

11. Welding

Introduction

Uses of various welding techniques and its solutions in the automotive industry are numerous. The capability of smart and cost effective welding methodology for the automotive products fabrication is available.

Purpose of the Event

The purpose of the event is to propose and create innovative technique for the fabrication of various parts in automotive sector according to the latest automotive market standards. Apart from the welding design, methods and materials, quality of welding is important and should be addressed by the participants in this event.

Concept: Understanding the given concept and welding the material.

Tier-I	Tier-II	Tier-III
Each team should weld a Lap, Butt, Corner & T joint with the given rectangular plate (Mild Steel)	Each Team should weld a model using the supplied kit. Weld can be of any type (Lap, Butt, Corner& T joint). Models can be rectangular plates or roll bars (Mild Steel)	Each team should weld a model using Roll cage pipes (Mild Steel). Models can be a part of SAEINDIA Baja or Supra Roll cage.

Kits and Aids:

- Materials supplied in toolbox
- Non-consumable materials, equipment and tools to be supplied by the Competitor.

The following list as a minimum shall be supplied by the Competitor:

Welding safety glasses; Grinding goggles; Welders helmet, speed lenses are permitted; Ear protection; Hand angle grinder with guard, maximum 125mm (5inch); Wire brush wheels to suit grinder; Fire retardant clothing; Chipping hammer (slag hammer); Inter-weld run cleaning, blade scrapers; Chisels; Scriber; Files; Wire brushes; Hammer; Weld gauge (fillet gauge);

Metric steel ruler (tape measure); Square; Chalk; Dividers; Competitors may use their own TIG, MIG, ARC WELDING & GAS WELDING pieces/torches;

Rules:

- Contestants must be enrolled as a SAE member in his/her institute
- Per team 2 members
- One team from each college moves to Tier II
- Two teams from each college moves to Tier III

Judging Criteria:

Sr No	Content	Marks allotted
1	Dimension of weld	20
2	Quality of weld	20
3	Inspection	30
4	Testing	30
	TOTAL	100