ISBN 978-0-626-28674-3

SANS 62-1:2013

Edition 3.3

SOUTH AFRICAN NATIONAL STANDARD

Steel pipes

Part 1: Pipes suitable for threading and of nominal size not exceeding 150 mm

SANS 62-1:2013
Edition 3.3

Table of changes

Change No.	Date	Scope
Amdt 1	2003	Has been amended to clarify the requirements for welded pipe, to amplify two titles, to re-arrange the sequence in a test procedure, to include a minimum leak tightness test, and to reduce the time to test a pipe.
Amdt 2	2012	Amended to update referenced standards.
Amdt 3	2013	Amended to update the finishing requirements of pipes, modify table 1, change cross references, update a referenced standard, modify the procedure for the flattening test and change the requirements for marking.

Foreword

This South African standard was approved by National Committee SABS SC 138M, *Water and sanitation – Equipment and systems – Metallic pipes and fittings*, in accordance with procedures of the SABS Standards Division, in compliance with annex 3 of the WTO/TBT agreement.

This document was published in April 2013.

This document supersedes SANS 62-1:2012 (edition 3.2).

A vertical line in the margin shows where the text has been technically modified by amendment No. 3.

SANS 62 consists of the following parts under the general title *Steel pipes*:

Part 1: Pipes suitable for threading and of nominal size not exceeding 150 mm.

Part 2: Screwed pipes and pipe fittings of nominal size not exceeding 150 mm.

Annex A forms an integral part of this document. Annexes B and C are for information only.

Contents

This page is intentionally left blank

Steel pipes

Part 1:
Pipes suitable for threading and of nominal size not exceeding 150 mm

1 Scope

This part of SANS 62 covers the requirements for two classes (medium and heavy-based on wall thickness) of welded and seamless steel pipes with screwed or plain ends and of nominal size in the range 8 mm to 150 mm.

NOTE For light gauge welded steel pipes used for the conveyance of fluids, see SANS 1182.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of SANS 62. All standards are subject to revision and, since any reference to a standard is deemed to be a reference to the latest edition of that standard, parties to agreements based on this part of SANS 62 are encouraged to take steps to ensure the use of the most recent editions of the standards indicated below. Information on currently valid national and international standards can be obtained from the SABS Standards Division.

ISO 10893-2, *Non-destructive testing of steel tubes – Part 2: Automated eddy current testing of seamless and welded (except submerge arc-welded) steel tubes for the detection of imperfections.* **Amdt 2**

SANS 32/EN 10240, *Internal and/or external protective coatings for steel tubes – Specification for hot dip galvanized coatings applied in automatic plants*.

SANS 62-2, *Steel pipes – Part 2: Screwed pieces and pipe fittings of nominal size not exceeding 150 mm*.

SANS 121/ISO 1461, *Hot dip galvanized coatings on fabricated iron and steel articles – Specifications and test methods.* **Amdt 3**

SANS 1109-1/ISO 7-1, *Pipe threads where pressure-tight joints are made on the threads – Part 1: Dimensions, tolerances and designation*.

SANS 1109-2/ISO 7-2, *Pipe threads where pressure-tight joints are made on the threads – Part 2: Verification by means of limit gauges*.

SANS 6892-1/ISO 6892-1, *Metallic materials – Tensile testing – Part 1: Method of test at room temperature*. **Amdt 2**

SANS 12944-1/ISO 12944-1, *Paints and varnishes – Corrosion protection of steel structures by protective paint systems – Part 1: General introduction*.

SANS 12944-2/ISO 12944-2, *Paints and varnishes – Corrosion protection of steel structures by protective paint systems – Part 2: Classification of environments*.

SANS 12944-3/ISO 12944-3, *Paints and varnishes – Corrosion protection of steel structures by protective paint systems – Part 3: Design considerations*.

SANS 12944-4/ISO 12944-4, *Paints and varnishes – Corrosion protection of steel structures by protective paint systems – Part 4: Types of surface and surface preparation*.

SANS 12944-5/ISO 12944-5, *Paints and varnishes – Corrosion protection of steel structures by protective paint systems – Part 5: Protective paint systems*.

SANS 12944-6/ISO 12944-6, *Paints and varnishes – Corrosion protection of steel structures by protective paint systems – Part 6: Laboratory performance test methods*.

SANS 12944-7/ISO 12944-7, *Paints and varnishes – Corrosion protection of steel structures by protective paint systems – Part 7: Execution and supervision of paint work*.

SANS 12944-8/ISO 12944-8, *Paints and varnishes – Corrosion protection of steel structures by protective paint systems – Part 8: Development of specifications for new work and maintenance*.

3 Definitions

For the purposes of this part of SANS 62 the following definitions apply.

3.1
batch
quantity of tubes of the same outside diameter, wall thickness and steel grade, and that are manufactured during a specified period of production

3.2
nominal size
the nominal bore of the pipe. For screwed threaded pipes it is also indicative of the size of the external pipe thread applied to the pipe

NOTE The outside diameter is determined by the corresponding screw thread outside diameter given in SANS 1109-1. The actual bore of medium class and heavy class pipes of the same size will, therefore, vary according to the wall thickness of the pipe.

4 Requirements

4.1 Materials

4.1.1 Chemical properties

Pipes shall be of steel whose ladle chemical composition complies with the following:

a) the phosphorus content shall not exceed 0,025 %;

b) the carbon content shall not exceed 0,22 %;

c) the sulfur content shall not exceed 0,020 %;

d) the manganese content shall not exceed 1,60 %; and

e) the silicon range for steel pipes shall be as specified by the purchaser (see A.1(a) in annex A) and shall either

1) not exceed 0,040 %, or

2) be in the range 0,135 % to 0,30 %.

4.1.2 Physical properties

When tested in accordance with SANS 6892-1 **Amdt 2**

a) the ultimate yield strength shall be at least 200 MPa and the minimum tensile strength shall be 300 MPa, and

b) the percentage elongation at break on a gauge length of 5,65 times the square root of the original cross-sectional area shall be at least 15 %.

4.2 Screw threads

4.2.1 Screw threads shall comply with the requirements of SANS 1109, relevant to the nominal size of the pipe.

4.2.2 In the case of galvanized pipes, screw threads shall be cut after galvanizing.

4.3 Pipe classification

4.3.1 Class and type

The class (medium or heavy) and the type (i.e. screwed ends or plain ends) shall be as required (see A.1(b) in annex A).

4.3.2 Nominal size

The nominal size shall be as required (see A.1(b) in annex A) and shall be one of the sizes given in column 1 of table 1.

4.3.3 Working pressure rating

4.3.3.1 General

A variety of factors will influence the performance, durability and usability of a pipe used in a pipe system. The most important of these is the method of justifying individual pipes into a system, which includes the application of screwed threads, malleable pipe couplings, and wrought steel pipe couplings, flanges and pipe fittings.

4.3.3.2 Plain-ended pipes versus screwed-end pipes

The application of a screwed thread onto the end of a pipe reduces the effective wall thickness and therefore the design pressure rating of the pipe.

Table 1 — Dimensions

1	2	3	4	5	6	7
Nominal size	**Outside diameter** [a]		**Wall thickness and mass**		**Wall thickness and mass**	
			Wall thickness (*t*) medium class	**Mass** [b]	**Wall thickness (*t*) heavy class**	**Mass** [b]
mm	**Max.** mm	**Min.** mm	mm	kg/m	mm	kg/m
8	13,9	13,3	2,0	0,557	2,5	0,666
10	17,4	16,8	2,0	0,730	2,5	0,882
15	21,7	21,1	2,3	1,07	2,8	1,26
20	27,2	26,6	2,3	1,38	2,8	1,64
25	34,2	33,4	2,8	2,11	3,5	2,58
32	42,9	42,1	2,8	2,71	3,5	3,33
40	48,8	48,0	2,8	3,12	3,5	3,84
50	60,8	59,8	3,2	4,47	3,9	5,38
65	76,6	75,4	3,2	5,70	3,9	6,88
80	89,5	88,1	3,5	7,30	4,2	8,69
100	114,9	113,3	3,9	10,52	4,7	12,59
125	140,6	138,7	4,2	13,93	4,7	15,53
150	166,1	164,1	4,2	16,56	4,7	18,48

[a] For practical purposes it can be considered that the outside diameter of a pipe is constant, subject to the tolerances given.

[b] Based on minimum diameter

Amdt 3

4.3.3.3 Pipe systems with screw-threaded ends (normal plumbing installations)

4.3.3.3.1 The working pressure rating of medium class and heavy class pipes and pipe systems shall be as given in column 2 of table 2 appropriate to the nominal size given in column 1.

4.3.3.3.2 During screw threading, a major portion of the wall thickness of the pipe is forfeited to cater for an acceptable thread and the net wall thickness will determine the pressure rating. Consequently, the working pressure rating of medium class pipes with screwed ends is considered to be the same as that of heavy class pipes with screwed ends. The choice between the classes will depend on the intended life expectancy of the total system (see annex B), and will be influenced by the quality of the water conveyed.

4.3.3.3.3 A further factor influencing the life expectancy of the eventual (plumbing) system is the quality and durability of the pipe joints and fittings. Wrought steel fittings are extensively more pliable and robust than malleable fittings, and should be preferred where mechanical strength and durability are required.

4.3.3.4 Pipe systems with plain-ended pipes (high pressure installations)

4.3.3.4.1 The working pressure rating of medium class and heavy class plain-ended pipes shall be as given in columns 3 and 4 respectively of table 2 appropriate to the nominal size given in column 1.

4.3.3.4.2 When a pipe is screw threaded and furnished with a screwed-on flange which is welded in position, the pressure rating of the pipe can be considered to be the same as that for plain-ended pipes.

4.3.3.4.3 The strength, durability and life expectancy of the plain-ended pipe system (furnished with appropriate pipe joints) will be dependent on the type of pipe joint incorporated.

Table 2 — Maximum working pressure rating (static)

1	2	3	4
Nominal size mm	**Maximum working pressure rating** bar		
	Pipes with screw-threaded ends	**Pipes with plain ends**	
	Medium class and heavy class pipes	**Medium class pipes**	**Heavy class pipes**
8, 10, 15, 20, 25, 32, 40	40	70	80
50, 65, 80	20	60	70
100, 125, 150	20	50	60

4.3.3.5 Working pressures for special purpose installation systems (designed high pressure systems)

4.3.3.5.1 The working pressure rating of medium class and heavy class special purpose pipe systems shall be as given in columns 2 and 3 respectively of table 3 appropriate to the nominal size given in column 1.

4.3.3.5.2 The pressures are calculated from the formula given in 5.3.1 and using a safety factor of 2.

4.3.3.5.3 To ensure that these pressures are obtained, the appropriate procedure for testing shall be agreed upon between the manufacturer and the purchaser (see A.2(a) in annex A).

Table 3 — Maximum working pressure in special purpose pipe systems

1	2	3
Nominal size mm	**Maximum working pressure** bar	
	Pipes with plain ends	
	Medium class pipes	**Heavy class pipes**
8 10 15	200 180 160	200 200 200
20 25 32	130 130 100	160 160 120
40 50 65	90 80 70	110 100 80
80 100 125 150	60 50 50 50	70 60 60 50

4.4 Method of manufacture

4.4.1 Pipes shall be of welded or seamless construction as agreed upon between the manufacturer and the purchaser (see A.2(b) in annex A).

4.4.2 In the case of welded pipes, the external weld bead shall be removed. If so agreed upon, the internal weld bead shall also be removed (see A.2(c) in annex A).

4.5 Supply condition

Pipes shall be supplied in one of the following conditions, as required (see A.1(c) in annex A):

a) direct off the mill; or

b) painted; or

c) galvanized.

4.6 Wall thickness

The wall thickness (t) of pipes shall conform to the value given in column 4 (for medium class) or column 6 (for heavy class) of table 1 appropriate to the nominal size given in column 1. **Amdt 3**

4.7 Length of pipes

Unless exact lengths are required, pipes shall be supplied in standard lengths as agreed upon with the manufacturer (see A.2(d) in annex A). When exact lengths are required (see A.1(d) in annex A), the tolerance shall be specified by the purchaser (see A.1(e) in annex A); otherwise off-mill lengths with a tolerance of $^{+55}_{0}$ mm will be supplied.

4.8 Production control

4.8.1 When, for production control purposes, the weld integrity of a pipe is tested in accordance with 5.2, it shall not leak or show any other sign of failure.

4.8.2 When a pipe is tested in accordance with 5.3, it shall not leak or show any other sign of failure.

4.8.3 When a welded pipe is tested in accordance with 5.4.3.3, it shall show no sign of cracking, and when such a pipe is tested in accordance with 5.4.3.5, the weld shall show no sign of cracking (see SANS 32).

4.8.4 When a pipe is tested in accordance with 5.5, the weld on the flared end of the test piece shall not crack or show any other defect.

4.9 Protection of the thread

4.9.1 Screw threads shall be covered with a rust inhibitor, and shall be protected with a socket or a plastics cap, as required (see A.1(f) in annex A).

4.9.2 Where sockets are provided, they shall be of wrought steel and shall comply with the requirements of SANS 62-2.

4.10 Finish

Pipes shall be supplied uncoated or with one of the following coating systems, as required (see A.1(g)):

a) **medium class pipes**

1) galvanized inside and outside surfaces, except where removed due to threading of the pipe, in accordance with the requirements for general applications of SANS 32 or SANS 121 both to coating quality A.1 (as defined in SANS 32); pipes supplied to this specification cannot be zinc electroplated nor manufactured from pre-galvanizing sheets; or **Amdt 3**

2) coated outside (and, if so required (see A.1 (g)), inside) with black paint (see the relevant parts of SANS 12944), bitumen, or varnish; and

b) **heavy class pipes**

1) galvanized inside and outside surfaces, except where removed due to threading of the pipe, in accordance with the requirements for general applications of SANS 32 or SANS 121 both to coating quality A.1 (as defined in SANS 32); pipes supplied to this specification cannot be zinc electroplated nor manufactured from pre-galvanizing sheets; or **Amdt 3**

2) coated with red paint (see the relevant parts of SANS 12944) on the outside only.

4.11 Workmanship

4.11.1 The ends of pipes shall be cut clean and square with the axis and shall be free from burrs.

4.11.2 Pipes shall be straight to within 1 in 500, measured at the centre of the length.

4.11.3 In the case of welded pipe, the external weld bead shall be removed.

4.11.4 Pipes that are not intended to be galvanized shall have an internal weld seam not exceeding 60 % of the specified wall thickness (t) given in table 1.

4.11.5 Pipes that are intended to be galvanized shall have a weld bead not exceeding 0,5 mm + 0,05 t. The tube shall have a smooth inside surface consistent with the kind of manufacture. This shall only apply from NB 50 and larger. **Amdt 1**

4.12 Cross-welds

Pipes shall not include weld for joining strips during manufacture.

4.13 Certification

When so required (see A.1(h) in annex A), a certificate shall be supplied that states that each pipe in a consignment complies with the requirements of this part of SANS 62.

NOTE Annex C gives additional information on quality verification of steel pipes.

5 Inspection and methods of test

5.1 Inspection

Visually inspect and measure each piece or pipe in the sample for compliance with all the relevant requirements of this part of SANS 62 for which tests to assess compliance are not given in 5.2 to 5.5 (inclusive).

5.2 Weld integrity test

Each pipe weld shall have been tested for weld integrity at the manufacturer's works. The test shall be either

a) a hydraulic pressure test as calculated in 5.3.1, the pressure being maintained long enough for proof and inspection, or **Amdt 1**

b) an eddy current test in accordance with ISO 10893-2. **Amdt 2**

NOTE The choice of the test is left to the manufacturer's discretion.

Check for compliance with 4.8.1.

5.3 Hydraulic pressure test

5.3.1 Pressure test **Amdt 1**

If the leak tightness test is carried out by a hydraulic pressure test, the test pressure is defined, up to a maximum of 7 MPa, by the following formula:

$$P = \frac{20 \times 0{,}75 \times Y \times T}{D}$$

where

P is the hydraulic test pressure, in bars;

Y is 200 MPa, unless otherwise agreed upon between the purchaser and the manufacturer (minimum specified yield strength for the plate or strip) (see A.2(e) in annex A);

T is the nominal wall thickness, in millimetres;

D is the nominal outside diameter of pipe, in millimetres.

The test pressure shall not be less than 5 MPa. **Amdt 1**

The formula is based upon 75 % of the minimum specified yield strength of the steel. This percentage may be increased, if agreed upon between the purchaser and manufacturer (see A.2(f) in annex A).

5.3.2 Apparatus for testing fittings and pipes as a system **Amdt 1**

5.3.2.2 Various fittings for sealing purposes.

5.3.2.3 Calibrated pressure gauge.

5.3.3 Procedure

5.3.3.1 Seal the end of the fitting being tested with the appropriate connection.

5.3.3.2 Connect the hydraulic pump and pressure gauge to one end of the fitting. **Amdt 1**

5.3.3.3 Fill the fitting with water.

5.3.3.4 Pressurize to the pressure calculated in 5.3.1. **Amdt 1**

5.3.3.5 Maintain this pressure for approximately 10 s to 15 s while the pipe is being examined for leaks or any other sign of failure. **Amdt 1**

5.3.3.6 Check for compliance with 4.8.2.

5.4 Flattening test

5.4.1 Apparatus

Compressive testing machine, with parallel platens of width at least equal to 1,5 times the diameter of the pipe under test.

5.4.2 Test pieces

From each pipe under test, cut two lengths of pipe (at least 40 mm each) from an unthreaded part at each end of the pipe. Deburr the test pieces.

5.4.3 Procedure

5.4.3.1 Place one test piece in the testing machine, with the weld positioned as shown in figure 1(a).

5.4.3.2 Apply a steadily increasing force until the distance between the platens is 60 % ± 1 % of the outside diameter of the pipe (see figure 1(b)).

5.4.3.3 Remove the test piece and examine it for signs of cracking. Check for compliance with 4.8.3.

5.4.3.4 Repeat the steps in 5.4.3.1 and 5.4.3.2 with the other test piece, but with the weld positioned as shown in figure 1(c), and increase the force until the distance between the platens is 15 % ± 1 % of the outside diameter of the pipe. The distance between the inside surfaces of the pipe shall however not be less than 5 mm (see figure 1(d)). **Amdt 3**

5.4.3.5 Remove the test piece and examine it for signs of cracking. Check for compliance with 4.8.3.

5.5 Flare test

5.5.1 Apparatus

5.5.1.1 Compressive testing machine, as in 5.4.1.

5.5.1.2 Steel cone, of included angle 60°, and of base diameter at least 1,1 times the outside diameter of the pipe.

5.5.2 Test piece

From an unthreaded part of the pipe, cut a piece of suitable length, but of length equal to at least the outside diameter of the pipe. Deburr the ends of the test piece.

5.5.3 Procedure

5.5.3.1 Place the cone and the test piece in the testing machine, as shown in figure 2.

5.5.3.2 Apply a steadily increasing force until the end of the test piece flares to a diameter 10 % ± 1 % larger than the outside diameter of the pipe.

5.5.3.3 Examine the flared end of the test piece and check for compliance with 4.8.4.

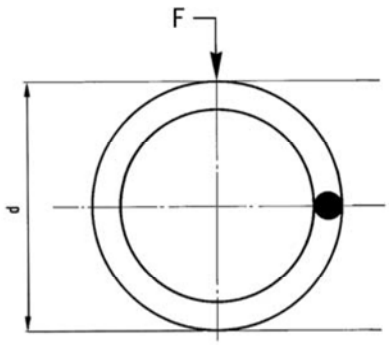

Figure 1(a)

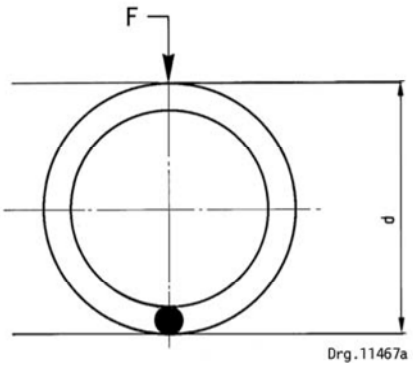

Figure 1(c)

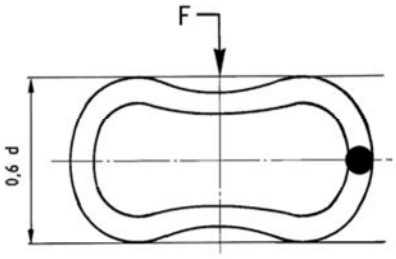

Figure 1(b)

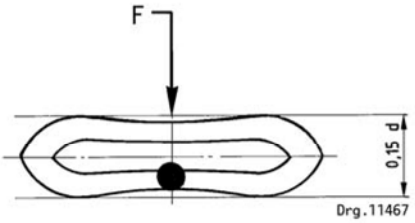

Figure 1(d)

Figure 1 — Flattening test

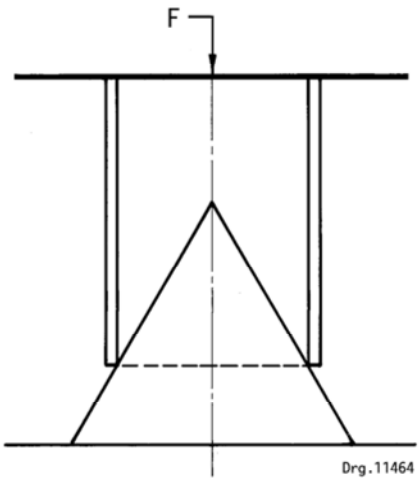

Figure 2 — Flare test

6 Packing and marking

6.1 Packing

Pipes of the same class, type, nominal size, method of manufacture and finish shall be packed together in bundles.

6.2 Marking

6.2.1 Pipes

6.2.1.1 Each pipe shall be indelibly colour-marked at one end with two 50 mm wide bands of the appropriate colour as follows:

a) **medium class**: blue; and

b) **heavy class**: red (unless the pipe is painted red (see 4.10(b)(2)).

6.2.1.2 The following markings shall be on each pipe at approximately 1 m centres: **Amdt 3**

a) the trade name or trade mark of the manufacturer;

b) the specification number (e.g. SANS 62-1); and

c) the batch code.

NOTE For thickness of 2,5 mm and thicker, markings shall be hard stamped on pipes. **Amdt 3**

For thickness less than 2,5 mm, markings shall be indelibly marked on pipes. **Amdt 3**

6.2.2 Bundles

The following information shall appear in legible and indelible marking on a label securely attached to each bundle:

a) the manufacturer's name or trade name or trade mark;

b) the nominal size;

c) the class of pipe;

d) the batch identification; and

e) the specification number (e.g. SANS 62-1).

Annex A
(normative)

Notes to purchasers

A.1 The following requirements shall be specified in tender invitations and in each order or contract:

a) the silicon range (see 4.1.1(e));

b) the class, type and nominal size of the pipes (see 4.3.1 and 4.3.2);

c) the supply condition of the pipes (see 4.5);

d) whether pipes are to be supplied in exact lengths (see 4.7);

e) the tolerance on the length of pipes of exact length, if other than as specified (see 4.7);

f) whether a socket or a plastics cap shall be provided (see 4.9.1);

g) if pipes are to be coated, the type of coating, and whether the inside is also to be coated (see 4.10); and

h) whether a certificate is to be supplied (see 4.13).

A.2 The following requirements shall be agreed upon between the manufacturer and the purchaser:

a) the procedure for testing the working pressure rating in special purpose installation systems (see 4.3.3.5.3);

b) whether the pipe is to be welded or seamless (see 4.4.1);

c) whether the internal weld bead is to be removed (see 4.4.2);

d) the standard length of pipe (unless exact lengths are required) (see 4.7);

e) the value of *Y* in the formula in 5.3.1 (if not 200 MPa);

f) the percentage of the minimum specified yield strength of the steel (if not 75 %) (see 5.3.1); and

g) additional coatings (when relevant) (see B.6 in annex B).

Annex B
(informative)

Steel pipe systems — Guide on life expectancy

B.1 General

The working pressure rating and life expectancy of a steel pipe system are subject to a variety of factors, the most common of which are given below. It is not the intention of this part of SANS 62 to find solutions to problems in major installations. It is recommended that expert advice be obtained in this regard.

B.2 Water quality

Conveyed water can be resourced from treated municipal water supply (potable water), industrial water, effluent, boreholes, rivers, dams, etc. Each of these sources could include some element that would affect the life expectancy of the pipe.

B.3 External soil conditions

Soils could be acidic, alkaline or neutral, each having particular effects on the pipe.

B.4 Electrolytic and other considerations

The electrolytes in the water, pipes of material other than steel (especially copper) connected into the system, and electric earthing features are all considerations that should be evaluated on their own merits.

B.5 Structural strength

Systems could be effectively buried in the ground, in which case no external forces would be involved. However, the system could be suspended in air, horizontally or vertically, or could be subjected to shock loads such as water hammer. In these cases the type, design, quality and application of pipe connections will be of prime importance.

B.6 Surface protection

Pipes are normally supplied galvanized or in off-the-mill condition. In special cases additional coatings as agreed upon between the manufacturer and the purchaser can be applied (see A.2(g) in annex A), subject to cost considerations. For normal plumbing and surface installations, the galvanized pipe has proved quite effective.

B.7 Pressure rating

In normal plumbing systems involving municipal water supplies, a working pressure rating of up to 2 500 kPa is ample. For this purpose, a screw-threaded and socketed pipe could be employed (see column 2 of table 2). However, for systems that need higher pressures, a plain-ended pipe with appropriate connections should be considered (see columns 3 and 4 of table 2).

Annex C
(informative)

Quality verification of steel pipes

When a purchaser requires ongoing verification of the quality of steel pipes, it is suggested that, instead of concentrating solely on evaluation of the final product, he also direct his attention to the manufacturer's quality system. In this connection it should be noted that SANS 9001 covers the provisions of an integrated quality system.

Bibliography

SANS 1182, *Light gauge welded steel pipes*.

SANS 9001/ISO 9001, *Quality management systems – Requirements*.

This page has been left blank intentionally

SABS – Standards Division

The objective of the SABS Standards Division is to develop, promote and maintain South African National Standards. This objective is incorporated in the Standards Act, 2008 (Act No. 8 of 2008).

Amendments and Revisions

South African National Standards are updated by amendment or revision. Users of South African National Standards should ensure that they possess the latest amendments or editions.

The SABS continuously strives to improve the quality of its products and services and would therefore be grateful if anyone finding an inaccuracy or ambiguity while using this standard would inform the secretary of the technical committee responsible, the identity of which can be found in the foreword.

The SABS offers an individual notification service, which ensures that subscribers automatically receive notification regarding amendments and revisions to South African National Standards.
Tel: +27 (0) 12 428 6883 Fax: +27 (0) 12 428 6928 E-mail: sales@sabs.co.za

Buying Standards

Contact the Sales Office for South African and international standards, which are available in both electronic and hard copy format.
Tel: +27 (0) 12 428 6883 Fax: +27 (0) 12 428 6928 E-mail: sales@sabs.co.za
South African National Standards are also available online from the SABS website http://www.sabs.co.za

Information on Standards

The Standards Information Centre provides a wide range of standards-related information on both national and international standards. The Centre also offers an individual updating service called INFOPLUS, which ensures that subscribers automatically receive notification regarding amendments to, and revisions of, international standards.
Tel: +27 (0) 12 428 7911 / 0861 27 7227 Fax: +27 (0) 12 428 6928 E-mail: info@sabs.co.za

Copyright