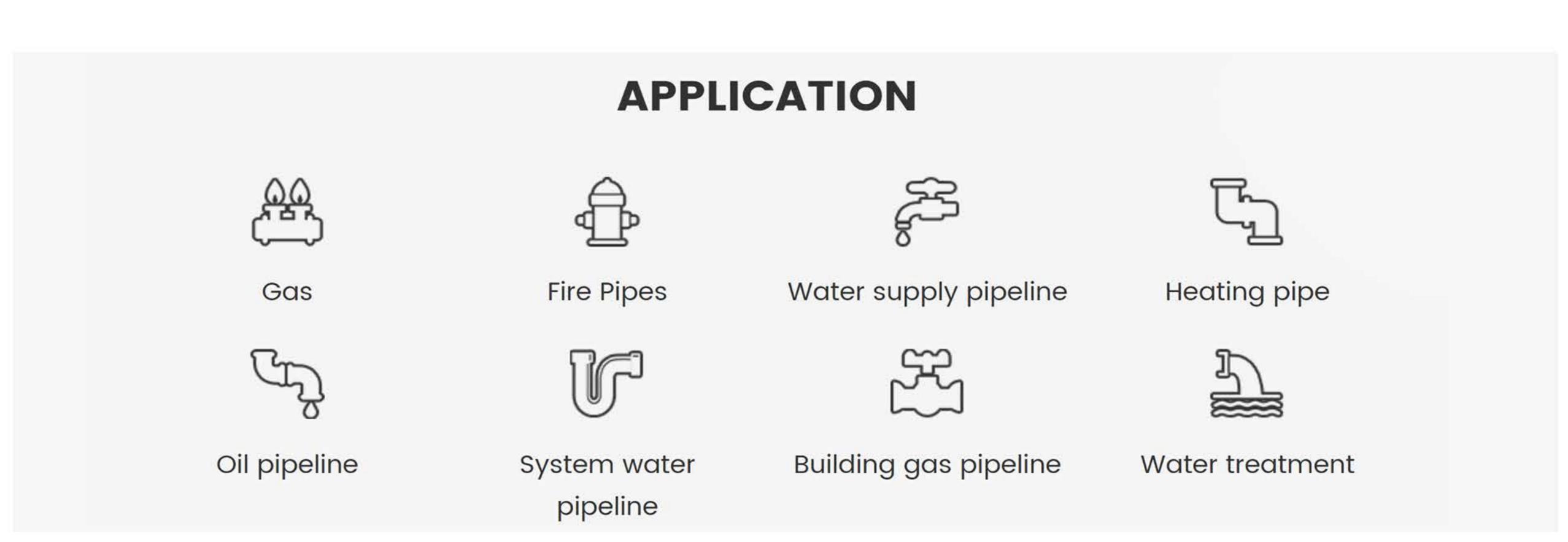
















STANDARD REFERENCES

In this brochure, Jianzhi brand threaded pipe fittings in malleable cast iron conform to the international IOS49 and the European EN 10242 standards.

The connecting threads conform to the international ISO 7-1 and to the European EN 10226.

The material used is high quality blackheart malleable cast iron in accordance with the requirements of EN 1562: EN-GJMB-350-10 (ISO5922).

These products are primarily used in installations connected to water, gas, oil, and other fluid systems. The main function of these fittings is to connect pipes or to change the direction of fluid flow.

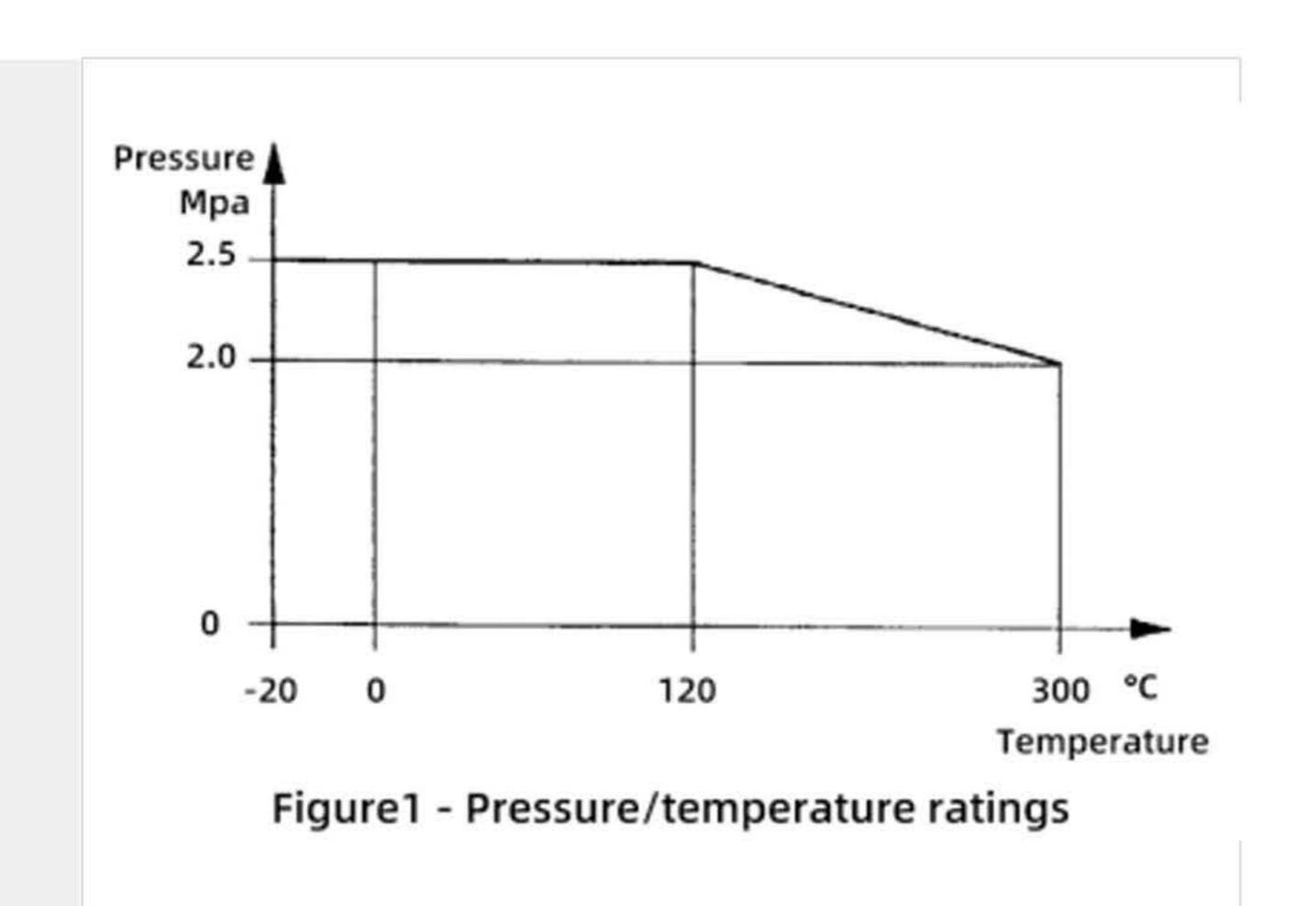
1. REQUIRED CHARACTERISTICS

1.1 Permissible working pressure and temperature Fittings of all sizes are required to be suitable for maximum permissible working pressures within the temperature ranges specified in Table 1. Intermediate pressure ratings at temperatures between 120°C and 300°C shall be obtained by linear interpolation. The

Celsius in normal applications.

It is recommended to consult the manufacturer for special applications at temperatures below -20°C.

lowest service temperature for fittings is -20 degrees



1.2 Design strength

Pressure-containing fittings including the component parts of unions shall be designed to withstand the design test pressures given in Table 2. Each size of the fitting shall be type tested in accordance with Table 2.

TABLE 1 - PRESSURE/TEMPERATURE RATINGS

Service temperature °C	Maximum permissible working pressure Mpa					
-20 to 120	2.5					
120 to 300	Interpolated values					
300	2.0					

TABLE 2 - DESIGN TEST PRESSURES

Hydrostatic design t	ydrostatic design test pressure (gauge)						
Sizes 1/8 to 4	Sizes 5 and 6						
10 Mpa	6.4 Mpa						

2.SURFACE LAYER

Black or galvanized (hot dip zinc coating) fittings are available. And the zinc coating meet the following requirements. If the customer need a special protective layer to protect against superficial rust, the requests is also applied.

2.SURFACE LAYER

2.1Chemical composition of the zinc coating
The content by mass of the accompanying elements in the finish zinc coating does not exceed the following maximum values:

2.2Coating mass per surface unit

The surface related mass of the zinc coating does not less than 500 g/m², as an average of 5 fittings. This corresponds to a medium layer thickness of 70 μ m.It does not less than 450 g/m² (63 μ m) when it is measured on an individual sample.

Aluminium (Al)	0.1%
Antimony (Sb)	0.01%
Arsenic (As)	0.02%
Bismuth (Bi)	0.01%
Cadmium (Cd)	0.01%
Copper (Cu)	0.1%
Lead (Pb)	1.6%, in individual cases 1.8%
Tin (Sn)	0.1%

$$\frac{S}{S} = \frac{m}{7}$$

 \overline{S}

is the medium layer thickness of the zinc coating in μm .

 m_{μ}

is the surface related mass of the zinc coating in g/m².

2.3Surface condition of the zinc coating

The zinc coating on the internal surface of the fitting is continuous, with the exception of machined black surfaces. In the special case of larger material cross-sections the iron-zinc alloy phases may grow through. The internal zinc coating are free from zinc blisters, zinc burrs, non-metallic remainders.

3.DIMENSIONS AND TOLERANCES

The main dimensions of the pipe fittings are given in the product specification and dimension table on the following pages. If the size is not specified, the manufacturer shall negotiate with the purchaser. Where maximum or minimum dimensions are not specified, the tolerances for face-to-face and face-to-centre dimensions of pipe fittings are as given in Table 3.

TABLE 3 - TOLERANCE ON LENGTH

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





NOTE:

- 1. Fittings sizes shown in brackets are optional sizes and which may have a limited availability.
- 2. The face-to-face and face-to-centre dimensions of unions may not always comply with the tolerance given due to the compound effect of piece tolerances and design upon the final assembly.

Laying lengths are given for assistance and guidance during installation. Their accuracy is dependent upon the tolerances given in 7.1 and on the tolerance of the threads specified in ISO 7-1 (or EN10226).

4.THREADS

4.1 Choice of thread

4.1.1 Jointing thread

Fittings shall be threaded in accordance with ISO7-1 (Or EN10226).

4.1.2 Fastening threads

The threads of backnuts, union nuts and their mating threads shall be in accordance with ISO 228-1 (Or ENISO228).

4.2 Alignment of threads

The axes of the screw threads are accurate within ±0.3° of the specified angle.

4.3 Chamfering

The outlets of the fittings shall have a chamfer.

On internal threads, the chamfer has a minimum included angle of 90°, and the diameter at the face exceeds the major diameter of the thread.

On external threads, the chamfer should be a minimum included angle of 60° and the diameter at the face not exceed the minor diameter of the thread at that face.

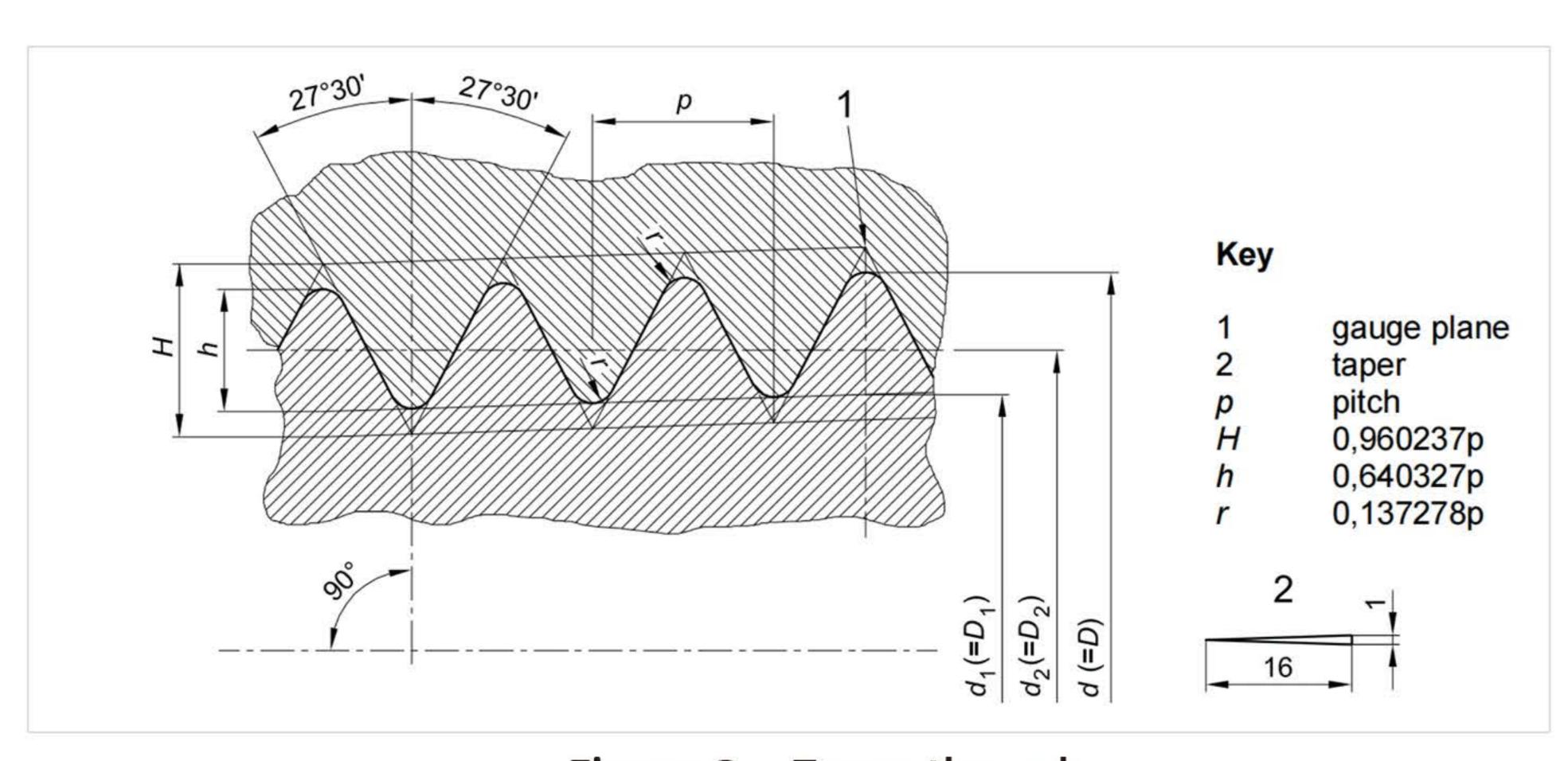
4.4 Taper thread

The basic form of the taper pipe thread is as shown in figure 2. The taper is 1 to 16, measured on the diameter. The angle between the flanks, measured in an axial plane section, is 55°, the flanks making equal angles with the axis.

The thread profiles are rounded off equally at crests and roots by circular arcs blending tangentially with the flanks in such a manner as to give the same thread height h as for parallel threads.

4.5 Parallel thread

The basic form of the parallel pipe thread is as shown in figure 3. The angle between the flanks, measured in an axial plane section, is 55°. The thread profiles are rounded equally at crests and roots by circular arcs blending tangentially with the flanks.



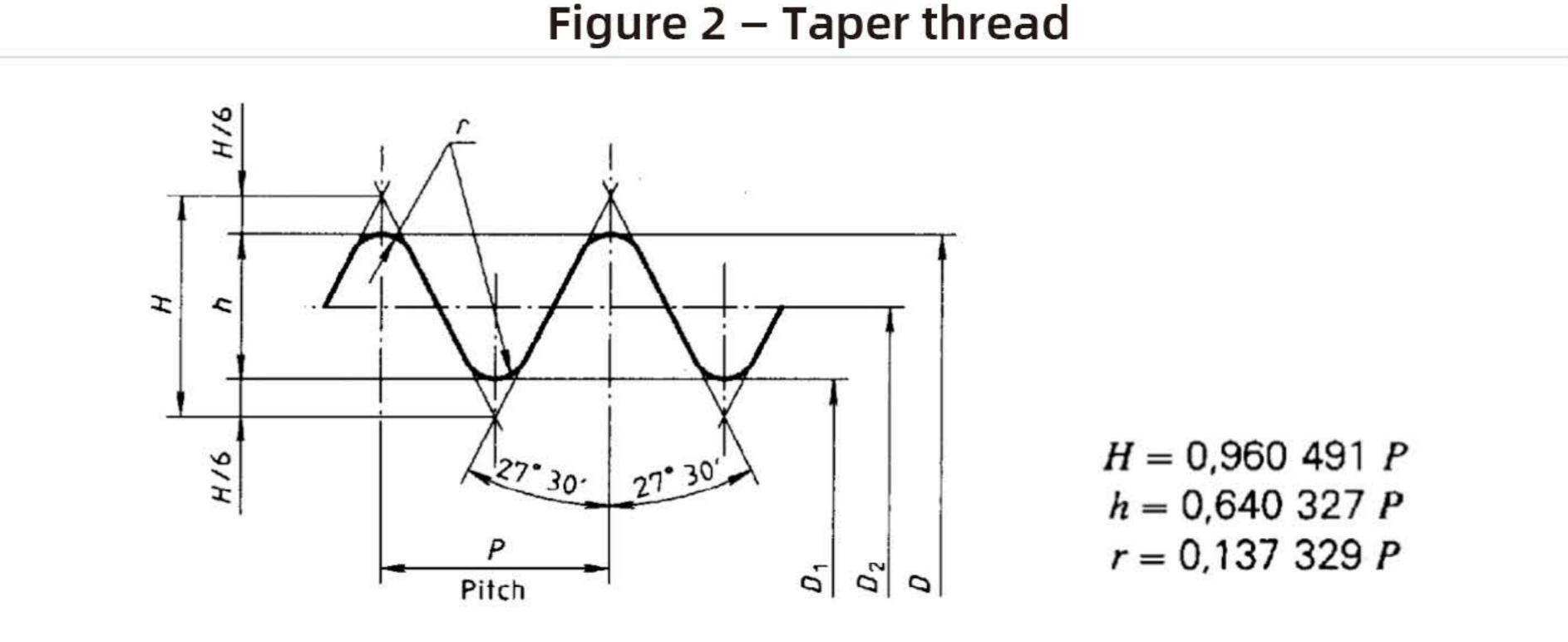


Figure 3 - Parallel thread

4.6 Thread lengths

4.6.1 External thread

The terms relating to the external taper pipe thread are given in figure 4.

The length of the useful thread, allowable in practice, is the sum of the lengths of the complete and incomplete threads, excluding the washout thread. The minimum length of the useful thread must be not less than the minimum gauge length plus the fitting allowance.

4.6.2 Internal thread

The design of internally threaded parts are such that they can receive external threads up to the lengths given in column 16 of table 4. The minimum lengths Lmin of useful thread in the case of internal threads with free run-out shall be not less than 80 % of the values given in column 17 of table 4. (See figure 5.)

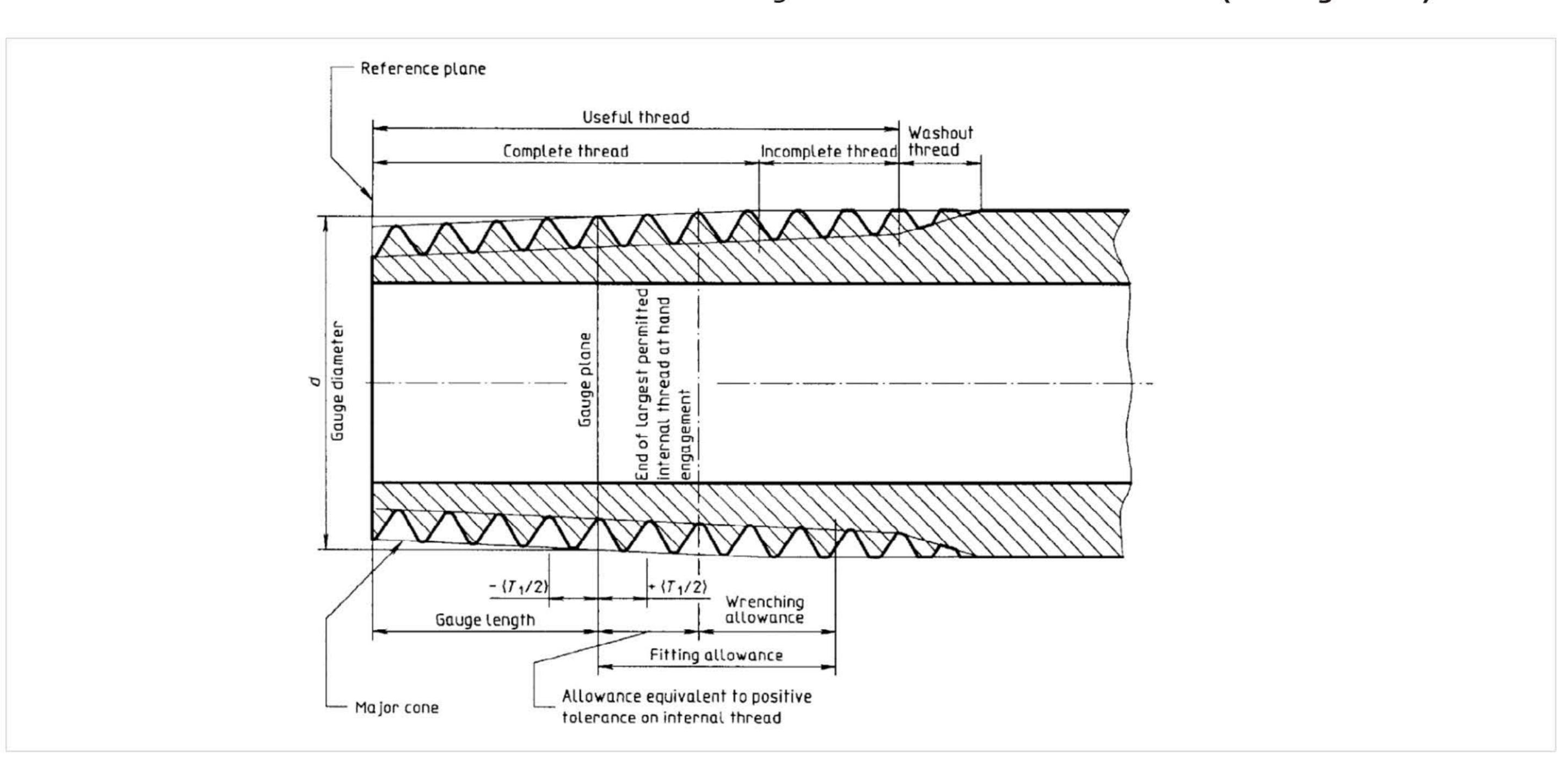


Figure 4 – Terms relating to external threads

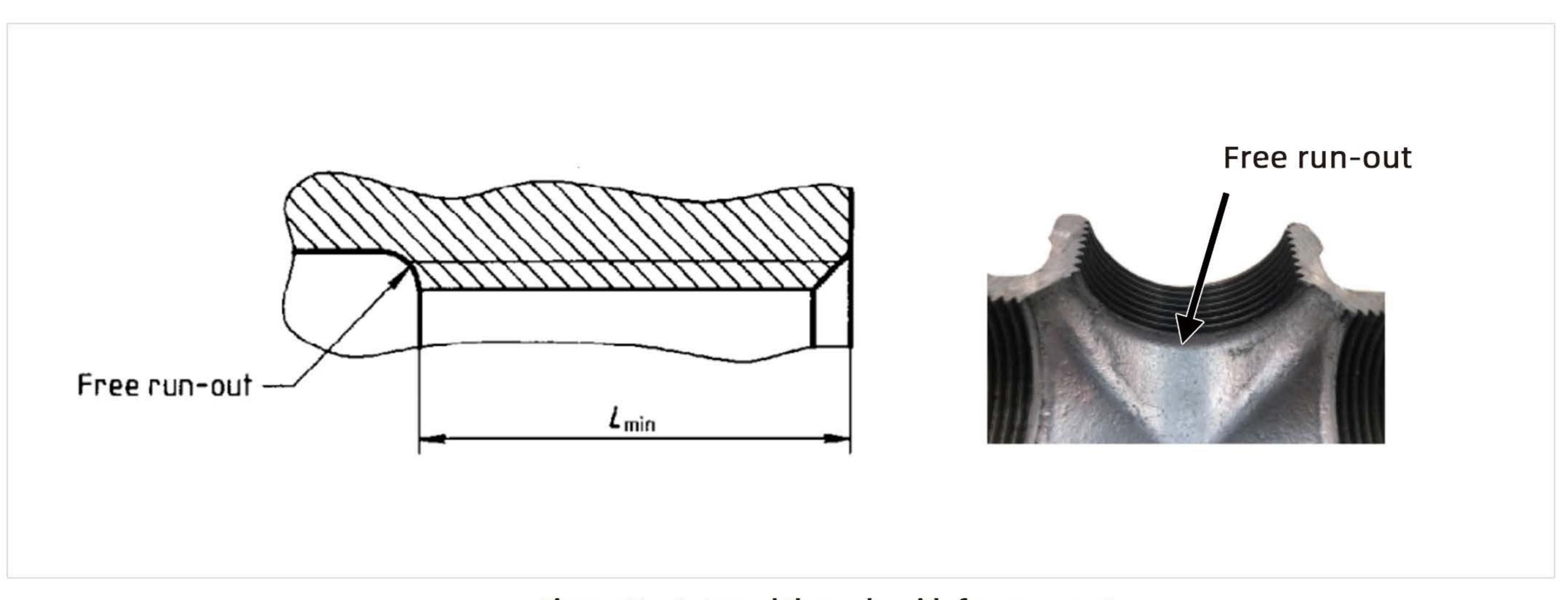


Figure 5 – Internal threads with free run-out





17 18 20 to seeful	han red	For nominal gauge length gauge length gauge length gauge length gauge length internal sinternal internal	2) Turns of thread	23/4 ±	23/4 ±		2 3/4 ±	23/4 ± 0,1	2	23/4 ±	23/4 ± 0,1	23/4 ± 0,	31/4	4		4 1/2 ±	5 + 0,21	6 36,6 11,5 5 ± 0,216
18 A	t t	For maximum		7.4	7,4	=	=	15	16,3	19,1	21,4	21,4	25,7	30,2	33,3	39,3	43,6	43,6
15	exter	For nominal days length		6,5	6,5	9,7	10,1	13,2	14,5	16,8	19,1	19,1	23,4	26,7	29,8	35.8	40.1	40,1
± 5	_ E P		of read	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/2	1/2	1/2	1/2	1/2

| Diameters at gauge plane | Gauge length lexiternal thread | Gauge plane of internal thread plane of internal thread plane of internal thread plane of internal thread claimeters | Gauge plane of internal thread claimeters | Gauge plane of internal thread claimeters | Capaba | Capa

TABLE 4 - THREAD DIMENSIONS

25,4 mm

ni sbaentt

Number of

to noitengised exis baendt

5.LEAK TIGHTNESS TEST

One of the following methods will be used for testing all pressure containing fittings (after they have been machinized, but before they are protected by any other protective coating other than zinc coating). As a result of this testing, each fitting must not show any signs of leakage. To ensure the authenticity of the test results, all test equipment is equipped with a qualified monitoring pressure gauge:

a)by the application of an internal hydrostatic pressure of not less than 2 MPa, test requirements are refer to table 5;

TABLE 5 - TEST REQUIREMENTS

Pipe fittings dimensions (inch)	Test time (s)	Test result
1/8~2	≥15	Each fitting must not show any
21/2~6	≥60	signs of leakage or damage

- b) by the application of an internal pneumatic pressure of not less than 0.5 MPa, whilst the fitting is completely immersed in water or light oil;
- c) by other tests which ensure an equivalent quality.

All Jianzhi brand fittings are satisfy an internal pneumatic pressure tightness test of 0.6 MPa, without any signs of leakage.

6.GUIDE/INTRODUCTION

- 1.GB=Heavy Banded
- 2.QB=Medium Beaded
- 3.YB=Beaded
- 4.BLK=Black
- 5.GAL=Hot dip galvanized
- 6.EAL=Electrogalvanized
- 7.9006=The code and the size of the pipe fittings

For example: JZ9006-GBGAL=Jianzhi Brand, 90 Elbow, 1/8", heavy banded, galvanized.







Heavy Banded

Medium Beaded

Beaded





