

 CPC <small>CONSOLIDATED PRESSURE CONTROL</small>	CPC ENGINEERING SPECIFICATION	
	SECTION SOP	Doc. No. CES-26-132
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Procedure—Storage of welding Consumables and
Baking Electrode Requirements

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1	Initial Release	15.02.2024	PK	USR	JG	Released



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Procedure—Storage of welding Consumables and Baking Electrode Requirements

1.0 SCOPE

This Procedure covers the requirements of storage of welding consumables applicable for fabrication as per API manufacturing codes.

2.0 APPLICABILITY

The requirement of this procedure is directive in nature to all personnel involved in:

- A. Fabrication and Welding of structure fabrication
- B. Inspection of Welded structures and assemblies.
- C. Procurement of Welding Consumables.

3.0 REFERENCE DOCUMENTS

- A. CPC Quality Assurance Manual
- B. AWS D1.1 Structural welding Code
- C. ASME IX Qualification Standard Welding and welders
- D. Sara applicable PQR / WPS for welding specified Base Metals
- E. Welding control procedure (OP-27-1.)

4.0 GENERAL

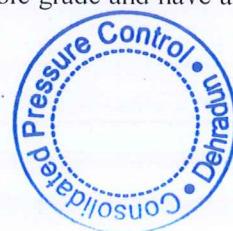
When requested by the Quality engineer, the fabricator or contractor shall furnish certification (From the manufacturer) that the electrodes or other consumables meets the requirements of the classification.

5.0 SUITABILITY OF CLASSIFICATION

The classification and size of the electrode, arc length, voltage and amperage shall be suited to the thickness of the material, type of groove, welding positions and other circumstances attending the work. Welding current/Voltage shall be within the range recommended by the electrode manufacturer.

6.0 SHIELDING GAS

A gas or gas mixture used for shielding shall be of suitable grade and have a dew point of (-) 40°C or lower.



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7.0 STORAGE

Welding consumables shall be stored as per Annexure 'A' of Welding control procedure (OP-27-1).

Storage of electrodes shall be done in controlled atmosphere as described below:

- Temperature: 30-40°C.
- Humidity Level: 50 % Max.

Daily temperature & Humidity level shall be checked by store representative.

8.0 Baking Electrodes

- 8.1 Immediately after opening the box/sealed container, baking shall be done in oven as per the temperature & time prescribed by the OEM (original equipment manufacturer) on the box or priority or if not specified, then baking shall be done as per Welding control procedure (OP-27-1).
- 8.2 Electrodes after drying/Baking time shall be transferred to the portable oven(s) maintained at 150°C.
- 8.3 Stainless steel electrodes should be stored separately from carbon steel with proper identification in order to prevent inclusion.
- 8.4 Left over lengths of useable electrodes shall be re-baked only once without substantially affecting both the integrity of the flux coating & their performance.
- 8.5 All unused electrodes returned to the store shall be re-baked.

Note:

- 1.No baking is required for Low hydrogen Electrodes received in Vacuum packed/hermetically sealed undamaged containers.
- 2.Final baking time shall start after the oven reaches final temperature.



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9.0 GTAW

- 8.1 Tungsten and Tungsten Alloy Electrodes shall be in accordance with AWS A 5.12.
- 8.1.1 Welding current of these electrodes shall be compatible with the diameter and type of classification of the electrode.

10.0 MIG Welding wire storage

- 9.1 MIG wire rolls shall be stored in dry place preferably in bags with desiccant (silica gel) and tape shut to avoid rusting.
- 9.2 Half or partially used wire rolls shall also be stored in dry place.
- 9.3 If half or partially used rolls are to be stored for longer period - a month or more shall be stored in boxes and placed in dry place.
- 9.4 Condition of wire before use.
 - 9.4.1 Wires shall be kept clean and dry. Baking in ovens is not required
 - 9.4.2 Corroded wires shall be discarded.

