SRI LANKA STANDARD 8 : 1991

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SPECIFICATION FOR

WIRE NAILS

(FIRST REVISION)

SRI LANKA STANDARDS INSTITUTION

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SLS 8 : 1991

Gr. 7

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SRI LANKA STANDARD

SPECIFICATION FOR WIRE NAILS

(FIRST REVISION)

FOREWORD

This Standard was authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards Institution on 91/12/31 after the draft finalized by the Drafting committee on Wire Nails had been approved by the Metal and Metal products Sectoral Committee. This standard was first published in 1967, and this is the first revision.

The values given in this standard are in SI units.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or an observation shall be rounded off in accordance with **CS** 102. The number of figures to be retained in the rounded off value shall be the same as that of the specified value in this Standard.

The Sri Lanka Standards Institution gratefully acknowledges the use of relevant publications of the International Organization for Standardization , British Standards Institution and Bureau of Indian Standards in the preparation of this Standard.

1 SCOPE

This standard specifies requirements for mild steel round wire nails for the types specified in 3.

2 REFERENCES

SLS 7	Cold drawn mild steel wire for the manufacture of wire nails.(First revision)
CS 102	Presentation of numerical values.
SLS 428	Random sampling methods.

3 TYPES

Mild steel round wire nails shall be of the following types:

a) Round plain head nails. (Table 2)
b) Round lost head nails. (Table 3)
c) Clout or slate nails. (Table 4)
d) Extra large head clout or felt nails. (Table 5)
e) Convex head roofing nails. (Table 6)
f) Panel pins. (Table 7)
g) Lath nails. (Table 8)
j) Dowels. (Table 9)
k) Tenter hooks. (Table 10)

4 DESIGNATION

The designation of nails shall be length in mm x shank diameter in mm and type.
Example: A round plain head nail of size 20 mm length and 1.40mm shank diameter shall be designated as 20 mm x 1.40 mm round plain head nail.

5 REQUIREMENTS

5.1 Material

Nails shall be manufactured from mild steel wire conforming to SLS 7. The tensile strength less than what has been specified in SLS 7 may be accepted for nails having a head diameter greater than 3D where D is the diameter of the shank.

5.2 Manufacture

The nails shall be machine made and may have die marks and feeding knife marks on the shank. They shall be uniformly circular in section, straight, free from wasters and the ends shall be sharp and pointed. The heads shall be properly formed,chequered and concentric with the shank.

5.3 Dimensions and Tolerances

5.3.1 The dimensions of different types of wire nails shall be in accordance with Table 2 to Table 10 appropriately subject to the tolerances specified in 5.3.2.

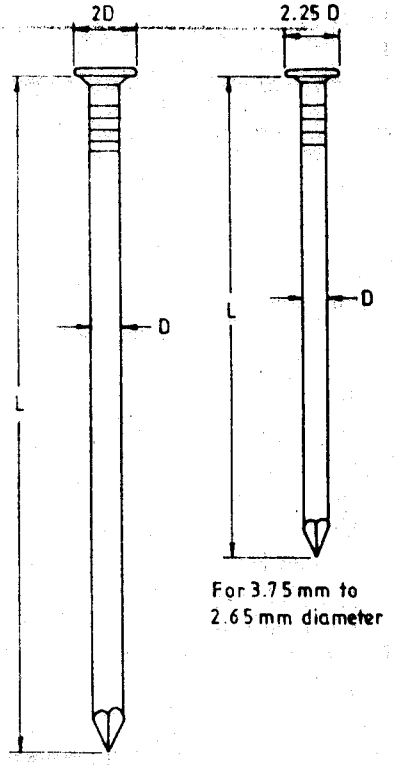
5.3.2 The tolerances on dimensions for wire nails shall be in accordance with Table 1.

TABLE 1 - Tolerance on dimensions of wire nails

Shank diameter (D) mm (1)	Tolerances on		
	Head deameter (as a %) (2)	Shank diameter (D) mm (3)	Length (L) mm (4)
2.65 - 8.00	±5 (except for extra large head clout or felt nails which have a minimum diameter of 11 mm	±0.05	±0.8
Less than 2.65	±5	±0.03	±0.5

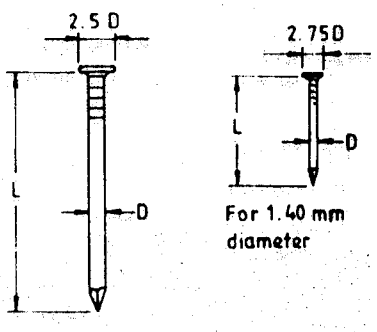
Table 2 Dimensions and approximate count of round plain head nails

Length L mm	Shank diameter D mm	Approx. no. of nails per kg
200	8.00	13
180	6.70	22
150	6.00	29
150	5.60	35
125	5.60	42
125	5.00	53
115	5.00	57
100	5.00	66
100	4.50	77
100	4.00	88
100	3.75	110
90	4.50	88
90	4.00	106
90	3.75	123
90	3.35	152
75	4.00	121
75	3.75	154
75	3.35	194
75	3.00	236
65	3.75	175
65	3.35	230
65	3.00	275
65	2.65	350
60	3.35	255
60	3.00	310
60	2.65	385
50	3.35	290
50	3.00	340
50	2.65	440
50	2.36	550
45	2.65	510
45	2.36	640
45	2.00	840
40	2.65	575
40	2.36	750
40	2.00	970
30	2.36	840
30	2.00	1170
30	1.80	1410
25	2.00	1430
25	1.80	1720
25	1.60	2120
20	1.60	2710
20	1.40	3750
15	1.40	4400



For 4.00 mm diameter and thicker

For 3.75 mm to 2.65 mm diameter



For 2.36 mm to 1.60 mm diameter

For 1.40 mm diameter

Table 3 Dimensions and approximate count of round lost head nails

Length L mm	Shank diameter D mm	Approx. no. of nails per kg
75	3.75	160
65	3.35	240
65	3.00	270
60	3.35	270
60	3.00	330
50	3.00	360
50	2.65	420
40	2.36	760
30	2.00	1190
25	1.00	6100
20	1.00	8030
15	1.00	9400

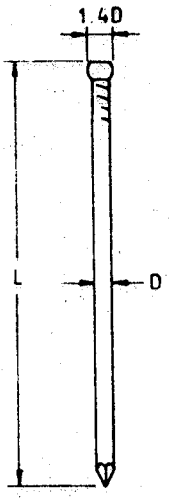
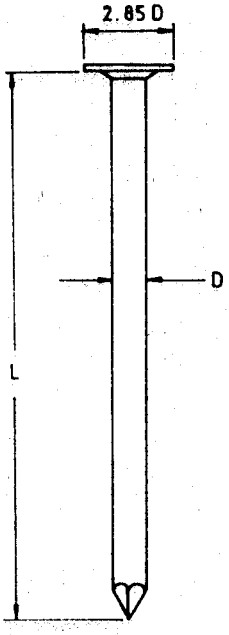
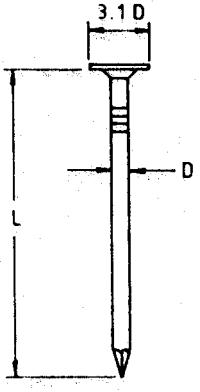


Table 4 Dimensions and approximate count of clout or slate nails

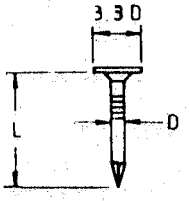
Length L mm	Shank diameter D mm	Approx. no. of nails per kg
100	4.50	75
90	4.50	85
75	3.75	150
65	3.75	180
50	3.75	230
50	3.35	290
50	3.00	340
50	2.65	430
45	3.35	330
45	2.65	460
40	3.35	350
40	2.65	570
40	2.36	700
30	3.00	540
30	2.65	660
30	2.36	830
25	2.65	815
20	2.65	1035
15	2.36	1540
15	2.00	2380



For 4.50 mm diameter



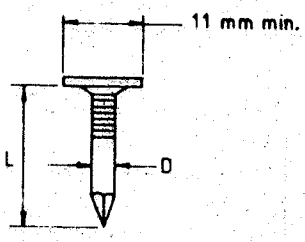
For 3.75 mm diameter

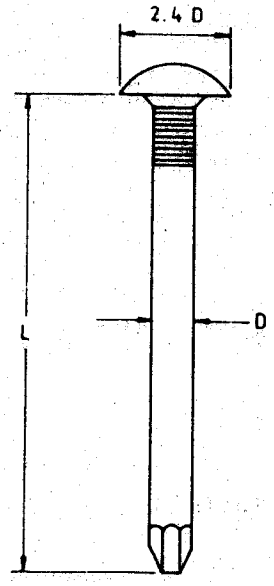


For 3.35 mm to 2.00 mm diameter

Table 5 Dimensions and approximate count of extra large head clout or felt nails

Length L mm	Shank diameter D mm	Approx. no. of nails per kg
40	3.00	350
30	3.00	420
25	3.00	485
20	3.00	580
15	3.00	650
13	3.00	780

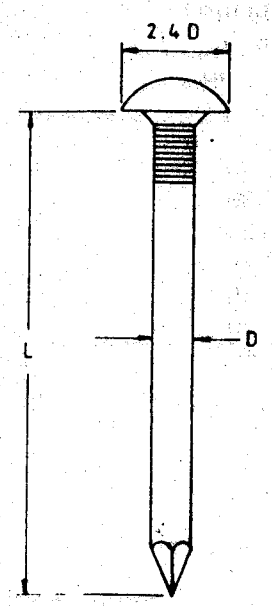




Chisel point

Table 6 Dimensions and approximate count of convex head roofing nails (Chisel or diamond point)

Length L mm	Shank diameter D mm	Approx.no. of nails per kg
75	5.60	68
65	6.00	66
65	5.60	79



Diamond point

Table 7 Dimensions and approximate count of panel pins

Length L mm	Shank diameter D mm	Approx. no. of nails per kg
75	2.65	290
65	2.65	345
50	2.00	770
40	1.60	1590
30	1.60	1900
25	1.60	2340
25	1.40	3090
20	1.60	3140
20	1.40	3970
20	1.25	5290
15	1.25	6400
15	1.00	8800

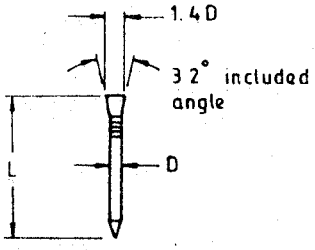


Table 8 Dimensions and approximate count of lath nails

Length L mm	Shank diameter D mm	Approx. no. of nails per kg
40	2.00	970
30	2.00	1170
25	2.00	1430
25	1.80	1740
25	1.60	2140
20	1.80	1750
20	1.60	2370

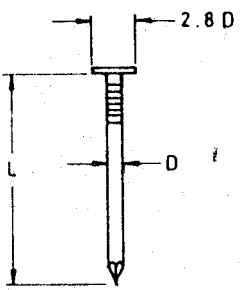


Table 9 Dimensions and approximate count of dowels

Length L mm	Shank diameter D mm	Approx.no. of nails per kg
50	2.65	455
45	2.65	520
40	2.65	610

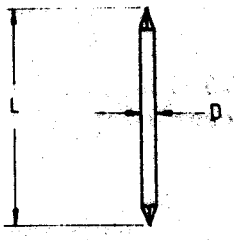
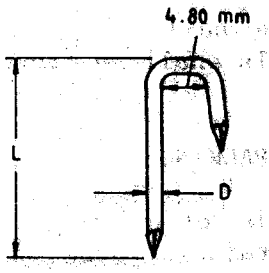
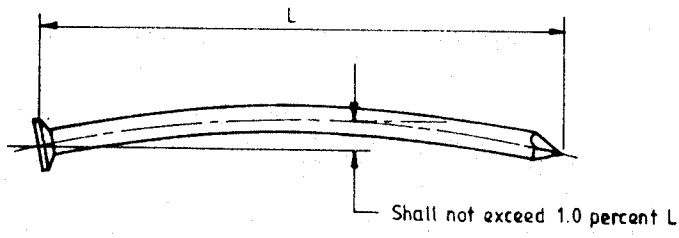


Table 10 Dimensions and approximate count of tenter hooks

Length L mm	Shank diameter D mm	Approx. no. of nails per kg
25	2.36	690
20	2.36	740



5.3.3 The bend of shank as shown in Figure 1 shall not exceed 1.0 percent of total length.



FIGUR 1 - Bend of shank

5.3.4 The maximum allowable eccentricity of the centre of the nail head from axis of shank shall be 12 percent of maximum shank diameter.

5.4 Finish

Wire nails shall be supplied bright finished. The surface of all nails shall be free from excessive oxidation.

6 PACKING

Nails of different sizes and shapes shall be packed in separate containers. The container shall give an adequate protection against damage and excessive oxidation.

7 MARKING

Each pack of nails shall be marked legibly and indelibly with the following information:

a) Name and address of the manufacturer and/or trade mark if any;

b) Date of manufacture;

c) Net mass in Kg and

d) Designation.

8 SAMPLING

8.1 Lot

In any consignment all containers of wire nails of the same type and size belonging to one batch of manufacture or supply shall constitute a lot.

8.2 Scale of sampling

8.2.1 Samples shall be tested from each lot for ascertaining its conformity to the requirements of this specification.

8.2.2 The number of nails to be selected from a lot shall be in accordance with the Table 11. The nails shall be selected from at least 25 per cent of the containers in the lot and mixed.

TABLE 11 - Scale of Sampling

Approximate number of nails in the lot (1)	No. of nails to be selected (2)	Acceptance number for the sample selected in column 2 (3)	Sub sample size (4)	Acceptance no. for the sample selected in column 4 (5)
up to 1000	32	5	8	0
1001 to 3000	50	7	13	0
3001 to 10000	80	10	20	0
10001 to 35000	125	14	32	1
35001 and above	200	21	50	2

8.2.3 Containers and nails shall be selected at random. In order to ensure randomness of selection tables of random numbers as given in SLS 428 shall be used.

8.3 Number of tests

8.3.1 Each container selected as in 8.2.2. shall be inspected for packaging and marking requirements.

8.3.2 The sample nails drawn as in Column 2 of Table 11 shall be individually inspected for finish and dimensional requirements given in 5.3.1 and 5.3.2 .

8.3.3 The sub sample drawn as in the Column 4 of the Table 11 shall be tested for the requirements given in 5.3.3 and 5.3.4.

9 CRITERIA FOR CONFORMITY

A lot shall be declared as conforming to the requirements of this specification if the following conditions are satisfied.

9.1 Each container inspected as in 8.3.1 satisfies packaging and marking requirements.

9.2 Number of nails not conforming to requirements on finish and dimensional requirements when inspected as in 8.3.2 is less than or equal to the corresponding acceptance number given in Column 3 of Table 11.

9.3 Number of nails not conforming to the requirements given in 5.3.3 and 5.3.4 when tested as in 8.3.3 is less than or equal to the corresponding acceptance number given in Column 5 of Table 11.

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