

**SPECIFICATION
FOR
PLANT
CODIFICATION LABELS**

DOCUMENT NUMBER : RW/01200/S/022

REVISION : 02

DATE ISSUED : 31 July 1998

REV NO	DATE	DETAILS OF REVISION	PREPARED BY	APPROVAL PROJ MANAGER
00	2 April 1996	General Update	C M Team	MDE
01	1 November 1996	Drawing List Revised	C M Team	MDE
02	31 July 1998	Minor Corrections	C M Team	<i>[Signature]</i> MDE

The intent of this specification is to ensure uniformity of plant identification labels.

2. SCOPE

This specification defines Rand Water's requirements for the size, inscription and attachment of plant codification labels to be installed.

This specification and its associated drawings are issued for the use of Contractors and Suppliers. Deviations from the requirements of this specification must be formally requested and approved in writing.

3. REFERENCES

- 3.1** Specification for Plant Codification Requirements (WKS) Document Number: RW/01200/S/021.
- 3.2** WKS Identification System Key Document Number: RW/01200/L/001.
- 3.3** Identification System Reference Manual : Document Number: RW/01200/M/044
- 3.4** List of Approved WKS Abbreviations for Text : Document Number: RW/01200/L/002.

4. DEFINITIONS AND ABBREVIATIONS

Maintenance Significant Item

An item of plant which is designated for maintenance activities.

Operational Significant Item

An item of plant which is designated for operational control activities.

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- 1. OBJECTIVE**

5. REQUIREMENTS

All labels on plant and equipment shall bear inscriptions in the English language unless otherwise specified.

Labels schedules shall be submitted to Rand Water for approval before label manufacture commences. Descriptions not approved by Rand water may be rejected. Rand Water will assist with spelling.

Standard Helvetica bold characters shall be used. Narrow or condensed, broad or extended characters are not acceptable.

Uppercase letters shall be used except where conventional abbreviations or symbols require the use of both upper and lowercase letter (e.g., kW, Ah)

Writing a WKS Code

To prevent misinterpretation the Code must be written and spaced as the permissible notations are fixed. This spaced notation promotes both code comprehensibility and mnemonic quality. Codes are spaced by leaving a gap (space) at specific points in the Code. These are shown below:

Code Spacing

AAAA = N NAAANN AANNN AANN
 s s s s

All labels shall be in accordance with the following Drawings:

RW/01200/S/A10550
RW/01200/S/A10551
RW/01200/S/A10552
RW/01200/S/A10553
RW/01200/S/A10554
RW/01200/S/A10555

RW/01200/S/A10556

RW/01200/S/A10557

›Rietvlei - Rand Water Standard WKS coding system general label and nameplate detail for plant and equipment= and,

RW//01200/S/A10558

RW/01200/S/A10559

›Rietvlei - Rand Water Standard WKS coding system label and nameplate detail for LV, MV, DC switchgear and multi cubicle panels=.

All labels shall be mounted horizontal and parallel to each other and on the equipment with which they are associated or be permanently attached to the nearest immovable object where the label cannot be damaged, i.e. pump set, switchgear panel, circuit breaker rack etc. before that unit or section of plant is commissioned. If no suitable object can be found special brackets for the labels shall be installed.

The delivery requirements and the responsibility for attaching the labels will be detailed in each contract.

5.1 Mechanical Plant Labels

5.1.1 Material

The labels for out door usage shall be made from Beveled Natural Anodized Aluminum, of at least 2 mm thickness, and unless otherwise specified indoor labels shall be of Traffolite (white-black-white) 1.5 mm thick placed on a firm backing.

5.1.2 Dimensions

All labels shall be square or rectangular in shape. The overall dimensions of the label shall be in accordance with Rand Water Drawings as listed in this document. Labels , lists and types of label shall be subject to Rand Water=s approval.

5.1.3 Engraving/Etching

Unless otherwise specified or approved by Rand Water, overall heights of characters and the size of labels shall be as specified on Rand Water Drawings as listed according to the purpose of the label.

Labels shall be engraved or chemically etched and the characters shall be filled in with a black cellulose lacquer. The width of the exposed filling shall be not less than one-seventh of the centre height of the character.

5.1.4 Fixing

All labels shall be positioned so that these can be easily read by viewers from the operating floors, platforms and galleries.

The labels shall be attached to an immovable part of the equipment, e.g. the inlet or outlet pipe of a valve or the plinth of a pump unit.

Labels shall be fixed with stainless steel machine screws. Adhesives may be used, provided that Rand Water's approval has been obtained in writing for the type and make of adhesive to be used.

5.1.5 Piping Identification

Piping may be identified by either stenciling or labeling. The pipes to be identified and the method of identification are subject to agreement between Rand Water and the contractor.

5.2 Indoor Electrical and C & I Equipment labels

5.2.1 Materials

Subject to Rand Water's approval, all control panels in relay rooms, switchgear, local or remote control stations, loose starters, junction boxes and similar equipment for indoor use shall be provided with labels made from white/black/white Traffolite material or Gravoply. Filling waxes are not acceptable.

Labels shall have a minimum thickness of 1.5 mm. Labels shall not discolor, nor distort in service and shall have straight smooth unchipped edges. Beveled edges are not required.

5.2.2 Dimensions

All labels shall be square or rectangular in shape. The overall dimensions of the labels shall be in accordance with Rand Water Drawings as listed in this document. Labels shall be to Rand Water's approval.

5.2.3 Engraving

The characters shall be legible when viewed from an angle of approximately 45 degrees from any position (above, below, horizontal) with respect to the label. The width of exposed black in standard labels, shall not be less than one seventh of the centre height of the character.

Unless otherwise specified or approved by Rand Water, overall heights of characters and size of the labels shall be as specified in Rand Water Drawings stated in this document according to the purpose of the label.

Standard WKS type labels shall be in the following colors as specified:

- a) Black character on white background.

5.2.4 Fixing/holders

Aluminium slip-in holders shall be used for all labels as specified on Rand Water Drawing No: RW/01200/S/A10558. Where slip-in holders are used, the labels shall not be bolted or fixed in any way and shall depend only on the label frames to hold them firmly in position. Masking of the label by the holder shall not exceed 3 mm per edge.

The slip-in holders shall be made longer than the Traffolite label by approximate 3 mm on each side to allow pinching of all edges to prevent labels sliding out.

Label Holders shall be bolted onto the relevant panels. Where label holders are not used, labels shall be fixed as per Para 5.1.4.

5.3 Outdoor Electrical and C & I Equipment Labels

5.3.1 Material

All labels for exterior use on equipment located out of doors shall be made from Beveled Natural Anodised Aluminium, of at least 2 mm thickness. (Refer to Rand Water Drawing Nos: RW/01200/S/A10558 A10553, A10554 for more details.

5.3.2 Dimensions

All labels shall be square or rectangular in shape. The overall dimensions of the labels shall be in accordance with Rand Water Drawing Nos: RW/01200/S/A10558 A10553, A10554. Labels shall be to Rand Water's approval.

5.3.3 Engraving/Etching

Labels shall be engraved or chemically etched and the characters shall be filled in with a black cellulose lacquer. The width of the exposed filling shall be not less than one-seventh of the centre height of the character.

Unless otherwise specified or approved by Rand Water, overall heights of characters and the size of labels shall be as specified on Rand Water Drawing Nos: RW/01200/S/A10558 A10553, A10554 and RW/01200/S/A10559 according to the purpose of the label.

5.3.4 Fixing

Label fixing devices shall neither penetrate the equipment housing nor constitute a potential source of corrosion. If labels are to be affixed with bolts then it is the Contractors responsibility to ensure all the relevant ingress protection >IP= standards have been met for that panel after affixing the label.

5.4 Structures/Area Identification & plant Main Entrance Door labels

5.4.1 All structures

Areas and Plant main entrance doors will be identified with a label as detailed on Rand Water

Drawing Nos: RW/01200/S/A10556 and RW/01200/S/A10557.

All materials and dimensions to be strictly adhered to.

5.4.2 Structures Labels

These labels will be fixed above or near the main entrance door to such building.

5.4.3 Area Identification Labels

These labels will be fixed in an upright position in such a place to clearly identify the demarcated area.

5.4.4 Plant, Main Entrance Door Labels

These labels will be fixed above the main entrance doors, both inside and outside the doors, of such building.

5.4.5 Fixing

Fixing will be done with masonry type fasteners where applicable or with Stainless Steel machine type bolts and nuts on all steel structures.

