



WELD THE WORLD

# Pioneer 403/503 MSR



Antwerpsesteenweg 949 9041 Gent - Oostakker  
info@welda.be | T +32 (0)9 355 74 26  
www.welda.be | F +32 (0)9 355 92 01

**WELDA**  
LASSEN | MACHINES | GEREEDSCHAP

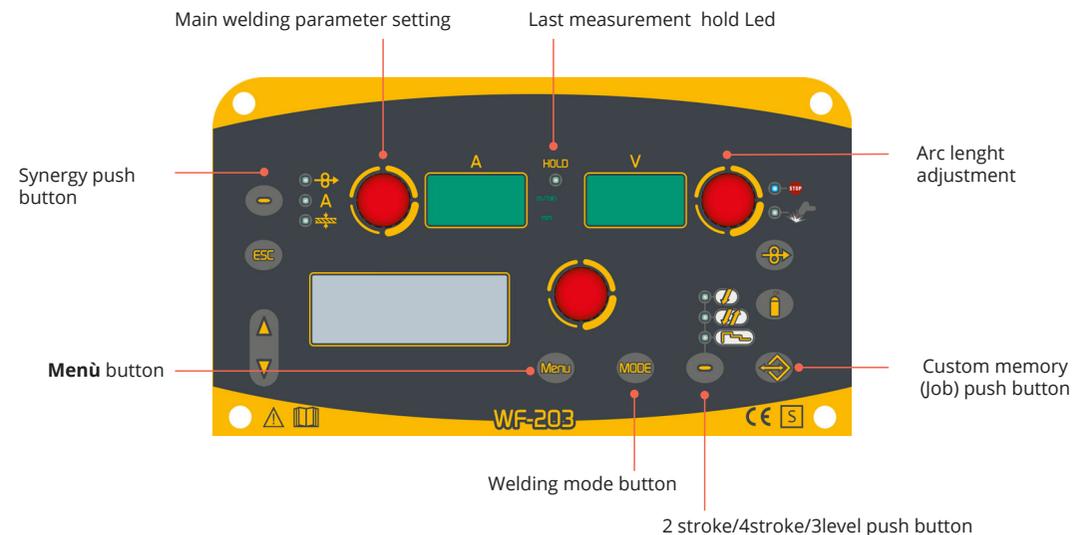
ENG

# Pioneer 403/503 MSR

# /MIG MAG Synergic



**Pioneer 403/503** is a professional synergic 3 Phase Inverter Power Source with separated wire feeder for MIG-MAG short spray welding of different materials such as standard steels, inox and aluminum. The 400A duty cycle at 100% (40°C) allows you to work continuously, even with applications requiring high work cycles. The special **Power Focus** function allows to achieve higher penetration and lower risk of sticking, increased welding speed, higher arc stability even with long stick-outs, lower costs of joint preparation and reduced volumes of bevels to be filled. The special **Power Root** arc permits to reach an optimal first pass, high quality of descending vertical welding, excellent operability, cold transfer of welding drop, perfectly jointed thin metal sheets, it is also ideal for welding joints with large gaps.





### Power Focus

The special Power Focus function has been designed to reduce total welding costs, reducing the total number of joints to be welded.

### Features

- Higher penetration and lower risk of sticking
- Increased welding speed
- Higher arc stability even with long stick-outs
- Lower costs of joint preparation
- Reduced volumes of bevels to be filled



### Power Root

The special Power Root function is a short arc transfer, controlled with a cold drop which ensures a very high quality during the root passes.

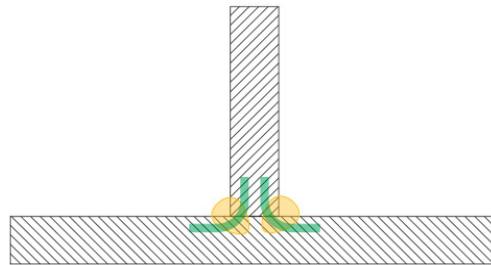
### Features

- Optimal first pass
- Quality of descending vertical welding
- Excellent operability
- Cold transfer of welding drop
- Perfectly jointed thin metal sheets
- Ideal for welding joints with large gaps

### PB - Fillet Weld

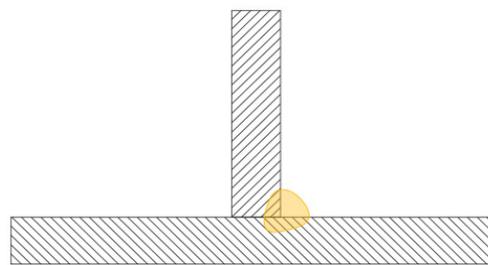
S355 - THK 8mm

Welded from both sides



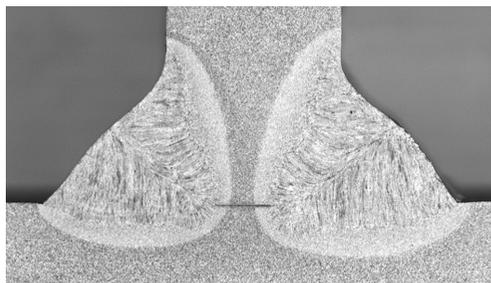
### PB - Fillet Weld

S355 - THK 10 mm



Section of weld bead 8mm

The higher number of field lines increases the resistant section



### PB - Butt Weld

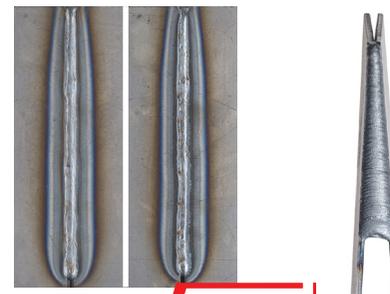
S355 - THK 3mm - GAP 1.5mm



Front

Back

Application on materials with gaps



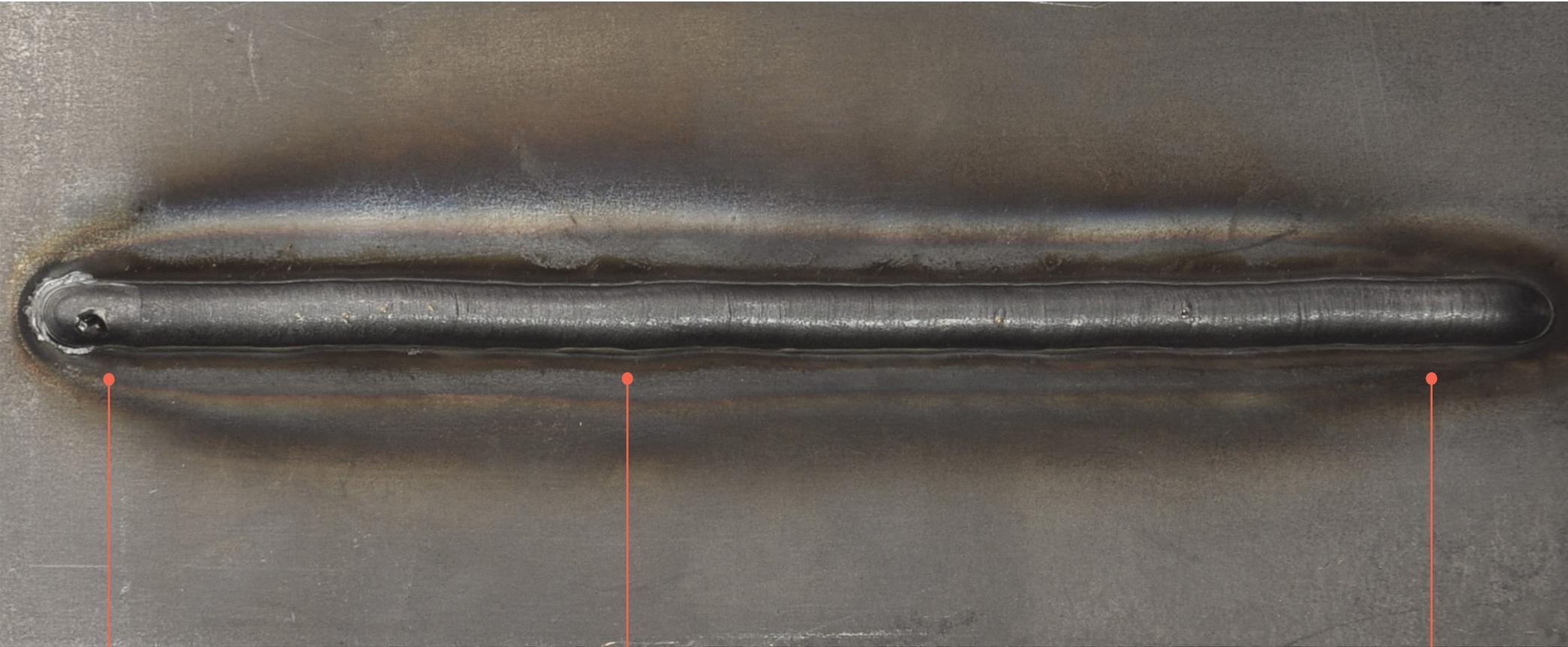
### PB - Butt Weld

S355 - THK 10mm thick - GAP 4mm - angle 30 °



Macrography of the weldment

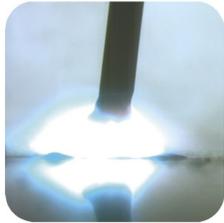




**Arc Strike**  
The new starting system controlled by Weco Digital Control technology ensures optimal strikes to be achieved at all time, avoiding initial blows and minimizing the likelihood of spatters. All this in any operating conditions.



**Stable Arc**  
The **HAC control System** allows metal melting to be immediately balanced. This almost entirely removes any splashes in the initial welding stage and the weld bead remains stable from beginning to end.



**Arc Strike**  
The innovative arc control **HAC (Hybrid Arc Control)** ensures optimal strikes to be achieved at all time, avoiding initial blows and minimizing the likelihood of spatters. All this in any operating conditions.

# Test

## Dust Test

An initial, very strict test, to ensure safety of all electronic parts of the generator. The **Pioneer 403/503 MSR** is fully insulated from the ingress of dust due to grinding operations or to other reasons, which could cause the electronic components to fail.

## Vibration Test

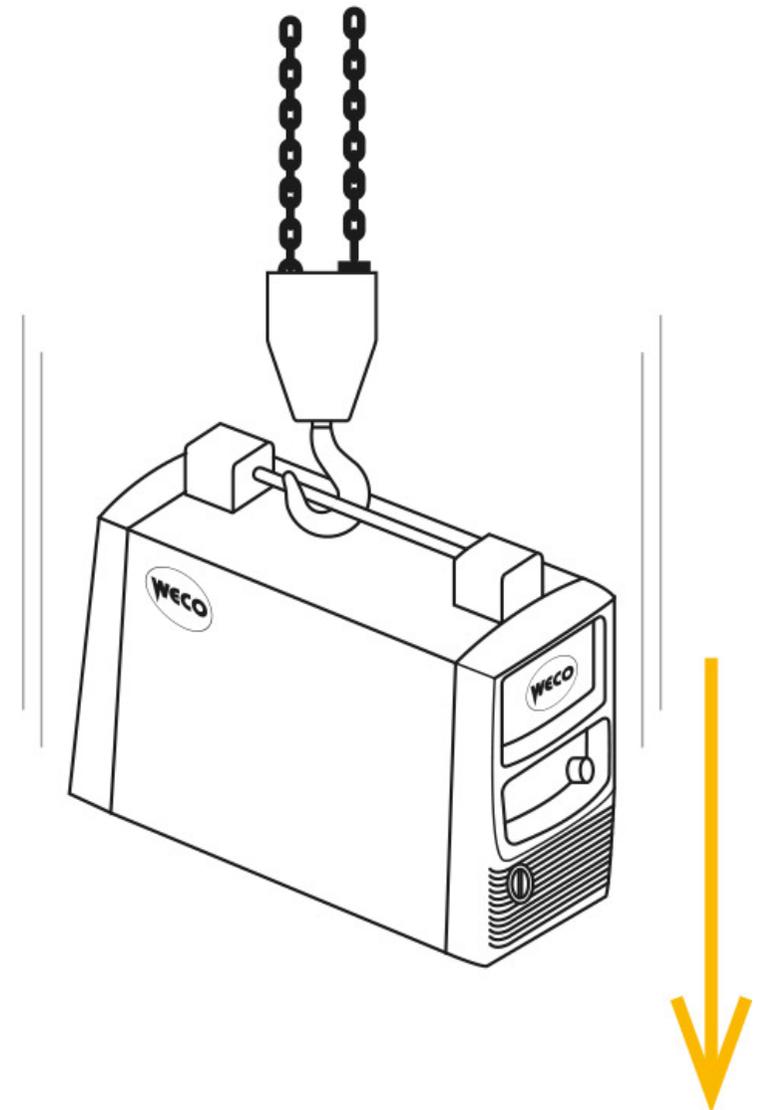
To ensure the structural stability of the inverter and to allow the welding machine to be used in any environment, including those subjected to vibrations, such as on board of lorries, ships or other unstable structures. Each internal component of the **Pioneer 403/503 MSR** is securely fixed and free from vibrations.

## Safety Tests

The **Pioneer 403/503 MSR** has brilliantly passed all safety tests: IP tests, drop tests and stability tests on an inclined plane. Total safety is ensured in any working conditions.

## Welding Test

The **Pioneer 403/503 MSR** is totally reliable, having been subjected to welding tests for over **3000 hours**. Its performance is ensured in any working location and in any part of the world, in environments with different temperatures and ambient conditions.



# Configurations

Pioneer 403/503 MSR Basic

Pioneer 403/503 MSR Air

Pioneer 403/503 MSR full optional

Pioneer 403/503 MSR with Trolley L



# Accessories

Basic



Frontal protection Kit



Trolley L + Cable bundle support



Wheels Kit WF



Cable bundle support

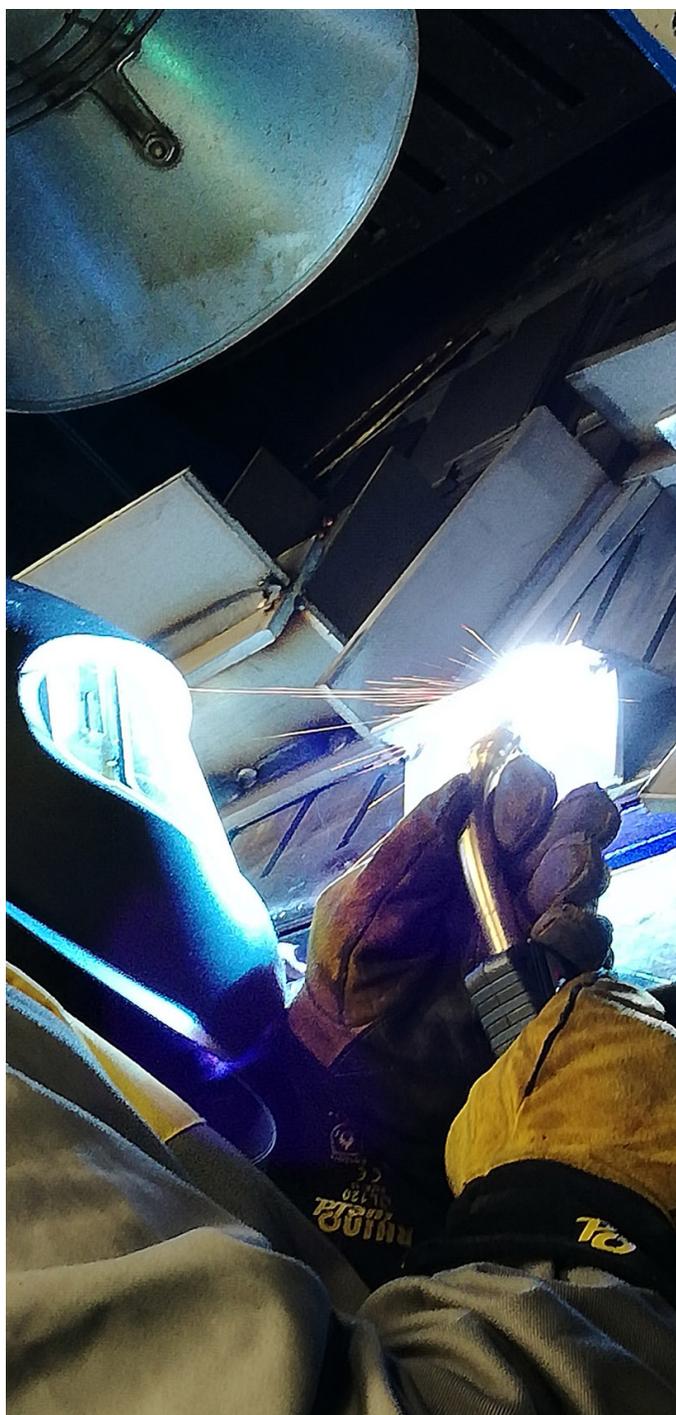


VP 03



TECHNOLOGY		WELDING PROCESSES	
SPECIAL FUNCTIONS			
POWER FOCUS		POWER ROOT	
MATERIALS			
STEEL	INOX	ALUMINUM	
APPLICATION FIELDS			
PIPE WELDING	HEAVY INDUSTRY	SHIPYARDS	

PLUS		
<p><b>ROBUST</b></p> <p>This <b>Pioneer 403-503</b> is characterized by a very robust chassis, that permits a non-stop working even with applications requiring high work cycles.</p>	<p><b>STABLE WHEELS</b></p> <p>The <b>Pioneer 403-503</b> series is equipped with stable industrial quality wheels, this grants a trouble-free and long use of this Power source also in the toughest work conditions.</p>	<p><b>RAPID AND EFFICIENT SERVICE</b></p> <p>The <b>Pioneer 403-503</b> Series allows a rapid and efficient service, as a consequence of this it is possible to optimize service timing and costs.</p>
ACCESSORI		
KIT PUSH PULL	UPGRADING SOFTWARE	DIGIMANAGER TORCH



Pioneer 403 MSR			
	3x400Vac ± 15% @ 50-60Hz		
	T 25A		
	MIG/MAG		
	100%		
	400A		
	10A - 400A		
	62/10 V		
	17,7kVA - 15,2 kW		
	23		
	460 x 990 x 1370 mm		
	110 Kg		
Pioneer 503 MSR			
	3x400Vac ± 15% @ 50-60Hz		
	T25A		
	MIG/MAG		
	30%	60%	100%
	500A	430A	400A
	10A - 500A		
	62/10 V		
	25,1kVA - 22,4kW		
	23		
	460 x 990 x 1370 mm		
	110 Kg		

WF203	
	42VDC
	120W
	270
	1,5 - 24,0m/min
	n°4 (ø37mm - ø19mm) Fe 0,6 - 1,6mm Al 0,8 - 3,2mm FCW 1,0 - 3,2mm
	200mm (5kg) - 300mm (15kg)
	23
	680 x 280 x 380 mm
	15,8 kg
CU23	
	1x400Vac ± 15% @ 50-60Hz
	T 1.6 A
	0,95kW
	2.8kW
	0,32MPa (50Hz) - 0,43MPa (60Hz)
	4.5l
	23 S
	720 x 290 x 235mm
	30,0 kg



WELD THE WORLD

**A well-established industrial concern whose reliability of products is ensured by its considerable investments in research, design and testing.**

WECO has been producing and selling welding equipment since 1997. Its registered office and operational site, located in the north-east of Italy, includes offices, a production area, a design and storage area, which cover the requirements of a wide national and international sales network. The wide range of welding machines and the availability of a large warehouse allows us to meet the varying needs of our customers within a short period of time. Our dynamic management, our proven experience in sales issues, as well as our knowledge of application problems ensure our company a leading edge within our industry. WECO provides solutions that improve productivity, optimise intervention times, minimise operating costs, ensuring excellent performance at all times, in any operating conditions.