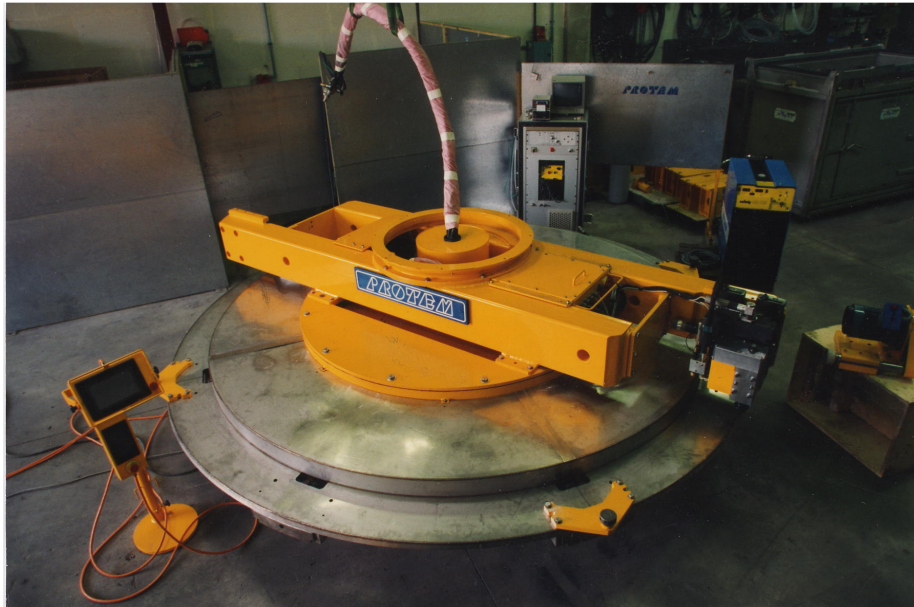


MACHINING AND CLADDING EQUIPMENT ON VVER 1 000 AND VVER 440 REACTORS – US 3 000 R



WORK TO BE PERFORMED

Different modules adapted on the cross carrier assembly allow to machine and weld from \varnothing 3 370 to 4 070.

TURNING

Tool-holder mounted on Z carriage.
Work performed : surfacing - groove - boring - beveling.

MILLING

Hydraulic drive : 5 KW - 200 RPM - 30 daN.m.
SA40 spindle appropriate for all types of milling tools (carbon-high speed).

GRINDING

Electric drive : 360 V – 2,2 KW - 1 200 to 1 900 RPM - 14 N.M.
Grinding wheel speed varies from 3 000 to 6 000 RPM.
Appropriate for \varnothing 120 to 150 mm grinding wheels.

WELDING MODULES

- MIG welding for reactor vessel cladding.
- TIG welding for reactor vessel cladding.
- Upside down assembling for overhead welding.

The hydraulic clamping is done by 8 cylinders, 10 tons force under 250 bars.

Mechanical locking of the jaws after adjustment and clamping.

WEIGHT

4 500 kgs.

HYDRAULIC POWER PACK

Power : 11 KW.
2 variable flow pumps for motors and milling.
1 high pressure pump for the cylinders.
Flow : 40 l/mn maxi - pressure : 120 bars.
Flow : 25 l/mn maxi for milling module under 250 bars.

CROSS CARRIER ASSEMBLY AT THE END OF THE MACHINING ATTACHMENT

- Electric right angle feed module.
- Electric drive : 18 V - 75 W - R = 1/737.
- Travel : 150 mm according to X and Z axes.
- Reading accuracy : 1/100th mm.
- Prestressed ballscrew.
- Manual feed module for grinding.

CONTROL UNIT

Tactile panel, allowing to govern all the machining and welding operations.
Tactile remote control for positioning close to the machine in its working position.

REMOTE CONTROL UNIT

- 2 monitoring video cameras :
- 1 camera for machining.
 - 1 camera for welding.