

ISO:9001-2015	Doc. No.: TM/SM/STR/9/LWWT	Revision-01	Date Effective From: 05.07.2022
Document Title: Manufacturing of Weld Trimmer Power Pack Version for A.T. Welding			



सत्यमेव जयते
Government of India

**ITEM SPECIFIC GUIDELINES
&
Schedule of Technical Requirement
FOR
MANUFACTURE AND SUPPLY
OF**

Weld Trimmer Power Pack Version for A.T. Welding

(STR no.TM/SM/STR/9/LWWT)

**ट्रैक मशीन एवं मॉनिटरिंग निदेशालय
अनुसंधान अभिकल्प एवं मानक संगठन
मानक नगर, लखनऊ - 226011**

**Track Machines & Monitoring Directorate
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1.0 SCOPE

- 1.1 This Schedule of Technical Requirement (STR) covers the performance and other requirements of a small portable machine used for trimming (shearing off) the extra weld metal from the head (top and sides) of an AluminoThermit Welded rail joint immediately after the welding operation. Use of this machine replaces the age old crude method of removing extra metal by manual chiselling.
- 1.2 The equipment is characterised by two shear blades travelling towards each other by a hydraulic force provided by two double acting cylinders and four way direction control valve connected with a hydraulic pump through hoses.
- 1.3 Hydraulic pump may be hand operated pump and motor driven with diesel/petrol engine commonly known as power pack.
- 1.4 The schedule of technical requirements covers the norms for manufacture and supply of Weld trimmer Power Pack version for A.T. Welding.
- 1.5 Supplier is fully responsible to maintain the quality of product supplied to Indian Railways as per specification.

2.0 REFERENCE DOCUMENT:

Following IS codes have been referred to in this specification. Updated copies of the same shall be available in the works of the manufacturer/Suppliers.

- i) **IS: 1337-1993** (Re-affirmed-2006): Electroplated Coatings of hard Chromium for Engineering Purposes.
- ii) **IS: 1986-1981**(Re-affirmed-2006): Code of Practice for Hard Chromium Plating for General Engineering Purposes.
- iii) **IS: 6838-1973** (Re-affirmed-2005): Dimensions for O-Rings and Grooves for Vacuum Flanges.
- iv) **IS: 7651-1997** (Re-affirmed-2003): Wire Reinforced Rubber Covered Hydraulic Hose-Specification.
- v) **IS: 10585-2002**: Method of test for Cylinders for Oil Hydraulic Systems.
- vi) **IS: 11337-1993**: Purchase Specification for Hydraulic Cylinders.
- vii) **ASTMD 2000**: Specification of Oil Seals.

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viii) ISO Apex Documents of RDSO.

3.0 REQUIREMENTS:

The vendors seeking approval shall comply all the below mentioned requirements.

General and Manufacturing Facilities:

- 3.1 **General:** The firm should possess experienced and sufficient man power like manager, supervisors, laboratory in-charge, quality controller and workmen. The necessary qualification of the work force should depend upon their job requirements. The firm should maintain approved QAP, copy of which should be available at the firm's premises. The specification and drawings along with all the IS/BIS specifications mentioned in Weld trimmer Power Pack version for A.T. Welding should be available at site for reference. The firm should preferably possess a valid ISO certification.
- 3.2 The firm should have adequate Space for stacking/storage of Raw material & finished product. The lay out plan of firm should be available.
- 3.3 Covered area free from dampness and humidity with adequate space for storage of related components.
- 3.4 The firm should have environment conducive to the production of Quality goods. (Orderliness, lighting, cleanliness in and around working conditions etc.)
- 3.5 The weighing facilities for measuring various raw material constituents and the product at various stages.
- 3.6 Facilities for installation of components.
- 3.7 Cutting machine, Drilling machine, Grinding machine, lathe machine, Spray painting machine / Spray gun and welding equipment.

4.0 TESTING FACILITIES:

The Following testing facilities and measuring instruments should be available with the firm.

- 4.1 A separate room/laboratory, mixing with all testing facilities required for testing of the component of product.
- 4.2 Necessary tools with measurement gauges such as surface plate, height gauge, pressure gauge, 'Alco' meter and Vernier Calipers with a least count of 0.02 mm should be available in the tool room.

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4.3 Steel Scale (Linear), weighing machine, Thickness gauge should be available.

4.4 Any other facility required for testing method given in the specification.

5.0 Quality Control Requirements:

5.1 There should be a system to ensure the traceability of the product from raw material sample to finished product stage. This system should also facilitate to identify the raw material composition from the finished product stage.

5.2 There should be QAP for the product detailing following aspects.

- i) Organizational chart
- ii) Flow Process Chart
- iii) Stage inspection details
- iv) Plants and machinery as per STR
- v) All the relevant specification and IS Standards should be available with the firm.

6.0 Major Components details:

SN	Name of component	Self-make	Procured from outside agency	Remark
1.	Hydraulic Tank box	Drawing details, manufacturing details should be available.	Details of Outside agency should be available.	Raw material / equipment shall be procured only from the reputed & well-proven sources, conforming to relevant standards. Critical components shall be procured from reputed OEMs or their accredited agents / ROSO approved sources.
2.	Shear blade	-Do-	-Do-	
3.	Trolley frame	-Do-	-Do-	
4.	Hydraulic Cylinder	-Do-	-Do-	
6.	Hydraulic Pump	-Do-	-Do-	
7.	Plate	-Do-	-Do-	

Test of major components:

SN	Name of component	Test
1.	Power source	Checked visually, dimensionally and also should be as per specification.
2.	Pump	-Do-
3.	Hose	-Do-
4.	Tank	-Do-

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7.0 Working manual:

The firm should have following manuals of product.

- i) Operations & Maintenance manual
- ii) Service manual
- iii) Parts manual

8.0 Power availability (KVA): Following document should be available.

- (a) General allotted capacity
- (b) Standby generator and its capacity, if available.
- (c) Name the party/person in whose name the power is sanctioned and your agreement with the party/person (Support with documents)

9.0 Calibration Record :

SN	Name of the machine & quantity	Year of manufacture	Capacity	Date of calibration	Due date of calibration

10.0 Details of Manpower:

- i) The firm should have separate in-charge of Quality Control & production.
- ii) The firm should have minimum 01no. skilled staff and 02 no. un-skilled staff.

SN	Name of Staff	Designation	Qualification	Experience

11.0 Raw material record:

The firm should maintain list for raw material/bought outs.

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SN	Name of Item	Quantity	Date of Incoming	Approved source (Yes /No)	Details of source

12.0 Document:

- i) Ownership details of the firm should be available.
- ii) The firm should have necessary updated specifications, ISO apex. Document, IS Codes, Drawings, STR/Specification guidelines.
- iii) The firm should possess digital signature & its registration with IREPS.
- iv) The firm should have valid SSI/NSIC/ Factory license.
- v) The firm should have valid Gem registration.
- vi) The firm should have Local content details.

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