JODA MIDI

CARPANO EQUIPMENT

Lathe Joda Midi lets you free to combine its modules and to assemble the machine that best suits your production requirements.
Available modules and features are:

- Motorized Headstock
- Idle Tailstock with pneumatic axial stroke
- Motorized Tailstock with pneumatic axial stroke, synchronized with Motorized Headstock
- Shoes to be laid on the factory floor with levelling screws
- Fixture for tilting the lathe -90°/+45° (hand driven or Motorized)
- Side carriages moving on the beam to support manual, pneumatic or motorized slides as well as dollies
- Beams of standard length 1000 to 6000 mm
- Self centring 3-jaws mechanical chucks
- Manual, pneumatic and motorized slides
- Torch holders
- Max weight capacity 400 kg
- Max work piece Ø 900 mm

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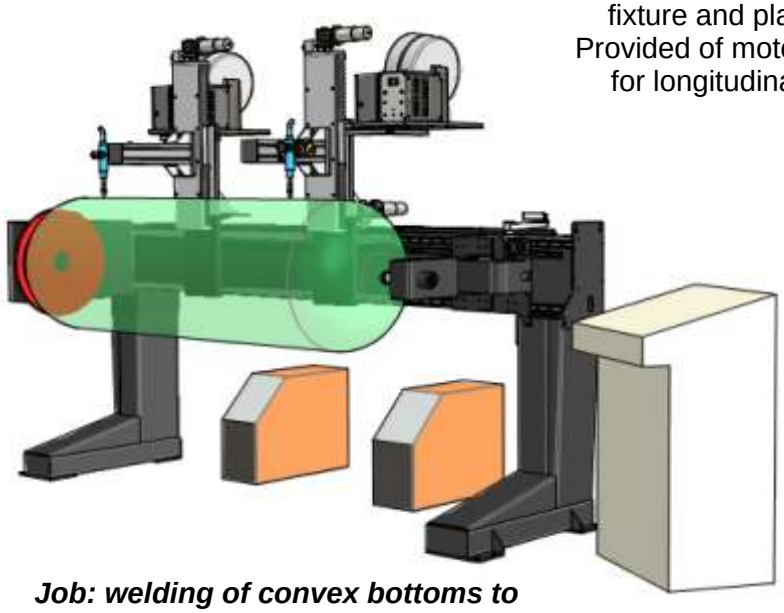
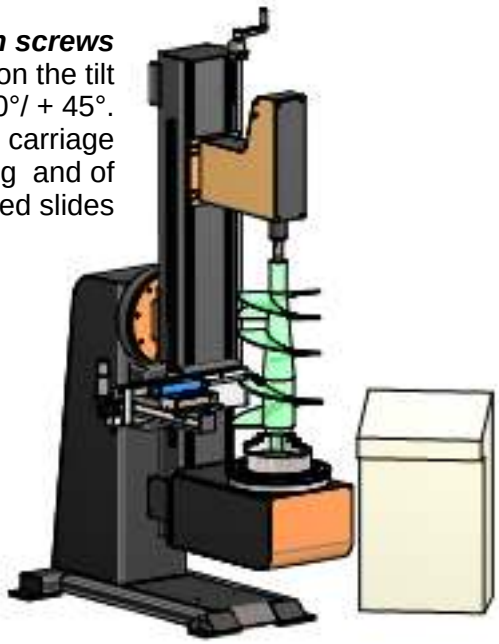
Main components

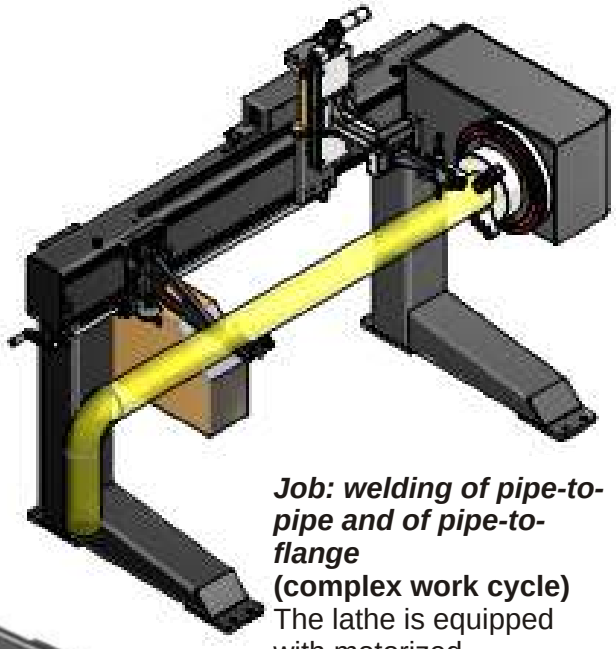
All components of Joda Midi are installed on or fixed to the beam which is machined and provided of linear guides for smooth traversing and precise alignment of the tailstock and of the side carriages.

Job: Hard facing of worm screws
The lathe is installed on the tilt fixture and placed at - 90°/ + 45°. Provided of motorized side carriage for longitudinal traversing and of motorized slides

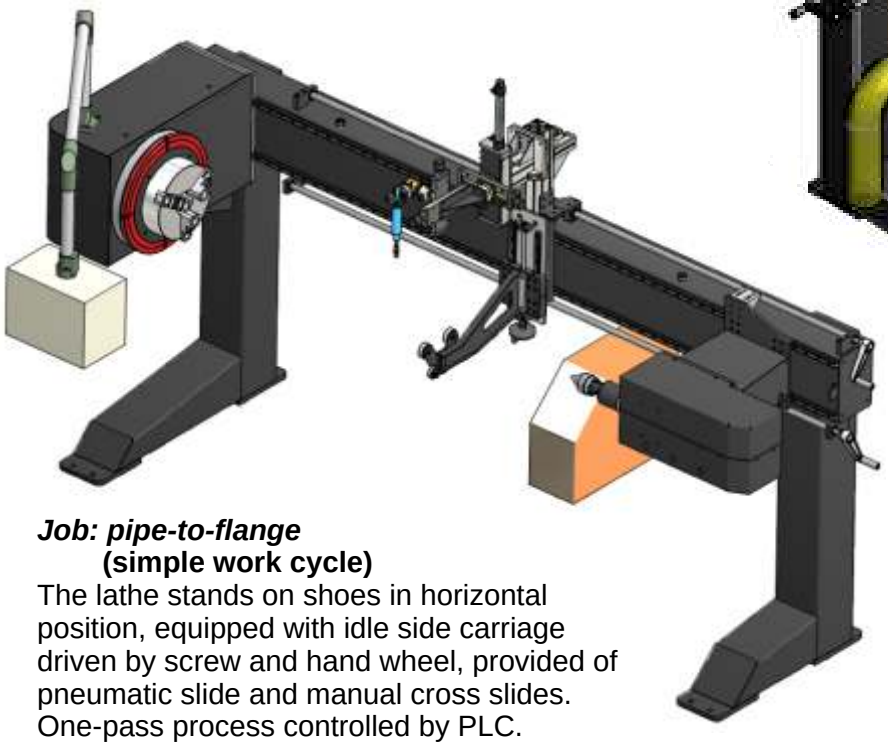




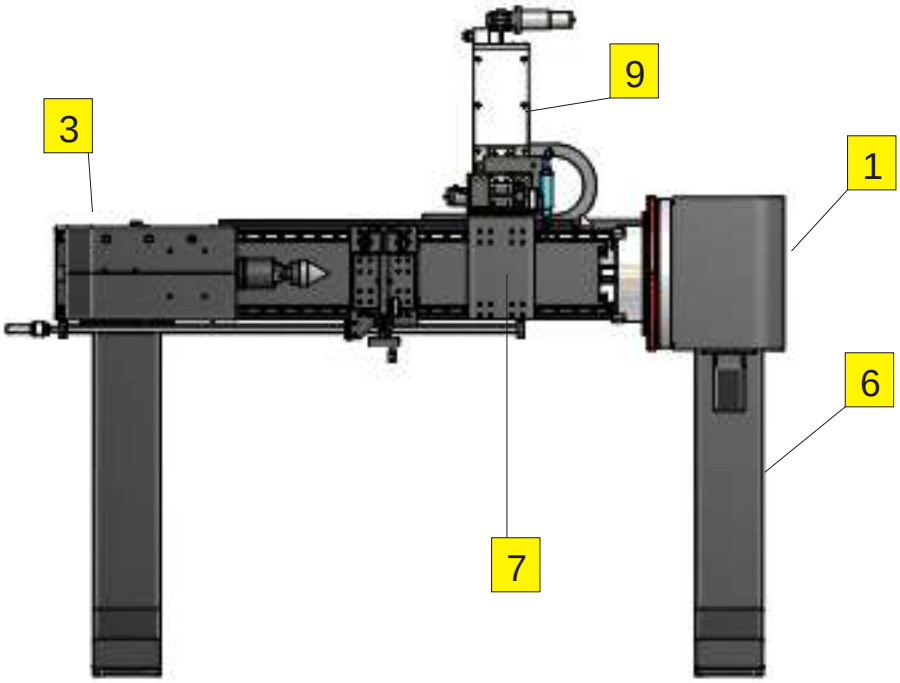
Job: welding of convex bottoms to cylindrical vessels
The lathe is provided of shoes and of two side carriages for the welding heads.



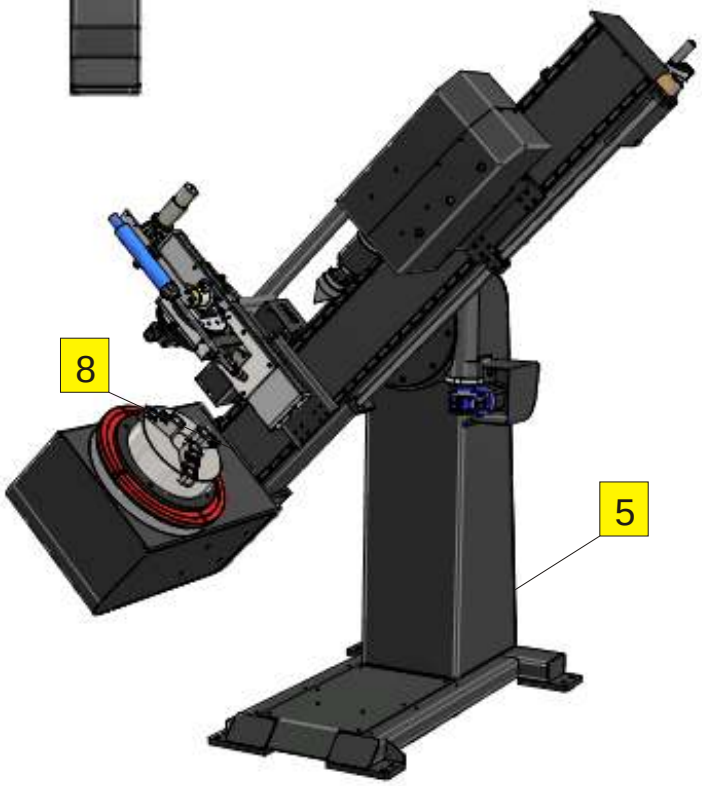
Job: welding of pipe-to-pipe and of pipe-to-flange
(complex work cycle)
The lathe is equipped with motorized side carriage as wells as of vertical slide and of oscillator. Multi-pass process can be performed with NC and adequate welding power source.

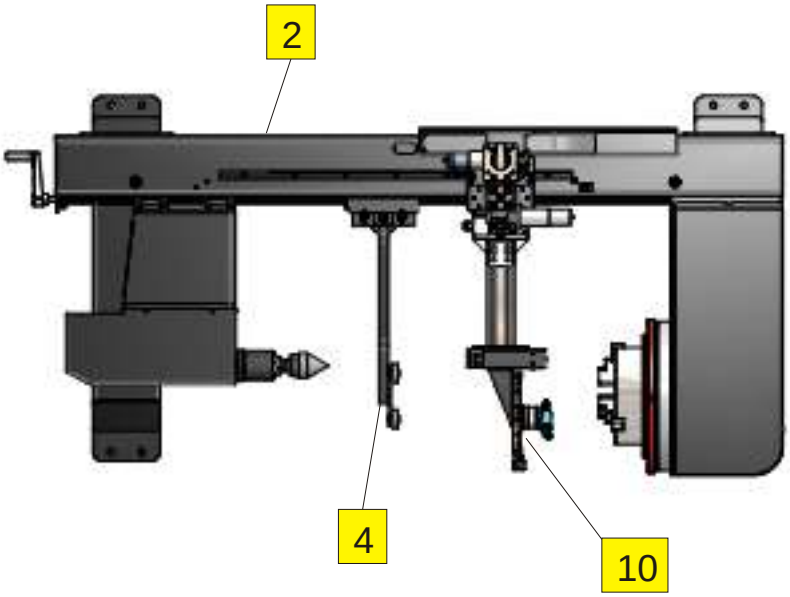


Job: pipe-to-flange
(simple work cycle)
The lathe stands on shoes in horizontal position, equipped with idle side carriage driven by screw and hand wheel, provided of pneumatic slide and manual cross slides. One-pass process controlled by PLC.



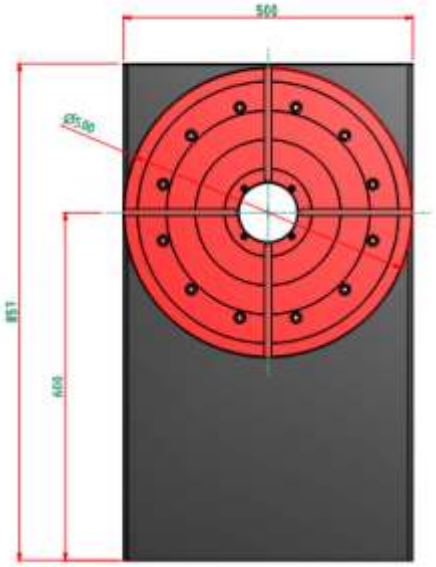
1 - JDMD.TM Motorized Headstock
2 - JDMD.B Beam
3 - JDMD.CP Tailstock
4 - JDMD.LS Dolly
5 - JDMD.ST Tilting fixture
6 - JDMD.P Pair of shoes
7 - JDMD.CR Side carriage (manual or motorized)
8 - CHK 315 ST Chuck
9 - MM MIDI 250 Motorized vertical slide
10 - SM MIDI manual slides





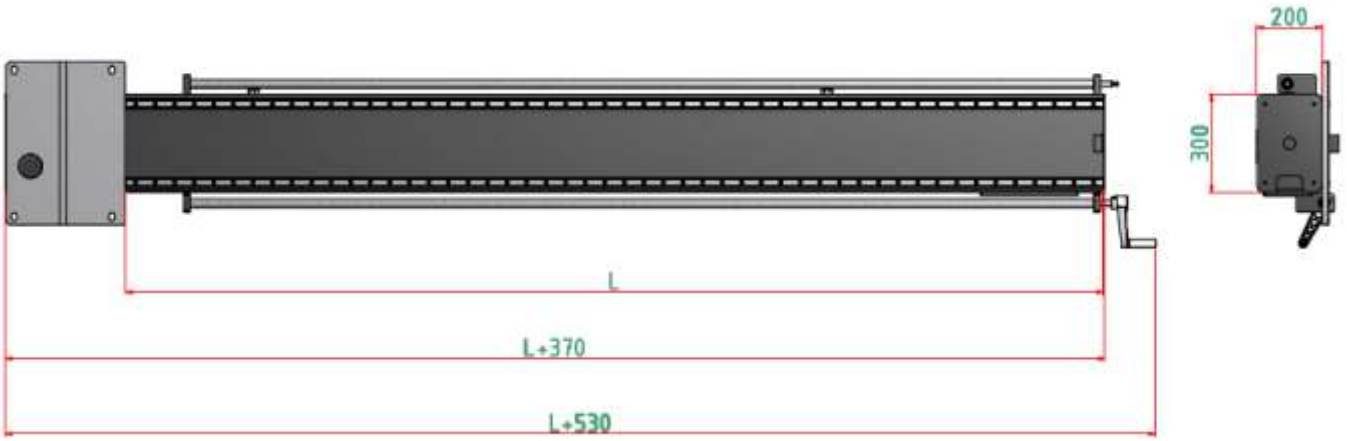
1 Motorized Headstock - JDMD.TM

- Machined steel body
- Table Ø500 mm, with 4 T slots stepped 90°
- Hollow spindle Ø 100 mm
- Brushless drive with encoder
- Weld ground 400 A
- Weight capacity 400 kg
- Bending torque 200 kgm
- Speed range 0.05 to 2 rpm with rotation torque 60 kgm

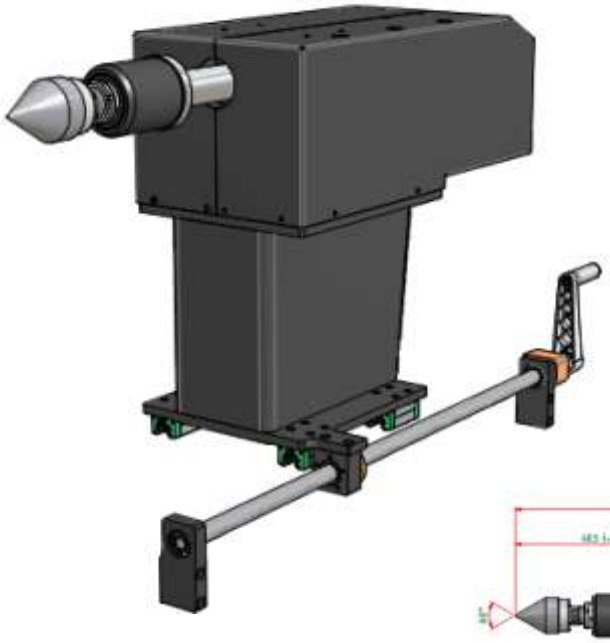


2 Beam JDMD.B

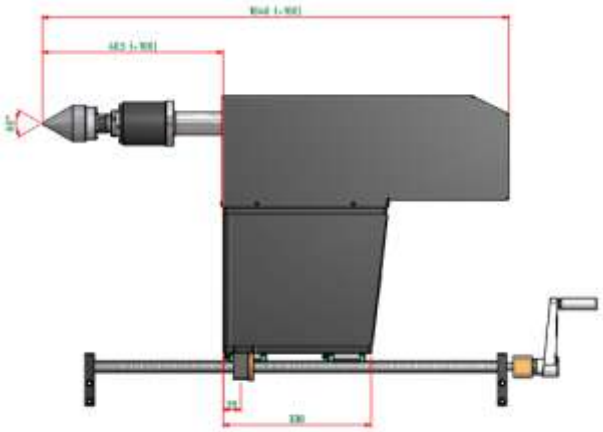
It consists of a 300 x 200 mm machined steel box profile with 2 screwed in ball linear guides. Its left end is arranged for securing the motorized headstock and holes are drilled to fix both the shoes and the tilting fixture as well as the tailstock and the torch side carriages transmission.
Available length ranges from 1000 to 6000 mm supported by shoes JDMD.P and from 1000 to 3000 mm when combined with tilt fixture JDMD.ST



3 *Tailstock JDMD.CP*

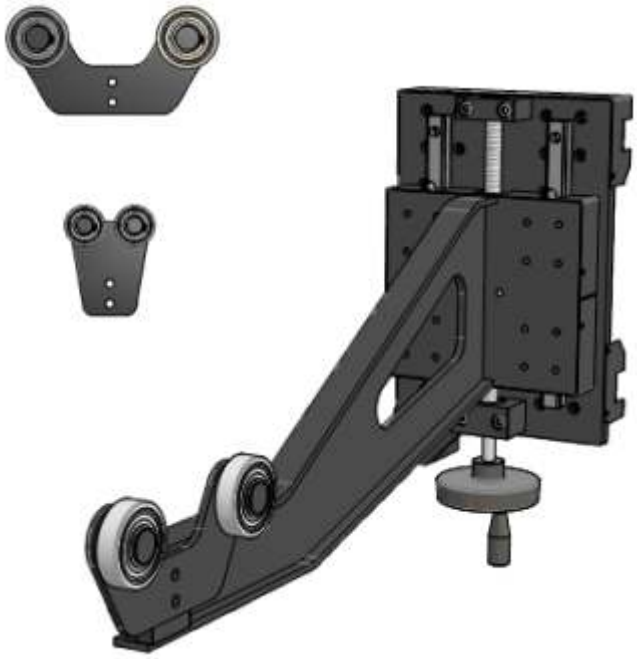


Axial stroke 150 mm driven by pneumatic cylinder
Maximum axial thrust 180 kg at 6 bar
Traversing along the beam either idle or driven by ball screw and hand wheel, with hand brake



4 *Dolly JDMD.LS*

Traversing along the beam either idle or driven by ball screw and hand wheel, with manual brake
- Maximum weight capacity 200 kg
- Height adjustable by screw and hand wheel
- Including 2 sets of rolls to suit job Ø 50 to 900 mm



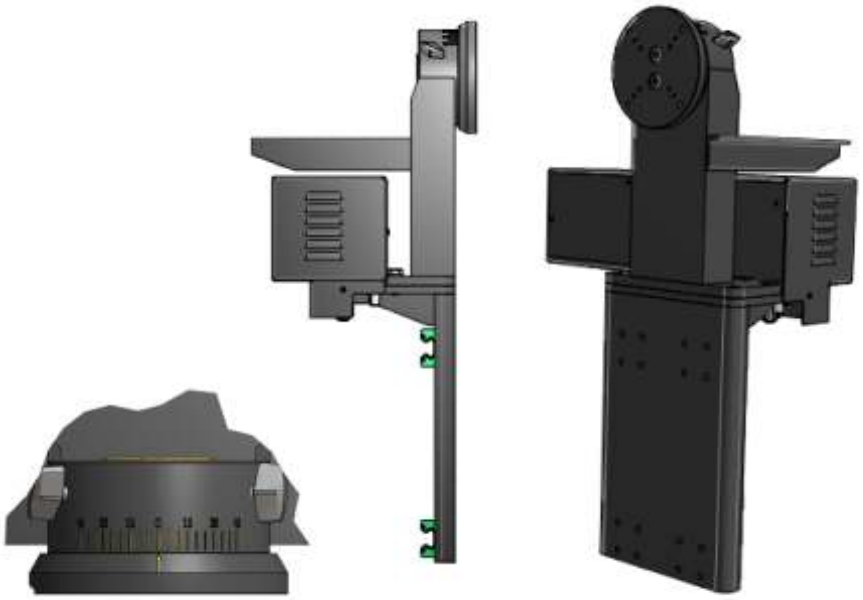
5 *Tilt fixture JDMD.ST*

It allows the continuous adjustment of lathe JODA MIDI at any angle ranging from – 90° to + 45°, driven by AC motor at constant speed and remote controlled by joy-stick or Numerically Controlled, in which case tilt angle can be recorded and automatically recalled.

6 *Shoes JDMD.P*

In standard execution the pair allows the lathe to stand with horizontal axis 1300 mm above ground

7 *Side carriage JDMD.CR*



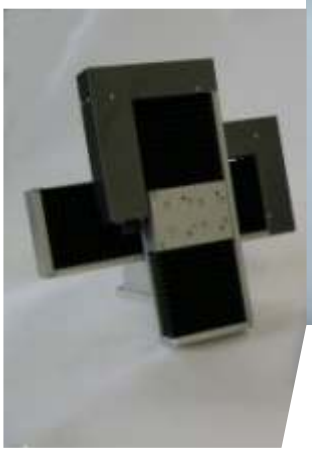
Machined steel structure featuring:
- smooth and precise sliding on the beam guides by 4 ball blocks, either idle or motorized
- torch tilt adjuster with angle indicator
- arranged for carrying Carpano's manual, pneumatic or motorized slides

8 3-jaws mechanical all-steel made self centring chucks

A large choice of chucks can be installed on lathe JODA MIDI, among which chucks type CHK 315 ST or, alternatively, type CHK 400 ST are particularly recommend because of hollow spindle Ø 100 mm same as the headstock's or greater.

9 Motorized slides

The whole range of Carpano's motorized slide can be installed on lathe JODA MIDI to integrate functions such as AVC, oscillation, linear and/or tilt position



10 Pneumatic and manual slides, torch holders

A large choice of slides and of fixtures is available to suit automatic work cycles and to provide for easy and precise adjustment of wire stick-out.

Control boxes JDMD.PLC or JDMD.CN

Built to suit specific Customer requirements, in general they incorporate 2 different «intelligences»:
- PLC LOGO Siemens for simple work cycles
- Numerical Control SIPRO SIAX 100 for complex work cycles when also external axis as well as weld parameters are to be recorded and recalled

JDMD.PLC control can for instance include:
- 10 turn potentiometer to adjust rotation speed
- Rotation start delay
- Automatic overlapping
- Switch to select intermittent / self-retained arc strike
- Switch to select TIG / MIG process

and can perform automatic work sequence such as:
- pneumatic slide(s) down
- arc on
- rotation start delay
- welding 360° + overlapping
- arc off
- pneumatic slide(s) up

JDMD.CN can for instance allow to record at least 200 «jobs», each job including:
- welding speed in mm/1'
- work piece diameter
- rotation start delay
- overlapping in mm
- amount of 360° welding passes or of rotation arc sections and for each arc to modify weld parameters (optional feature)
- control of external units such as AVC, oscillator, cold wire feeder, etc.

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