PIPELINER PRO WELDING MACHINE

**200/230/400/460 VAC, 3Ø 12.7 kVA,
50/60 Hz autoranging - 0-400 Amps**







MAGNATECH
AN SPE GROUP BRAND

Daonte
Tecnología Metalmecánica

PIPELINER PRO WELDING MACHINE

The Magnatech Pipeliner Pro is a mechanized orbital GMAW/FCAW pipe welding system, engineered for high-performance applications. It integrates advanced Fronius technology through the TPS400i Digital Inverter Power Source, offering exceptional welding control and reliability.

System programming and parameter management are facilitated via the Magnatech Pipeliner Digital Programmer (PDP), which features a 10.4-inch color touchscreen interface and a wired remote pendant for precise, real-time adjustment during welding operations.

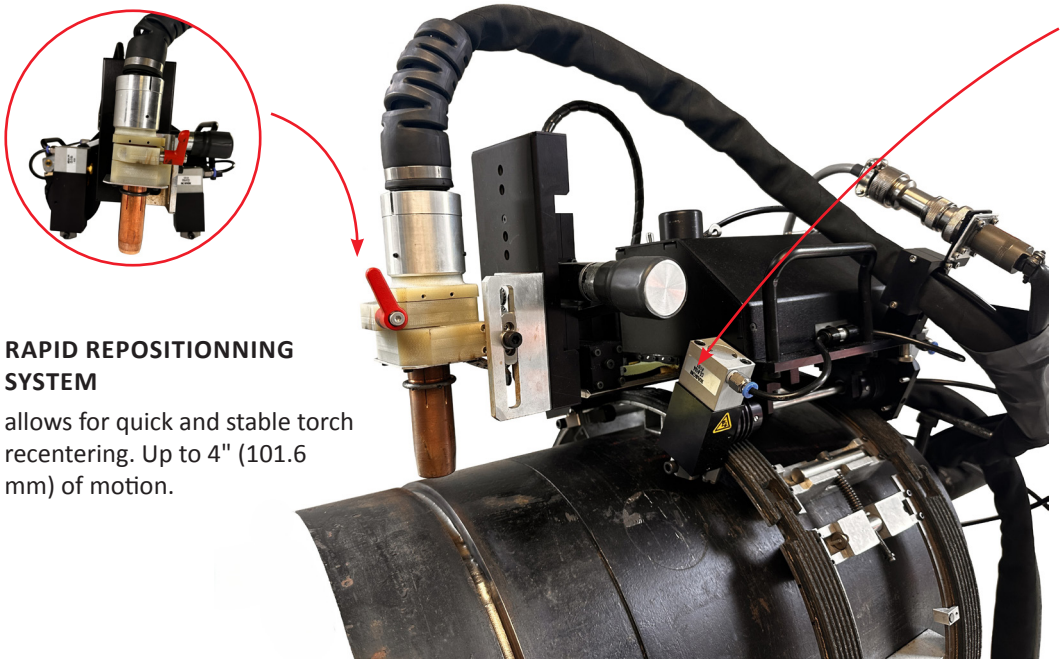


The complete Pipeliner Pro welding machine consists of:

- **the Pipeliner Pro welding head model 616 (Part No: 6160HEB000)**
- **the digital inverter power source TPS400i (Part No.: TPS400i)**
- **the welding head controller Model 716 (Part No.: 7160GMB0M0)**

PIPELINER PRO WELDING HEAD 616

The Pipeliner Pro welding head 616 operates with a 400A water-cooled torch and is mounted on the field-proven, rugged tractor. Interchangeable guide rings provide mounting on the pipe, and allow the Pipeliner Pro to cover a broad size range. It can be used for FCAW uphill welding, GMAW high speed downhill welding with narrow groove bevel geometry, and also offers root pass welding capability. It incorporates pendular and straight-line torch oscillation.

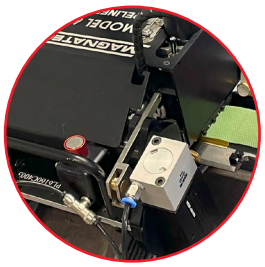


RAPID REPOSITIONNING SYSTEM

allows for quick and stable torch recentering. Up to 4" (101.6 mm) of motion.

WELDING HEAD MOUNTING/ ROTATION

- Patented pneumatic clamping system delivers fast, secure, and tool-free installation.
- Powered by compressed gas, it ensures precise, repeatable clamping while reducing setup time and enhancing safety.
- Clutch system allows the head to be positioned on the pipe very quickly.



PART NO.	DESCRIPTION
6160HEB000	Pipeliner Pro welding head, model 616

DELIVERY AND STORAGE



The Pipeliner Pro welding head 616 comes with a starter kit of required consumables (gas nozzle, gas diffusor, tip holder, contact tip, isolation gasket) as well as a tool kit to operate the machine.

Everything is securely enclosed in a robust, heavy-duty storage case, ensuring optimal protection and easy portability.

REQUIRED ACCESSORIES

GUIDE RINGS

The guide rings serve to securely position the welding head around the pipe, enabling precise and stable rotation during operation. This rotation is achieved through a friction drive system composed of powered V-rollers that engage with two V-belts mounted on the surface of the guide ring.



Each guide ring is made up of two identical hinged half-sections, allowing for easy installation and removal. A total of 38 standard sizes are available to accommodate various pipe diameters.

For applications involving pipes smaller than the intended guide ring diameter, adaptor foot kits can be used to ensure proper fit and functionality (see section: Adaptor Foot Kits).

PART NO.	DESCRIPTION
103040-00663	Guide ring, 6.000" pipe, 6.625"/ 168.30 mm
103040-00863	Guide ring, 8.000" pipe, 8.625" / 219.10 mm
103040-01075	Guide ring, 10.000" pipe, 10.750" / 273.00 mm
103040-01275	Guide ring, 12.000" pipe, 12.750" / 323.9 mm
103040-01400	Guide ring, 14.000" pipe, 14.000" / 355.60 mm
103040-01600	Guide ring, 16.000" pipe, 16.000" / 406.40 mm
103040-01800	Guide ring, 18.000" pipe, 18.000" / 457.00 mm
103040-02000	Guide ring, 20.000" pipe, 20.000" / 508.00 mm
103040-02200	Guide ring, 22.000" pipe, 22.000" / 559.00 mm
103040-02400	Guide ring, 24.000" pipe, 24.000" / 610.00 mm
103040-02600	Guide ring, 26.000" pipe, 26.000"/ 660.00 mm
103040-02700	Guide ring, 27.000"pipe, 27.000" / 686.00 mm
103040-02800	Guide ring, 28.000"pipe, 28.000" / 711.00 mm
103040-03000	Guide ring, 30.000" pipe, 30.000" / 762.00 mm
103040-03200	Guide ring, 32.000" pipe, 32.000" / 813.00 mm
103040-03400	Guide ring, 34.000" pipe, 34.000" / 864.00 mm
103040-03600	Guide ring, 36.000" pipe, 36.000" / 914.00 mm
103040-03800	Guide ring, 38.000" pipe, 38.000" / 965.00 mm
103040-04000	Guide ring, 40.000" pipe, 40.000" / 1016.00 mm
103040-04200	Guide ring, 42.000" pipe, 42.000" / 1067.00 mm
103040-04400	Guide ring, 44.000" pipe, 44.000" / 1118.00 mm
103040-04600	Guide ring, 46.000" pipe, 46.000" / 1168.00 mm
103040-04800	Guide ring, 48.000" pipe, 48.000" / 1219.00 mm
103040-05000	Guide ring, 50.000" pipe, 50.000" / 1270.00 mm
103040-05200	Guide ring, 52.000" pipe, 52.000" / 1321.00 mm
103040-05300	Guide ring, 53.000 " pipe, 53.000" / 1346.00 mm
103040-05400	Guide ring, 54.000" pipe, 54.000" / 1372.00 mm
103040-05600	Guide ring, 56.000" pipe, 56.000" / 1422.00mm
103040-05800	Guide ring, 58.000" pipe, 58.000" / 1473.00 mm
103040-06000	Guide ring, 60.000" pipe, 60.000" / 1524.00 mm
103040-06200	Guide ring, 62.000" pipe, 62.000". / 1575.00 mm
103040-06500	Guide ring, 65.000" pipe, 65.000" / 1651.00 mm
103040-06600	Guide ring, 66.000" pipe, 66.000" / 1676.00 mm
103040-06800	Guide ring, 68.000" pipe, 68.000". / 1727.00 mm
103040-07200	Guide ring, 72.000" pipe, 72.000". / 1829.00 mm
103040-07600	Guide ring, 76.000" pipe, 76.000" / 1930.00 mm
103040-07800	Guide ring, 78.000" pipe, 78.000" / 1981.00 mm
103040-08400	Guide ring, 84.000" pipe, 84.000"/ 2134.00 mm

OPTIONAL ACCESSORIES

ADAPTATOR FOOT KITS

Adaptor foot kits may be used with larger guide rings on smaller pipe diameters when preheating is required, preventing overheating of the welding head. They are necessary to reach pipe diameters smaller than 6.625“ / 168.30mm (down to 4.5” / 114.30mm).

Three types of adaptors can be screwed simply to the guide ring:

- 1" (25.4 mm) adaptor square tube
- 2" (50.8 mm) adaptor square tube
- .13 - .5" (3.3-12.7 mm) adaptor solid bar

(Magnatech can provide these in any dimension)

PART NO.	DESCRIPTION	PICTURE
103070-XXXX*	Adaptor foot set	

*The quantity of feet necessary for a complete set is defined by the guide ring size. Contact us for more information.

FLX-TRACK™

In addition to welding pipework, the Pipeliner is also used for ID and OD welding on larger tanks, vessels, and ductwork.

- Flexible track allows mounting on complex curved surfaces.
- Standard 2.3 m (7.5’) track sections. Multiple sections can be bolted together for longer lengths.
- Magnetic or vacuum attachments are available depending on the pipe material.

PART NO.	DESCRIPTION	PICTURE
SK2460-090	Flex-Track assembly, 90" / 2,286 mm	
SK2474-1	Magnet assembly large diameter, Flex-track	
104294-1	Vacuum cup kit 90" Flex Track	



Pipeliner mounted on Flx-Track in 3.3m (11 ft.) diameter duct



Pipeliner mounted on a stainless steel vessel using vacuum cup kit

CONSUMABLES

EXPENDABLES PART KIT

The expendables parts kit includes all consumables required to operate the Pipeliner Pro welding head 616: tip holder, gas diffuser, gas nozzle, contact tip, wire liner and feeder roller.

PART NO.	DESCRIPTION	PICTURE
EXPEND/616	Expendable parts kit, Model 616	

TECHNICAL SPECIFICATIONS

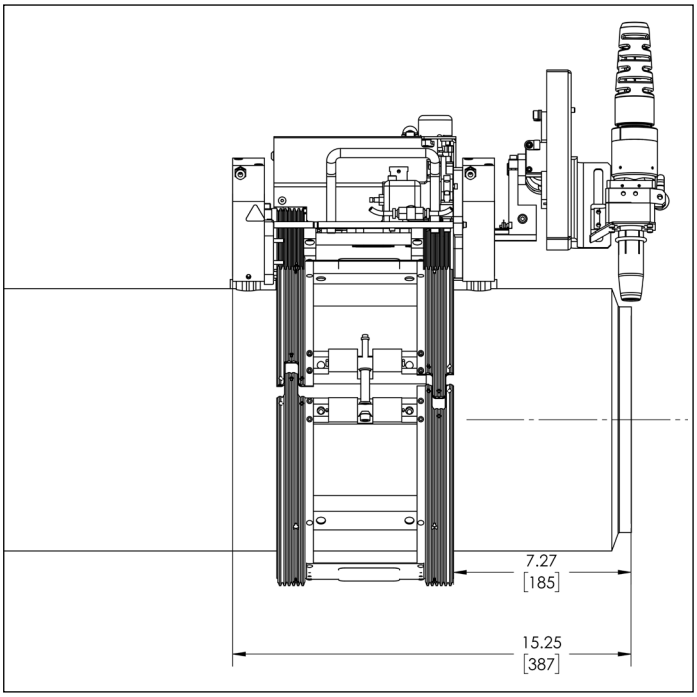
PIPE (TUBE) SIZE RANGE	4.5 - 84" / 114.30 - 2,134 mm	
CABLE LENGTH	25" / 7.6 m standard	
FILLER WIRE MODULE	Wire size	0.030", 0.035", 0.040", 0.045", 0.062"/ 0.8, 0.9, 1.0, 1.2, 1.6 mm
	Max. speed capability	100 IPM / 2540 mm/min.
	Spool size	5 to 20 kg (10 to 44 lbs) (wire feeder supplied with the power source)
OSCILLATION MODULE	Max. oscillation stroke amplitude	2" / 50.8 mm
	Max. oscillation speed	100 IPM / 2540 mm/min.
	Oscillation dwell	0 – 1 second
	Cross seam adjustment	3" (76.20 mm) course adjustment
ARC GAP CONTROL MODULE	Max stroke amplitude	2.625" / 66 mm (motorized)
	Max speed	60 IPM / 1520 mm/min.
TORCH PROPULSION MODULE	Technology	Poly-Track® propulsion (patented)
	Speed	30 IPM / 0 - 762 mm/min. . Higher speed motors
TRAVEL DIRECTION	Switch selectable (on head)	
WATER-COOLED TORCH	300 A continuous. Uses standard torch components	
TORCH ADJUSTMENT CAPABILITY	Torch lead/lag adjustment	± 30 degrees (manual)
	Torch tilt adjustment	± 15 degrees (manual)

DIMENSIONS/WEIGHTS

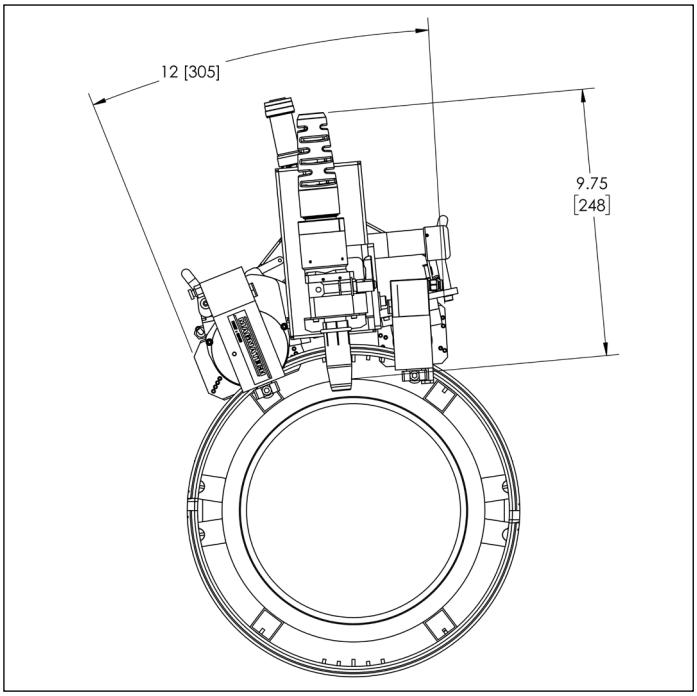
AXIAL LENGTH [1]	15.25"	387 mm
MINIMUM RADIAL CLEARANCE [2]	9.75"	248 mm
OVERALL WIDTH	12"	305 mm
WEIGHT	9.8 kg	21.5 lbs.

[1] Center of oscillation stroke
[2] Center of vertical stroke

AXIAL LENGTH



RADIAL CLEARANCE



DIGITAL INVERTER POWER SOURCE TPS400i

The **TPS400i** is a digital inverter power source for GMAW/FCAW process welding applications. The TPS400i provides synergic control of electrode speed and power output – the welder has only to change electrode speed and the power supply will adaptively change the output parameters to maintain a stable process.



FEATURES

- LSC (Low Spatter Control) with advanced root programs
- Penetration and arc length stabilizer
- Root pass capability
- Pulsed/spray modes
- Multi-pass pipe welding
- Auto ranging power input
- Pre-set programs for standard materials
- Custom programs for special alloys

Also included:

- Wire feeder operating wire spool from 10 to 44 lbs (5 to 20 kg)
- Water cooler with flow sensor
- Cart with bottle rack

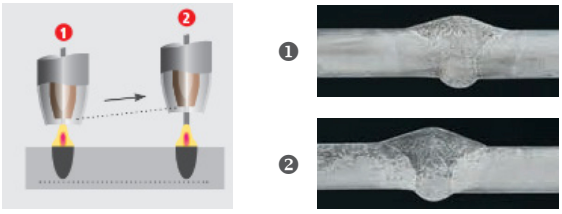


PART NO.	DESCRIPTION
TPS400i	Digital inverter power source

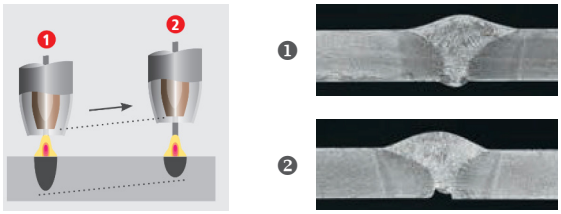
PENETRATION STABILIZER

Intelligent wire control maintains consistent current and penetration despite variations in stick-out. This ensures a significantly more stable arc and uniform penetration throughout the process.

WITH PENETRATION STABILIZER



WITHOUT PENETRATION STABILIZER



ARC LENGTH STABILIZER

By reducing the arc length, the arc length stabilizer in the spray arc with LSC Universal enables stable and regular short circuit behaviour, with the arc always being maintained at the same short length. There is no need for the user to carry out manual readjustment in the event of external interference (e.g. caused by changing welding torch position, material misalignment, changing pipe thicknesses or uneven heat extraction).

LOW SPATTER CONTROL (LSC)

During critical phases of the process, such as short-circuiting or droplet detachment, the current is rapidly decreased to stabilize the arc and minimize spatter generation.

Highlights & benefits

- Minimal spattering
- Reduced heat input with increased deposition rate during root pass welding
- High welding speed
- Arc control stabilizers for consistent penetration and arc stability
- Enhanced arc performance and process reliability
- Consistent weld quality and arc stability, even with extended torch leads
- No need for external sensor integration compared to competitor systems

MODEL 716 CONTROLLER AND PIPELINER DIGITAL PROGRAMMER

The **Pipeliner Digital Programmer** (PDP) enables touchscreen programming of all weld head parameters for up to 9 weld passes. Designed for seamless integration with the TPS400i Power Source, it combines intuitive, icon-based operation with rugged hardware ideal for field use.

FEATURES



PIPELINER DIGITAL PROGRAMMER

- 10.4” HD color touchscreen, side-mounted on the power source
- Rapid and user-friendly weld parameter adjustment via icon-based interface.
- Test mode enables the operator to configure settings without initiating an arc
- Password protection for program security
- USB port for fast, easy software updates
- Steel enclosure with gasketed lockable cover

ADVANCED PROGRAMMING TOOLS

- Run pendant allows limited override for flexibility and safety
- Stored pre setted programs optimized for common materials
- Custom program development available



OPERATOR PENDANT: REMOTE CONTROL IN YOUR HANDS

- Handheld waterproof pendant
- Built with a silicone rubber keypad — glove-compatible and field-tested
- Immune to weld spatter and grinding dust
- Override On-the-Fly: enables welders to make real-time program adjustments without lifting their hood
- Durable cable resists weld spatter and abrasion



CONTROLLER CAPABILITIES

- Input power: 230 VAC, 1-phase
- Integrated compatibility: designed for direct integration with the Fronius TPS400i power source

PART NO.	DESCRIPTION
7160GMB0M0	**Model 716 welding head controller**

SPECIFICATIONS

PROCESS CAPABILITY	**GMAW/ GMAW – pulsed (optional) / FCAW / LSC (low spatter control) + advanced root program**

POWER SOURCE	**DIGITAL INVERTER POWER SOURCE (PART NO. TPS400i)**
OUTPUT RATING	400A @ 40% duty cycle, 320A @ 100% duty cycle
INPUT POWER	Volts 200/230/400/460 12.7 kVA frequency: 50/60 Hz
AUTORANGING POWER INPUT	230v / 480v tri-phase eliminates all internal modifications
MAXIMUM OUTPUT CIRCUIT VOLTAGE	75V
DEGREE OF PROTECTION	IP23
APPLICABLE ELECTRICAL STANDARDS	IEC 974-1 (IP-23S), CSA, EMC 89/336/EEC, EN 60 974-1
WATER CIRCULATOR	
PUMP	Centrifugal
COOLING CAPACITY	2000W (at 20°C/68F)
MAXIMUM DELIVERY CAPACITY/PRESSURE	3.5 liter/min at 4.2 bar
COOLANT VOLUME	5.54 liter
DEGREE OF PROTECTION	IP23
WIRE FEEDER	
DRIVE TYPE	4 rolls (various groove geometries available)
WIRE DIAMETER	0.03 – 0.062” (0.8 – 1.6 mm)
WIRE FEED SPEED	20 – 866 ipm (0.5 – 22 m/min)
DEGREE OF PROTECTION	IP23

CONTROLLER	**MODEL 716 WELDING HEAD CONTROLLER (PART NO. 7160GMB0M0)**
IMPUT POWER	115/230 vac, 1 phase input
PENDANT CABLE LENGTH	7.6 m (25’). Extension cables available
DEGREE OF PROTECTION	IP23 (excluding remote pendant)

DIMENSIONS/WEIGHTS

POWER SOURCE

DIMENSIONS (D x W x H)	24" x 43" x 64"	610 x 1092 x 1625 mm
WEIGHT	330 lbs	150 kg



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