



SLOVENSKI STANDARD

SIST EN 1124-3:2009

01-januar-2009

Nadomešča:
SIST EN 1124-3:2000

Vzdolžno varjene nerjavne jeklene cevi in spojniki z obojko za sisteme za odpadno vodo - 3. del: Sistem X - Mere

Pipes and fittings of longitudinally welded stainless steel pipes with spigot and socket for waste water systems - Part 3: System X - Dimensions

Rohre und Formstücke aus längsnahtgeschweißtem, nichtrostendem Stahlrohr mit Steckmuffe für Abwasserleitungen - Teil 3: System X - Maße

Tubes et raccords de tubes soudés longitudinalement en acier inoxydable, à manchon enfichable pour réseaux d'assainissement - Partie 3: Système X - Dimensions

Ta slovenski standard je istoveten z: EN 1124-3:2008

ICS:

23.040.10	Železne in jeklene cevi	Iron and steel pipes
93.030	Zunanji sistemi za odpadno vodo	External sewage systems

SIST EN 1124-3:2009 en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 1124-3:2009

<https://standards.iteh.ai/catalog/standards/sist/703b4069-3e96-4adf-86b3-de6c38345ae2/sist-en-1124-3-2009>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1124-3

October 2008

ICS 23.040.10; 23.040.40

Supersedes EN 1124-3:1999

English Version

Pipes and fittings of longitudinally welded stainless steel pipes
with spigot and socket for waste water systems - Part 3: System
X - Dimensions

Tubes et raccords de tubes soudés longitudinalement en
acier inoxydable, à manchon enfichable pour réseaux
d'assainissement - Partie 3: Système X - Dimensions

Rohre und Formstücke aus längsnahtgeschweißtem,
nichtrostendem Stahlrohr mit Steckmuffe für
Abwasserleitungen - Teil 3: System X - Maße

This European Standard was approved by CEN on 24 August 2008.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

<https://standards.iteh.ai/catalog/standards/sist/705b4069-3e96-4adf-86b3-de6c38345ae2/sist-en-1124-3-2009>



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword.....	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Symbols	6
5 Dimensions.....	6
5.1 General and tolerances	6
5.2 Sockets	8
5.3 Pipes	10
5.3.1 General.....	10
5.3.2 Pipe with one socket – Shape B 1.....	10
5.3.3 Pipe with two sockets – Shape B 2.....	11
5.4 Bends	12
5.4.1 General.....	12
5.4.2 Bend with large radius – Shape C 1.....	12
5.4.3 Bend with large radius – Shape C 2.....	13
5.4.4 Bend with small radius – Shape C 3.....	14
5.4.5 Bend with stilling section – Shape C 4.....	15
5.4.6 Bend with stilling section – Shape C 5.....	16
5.5 Branches.....	17
5.5.1 General.....	17
5.5.2 Single branch – Shape D 1.....	17
5.5.3 Reducing single branch – Shape D 11.....	18
5.5.4 Reducing double branch – Shape D 21.....	19
5.6 Connecting units.....	21
5.6.1 General.....	21
5.6.2 Connecting units for the use with discharge sets of sanitary appliances (angular bend 90°) – Shape E 1.....	21
5.6.3 Connecting units for use with other kinds of pipes.....	22
5.7 Transition pipe (concentric) – Shape F 2.....	29
5.8 Repair coupling/double socket – Shape F 4.....	30
5.9 Insertion coupling with long socket – Shape F 5.....	31
5.10 Trap – Shape G 1.....	32
5.11 Access pipes.....	33
5.11.1 General.....	33
5.11.2 Access pipe with round cleaning hole – Shape H 1.....	33
5.11.3 Access pipe with round cleaning hole – Shape H 2.....	34
5.11.4 Access pipe with rectangular cleaning hole (R) – Shape H 3 or oval cleaning hole (O) – Shape H 4.....	35
5.12 Shear coupling.....	36
5.12.1 General.....	36
5.12.2 Shear coupling A – Shape K 1.....	36
5.12.3 Shear coupling B – Shape K 2.....	37
5.13 Plug with screw top — Shape K 12.....	37
6 Other fittings	38
7 Seals.....	38
7.1 General.....	38
7.2 Seals for DN 40 to DN 200 – Shape M 1.....	38
7.3 Transition seal from steel pipe special socket to plastic drain pipe – Shape E 12 D.....	39
7.4 Gasket for round cleaning holes of access pipes of shape H 1 – Shape H 1 D.....	40

7.5 Gasket for rectangular cleaning holes – Shape H 2 D or gasket for oval cleaning holes –
Shape H 3 D.....41

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 1124-3:2009](https://standards.iteh.ai/catalog/standards/sist/703b4069-3e96-4adf-86b3-de6c38345ae2/sist-en-1124-3-2009)

[https://standards.iteh.ai/catalog/standards/sist/703b4069-3e96-4adf-86b3-
de6c38345ae2/sist-en-1124-3-2009](https://standards.iteh.ai/catalog/standards/sist/703b4069-3e96-4adf-86b3-de6c38345ae2/sist-en-1124-3-2009)

EN 1124-3:2008 (E)**Foreword**

This document (EN 1124-3:2008) has been prepared by Technical Committee CEN/TC 165 "Wastewater treatment", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2009, and conflicting national standards shall be withdrawn at the latest by April 2009.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1124-3:1999.

EN 1124 consists of the following parts, under the general title *Pipes and fittings of longitudinally welded stainless steel pipes with spigot and socket for waste water systems*:

- *Part 1: Requirements, testing, quality control*
- *Part 2: System S; Dimensions*
- *Part 3: System X; Dimensions*
- *Part 4: Components for vacuum drainage systems and for drainage systems on ships*

Compared with EN 1124-3:1999 the following amendments are made:

- a) In Tables 5 and 14 dimensions for several nominal sizes added;
- b) New component for bends with large radius - shape C 2 added;
- c) In Table 10 dimensions for DN/ID 100, type A added;
- d) New component for bends with stilling section - shape C 5 added;
- e) New component for access pipes with round cleaning hole - shape H 2 added;
- f) New component for plugs with screw top - shape K 12 added.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard is applicable to pipes and fittings of longitudinally welded stainless steel pipes with spigot and socket for wastewater systems.

It specifies dimensions and tolerances for pipes, fittings, pipe connectors and seals of the System X and establishes a system of designations for the different pipe and fitting types that conform to the stated requirements.

NOTE System X is a system of pipes and fittings of longitudinally welded stainless steel pipes with two-step sockets.

This European Standard is only valid in connection with EN 1124-1. This European Standard does not apply to the marking of products. EN 1124-1 applies to the marking.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 295 (all parts), *Vitrified clay pipes and fittings and pipe joints for drains and sewers*

EN 877, *Cast iron pipes and fittings, their joints and accessories for the evacuation of water from buildings - Requirements, test methods and quality assurance*

EN 1123-1, *Pipes and fittings of longitudinally welded hot-dip galvanized steel pipes with spigot and socket for waste water systems - Part 1: Requirements, testing, quality control*

EN 1123-2, *Pipes and fittings of longitudinally welded hot-dip galvanized steel tube with spigot and socket for waste water systems - Part 2: Dimensions*

EN 1124-1:1999, *Pipes and fittings of longitudinally welded stainless steel pipes with spigot and socket for waste water systems - Part 1: Requirements, testing, quality control*

EN 1329-1, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Unplasticized poly(vinylchloride) (PVC-U) - Part 1: Specifications for pipes, fittings and the system*

EN 1451-1, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Polypropylene (PP) - Part 1: Specifications for pipes, fittings and the system*

EN 1453-1, *Plastics piping systems with structured-wall pipes for soil and waste discharge (low and high temperature) inside buildings - Unplasticized poly(vinyl chloride) (PVC-U) - Part 1: Specifications for pipes and the system*

EN 1455-1 (all parts), *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Acrylonitrile-butadiene-styrene (ABS) - Part 1: Requirements for pipes, fittings and the system*

EN 1519-1 (all parts), *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Polyethylene (PE) - Part 1: Specifications for pipes, fittings and the system*

EN 1565-1, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Styrene-Copolymer blends (SAN + PVC) - Part 1: Specifications for pipes, fittings and the system*

EN 1124-3:2008 (E)

EN 1566-1, *Plastics piping systems for soil and waste discharge (low and high temperature) within the building structure - Chlorinated poly(vinyl chloride) (PVC-C) - Part 1: Specifications for pipes, fittings and the system*

EN ISO 1127, *Stainless steel tubes – Dimensions, tolerances and conventional masses per unit length (ISO 1127:1992)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1124-1:1999 apply.

4 Symbols

DN/ID Nominal size regarding the inside diameter

DN/OD Nominal size regarding the outside diameter

d Diameter

t Socket depth

s Wall thickness

l Effective length

r Radius

α Angle

e Off-set dimension (shift)

t_5 Least insertion depth

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 1124-3:2009](https://standards.iteh.ai/catalog/standards/sist/703b4069-3e96-4adf-86b3-de6c38345ae2/sist-en-1124-3-2009)

<https://standards.iteh.ai/catalog/standards/sist/703b4069-3e96-4adf-86b3-de6c38345ae2/sist-en-1124-3-2009>

5 Dimensions**5.1 General and tolerances**

The figures in this European Standard are simplified drawings. The dimensions given shall be followed.

Where no dimensions are given in this European Standard, tolerances for linear dimensions shall be followed according to Table 1, tolerances for radii shall be followed according to Table 2, tolerances for angular dimensions referring to the smaller side length shall be followed according to Table 3 and tolerances for elastomer parts shall be followed according to Table 4.

Table 1 — Tolerances for linear dimensions

Dimensions in millimetres

Dimensional range	Tolerances for linear dimensions
$0 \leq 300$	± 5
> 300	± 8

Table 2 — Tolerances for radii

Dimensions in millimetres

Dimensional range	Tolerances for radii
> 27 up to 181	± 3
> 181 up to 378	± 4
> 378 up to 457	± 5

Table 3 — Tolerances for angular dimensions, referring to the smaller side length

Side length mm	Tolerances for angles degrees
> 10 up to 120	± 3
> 120 up to 400	± 2
> 400	$\pm 1,5$

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Table 4 — Tolerances for elastomer parts

<https://standards.iteh.ai/catalog/standards/sist/703b4069-3e96-4adf-86b3-de6c38345ae2/sist-en-1124-3-2009>

Dimensions in millimetres

Range of nominal size	Tolerances for elastomer parts	
	relating form bound dimensions (F) %	relating form fitting bound dimension (C) %
> 25 up to 40	$\pm 0,6$	$\pm 1,0$
> 40 up to 63	$\pm 0,8$	$\pm 1,3$
> 63 up to 100	$\pm 1,0$	$\pm 1,6$
> 100 up to 160	$\pm 1,3$	$\pm 2,0$
>160	$\pm 0,8$	by agreement with the manufacturer of the components.

EN 1124-3:2008 (E)

5.2 Sockets

The socket dimensions according to Figure 1 shall conform to Table 5. Fittings are generally fabricated with socket type 1 A.

Details not specified shall be chosen appropriately.

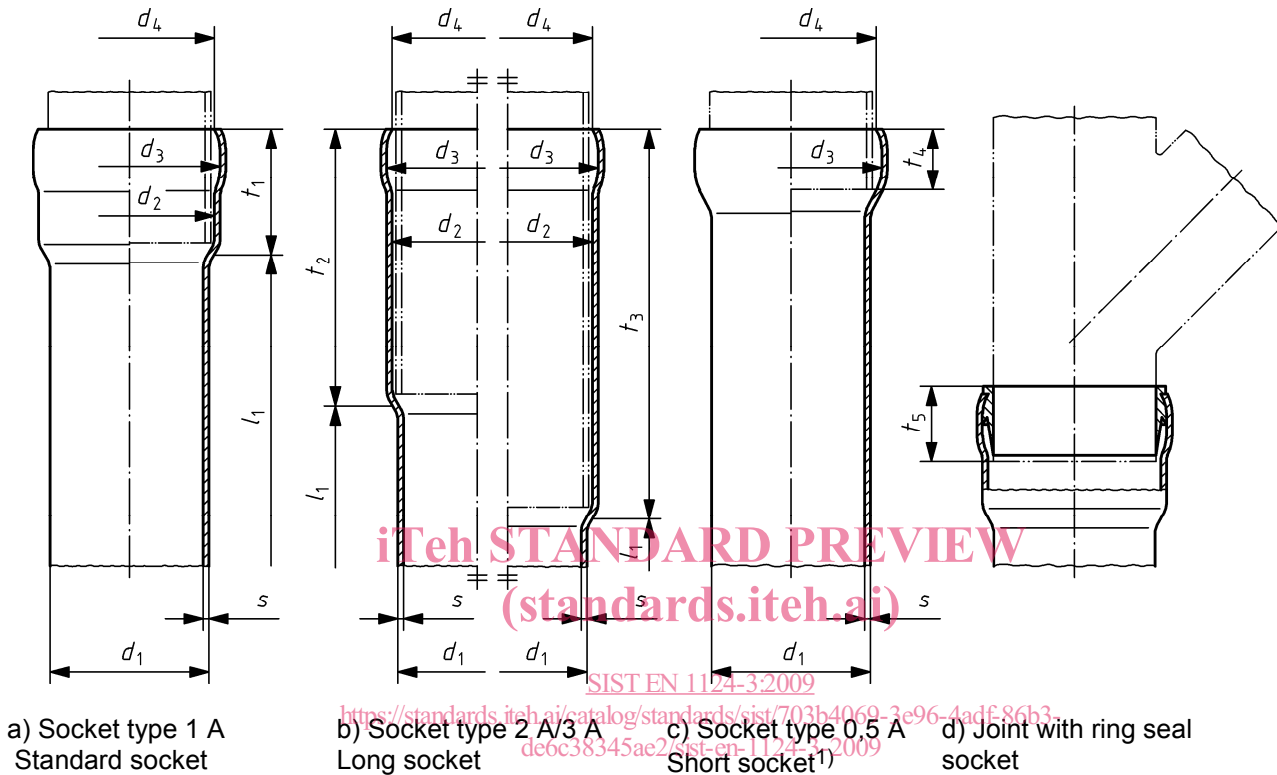


Figure 1 — Socket types

1) For use of the short socket, national regulations should be taken into account.

Table 5 — Socket dimensions

Dimensions in millimetres

Nominal size DN/ID	d_1^b	s^c			Socket dimensions										Tolerances for t_1 to t_4
		Light series	Medium series	Heavy series	d_2	d_3	d_4	Tolerances for d_1 to d_4	t_1	t_2	t_3	t_4	t_5^a		
40	42	1,0	1,2	1,5	44,8	47,8	44,8	± 0,6	30	70	100	16	20	+4 -2	
50	53	1,0	1,2	1,5	55,8	59,8	55,8	± 0,6	38	90	130	19	28		
70	73	1,0	1,2	1,5	75,8	80,8	75,8	± 0,7	55	120	175	27	35		
80	89	1,0	1,2	1,5	91,8	98,8	91,8	± 0,9	60	130	190	31	40		
100	101,6	1,0	1,2	1,5	105,4	113,4	106,4	± 1	70	150	220	38	45		
100	103	1,0	1,2	1,5	106,8	114,8	107,8	± 1	70	150	220	38	45		
125	133	1,0	1,5	2,0	137,8	146,8	139,8	± 1,3	75	160	235	41	50		
150	159	—	1,5	2,0	163,8	175,8	167,8	± 1,6	80	170	250	48	55		
200	219	—	2,0	2,5	223,8	240,8	227,8	± 2,2	120	250	370	76	85		

a Installation instructions only (necessary least insertion depth for tightness of pipe connection) - except short socket.

b Pipe ends slightly retracted.

c Permissible dimensions according to EN ISO 1127: ISO tolerance class T 3: ± 10 % of the wall thickness, maximum ± 0,2 mm.

EN 1124-3:2008 (E)

5.3 Pipes

5.3.1 General

The effective length of pipes shall conform to Table 6 or Table 7.

If the pipes have an additional corrosion protection (P) according to EN 1124-1:1999, Clause 9, this shall be added to the designation.

5.3.2 Pipe with one socket – Shape B 1

Figure 2 contains a pipe with one socket – shape B 1.

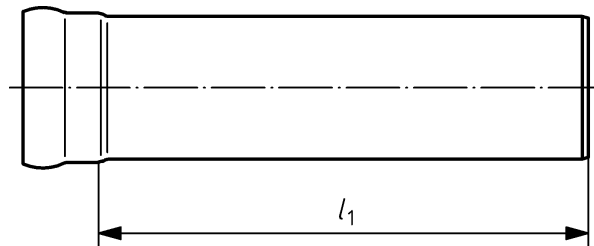


Figure 2 — Shape B 1

Designation of a drainage steel pipe (B 1) with standard socket (1 A) of medium series (M), nominal size DN/ID 100 and effective length $l_1 = 1\ 000$ mm with additional corrosion protection (P):

Pipe EN 1124-3 – B 1 – 1 A M – 100 – 1 000 P

Table 6 — Dimensions for pipes with one socket – Shape B 1

Dimensions in millimetres

Nominal size DN/ID	Effective length l_1							
	± 5				± 8			
40								
50								
70								
80								
100	250	500	750	1 000	1 500	2 000	3 000	4 000
125								
150								
200								

5.3.3 Pipe with two sockets – Shape B 2

Figure 3 contains a pipe with two sockets – shape B 2.

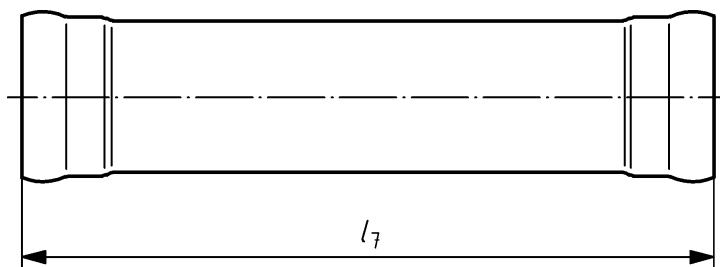


Figure 3 — Shape B 2

Designation of a drainage steel pipe (B 2) with standard socket (1 A) of medium series (M), nominal size DN/ID 80 and effective length $l_7 = 750$ mm:

Pipe EN 1124-3 – B 2 – 1 A M – 80 – 750

Table 7 — Dimensions for pipes with two sockets – Shape B 2

Dimensions in millimetres

Nominal size DN/ID	Effective length $l_7 \pm 8$						
	250	500	750	1 000	1 500	2 000	3 000
40							
50							
70							
80							
100							
125							
150							
200							