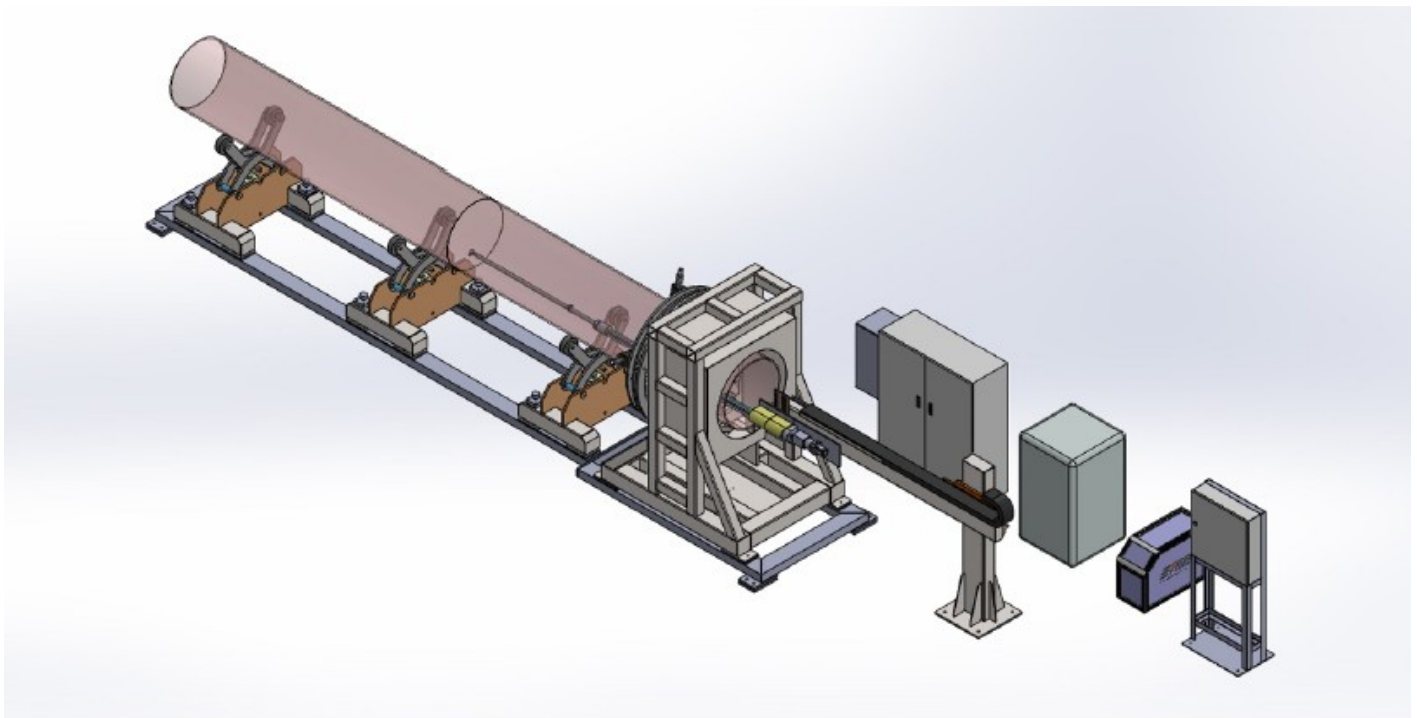


COMPACT HORIZONTAL CLADDING STATION



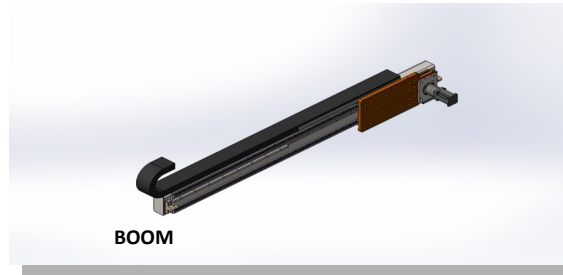
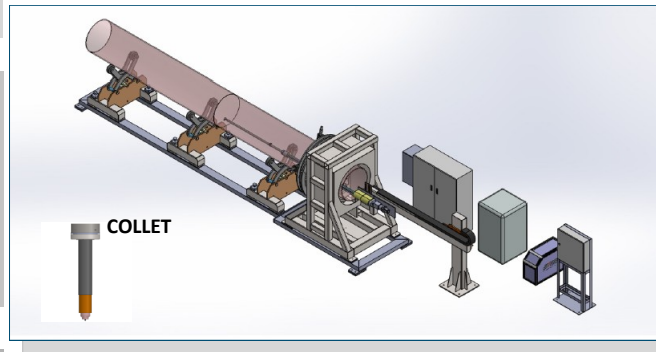
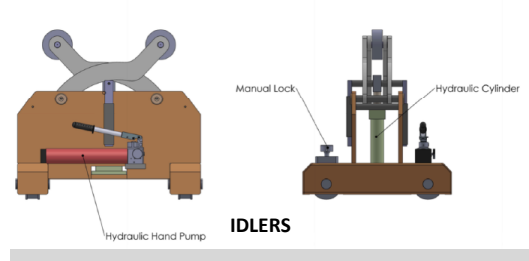
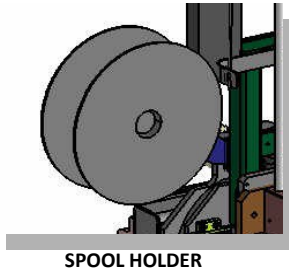
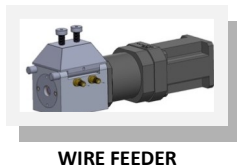
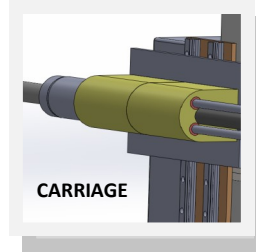
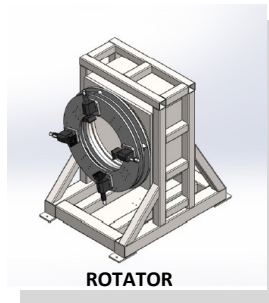
This is basically a fully automated PLC based GTAW cladding station which shall be fixed in the workshop.

There will be a water cooled Torch mounted on slides arcing with the rotating job and the filler wires fed automatically in the weld pool.

The welding torch will be held in a Collet mounted at the end of a round slide which can enter the smallest Pipe.

The welding parameters like current, voltage, welding speed, wire feed, step over etc will be programmable and controllable via PLC and will have overrides through a hand held remote pendant.

Structural Features



Idlers

Scissor jack with hydraulic cylinder movement.
Simple hand lever to operate cylinder.

Rotator

This Floating Rotator mechanism is assembled with three Face Plates moving in tandem on LM Rails. When the pipe which rotates is not perfectly round, the Top Face Plate & Intermediate Face Plate adjust themselves in X-Z axis to accommodate the ovality thereby eliminating jerks.

Carriage for mounting X & Z slides and other accessories

Fixed on the end of the boom on machined base plate.

Carries AVC slide | X slide | spool holder etc.

X slide mounted directly on Z axis base plate, acts as step increment in String / Spiral mode.

Z slide assembled with ball screw & LM guide has brake motor for Up/Down movement.

Spool holder mounted on the side of the "XZ" slide for easy loading of wire.

Anodized Al casing wire feeder with knurled dual groove type wire feed rollers to ensure smooth wire feeding. Wire feeder is coupled with planetary gearbox and servo motor having inbuilt absolute encoder to measure wire speed.

Quick release nut & collet for torch.

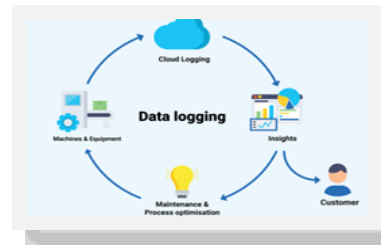
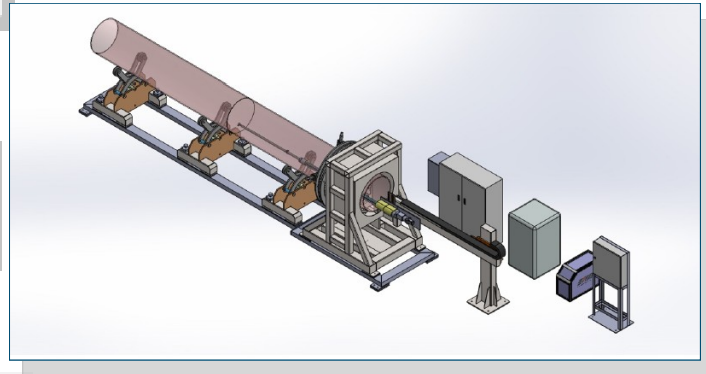
PVC insulated terminal block for Power | Gas | Water

Boom

Made up of Al extrusion. Designed to have minimum sag at the end.

Easy fixing of column mounted base plate.

Moves in synchronized relay with X axis.



- ◆ A lineup of high speed, high precision, **Servo drives with Ether CAT** communication. High resolution absolute multi-turn encoder & safety network built-in.
- ◆ **HMI** with projected unbreakable glass capacitive touchscreen and the brilliant 10.1" widescreen display with resolution of 1280x800 guarantee great optical performance.
- IoT edge devices** with the combination of a powerful controller with networking capability.
- ◆ Provides live, interactive display of multiple machine data from a remote location thanks to J mobile, Run time & CORVINA Cloud application.
- ◆ Unique second generation **Inverter** type welding power source for reproducible welding results of the highest possible quality.
- Optimized for automated applications with Tetrix BUSINT X11 **Ether CAT** Industrial bus interface.
- ◆ Digital Gas flow & Water flow **sensors** with display on HMI for real time monitoring of Gas flow & Water temperature.
- ◆ **Monitors and Records** essential variables such as Voltage, Current, Weld speed, Wire feed etc and other welding parameters like gas flow, water flow & temperature, Inter pass temperature etc allowing clients to control the process and produce reports.
- ◆ **Wireless Pendant** for operations & real time display of essential weld parameters.
- User friendly software design.
- More flexible and reliable as compared to wired pendant.

Machine & Components Specifications

♦ Pipe dia	6" (1d 118 mm) to 24"
♦ Pipe length	1 m to 6 m
♦ Min Pipe Dia	6" SCH XXS
♦ Max Pipe Dia	24" SCH 80
♦ Max. Weight	2500 kg
♦ Wire option	Single wire
♦ Arcing	Single head
♦ Wire feed	600 mm /min to 5000 mm /min
♦ Deposit rate	up to 3.0 kg/hr/head

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