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### **ESAB MECHANISED SOLUTIONS.**

#### WHY MECHANISE?

By mechanising you production process you will not only improve your welders ergonomics, increase your productivity and quality, but also earn more money by reducing your costs tremendously.

#### **ERGONOMICS**

Reduce your welders' exposure to heat, UV radiation, gas fumes and static workload.

A good welder needs to be constantly focused on the weld pool and is often in a very static work position this can put a lot of strain on the welder specially when welding longer seams.

With ESAB's mechanised solutions you can eliminate problems and improve ergonomics.

#### **PRODUCTIVITY**

ESAB's mechanised solutions are easy to install and operate and have almost no learning curve. You can simply increase your productivity with more arc time and less down time, higher deposition rates and less rework by optimising your processes. One welder or operator can often operate multiple machines.

#### **QUALITY**

Once set up correctly ESAB's mechanised solutions will ensure uniform and reproducible welds time and time again. It will reduce your rework and failure rates by the numbers of start and stops and repositioning compared to manual welding and is less operator dependent.

#### **REDUCE COSTS**

Can easily double your production rate by increasing the arc time and reducing labour, gas and filler metal costs (P/m, P/f) compared to manual welding.

A consistent, repeatable mechanised process reduces overfill, gas usage, arc time and gives you a higher output per hour. Start earning money now.



**ERGONOMICS** 



**PRODUCTIVITY** 



QUALITY



**REDUCE COSTS** 

#### **KEY APPLICATIONS**



SHIP AND OFFSHORE YARDS SHIP / BARGE BUILDING



BRIDGE CONSTRUCTION INDUSTRIAL AND GENERAL FABRICATION



STRUCTURAL STEEL FABRICATION



RAIL REPAIR

ESAB's universal battery-driven welding tractors and carriages easily mechanise your MIG/MAG process and thermal cutting applications for weaving and non-weaving tasks to meet real-world welding and cutting challenges.

Innovative features ensure high quality welds and cuts with the highest possible productivity, reliability, repeatability and efficiency.

These machines can be rapidly set up and are easy to use, satisfying the most demanding welding requirements. Flexible operation with either a battery or external power source. All models feature a reliable 4-wheel drive system with rapid acceleration and accurate stepper motor control for constant travel speeds, resulting in more time welding and less downtime.

MIGGYTRAC™ B501



RAILTRAC™ B42V



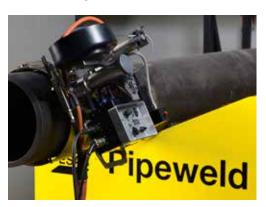
MIGGYTRAC™ B5001



RAILTRAC™ BV2000



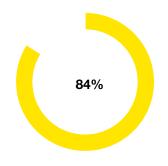
**PIPEWELD ORBITER** 

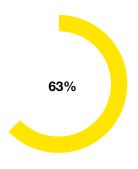


ESAB's mechanised solution for orbital welding of pipe and pipelines.

### **KEY BENEFITS.**







#### **INCREASED PRODUCTION TIME**

**INCREASED WELDING SPEED** 

REDUCE HEAT INPUT

Process combined with ESAB filler metals

#### **MIGGYTRAC B501 AND B5001**

- Multiprocess, MIG/MAG, Plasma, Oxy-fuel
- Universal system suitable for all welding machines
- The majority of common brand torches can be fitted
- Quick setup and easy-to-use
- Low weight, easy to handle
- Stepper motor
- Constant traction and travel speed over complete battery lifetime
- Compatible, interchangeable battery system
- Extended battery life with up to 8h of production from a single charge
- LED battery charge level indicator
- Forward and backward movement
- Controllable welding speed including fast travel
- 4 wheel drive design with high friction wheels
- Heat resistant wheels able to withstand high temperatures
- Standard settings cm/min and ipm
- Base magnets for inclined surfaces up to 45° (Optional)
- Connection cables and adaptors for ESAB wire feeders enabling continuous power delivery (Optional)

#### **ADDITIONAL BENEFITS OF B5001**

- Advanced, programmable software with graphical user interface
- Programmable start sequences and end sequence with back- and crater fill
- Accurate programmable stitch weld, industry-highest travel speed between stitches
- Future-proof software platform enabling continuous software upgrades and updates
- Intuitive HMI with multi-colour TFT screen
- Hour meter for service/lease fleet management
- Connection cables and adaptors for ESAB wire feeders (Optional)
- Remote voltage and wire feed speed control with ESAB wire feeders (Optional)

### PRODUCT OVERVIEW.



Miggytrac B501 (battery not included)

#### MIGGYTRAC B501 Compact, battery-operated tractor

Miggytrac B501 is a compact, universal battery-driven tractor that can easily mechanise your MIG/MAG process and thermal cutting applications where weaving is not required.

The Miggytrac B501 has a analogue interface which makes it very easy to set up. Operations are controlled by a toggle switch stop including back and forward movement, and a knob to set the required speed. No learning curve is required and B501 is ideal to use with any type of power source.







#### MIGGYTRAC B5001 Compact programmable tractor

Miggytrac B5001 is an advanced, compact and programmable 42 VAC non-weaving tractor. It is driven either by power source or by battery and can easily mechanise your MIG/MAG process and thermal cutting applications.

B5001 can be used for continuous and intermittent welding. When connected to an ESAB wire feeder you can set the voltage and wire feed speed in percentage directly from the unit.

The interface is a large multi-colour TFT display which simplifies setting up your travel speed, stitch- or continuous welding, welding length and the distances between welds. Additional settings include pre-heat, back- and crater fill time.

Miggytrac's true 4-wheel drive and high-friction wheels guarantee stable movement and operation of the tractor. The carriage follows the weld joint using guide wheels that adjust to allow the unit to drive itself against the workpiece.

Ideal for use with ESAB's MIG/MAG power sources and feeders. A standard ESAB welding torch can quickly attach to the unit.

## ADVANCED PROCESSES SUITABLE FOR MIGGYTRAC B5001.

Boost your productivity with ESAB's mechanised MIG/MAG Welding using the Swift Arc Transfer process in combination with selected filler metals. This process is a high-energy arc process developed for high productivity welding and suitable for mechanised and robotic MIG/MAG welding with wire feed speeds up to 25 m/min. It can be used for plate thickness from 2-15 mm.

- Low heat input / low distortion
- High deposition rate / productivity increase
- Improved weld quality (bead profile and penetration profile)
- Less post weld labour due to limited spatter and silicates
- Consistent feeding at high wire feed speed and a stable arc with recommended ESAB filler metals



Arc type	Spray	Short	SAT
Current I (A)	230	130	???
Voltage U (V)	31	17	??.?
Welding speed (m/min)	0.7	0.3	1.1
Heat Input (KJ/mm)	0.61	0.44	0.39

#### LOW HEAT INPUT AND LOW DISORTION

Improve your mechanical properties by reducing heat input by 63%.

#### Increase

- Productivity
- Welding speed
- Deposition rate

#### Reduce

- Heat input
- Distortion

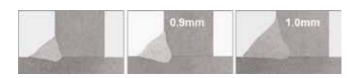
### HIGH DEPOSITION RATE WITH A PRODUCTIVITY INCREASE

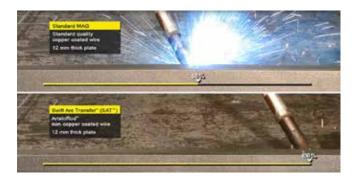
Due to the high arc energy, WFS and travel speed you can increase your productivity by 80% with a deposition rate up to 9.2 kg/h.

#### Increase

- Productivity
- Welding speed
- Deposition rate

Diameter (mm)	0,8	0,9	1,0	1,2	Deposit Rate	
WFS	25	20	16	11	$\longrightarrow$	5.9 kg/h
Α	220	230	240	330		
WFS	32	25	20	14	$\longrightarrow$	7.4 kg/h
Α	260	270	300	400		
WFS	35	27	22	15		
Α	255	285	330	450	$\longrightarrow$	8.1 kg/h
WFS		30	25	17		
А		350	375	500	$\longrightarrow$	9.2 kg/h





### IMPROVED WELD QUALITY AND WELDING SPEED

High arc energy ensures optimal weld penetration, bead profile and guarantees you a continuously high welding and travel speed by up to 84%.





## RECOMMENDED ESAB FILLER METALS FOR MIGGYTRAC B5001.

#### FOR SAT PROCESS

**OK AristoRod 12.50** is a bare Mn-Si-alloyed G3Si1/ER70S-6 solid wire for MIG/MAG welding of non-alloyed steels, as used in general construction, automotive, pressure vessel fabrication and shipbuilding. OK AristoRod 12.50 is treated with ESAB's unique Advanced Surface Characteristics (ASC) technology, taking MAG welding operations to new levels of performance and all-round efficiency, especially in robotic and mechanised welding. Characteristic features include excellent start properties, trouble-free feeding at high wire speeds and lengthy feed distances, a very stable arc at high welding currents, extremely low levels of spatter; low fume emission, reduced contact tip wear, and improved protection against wire corrosion.

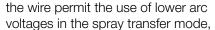
OK Autrod 12.51 is a coppercoated solid wire with higher levels of deoxidisers (manganese and silicon). The high content deoxidisers allows welding over heavier amounts of dirt, rust, and mill scale while providing a more fluid puddle and smoother bead profile.

Purus 42, EN/ISO G3Si1 wire, is specially formulated to reduce post-weld cleaning. The superior wire composition reduces silica islands and spatter. Purus has excellent arc start ignition, arc stability and significantly less spatter. In robotic and high volume operations,

Purus can significantly reduce post-weld cleaning time by reducing silica islands and unplanned downtime in multipass welding. It can also increase uptime with longer tip life. With exceptional control of wire composition and the manufacturing process, Purus maintains a stable process between batches.

#### **CORED WIRES**

**OK Tubrod 14.11** is a wire that has been specially designed for robotic applications, particularly in the area of thin plate welding. The welding characteristics of



which reduces arc power and thereby reduces the risk of blow-through in situations where the fit-up is variable. The wire also exhibits excellent feedability and deposits weld metal of the highest quality with Ar + 20%  $\rm CO_2$  shielding gas.

Coreweld 46 LS is a new generation metal cored wire based on ESAB's revolutionary cored wire surface technology. It has been developed for the welding of thin plate with a minimum thickness of 1.0 mm and provides fabricators with a substantially faster and higher quality welding solution to solid MAG wire. The absence or very low levels of silica on the weld surface and minimal spatter result in reduced post weld cleaning before coating/painting. Coreweld 46 LS is a unique product that markedly lowers the welding costs for mechanised and robotic fabrication.

For more filler metals and specific applications please visit **esab.com** for more information or contact your local distributor.

Download your free welding Filler Metal Databook online at **esab.com/fillermetals.** 

# TECHNICAL DATA & ORDERING INFORMATION.

Miggytrac B501	
Battery	Li-ion 18V
Battery Operating Time	8 h
Motor Type	Stepper motor
Travel Speed	100 –1300 mm/min
Control Panel	Analogue
Slide Adjustment, Horizontal	± 32 mm
Slide Adjustment, Vertical	± 40 mm
High Friction Rubber Wheel, 4-wheel drive	75 x 20 mm
Working Temperature, Wheels (standing still)	70 °C
Working Temperature, Wheels (moving)	150 °C
Horizontal Tensile Force without magnet	12 kg
Horizontal Tensile Force with magnet	25 kg
Max Angle, Degree	45°
Vertical Tensile Force at 45° with magnet	11 kg
Dimensions, L x W x H	310 x 290 x 250 mm
Weight	12 kg

Miggytrac B5001	
Battery	Li-ion 18V
Battery Operating Time	6 h
Motor Type	Stepper motor
Travel Speed	10 –1600 mm/min
Control Panel	Digital colour TFT
Slide Adjustment, Horizontal	±32 mm
Slide Adjustment, Vertical	±40 mm
High Friction Rubber Wheel, 4-wheel drive	75 x 20 mm
Working Temperature, Wheels (standing still)	70 °C
Working Temperature, Wheels (moving)	150 °C
Horizontal Tensile Force without magnet	12 kg
Horizontal Tensile Force with magnet	25 kg
Max Angle, Degree	45°
Vertical Tensile Force at 45° with magnet	11 kg
Dimensions, L x W x H	310 x 290 x 340 mm
Weight	13 kg
Adjusting steering arms	±40 mm

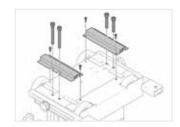
Cable key diagram						
Description	Part Number	Origo Feed 304, 484 (M12)	Origo Feed 304, 484 (M13)	Aristo Feed 3004, 4804 (All Panels)	Warrior Feed 304	Universal Feeder
Control Cable	0457 360 880	•	•	•	•	
Connection Cable	0457 360 886					•
Battery	0457 468 074	•	•	•	•	•
Remote Adapter Kit	0465 451 881				•	
Remote Adapter Kit RA 23 CAN	0459 681 880			•		
Transformer 230 VAC	0457 467 880					•
Transformer 115 VAC	0457 467 882					•

Ordering Information	
Miggytrac B501 (battery not included)	0457 357 882
Miggytrac B5001 (battery not included)	0459 990 645
Options & Accessories	
Magnet kit for front and rear	0457 357 131
Battery+ Battery Charger	0457 468 073
Battery 18V Li-ion, Makita	0457 468 070
Battery Charger 230V AC Makita	0457 468 072
Adjustable Guide Wheel Kit Miggytrac	0457 357 171

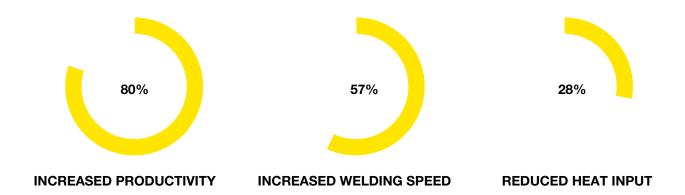
Makita® Battery Li-ion BL1840 and Battery Changer DC18RC can be bought locally in hardware store.

Additional Options & Accessories Miggytrac B5001	
Control Cable Miggytrac/ Railtrac 5 m	0457360880
Connection Cable Universal (only w. 12-pin)	0457360886
Remote Adapter Kit	0465451881
Remote Adapter Kit RA 23 CAN	0459681880
Transformer kit 230V AC	0457467880
Transformer kit 115V AC	0457467882

A magnet kit can be installed at the bottom of the tractor to further stabilise the movement and increase the friction between the drive wheels and the foundation.



### **KEY BENEFITS.**



#### **RAILTRAC B42V AND BV2000**

- 42V AC from power source or batterydriven with standard Makita 18V system
- Advanced rail-bound programmable remote control with 5 programs for weaving patterns, length, weld parameters, start and end sequence
- Magnet or vacuum options for rail
- Battery or external power (wide range)
- Bright double multi-colour TFT display
- Intuitive user menu
- Future-proof software platform
- Accurate programmable weave patterns for demanding applications
- Operator can program while unit is in use or switch programs directly on the unit or from the remote control
- Hour meter for service/lease fleet maintenance
- Programmable welding length with automatic return to start position
- Precision stepper motors for both drive and weaving functions for smooth and accurate motion
- Wide speed range available in a single unit

#### **ADDITIONAL BENEFITS OF BV2000**

- Mainly used for rail repair
- Designed for horizontal use and covers most proven and globally-applied welding patterns for repair of rail and rail components in all steel types and casting grades
- Unit can be programmed and controlled for setting weave patterns, travel speed, controlling voltage and wire feed speed in up to 6 standard programs
- New standard in precision for any type of railway defects
- Programs available for repair and maintenance of:
  - Worn rail ends
  - Plain rail defects
  - Worn turn-out tips
  - Worn wing rails
  - Worn stock rails
  - Stainless zig-zag pattern for electrical conductivity
- Reduced track closure time and improved weld quality of repair

### PRODUCT OVERVIEW.







#### **RAILTRAC B42V**

A truly unique and flexible multi-purpose system for welding

A welding tractor that can be configured to create the optimal solution for your mechanised welding application. To minimise problems associated with harsh environments, most mechanical parts are constructed in aluminium or stainless steel.

Railtrac B42V is designed for horizontal, curvature and vertical up/down welding for weaving and non-weaving welding aplications. The system can be easily connected to most wire feeders with no major modification. Remote adapters must be mounted in the in Aristo® Feed 3004/4804 and Warrior™ Feed 304 wire feeders.

#### **RAILTRAC BV2000**

A new era in reconditioning worn railway components. Ultimate precision, efficiency and accuracy in one functional modern light-weight but heavy-duty system

The Railtrac BV2000 comprises all major welding patterns that are used by various rail authorities around the world thanks to previous and current partnerships. Therefore the 6 programs of the new BV2000 cover all possible challenges in rail component repair, including rail end, plain rail, stock rail, guide rail and crossing tip or wing rail defects regardless of the rail steel grade. Both austenitic-managanese and carbon-managanese rail grades can be reconditioned with the only exception being R1100 (UIC 860) or R320Cr (EN 13674-1) grades as these are deemed unweldable.

The Railtrac BV2000 inherited the industry-proven advantages of previous systems: light-weight portability, advanced functionality and customisable setup. However the precision, user-friendliness, and endurability were improved to such an extent that we believe we have created a new rail industry standard that reduces track closure times through more rapid welding and better contour following weld metals, resulting in significantly reduced grinding time.

## ADVANCED PROCESSES SUITABLE FOR RAILTRAC B42V.

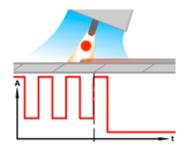
#### BOOST YOUR MECHANISED MIG/MAG WELDING WITH ESAB SUPERPULSE™

With SuperPulse you can combine all types of arc transfers to be superimposed in a single process: the advantages of pulse welding combined with those of short arc, spray arc or of a pulse with another frequency. In this way the welding speed, application of heat, weld penetration behavior and deposition rate are perfectly balanced. Cold arc, deep weld penetration, perfect fusion - everything is under control.



#### SUPERPULSE - PULSE / SHORT ARC

Pulse / short arc is mainly used for root runs and welding of thin materials up to 3 mm and combines pulsed arc transfer (for cooler welding) with short arc transfer (for even a lower heat input) without droplet transfer. This makes it possible to weld material thicknesses from 0.8 mm up to 3 mm with TIG appearance with the speed of conventional MIG/MAG Welding.



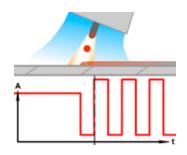


### Improve your mechanical properties by reducing the heat input by 28%

- Reliable fusion of the root base
- TIG-looking smooth bead ripples result in aesthetically pleasing weld seams
- Controlled reduced heat input
- Excellent bridging capabilities
- Reduced spatter formation

#### **SUPERPULSE - SPRAY ARC / PULSE**

Spray arc / pulse welding is mainly used for filling and capping and combines the speed spray arc transfer (for greater penetration and higher deposition rate) with pulse arc transfer (for a lower heat input and higher penetration) to weld material thicknesses from 6 mm and up, This process offers all of the advantages of MIG/MAG spray arc welding and makes it possible to weld in all positions.







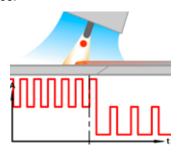
Positional spray arc / pulse welding guarantees up to 57% higher welding and travel speed in plate thicknesses from 6 mm and up, providing an 80% productivity increase.

- Effective filling with spray arc / pulse
- Reduced spatter formation
- Quick and reliable welding of vertical-up welds without using the "Christmas tree technique"

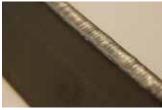


#### **SUPERPULSE - PULSE / PULSE**

Pulse / pulse arc is mainly used for thin to medium thickness materials from 1.5 mm up to 7 mm. Pulse / pulse makes it possible to set two different pulse levels and allows the welder extended control over the pulse welding process in terms of penetration and appearance.







## Improve mechanical properties and appearance by reducing heat input by up to $20\,\%$

- Reliable fusion of the root base
- Smooth bead ripples result in aesthetically pleasing weld seams
- Controlled reduced heat input
- Reduced spatter formation

# RECOMMENDED ESAB FILLER METALS FOR RAILTRAC B42V.

#### **SOLID WIRES**

**OK Autrod 5183** was developed to provide the highest strengths possible in the as welded condition of alloy AA 5083 and other similar high magnesium alloys. The more common OK Autrod 5356 will typically fail to meet the as-welded tensile requirements of AA 5083. The alloy is typically utilised in marine and structural applications where high strengths, high fracture toughness for impact resistance and exposure to corrosive elements are important. The alloy is not recommended for elevated temperature applications due to its susceptibility to stress corrosion cracking. The alloy is non-heat treatable.

**OK Autrod 316L** is a continuous solid corrosion resisting chromium-nickel-molybdenum wire for welding of austenitic stainless alloys of 18% Cr - 8% Ni and 18% Cr - 10% Ni - 3% Mo-types. OK Autrod 316L has a good general corrosion resistance, particularly against corrosion in acid and chlorinated environments. The alloy has a low carbon content which makes it particularly recommended were there is a risk of intergranular corrosion. The alloy is widely used in the chemical and food processing industries as well as in ship building and various types of architectural structures.





#### **CORED WIRES**

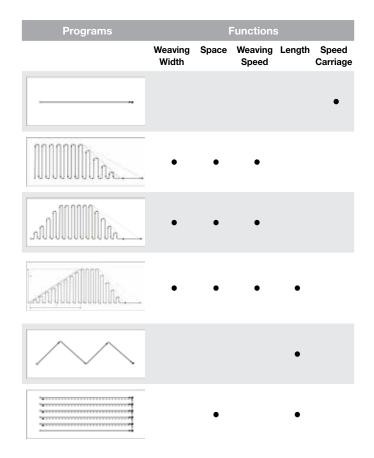
**Dual Shield II 81-K2** Is a flux-cored wire. It produces a smooth stable arc and low spatter levels using a 100% CO2 shielding gas and is developed for higher tensile steels such as ASTM A302, A533 Class I and A537. Applications include ship fabrication, offshore oil rigs, and heavy equipment construction. This wire is an excellent choice for welding ASTM steels A302, A533 Class I and A537. Dual Shield II 81-K2 produces a smooth stable arc and low spatter levels using 100% CO2 shielding gas. Applications include ship building, offshore oil rigs, and heavy equipment construction.

**FILARC PZ6114** is an all-positional, rutile cored wire for use with mixed gas (Ar/CO2) with dependable Charpy impact properties to -40°C. A versatile and productive wire for general fabrication and shipbuilding.

For more filler metals and specific applications please visit **esab.com** for more information or contact your local distributor.

Download your free welding Filler Metal Databook online at **esab.com/fillermetals.** 

### **RAILTRAC BV2000 PROGRAMS.**





P0 for support beads



P1 for rail end defects



P2 for plain rail defects



P3 for C-Mn crossing tip and wing rail defects



P4 for for zig/zag pattern Ss wire for conductivity



P5 for Austenetic-Mn crossing castings

## RECOMMENDED ESAB FILLER METALS FOR RAILTRAC BV2000 RAIL REPAIR.

#### **CORED WIRES**

**OK Tubrodur 13Mn O/G** is a self-shielded, flux-cored wire of the austentic-manganese type. The work hardening characteristics and extremely tough crack-resistant weld metal ensure that OK Tubrodur 13Mn O/G is the ideal solution for rebuilding 13Mn steels, normally found in crusher jaws, swing hammers and numerous parts of earth-moving, mining and quarrying equipment.

**OK Tubrodur 15.65** is a flux-cored wire for self- or CO2 shielding, depositing a martensitic-austenitic, work-hardening deposit. OK Tubrodur 15.65 can be used for the rebuilding of mild, low-alloy and 13Mn steels. The weld metal combines excellent abrasion and impact resistance and is suitable for applications such as crusher jaws and hammers, railway point frogs, ripper teeth and wear plates.

**OK Tubrodur 30 O M** is a self-shielded, flux-cored wire for semi-automatic hardfacing, producing a chromium-manganese-alloyed weld metal with a hardness of 28-36 HRC. It is ideal for the on-site rebuilding of rollers, shafts, wheels and worn parts of CMn railway tracks, point frogs etc.

**OK Tubrodur 35 O M** is a self-shielded, flux-cored, tubular wire, primarily developed for the on-site rebuilding of worn CMn railway and tram tracks. The weld deposit is of the CrNiMo type and has excellent compressive strength with a hardness of 30-40 HRC.

Stoody 110 is a modified chromium, high manganese steel used in the rebuilding of manganese steel parts subject to severe impact loading. This material offers good toughness and wear resistance, and is sometimes used as the final hard facing layer in extreme impact situations. Deposits cannot be



flame cut but are machinable with carbide tools, are non-magnetic, and are not recommended for cast iron. It can be used on carbon, low alloy, and manganese steels. It also offers cavitation resistance in fluid component applications. Stoody 110-G, 110-O, and 110-MC are metal cored wires, producing a very light slag covering, causing no interference in multi-layer welding.

**Stoody 111-O** is an open arc wire that produces an austenitic chromium manganese steel deposit containing alloy carbides. Stoody 111-O deposit is used in the rebuilding of manganese steel parts subject to severe impact loading combined with abrasion. The abrasion resistance of Stoody 111-O deposit is 5-6 times superior to that of an austenitic manganese deposit as measured in the G65 test. This material offers good toughness and wear resistance, and is sometimes used as the final hard facing layer in extreme impact situations. It can be used on carbon and manganese steels.



For more filler metals and specific applications please visit **esab.com** for more information or contact your local distributor.

Download your free welding Filler Metal Databook online at **esab.com/fillermetals.** 

# TECHNICAL DATA & ORDERING INFORMATION.

Raitrac B42V	
Supply Voltage	24 - 70 VDC, 20 - 50 VAC
Battery (optional)	Li-ion 18V
Battery Operating Time	3 – 4 h (5 Ah)
Battery Power Consumption, Max	50 W
Control Panel	Digital colour TFT
Max Speed	30 mm/s (25 mm/s with battery)
Max Load	10 kg (5 kg with battery)
Max Temperature Magnet / Vaccum	70 / 90°C
Enclosure Class	IP44
Approvals	CE, CSA
Safety Class	DIN 40050
Dimensions	210 x 360 x 270 mm
Weight	8 kg
Bending Diameter Rail Min	Ø 1600 mm
Height Adjustment Slide	+/- 45 mm

Railtrac BV2000	
Supply Voltage	24 - 70 VDC, 20 - 50 VAC
Battery (optional)	Li-ion 18V
Battery Operating Time	3 – 4 h (5 Ah)
Battery Power Consumption, Max	50 W
Control Panel	Digital colour TFT
Max Speed	30 mm/s (25 mm/s with battery)
Max Load	10 kg (5 kg with battery)
Max Temperature Magnet / Vaccum	70 / 90°C
Enclosure Class	IP44
Approvals	CE, CSA
Safety Class	DIN 40050
Dimensions	210 x 360 x 270 mm
Weight	10 kg
Rail Length	2,5 m

Cable key diagram						
Description	Part Number	Origo Feed 304, 484 (M12)	Origo Feed 304, 484 (M13)	Aristo Feed 3004, 4804 (All Panels)	Warrior Feed 304	Universal Feeder
Control Cable	0457 360 880	•	•	•	•	
Connection Cable	0457 360 886					•
Battery	0457 468 074	•	•	•	•	•
Remote Adapter Kit	0465 451 881				•	
Remote Adapter Kit RA 23 CAN	0459 681 880			•		
Transformer 230 VAC	0457 467 880					•
Transformer 115 VAC	0457 467 882					•

Ordering Information	
Railtrac B42V incl. Universal Torch Holder Ø 10-22 mm and Adjusters	0398 146 016
Railtrac BV2000 Package*	0459 990 644

<sup>\*</sup> Carriage w. weaving unit, slides and torch holder, remote control (0398 145 480), rail 2m BV2000 (0398 145 127), 2x BV rail brackets (0398 145 190), 2x alignment brackets (0398 145 191) and transport box (0398 145 198).

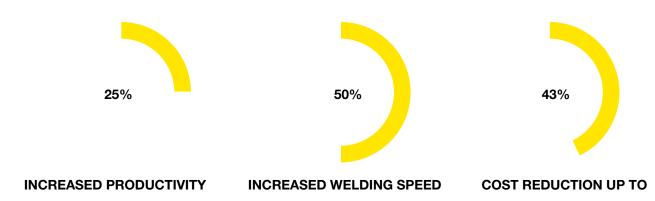
Options & Accessories	
Battery 18V Li-ion, Makita®	0457 468 074
Battery Charger 230V AC Makita®	0457 468 072
Control Cable 5 m	0457 360 880
Connection Cable Universal (only w. 12-pin)	0457 360 886
Remote Adapter Kit	0465 451 881
Remote Adapter Kit RA 23 CAN	0459 681 880
Transformer kit 230V AC	0457 467 880
Transformer kit 115V AC	0457 467 882
Torch Holder Universal Ø15-30 mm	0398 145 106
Torch Holder for PSF	0398 145 101

<sup>\*</sup> Makita Battery Li-ion BL1840 and Battery Changer DC18RC can be bought locally in hardware store.

Additional Options & Accessories BV2000	
Remote Control BV2000	0398 146 480
Rail 2 m BV2000	0398 145 127
Alignment Bracket 2 pcs	0398 145 191
Railtrac Transport Box	0398 145 198

Additional Options & Accessories B42V	
Quick-extension bracket for flexible rail	0398 146 120
Floating Head for Torch	0398 145 211
Turning Bracket B42V	0398 145 203
Tilt Brachet Railtrac B42V	0398 145 202
Flexible AluRail, 2.5 m (8 ft.)	0398 146 115
Flexible AluRail, 5 m (16 ft.)	0398 146 119
Flexible AluRail, 2.5 m (8 ft.), 8 magnets	0398 146 112
Flexible AluRail, 2.5 m (8 ft.), 4 vacuum attachments	0398 146 113
Stiffener Bar, 2.5 m (8 ft.)	0398 146 116
Flip Magnetic Attachment	0398 146 100
Vacuum Attachment, 90°	0398 146 104
Vacuum Attachment, 200°	0398 146 105
Screw Attachment for stiffened rail	0398 146 114

### **KEY BENEFITS.**



Using 3 run procedure combined with ESAB filler metals

#### **PIPEWELD ORBITER**

- Reliable and repeatable performance increasing weld quality
- Robust and lightweight construction
- Ensures easy handling by the operator with almost no learning curve
- Can be used for main pipe lines and tie-ins or crossings
- Capable of welding 360° in either direction enables only one machine to complete a weld joint
- Changeable welding direction (up or down) with a rocker switch
- On board control box enables a wide range of welding parameters to be stored which are programmed and downloaded from hand-held programming unit (HHPU)
- The motor, gearboxes, lead screws, and bearings are designed for heavy duty long life
- All software for the HHPU and controller can be upgraded on site or inhouse by our support
- Usable with most MIG/MAG power sources
- Limits settings W.P.S restricted
- Quick direction change of the torch
- Adjustable wheelset
- Quick fit bands

#### WHY 3 RUN PROCEDURE?

The '2 run' procedure used filling with a rutile cored wire directly after the cellulose hot pass.

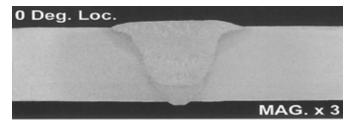
This method is regularly causing issues with gas pops or blowholes coming from the cellulose layer underneath the first FCW fill pass.

Deep grinding to clean the weld metal does overcome most of this problem, but not entirely.

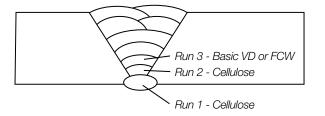
This grinding is both time consuming and removes quite a bit of weld metal, adding to the further completion time.

#### **3 RUN PROCEDURE**

The '3 run' procedure uses a basic vertical down first fill pass. This avoids heavy grinding and leaves a clean basis for the FCAW process without the need for any other treatment than slag removal. Filling commences with a rutile flux cored wire which is specially formulated for mechanised pipe welding. This style was originally developed for tie in welds where due to physical restrictions (fittings etc) or connecting into the main line at road crossings where the use of the internal line up clamp and or internal welder was not possible. Contractors soon realised that with the correct manning and number of welding stations this technique resulted in a similar number of joints per day at a lower cost compaired to automatic solid wire, even when using an internal root pass line up clamp.



Macro examination of Pipeweld FCAW 15.9 mm wall thickness. Root and hot pass with cellulose, fill & cap with FCAW



### PRODUCT OVERVIEW.



### PIPEWELD ORBITER Orbital pipe welding system

The Pipeweld Orbiter is a light weight bug for orbital welding of pipe and pipelines allowing the use of 1 system for diameters of 8" pipe and above without the need to swap the drivetrain.

The PipeweldOrbiter is not sided and the same unit can weld both sides of the joint. The unit has its own wire feed system and torch eliminating the need for secondary feeders, torch hose packs and cables. The only supplies required are control, power and gas resulting in accurate and precise electrode positioning and unrestricted orbital travel.







#### **KEY APPLICATIONS**



MARINE AND OFFSHORE OFFSHORE OIL



PIPELINE



PIPEMILL & CONSTRUCTION

# RECOMMENDED ESAB FILLER METALS FOR PIPEWELD ORBITER.

#### **CORED WIRES**

**Pipeweld 7171 T1** is an all positionable rutile flux cored wire that can be used with either Ar CO2 or CO2 shielding gases. This product is suitable for up to X52 pipe.

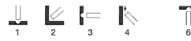


**Pipeweld 9171 T1** is a flux cored wire that is used with Ar-CO2 shielding gas. This wire offers excellent weldability and is suitable for up to X65 pipe.

**Pipeweld 10171 T1** is an all positionable rutile flux cored wire that is used with Ar-CO2 shielding gas. This wire offers excellent weldability and is suitable for up to X70 pipe.

**Pipeweld 11171 T1** is an all positionable rutile flux cored wire that is used with Ar-CO2 shielding gas. This wire offers excellent weldability and is suitable for up to X100 pipe.

API 5L pipe steel grade	Gas-shielded	Self-shielded
X52		
Root	N.a.	N.a.
Hot pass	Pipeweld 71T-1	Pipeweld 8Ni1-H5
Fill & cap	Pipeweld 71T-1	Pipeweld 8Ni1-H5
X60		
Root	N.a.	N.a.
Hot pass	Pipeweld 91T-1	Pipeweld 8Ni1-H5
Fill & cap	Pipeweld 91T-1	Pipeweld 8Ni1-H5
X65		
Root	N.a.	N.a.
Hot pass	Pipeweld 91T-1	Pipeweld 8Ni1-H5
Fill & cap	Pipeweld 91T-1	Pipeweld 8Ni1-H5
X70		
Root	N.a.	N.a.
Hot pass	Pipeweld 101T-1	N.a.
Fill & cap	Pipeweld 101T-1	N.a.
X80		
Root	N.a.	N.a.
Hot pass	Pipeweld 111T-1	N.a.
Fill & cap	Pipeweld 111T-1	N.a.
N.a. : not applicable		



AWS	Com	Composition % <sup>1</sup>		Mechanical properties <sup>1</sup>		ØxI	Current	Voltage	Welding Positions	
	С	Si	Mn	Ni			mm	Α	V	
Pipeweld 71 T1 AWS E71T-1M H8 Gas-shielded, Rutile Flux Cored DC+	0.06	0.6	1.33	-	Re/Rp0.2(MPa) 535 (77,575psi) CVN -20°C(J) 54 (-4°F, 41ft-lb)	Rm(MPa) 601 (87,145psi) A5(%) 22	1.2 mm (.047")	150-350	35 max	1, 2, 3, 4, 6
Pipeweld 91 T1 AWS E91T1-G Gas-shielded, Rutile Flux Cored DC+	0.06	0.37	1.25	-	Re/Rp0.2(MPa) 535 (77,575psi) CVN -20°C(J) 54 (-4°F, 41ft-lb)	Rm(MPa) 670 (97,150psi) A5(%) 27	1.2 mm (.047")	100-300	32 max	1, 2, 3, 4, 6
Pipeweld 101 T1 AWS E101T-G Gas-shielded, Rutile Flux Cored DC+	0.06	0.4	1.54	-	Re/Rp0.2 (MPa) 654 (94,830psi) CVN -40°C(J) 70 (-40°F, 52ft-lb)	Rm(MPa) 709 (102,805psi) A5(%) 26	1.2 mm (.047")	100-300	32 max	1, 2, 3, 4, 6
Pipeweld 111 T1 AWS E111 T1 K3MJ-H4 Gas-shielded, Rutile Flux Cored DC+	0.06	0.39	1.2	-	Re/Rp0.2(MPa) 761 (110,345psi) CVN-40°C(J) 72 (-40°F,53ft-lb)	Rm(MPa) 840 (121,800psi) A5(%) 18	1.2 mm (.047")	100-300	32 max	1, 2, 3, 4, 6

<sup>&</sup>lt;sup>1</sup> Typical Values

For more filler metals and specific applications please visit **esab.com** for more information or contact your local distributor.

Download your free welding Filler Metal Databook online at **esab.com/fillermetals.** 

# TECHNICAL DATA & ORDERING INFORMATION.

Pipeweld Orbiter	
Pipe Diameters	8" (200 mm) to flat plate
Wire Diametersolid wire	0.8-1.2 mm 2.7 kg / 5 kg
Wire Diameterflux cored	1.2 mm 5 kg
Max Spool Diameter	200 mm
Wire Spool Capacity	5 kg
Travel Speed	6-59"/ min (15-150 cm / min)
Wire Speed	200-590" min (5-15 m / min)
Oscillation width pendulum action, max	26 mm
Oscillation dwell independent dwells	0-250 ms
Minimum Height Clearance	18" (450 mm)
Burn Back Time	0-5 s
Crater Fill Time	0-2 s
Gas Pre Flow and Post Flow	0-20 s
Welding Torch Control	Electronic 50 mm vertical, 55 mm horizontal
Weight (without wire and cables)	16 kg

Pipeweld Orbiter Basic Consumable Kit*	0459 990 519
Drive Wheel	0459 990 402
Bowden Cable Pack	0459 990 40
Welding Tips	0459 990 40
Shroud Assembly	0459 990 40
Wire-feed Insulation Block	0459 990 40
Spatter Cover	0459 990 40
Wirefeed Wheel Set	0459 990 40
Gas Hose	0459990 40
Leaf Spring	0459 990 41
Gas Blanking Plug	0459 990 41
Copper Guide	0459 990 41
Tip Holder	0459 990 41
Earth Cable	0459 990 41
Torch Body O-ring	0459 990 41
Screw Pack	0459 990 41
Idle Guide Wheel	0459 990 41
Wire Loom Set	0459 990 41
Travel Motor /GB	0459 990 41
Wire-feed Motor /GB	0459 990 42
Tip Control Motor /GB up/down	0459 990 42
Stepper Motor /GB	0459 990 42
Remote Control	0459 990 42
Gas Box	0459 990 42
Control Box	0459 990 42
Tip Control Motor /GB near/far	0459 990 51
Power Lead	0459 990 51
Gas Hose 30m	0459 990 51

Operator Pendant Controls
Vertical/horizontal welding torch control
Oscillation Width (within pre set limits)
Travel Speed (within pre set limits)
Cycle (travel, oscillation and gas)
Arc, (wire speed, current and voltage)
Stop, (stops travel current/voltage centralises tip and initiates burn back, post gas and crater fill

Ordering Information					
Pipeweld Orbiter Bug	0459 990 380				
Warrior AdapterBox	0464 562 880				
Warrior 400i CC/CV	0465 350 884				
OR					
Pipeweld Orbiter Bug	0459 990 380				
Warrior 500i CC/CV	0465 350 883				
Interconnection Set 70 mm² 5m-19p	0459 836 881				

1110	erconnection set 70 mm sin-19p	0439 030 001
Op	otions & Accessories	
Wa	arrior Adapter Box	0464 562 880
Pip	neweld Orbiter Prog Kit *	0459 990 381
Pip	neweld Orbiter Tool Kit **	0459 990 382
Tra	avel Band 8" w with Extensions	0459 990 525
Tra	evel Band 10.75"	0459 990 383
Tra	evel Band 12.75"	0459 990 384
Tra	evel Band 14"	0459 990 385
Tra	evel Band 16"	0459 990 386
Tra	evel Band 18"	0459 990 387
Tra	evel Band 20"	0459 990 388
Tra	avel Band 22"	0459 990 389
Tra	evel Band 24"	0459 990 390
Tra	evel Band 26"	0459 990 391
Tra	evel Band 28"	0459 990 392
Tra	evel Band 30"	0459 990 393
Tra	evel Band 32"	0459 990 394
Tra	evel Band 34"	0459 990 395
Tra	evel Band 36"	0459 990 396
Tra	evel Band 38"	0459 990 397
Tra	evel Band 40"	0459 990 398
Tra	avel Band 42"	0459 990 399
Tra	evel Band 44"	0459 990 400
Tra	avel Band 48"	0459 990 401

 $<sup>^{\</sup>ast}$  Prog kit content: programming unit, data transfer box and USB memory storage.

<sup>\*\*</sup> Tool kit content: 15 mm ring spanner, adjustable spanner, flat screwdriver, posi-drive screwdriver, electrical screwdriver, metric allen key set (loose), metric allen key set (glove type), pliers, circlip pliers internal, circlip pliers external, rubber mallet and band spacing tool.

<sup>\*</sup> Consumable Kit content: drive wheel x2, insulation block, shroud assy, leaf spring x2, tips x15, tip holder assy, wire guide tube, bowden cables x 5, torch O-rings x4 and gas hose P clips x3.

## RECOMMENDED EQUIPMENT STANDARD FUNCTIONALITY NON-PULSED.





#### WARRIOR™ CC/CV

The reliable multi-process welding equipment designed for heavy duty productivity with up to 500 Amps.

- Inverter Technology Warrior brings the outstanding arc performance and energy savings you expect from an inverter. Along with increased energy efficiency and more power from a lighter, smaller, and more portable unit, Warrior provides the simple functionality welders want at a competitive price.
- High-Duty Cycle For long runs across a variety of applications and delivers 400 A or 500 A at 60% Duty Cycle.
- Durable and rugged IP23 rating for outdoor and indoor use in rough environments.
- Easy-to-use Clear and intuitive user interface for everyone to get started quickly. Glove-friendly knobs make adjustments quick and easy.
- Wide input voltage range to support regional requirements.

#### **WARRIOR FEED 304**

The Warrior Feed 304 brings you the same benefits as its partner power supply; simple functionality, rugged durability and outstanding performance for 0.8 –1.6 mm wire. Also available in a water cooled version Warrior Feed 304w.

- Standard 4-roll drive provides good feedability.
- Sun-friendly display and easy-to-use controls (remote voltage, gas purge, inch wire, WFS) trigger lock, and slow run-in make configuration easy.
- Practical spool cover for use in situations when you need to protect the wire.
- Short Circuit Technology (SCT) functionality which sharpens the wire at the termination of a weld to promote better arc starts, eliminate clipping wire.

### **TECHNICAL DATA.**

Warrior Feed 304	
Supply Voltage	42 VAC 50/60 Hz
Power Requirement	252 VA
Welding Output at 60% Duty Cycle	500 A
Welding Output at 100% Duty Cycle	400 A
Wire Feed Speed	1.5 – 25.0 m/min
Wire Spool Capacity	18 kg
Max Spool Diameter	300 mm (440 mm w. adapter)
Wire Dimensions Mild Steel Stainless Steel Aluminium Cored Wire	0.6 – 1.6 mm 0.8 – 1.6 mm 1.0 – 1.6 mm 0.9 – 1.6 mm
Dimensions, L x W x H	675 x 265 x 418 mm
Weight	14.5 kg
Standards	CE, CSA
Enclosure Class	IP23

CONTROL PANEL	
WARRIOR FEED 304	

- Current settings
- Voltage settings
- Wire inching
- Gas purging
- 2/4 stroke inside feeder
- SCT inside feeder
- Optional remote control



Warrior 400i, 500i		
Mains Voltage		
Fuse Slow	25 A	32 A
Permissible Load 60% Duty Cycle MIG/MAG 100% Duty Cycle MIG/MAG	<b>400i</b> 400 A, 34 V 300 A, 29 V	<b>500i</b> 500 A, 39 V 400 A, 26 V
Permissible Load 60% Duty Cycle MMA 100% Duty Cycle MMA	<b>400i</b> 400 A, 36 V 300 A, 32 V	<b>500i</b> 500 A, 40 V 400 A, 36 V
Permissible Load 60% Duty Cycle TIG 100% Duty Cycle TIG	<b>400i</b> 400 A, 26 V 300 A, 22 V	<b>500i</b> 500 A, 30 V 400 A, 26 V
Setting Range MIG/MAG, MMA, (TIG)	16 – 400/500 A	(5 – 400/500 A)
Efficiency at Max Current	88 %	89 %
Power Factor Max Current	0.91	
Energy Save Mode	30 W	
Open Circuit Voltage	56 V (28 V w. VRD)	
Mains Cable	4 x 6 Ø mm2	
Dimensions L x W x H	712 x 325 x 470	) mm
Dimensions w. Cooling Unit L x W x H	712 x 325 x 700 mm	
Weight	59 kg (74 kg w. Cooling l	
Standards	CE	
Enclosure Class	IP23	
Water Cooling Unit COOL 2		
Cooling Capacity	1.0 kW	
Coolant Volume	4.5	
Max Flow	1.8 l/min	
Max Pressure	4.6 bar	
Weight	15 kg	



#### CONTROL PANEL WARRIOR 400i / 500i CC/CV

- 1. Indicator lamp, yellow, overheating
- 2. Indicator lamp, green, VRD function (reduced open circuit voltage)
- 3. Display, current (A) and voltage (V)
- Knob for setting: MIG/MAG air gouging: Current (A) Mobile Feed mode: Voltage (V)
- 5. Knob for choice of electrode type
- 6. Knob for inductance (MIG/MAG) and arc force (MMA)
- 7. Knob for welding method

# CONFIGURE YOUR MECHANISED PACKAGE WARRIOR.

Step 1: Select your Mechanised Tractor	
Miggytrac B501 (battery not included)	0457 357 882
Miggytrac B5001 (battery not included)	0459 990 645
Railtrac B42V	0398 146 016
Railtrac BV2000	0459 990 644
Control Cable*	0457 360 880
Remote Adapter Kit*	0465 451 881

<sup>\*</sup> Suitable for Miggyrac B5001 & Railtrac B42V & BV2000 for connection to wire feeder.

Step 2: Select your Power Source	
Warrior 400i CC/CV •	0457 357 882
Warrior 500i CC/CV •	0459 990 645
COOL 2, water cooler •	0398 146 016

Select your power source based on Amperage output. For water-cooled version please also select cooling unit.

Step 3: Select your Wire Feeder	
Warrior Feed 304 •	0465 250 880
Warrior Feed 304w ♦	0465 250 881

Step 4: Select your Interrconnection Cables	
Connection Cables 70 mm <sup>2</sup> Gas-cooled •	
Connection cable - Length = 1.7 m	0459 836 880
Connection cable - Length = 5.0 m	0459 836 881
Connection cable - Length = 10 m	0459 836 882
Connection cable - Length = 15 m	0459 836 883
Connection cable - Length = 25 m	0459 836 884
Connection cable - Length = 35 m	0459 836 885

Step 4: Select your Interrconnection Cables	
Connection Cables 95 mm <sup>2</sup> Gas-cooled •	
Connection cable - Length = 1.7 m	0459 836 980
Connection cable - Length = 5.0 m	0459 836 981
Connection cable - Length = 10 m	0459 836 982
Connection cable - Length = 15 m	0459 836 983
Connection cable - Length = 25 m	0459 836 984
Connection cable - Length = 35 m	0459 836 985

Step 4: Select your Interrconnection Cables	
Connection Cables 70 mm <sup>2</sup> Water-cooled •	
Connection cable - Length = 1.7 m	0459 836 890
Connection cable - Length = 5.0 m	0459 836 891
Connection cable - Length = 10 m	0459 836 892
Connection cable - Length = 15 m	0459 836 893
Connection cable - Length = 25 m	0459 836 894
Connection cable - Length = 35 m	0459 836 895

Step 4: Select your Interrconnection Cables	
Connection Cables 95 mm² Water-cooled •	
Connection cable - Length = 1.7 m	0459 836 990
Connection cable - Length = 5.0 m	0459 836 991
Connection cable - Length = 10 m	0459 836 992
Connection cable - Length = 15 m	0459 836 993
Connection cable - Length = 25 m	0459 836 994
Connection cable - Length = 35 m	0459 836 995

Step 5: Select your Welding Torch	
For Warrior 400i CC/CV	
PSF 415, 3.0 m •	0700 025 040
PSF 415, 4.0 m •	0700 025 041
PSF 415, 5.0 m •	0700 025 042
PSF 415 RS3, 4.0 m •	0700 025 043
PSF 420w, 3.0 m •	0700 025 060
PSF 420w, 4.0 m •	0700 025 061
PSF 420w, 5.0 m ♦	0700 025 062
PSF 420w RS3, 3.0 m ♦	0700 025 063
PSF 420w RS3, 4.0 m ♦	0700 025 064

Step 5: Select your Welding Torch	
For Warrior 500i CC/CV	
PSF 515, 3.0 m •	0700 025 050
PSF 515, 4.0 m •	0700 025 051
PSF 515, 5.0 m •	0700 025 052
PSF 520w, 3.0 m •	0700 025 070
PSF 520w, 4.0 m •	0700 025 071
PSF 520w, 5.0 m •	0700 025 072
PSF 520w RS3, 3.0 m •	0700 025 073
PSF 520w RS3, 4.0 m ♦	0700 025 074

Options & Accessories	
Remote Control AT1	0459 491 896
Remote Control AT1 CoarseFine	0459 491 897
Remote Control M1	0459 491 895
Remote Connection Kit, power source	0465 424 880
Remote Adapter Kit Miggytrac/Railtrac	0465 451 881
Remote Cable M1, 5m	0459 553 880
Remote Cable M1, 10m	0459 553 881
Remote Cable M1, 25m	0459 553 883
Wheel Kit, power source	0465 416 880
COOL 2, water cooler	0398 146 016
ESAB Coolant 10I	0465 720 002
Multi voltage unit TUA 1	0459 144 880
Handle incl. mounting screws for TUA 1	0459 307 880

Wire Feeder Accessories	
Strain Relief for Welding Torch	0457 341 881
Strain Relief for Interconnection Cables	0459 234 880
Lifting Eye	0458 706 880
Remote Connection Kit, feeder	0465 451 880
Guide Pin Extension Kit, feeder	0465 508 880
Adapter for Spool Diameter 440 mm	0459 233 880
Wheel Kit, front wheels turn	0458 707 880
Wheel Kit, all wheels turn	0458 707 881
Quick Connector Marathon Pac™	F102 440 880

Trolley & Trolley Accessories	
Trolley 4-wheel Warrior	0465 510 880
Stabiliser Kit Warrior for Counterbalance Arm	0465 509 880
Counterbalance Arm*	0458 705 880

<sup>\*</sup> Requires Trolley and Stabiliser Kit.

## RECOMMENDED EQUIPMENT ADVANCED FUNCTIONALITY PULSED.



### Super Pulse<sup>™</sup>











#### ORIGO™ / ARISTO® MIG 4002c, 5002c, 6502c

Maximum performance for heavy duty applications. Mig 4002c, 5002c, and 6502c are sturdy and robust switching converter (chopper) power sources intended for heavy duty applications. MIG/MAG and MMA are the main processes and process selection being related to the choice of control panel on the feeder unit. Origo Feed with control panel MA23/MA24 or Aristo Feed with U6/U8<sub>2</sub>. More information about panel functions on page 34.

Well proven technology together with ESAB developed software provides a high reliability and outstanding welding performance. The power source is constructed using a strong metal casing to withstand harsh environments. The large wheels, sturdy lifting eyelets and an under carriage designed for transport by forklift makes the unit easy to move.

The power source integrates with ESAB's industry-leading WeldCloud™ online data management platform via Wi-Fi, mobile cellular or hard-wired Ethernet communication. Requires WeldCloud Mobile together with Aristo W8₂ and Aristo U8₂.

- Reliable and smooth starts and ends supported by efficient hot-start and crater fill functions
- QSet<sup>™</sup> intelligent welding system
- TrueArcVoltage<sup>™</sup> system measures the correct arc voltage at the contact tip (together with ESAB torches)
- Up to 250 pre-programmed synergic lines (U8, Plus)
- (Optional) WeldCloud online data management platform

### **TECHNICAL DATA.**

Mig 4002c, 5002c and 6502c			
	Mig 4002c	Mig 5002c	Mig 65002c
Mains Voltage	3x400, 460 V 3ph 50/60 Hz		
Permissible Load 60% Duty Cycle MIG/MAG 100% Duty Cycle MIG/MAG	400 A, 34 V 310 A, 30 V	500 A, 39 V 500 A, 34 V	650 A, 44 V 650 A, 39 V
Permissible Load 60% Duty Cycle MMA 100% Duty Cycle MMA	400 A, 36 V 310 A, 33 V	500 A, 40 V 500 A, 36 V	650 A, 44 V 650 A, 40 V
Setting Range MIG/MAG	20 – 400 A, 15-34 V	20 – 500 A,15-39 V	20 – 650 A,15-39 V
Setting Range MMA	20 – 400 A, 20-36V	20 – 500 A,20-40 V	20 – 650 A,20-40 V
Efficiency at Max Current	70 %	72 %	76 %
Power Factor Max Current	0.88	0.90	0.90
Energy Save Mode	60 W		
Open Circuit Voltage MIG/MAG	68 V* (56 V w. VRD**)		
Open Circuit Voltage MMA	62 V* (<35 V w. VRD**)		
Mains Cable	4 x 6 Ø mm2		
Dimensions L x W x H	830 x 640 x 835 mm		
Weight / Weight w. Cooling Unit	149 kg / 163 kg	185 kg / 199 kg	222 kg / 236 kg
Standards	CE, CSA		
Enclosure Class	IP23		
Water Cooled Unit			
Cooling Capacity		1.0 kW	
Coolant Volume	51		
Max Flow	2.0 l/min		
Max Pressure	3.4 bar		
Weight		20 kg	

<sup>\*</sup> Valid for power sources without VRD specifications on the rating plate.

\*\* Valid for power sources with VRD specifications on the rating plate.

The VRD function is explained in the instructions manual for the control panel if the panel has this function.



# CONFIGURE YOUR MECHANISED PACKAGE 4002c, 5002c, 6502c.

Step 1: Select your Mechanised Tractor	
Miggytrac B501 (battery not included)	0457 357 882
Miggytrac B5001 (battery not included)	0459 990 645
Railtrac B42V	0398 146 016
Railtrac BV2000	0459 990 644
Control Cable*	0457 360 880
Remote Adapter Kit*	0465 451 881

<sup>\*</sup> Suitable for Miggyrac B5001 & Railtrac B42V & BV2000 for connection to wire feeder.

Step 2: Select your Power Source	
Mig 4002c ●	0349 311 300
Mig 4002cw <b>♦</b>	0349 309 780
Mig 4002c MV* ●	0349 311 310
Mig 4002cw MV* ▶	0349 311 320
Mig 5002c •	0349 311 330
Mig 5002cw <b>♦</b>	0349 311 350
Mig 5002c MV* ●	0349 311 340
Mig 5002cw MV* ▶	0349 311 360
Mig 6502c ●	0349 311 370
Mig 6502cw <b>♦</b>	0349 311 390
Mig 6502c MV* ●	0349 311 380
Mig 6502cw MV* ▶	0349 311 400

* Multi-voltage unit.		

Step 3: Select your Wire Feeder	
Step 3: Select your wire reeder	
Origo Feed 3004 MA23 •	0460 526 887
Origo Feed 3004w MA23 •	0460 526 897
Origo Feed 3004 MA24 •	0460 526 889
Origo Feed 3004w MA24 •	0460 526 899
Origo Feed 4804w MA23 ♦	0460 526 997
Origo Feed 4804w MA24 ♦	0460 526 999
Aristo Feed 3004 U6 •	0460 526 886
Aristo Feed 3004w U6 ♦	0460 526 896
Aristo Feed 4804w U6 ♦	0460 526 996
For Process Controller U8 <sub>2</sub>	
Aristo U8 <sub>2</sub>	0460 820 880
Aristo U8 <sub>2</sub> Plus	0460 820 881
Aristo Feed 3004 •	0460 526 881
Aristo Feed 3004w •	0460 526 891
Aristo Feed 4804w ♦	0460 526 991

Step 4: Select your Interrconnection Cables
Connection Cables 70 mm <sup>2</sup> Gas-cooled •

Connection cable - Length = 1.7 m	0459 528 780
Connection cable - Length = 5.0 m	0459 528 781
Connection cable - Length = 10 m	0459 528 782
Connection cable - Length = 15 m	0459 528 783
Connection cable - Length = 25 m	0459 528 784
Connection cable - Length = 35 m	0459 528 785

Step 4: Select your Interrconnection Cables	
Connection Cables 70 mm² Water-cooled ▶	

Connection cable - Length = 1.7 m	0459 528 790
Connection cable - Length = 5.0 m	0459 528 791
Connection cable - Length = 10 m	0459 528 792
Connection cable - Length = 15 m	0459 5287 93
Connection cable - Length = 25 m	0459 528 794
Connection cable - Length = 35 m	0459 528 795

#### **Step 4: Select your Interrconnection Cables**

Connection	Cables	95 mm <sup>2</sup>	Gas-cooled	
COILLECTION	Cables	90 111111	Gas-cooled	

Connection cable - Length = 1.7 m **0459 528 980** 

#### **Step 4: Select your Interrconnection Cables**

#### Connection Cables 95 mm<sup>2</sup> Water-cooled

Connection cable - Length = 1.7 m	0459 528 990
Connection cable - Length = 5.0 m	0459 528 991
Connection cable - Length = 10 m	0459 528 992
Connection cable - Length = 15 m	0459 528 993
Connection cable - Length = 25 m	0459 528 994

Step 5: Select your Welding Torch	
For Mig 4002c	
PSF 415, 3.0 m •	0700 025 040
PSF 415, 4.0 m •	0700 025 041
PSF 415, 5.0 m •	0700 025 042
PSF 415 RS3, 4.0 m •	0700 025 043
PSF 420w, 3.0 m ♦	0700 025 060
PSF 420w, 4.0 m ♦	0700 025 061
PSF 420w, 5.0 m ♦	0700 025 062
PSF 420w RS3, 3.0 m ♦	0700 025 063
PSF 420w RS3, 4.0 m ♦	0700 025 064

Step 5: Select your Welding Torch	
For Mig 5002c / Mig 6502c	
PSF 515, 3.0 m •	0700 025 050
PSF 515, 4.0 m •	0700 025 051
PSF 515, 5.0 m ●	0700 025 052
PSF 520w, 3.0 m ♦	0700 025 070
PSF 520w, 4.0 m •	0700 025 071
PSF 520w, 5.0 m ♦	0700 025 072
PSF 520w RS3, 3.0 m ♦	0700 025 073
PSF 520w RS3, 4.0 m •	0700 025 074

Options & Accessories	
Control Cable Extension for U82, 7.5 m	0460 877 891
Strain Relief for Interconnection Cables, power source	0349 311 700
Pressure Reducer w. Flux-meter	0760 030 300
Dust Filter	0349 302 252
Transformer kit for CO² preheater (42 V – 50/60 Hz)	0349 302 250
Adapter (12 pole to 10 pole)	0349 311 512
Water Flow Guard	0349 302 251
ESAB Coolant 5I (ready mixed)	0349 483 296
Connection kit for mechanisation w. Miggytrac/Railtrac	0459 681 880
Connection kit for electric Push-pull torches, start/stop function	0459 020 883
Connection kit for electric Push-pull torches, wire feed speed control	0459 681 881
WeldCloud Mobile	0464 550 880
USB Memory 2GB for WeldCloud	0462 062 001
Interconnection cable $\mathrm{W8}_{\mathrm{2}}$ for Mig 4002c/5002c/6502c	0462 000 880
Aristo W8 <sub>2</sub> Fieldbus (DeviceNet)	0460 891 881
Aristo W8 <sub>2</sub> Fieldbus (Profibus)	0460 891 882
Aristo W8 <sub>2</sub> Fieldbus (CANopen)	0460 891 883
Aristo W8 <sub>2</sub> Fieldbus (EtherNet IP)	0460 891 884
Aristo W8 <sub>2</sub> Fieldbus (EtherCat)	0460 891 885

Wire Feeder Accessories	
Strain Relief for Welding Torch	0457 341 881
Strain Relief for Interconnection Cables, feeder	0459 234 880
Cable Holder	0349 303 362
Lifting Eye	0458 706 880
Remote Connection Kit, feeder	0465 451 880
Guide Pin Extension Kit, feeder	0465 508 880
Spool Cover, Steel	0459 431 880
Spool Cover Adapter (Plastic)	0000 701 981
Adapter for 5kg Spool	0455 410 001
Adapter for Spool Diameter 440 mm	0459 233 880
Wheel Kit, front wheels turn	0458 707 880
Wheel Kit, all wheels turn	0458 707 881
Quick Connector Marathon Pac™	F102 440 880

## RECOMMENDED EQUIPMENT ADVANCED FUNCTIONALITY PULSED.



#### ARISTO® MIG 4004i PULSE, 5000i, U5000i

The improved edition Aristo Mig power sources provide substantially improved arc welding performance. Designed for high-productivity and high-quality welding manual, mechanised and robotic applications.

ESAB's TrueArcVoltage technology takes advantage of our ability to combine hardware and software solutions together, and with more than 20 years experience building digital welding systems, we have produced the perfect solution. For ESAB innovation also means intuitive operation. Settings menus are available in English and in many other languages.

Mig 4004i Pulse, 5000i and U5000i power sources integrate with ESAB's industry-leading WeldCloud online data management platform via Wi-Fi, mobile data network or hard-wired Ethernet communication. Aristo Mig 4004i Pulse requires WeldCloud Top Box and Aristo U82, Aristo Mig 5000i/U5000i require intergrated W82 and Aristo U82.

- SuperPulse advanced pulse functionality reduces heat input and minimises spatter
- Up to 250 pre-programmed synergic lines (U8, Plus)
- QSet intelligent welding system
- Crater filling and adjustable burn back time for defect-free weld terminations
- TrueArcVoltage system measures the correct arc voltage at the contact tip (together with ESAB torches)
- (Optional) WeldCloud online data management platform









### **TECHNICAL DATA.**

Mains Voltage	3x400, 460 V 3	3ph 50/60 Hz		
Fuse Slow	32 A			
Permissible Load 60% Duty Cycle MIG/MAG 100% Duty Cycle MIG/MAG	<b>5000i</b> 500 A, 39 V 400 A, 34 V	<b>U5000i</b> 500 A, 39 V 400 A, 34 V		
Permissible Load 60% Duty Cycle MMA 100% Duty Cycle MMA	<b>5000i</b> 500 A, 40 V 400 A, 36 V	<b>U5000i</b> 500 A, 40 V 400 A, 36 V		
Permissible Load 60% Duty Cycle TIG 100% Duty Cycle TIG	<b>5000i</b> -	<b>U5000i</b> 500 A, 30 V 400 A, 26 V		
Setting Range MIG/MAG	16 – 500 A, 8 -	- 60 V		
Setting Range MMA	16 – 500 A			
Setting Range TIG	-	4 – 500 A		
Efficiency at Max Current	87 %			
Power Factor Max Current	0.91			
Energy Save Mode	70 W			
Open Circuit Voltage MIG/MAG	72 – 88 V* (59	V w. VRD**)		
Open Circuit Voltage MMA	68 – 80 V* (< 35 V w. VRD**)			
Mains Cable	4 x 6 Ø mm2			
Dimensions L x W x H	625 x 394 x 49	625 x 394 x 496 mm		
Dimensions w. Cooling Unit L x W x H	625 x 394 x 77	625 x 394 x 776 mm		
Weight	81 kg	62 kg		
Weight w. Cooling Unit	101 kg	82 kg		
Standards	CE, CSA			
Enclosure Class	IP23			
Water Cooled Unit				
Cooling Capacity	1.5 kW			
Coolant Volume	5.5			
Max Flow	2.0 l/min			
Max Pressure	3.4 bar			
Weight	20 kg			
Multi-Voltage Unit				
Mains Votage	3x208/230/400	0/460/475 V		
Weight / Weight w. Cooling Unit	81 kg / 101 kg	62 kg / 82 kg		
VVCIGITE / VVCIGITE VV. COOIIIII OTILE		0 0		
Dimension L x W x H	621 x 389 x 26			

* Valid for power	sources without VRD	specific	cations on	the rating	plate.
44 1 / 11 / 6	*** ****				

 $<sup>^{\</sup>star\star}$  Valid for power sources with VRD specifications on the rating plate.

The VRD function is explained in the instructions manual for the control panel if the panel has this function.

380 - 460 V 3ph 50/60 Hz
20 A
400 A, 34 V 300 A, 29 V
400 A, 36 V 300 A, 32 V
400 A, 26 V 300 A, 22 V
16 – 400 A
16 – 400 A
4 – 400 A
89.5 %
0.95
40 W
55 V* (<35 V w. VRD**)
55 V* (<35 V w. VRD**)
4 x 6 Ø mm2
610 x 250 x 445 mm
610 x 250 x 700 mm
44.5 kg
58 kg
CE, CSA
IP23
1.3 kW
4.5
2.0 l/min
4.0 bar
12 kg



## RECOMMENDED EQUIPMENT ADVANCED FUNCTIONALITY WIRE FEEDERS.

#### FEED 3004 / 4804

Sturdy design with galvanised metal casing for use in tough environments. Electronically controlled feeding gives accurate and stable arc. The 4-wheel feeder mechanism with grooves in both feed roll and pressure roll gives stable feeding and low wear on the wire, all to avoid operational disturbance. The feeders are available with either 30 mm diameter rollers for wires 0.6 to 1.6 mm in Steel, Stainless and 1.0 to 1.6 mm in Aluminium. Feed 4804 is suitable for hard continuous use with up to 2.4 mm wire diameter.

Choose your level of control. Multiple panel options with U6, U82, MA23, MA24 and the new MA25 panel specialised for Steel and Aluminium applications.

- New drive motor offers more torque for improved arc starts, more consistent speed and less noise
- Redesigned drive rolls and feed mechanism for more positive feeding performance and reduced risk of wire shavings
- Short Circuit Termination (SCT) technology sharpens the wire at the end of each weld to promote better arc starts
- Can be equipped with a counterbalance arm, lifting eye or a wheel kit for increased mobility
- TrueArcVoltage system measures the correct arc voltage at the contact tip (together with ESAB torches)





MIG/MAG, MMA Non-Pulsed

#### **ORIGO MA23**

- 3 memory slots
- Continuous choke setting
- Slope up / slope down
- Gas pre-flow / post-flow
- ArcPlus™ II, Hot Start & ArcForce (MMA)
- 2/4 stroke
- Optional remote control





MIG/MAG, MMA Non-Pulsed

#### **ORIGO MA24**

As MA23 +

- Synergic lines (35)
- QSet for optimum short arc setting
- Creep start
- Crater filling





MIG/MAG, MMA, TIG Pulsed





MIG/MAG, MMA, TIG Pulsed





#### **ARISTO MA25**

As MA23 +

- Advanced Pulsed welding
- Steel and Aluminium panel options
- Synergic lines (54/30)
- QSet
- Adjustable burn-back time

#### **ARISTO U6**

- Pulsed welding
- Synergic lines (60)
- QSet
- Creep start & Crater filling
- Slope up / slope down
- Gas pre-flow / post-flow
- Hot Start & Arc Force (MMA)
- HF & LiftArc™-start (TIG)
- MicroPulse (TIG)
- Adjustable burn-back time
- 10 memory slots
- Language options
- 2/4 stroke
- Optional remote control

#### **ARISTO U82**

- Multilingual, 18 languages
- Knobs for quick setting of wire-feed speed and voltage
- USB connectivity for storing weld data
- QSet
- Synergic lines (92)
- (Optional) WeldCloud

#### **Additional U82 Plus features**

- Synergic lines (>230) and user defined synergic lines
- Limit Editor to set and measure values
- SuperPulse
- File manager & auto save mode
- Production statistics

# CONFIGURE YOUR MECHANISED PACKAGE 4004i PULSE.

Step 1: Select your Mechanised Tractor	
Miggytrac B501 (battery not included)	0457 357 882
Miggytrac B5001 (battery not included)	0459 990 645
Railtrac B42V	0398 146 016
Railtrac BV2000	0459 990 644
Control Cable*	0457 360 880
Remote Adapter Kit*	0465 451 881

<sup>\*</sup> Suitable for Miggyrac B5001 & Railtrac B42V & BV2000 for connection to wire feeder.

Step 2: Select your Power Source	
Aristo Mig 4004i Pulse •	0465 152 883
Aristo Mig 4004i Pulse w. WeldCloud Top Box •	0445 301 880
COOL 1, water cooler	0462 300 880

For water-cooled version please also select cooling unit.

#### **Step 4: Select your Interrconnection Cables**

Connection Cables /0 mm² Gas-cooled •	
Connection cable - Length = 1.7 m	0459 528 780
Connection cable - Length = 5.0 m	0459 528 781
Connection cable - Length = 10 m	0459 528 782
Connection cable - Length = 15 m	0459 528 783
Connection cable - Length = 25 m	0459 528 784
Connection cable - Length = 35 m	0459 528 785

Step 4	4: Se	lect	your	Interro	onnect	ion (	Cabl	es
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Connection Cables 70 mm <sup>2</sup> Water-cooled •	
Connection cable - Length = 1.7 m	0459 528 790
Connection cable - Length = 5.0 m	0459 528 791
Connection cable - Length = 10 m	0459 528 792
Connection cable - Length = 15 m	0459 5287 93
Connection cable - Length = 25 m	0459 528 794



Step 3: Select your Wire Feeder	
Aristo Feed 3004 MA25 Aluminium •	0460 526 670
Aristo Feed 3004w MA25 Aluminium •	0460 526 671
Aristo Feed 3004 MA25 Steel •	0460 526 672
Aristo Feed 3004w MA25 Steel ♦	0460 526 673
Aristo Feed 3004 U6 •	0460 526 886
Aristo Feed 3004w U6 ♦	0460 526 896
Aristo Feed 4804w U6 •	0460 526 996
For Process Controller U8 <sub>2</sub>	
Aristo U8 <sub>2</sub>	0460 820 880
Aristo U8 <sub>2</sub> Plus	0460 820 881
Aristo Feed 3004 •	0460 526 881
Aristo Feed 3004w ◆	0460 526 891
Aristo Feed 4804w ♦	0460 526 991

Technical Data Feed 3004 / 4804		
Supply Voltage	42 VAC 50/60 Hz	
Power Requirement	336 VA	378 VA
Welding Output at 60% Duty Cycle	630 A	
Welding Output at 100% Duty Cycle	500 A	
Wire Feed Speed	0.8 – 25.0 m/min	
Wire Spool Capacity	18 kg	
Max Spool Diameter	300 mm (440 mm	w. adapter)
Wire Dimensions Mild Steel Stainless Steel Aluminium Cored Wire	3004 0.6 – 1.6 mm 0.6 – 1.6 mm 1.0 – 1.6 mm 0.8 – 1.6 mm	0.6 – 2.4 mm 1.0 – 2.4 mm
Dimensions, L x W x H	690 x 275 x 420 r	mm
Weight	15 kg	19 kg
Standards	CE, CSA	
Enclosure Class	IP23	

Step 5: Select your Welding Torch	
PSF 415, 3.0 m ●	0700 025 040
PSF 415, 4.0 m ●	0700 025 041
PSF 415, 5.0 m •	0700 025 042
PSF 415 RS3, 4.0 m •	0700 025 043
PSF 420w, 3.0 m ♦	0700 025 060
PSF 420w, 4.0 m •	0700 025 061
PSF 420w, 5.0 m •	0700 025 062
PSF 420w RS3, 3.0 m ♦	0700 025 063
PSF 420w RS3, 4.0 m ♦	0700 025 064

Step 5: Select your Welding Torch	
PSF 515, 3.0 m ●	0700 025 050
PSF 515, 4.0 m •	0700 025 051
PSF 515, 5.0 m •	0700 025 052
PSF 520w, 3.0 m ♦	0700 025 070
PSF 520w, 4.0 m ♦	0700 025 071
PSF 520w, 5.0 m ♦	0700 025 072
PSF 520w RS3, 3.0 m ♦	0700 025 073
PSF 520w RS3, 4.0 m •	0700 025 074

Options & Accessories	
Control Cable Extension for U82, 7.5 m	0460 877 891
Remote Control MTA1 CAN	0459 491 896
Remote Control MT1 10Prog. CAN	0459 491 897
Remote Interconnection Cable 5 m	0459 491 895
Remote Adapter Kit Miggytrac/Railtrac	0465 424 880
PP Connection Kit,basic	0465 451 881
PP Connection Kit, remote WFS	0459 553 880
COOL 1 Flow Guard	0459 553 881
ESAB Coolant 10I	0459 553 883
Retrofit Mig 4004i WeldCloud	0445 302 881
WeldCloud Top Box	0445 302 881
USB Memory 2GB for WeldCloud	0462 062 001

Wire Feeder Accessories	
Quick Connector Marathon Pac™	0457 341 881
Strain Relief for Welding Torch	0459 234 880
Strain Relief for Interconnection Cables	0458 706 880
Lifting Eye	0465 451 880
Adapter for 5kg Spool	0465 508 880
Spool Cover	0459 233 880
Spool Cover, Steel	0458 707 880
Adapter for Spool Diameter 440 mm	0458 707 881
Wheel Kit for Feeder	F102 440 880

Trolley & Trolley Accessories	
Trolley 4-wheel 4004i/5004i	0462 151 880
Bracket for Trolley 4-wheel 4004i/5004i (without COOL 1)	0463 125 880
Trolley 4-wheel 4004i Pulse for WeldCloud™ Top Box	0445 499 880
Trolley 4-wheel 4004i Pulse for WeldCloud™ Top Box and COOL 1	0445 499 881
Trolley, 4-wheel 3001i/4004i/5004i for Counterbalance Arm	0460 565 880
Trolley, 2-wheel 3001i/4004i/5004i for YardFeed/ MobileFeed	0460 564 880
Bracket Kit 3001i/4004i/5004i for assembling power source to 2/4-wheel trolley **	0461 310 880
Stabiliser Kit 3001i/4004i/5004i for Counterbalance Arm	0460 946 880
Counterbalance Arm*	0458 705 880

<sup>\*</sup> Requires Trolley and Stabiliser Kit \*\* Bracket Kit is required for Counterbalance Arm

# CONFIGURE YOUR MECHANISED PACKAGE 5000i, U5000i.

Step 1: Select your Mechanised Tractor	
Miggytrac B501 (battery not included)	0457 357 882
Miggytrac B5001 (battery not included)	0459 990 645
Railtrac B42V	0398 146 016
Railtrac BV2000	0459 990 644
Control Cable*	0457 360 880
Remote Adapter Kit*	0465 451 881

0456 528 886

0456 528 887

0456 528 888 0456 528 889

Connection cable - Length = 10 m

Connection cable - Length = 15 mConnection cable - Length = 25 m

Connection cable - Length = 35 m

Step 2: Select your Power Source	
Aristo Mig 5000iw •	0459 230 881
Aristo Mig 5000iw with flow guard •	0459 230 896
Aristo Mig U5000iw ▶	0459 230 883
Aristo Mig 5000i 460V •	0465 152 884
Aristo Mig U5000i 460V •	0465 152 885
Aristo Mig U5000iw 460V ♦	0465 152 886

Step 3: Select your Wire Feeder	
Aristo Feed 3004w MA25 Aluminium •	0460 526 671
Aristo Feed 3004w MA25 Steel	0460 526 673
Aristo Feed 3004w U6 •	0460 526 896
Aristo Feed 4804w U6 •	0460 526 996
For Process Controller U8 <sub>2</sub>	
Aristo U8 <sub>2</sub>	0460 820 880
Aristo U8 <sub>2</sub> Plus	0460 820 881
Aristo Feed 3004w ♦	0460 526 891

Step 4: Select your Interrconnection Cables	
Connection Cables CAN 12p Gas-cooled •	
Connection cable - Length = 1.7 m	0456 528 880
Connection cable - Length = 5.0 m	0456 528 890
Connection cable - Length = 10 m	0456 528 881
Connection cable - Length = 15 m	0456 528 882
Connection cable - Length = 25 m	0456 528 883
Connection cable - Length = 35 m	0456 528 884
Step 4: Select your Interrconnection Cables	
Connection Cables CAN 12p Water-cooled •	
Connection cable - Length = 1.7 m	0456 528 885
Connection cable - Length = 5.0 m	0456 528 895

Step 4: Select your Interrconnection Cables	
Connection Cables 12-10p Gas-cooled •	
Connection cable - Length = 1.7 m	0459 528 960
Connection cable - Length = 5.0 m	0459 528 961
Connection cable - Length = 10 m	0459 528 962
Step 4: Select your Interrconnection Cables	
Connection Cables 12-10p Water-cooled •	
Connection cable - Length = 1.7 m	0459 528 970
Connection cable - Length = 5.0 m	0459 528 971
Connection colds. Length 10 m	0459 528 972
Connection cable - Length = 10 m	
Connection cable - Length = 15 m	0459 528 973
ů	0459 528 973 0459 528 974

<sup>\*</sup> Suitable for Miggyrac B5001 & Railtrac B42V & BV2000 for connection to wire feeder.

Step 5: Select your Welding Torch	
PSF 415, 3.0 m •	0700 025 040
PSF 415, 4.0 m ●	0700 025 041
PSF 415, 5.0 m ●	0700 025 042
PSF 415 RS3, 4.0 m ●	0700 025 043
PSF 420w, 3.0 m ♦	0700 025 060
PSF 420w, 4.0 m ♦	0700 025 061
PSF 420w, 5.0 m ♦	0700 025 062
PSF 420w RS3, 3.0 m •	0700 025 063
PSF 420w RS3, 4.0 m •	0700 025 064

Step 5: Select your Welding Torch	
PSF 515, 3.0 m ●	0700 025 050
PSF 515, 4.0 m •	0700 025 051
PSF 515, 5.0 m •	0700 025 052
PSF 520w, 3.0 m •	0700 025 070
PSF 520w, 4.0 m •	0700 025 071
PSF 520w, 5.0 m •	0700 025 072
PSF 520w RS3, 3.0 m ♦	0700 025 073
PSF 520w RS3, 4.0 m •	0700 025 074

Options & Accessories	
Control Cable Extension for U8,, 7.5 m	0460 877 891
-	
Remote control adapter RA12	0459 491 910
Remote control MTA1 CAN	0459 491 880
Remote control M110Prog CAN	0459 491 882
Remote control AT1 CAN	0459 491 883
Remote control AT1 CoarseFine CAN	0459 491 884
Multi voltage unit TUA 2	0459 145 880
Handle incl. mounting screws for TUA 2	0459 307 881
Return Cable 5 m, 95mm <sup>2</sup>	0700 006 897
Water Flow Guard	0456 855 880
MMC kit for MMC panel mounted in the power source	0459 579 880
Quick connector kit for current, water and shielding gas Supplyfor 2x Aristo Feed	0459 546 880
Cooling unit OCE2H	0414 191 881
ESAB Coolant 10l	0465 720 002

Wire Feeder Accessories	
Quick Connector Marathon Pac™	0457 341 881
Strain Relief for Welding Torch	0459 234 880
Strain Relief for Interconnection Cables	0458 706 880
Lifting Eye	0465 451 880
Adapter for 5kg Spool	0465 508 880
Spool Cover	0459 233 880
Spool Cover, Steel	0458 707 880
Adapter for Spool Diameter 440 mm	0458 707 881
Wheel Kit for Feeder	F102 440 880

Trolley & Trolley Accessories	
Trolley 4-wheel U4000i/5000i/U5000i	0458 530 880
Trolley 4-wheel U4000i/5000i/U5000i for Counterbalance Arm and/or 2 gas Botles	0458 603 880
Guide Pin	0458 731 880
Counterbalance Arm	0458 705 880

### **PSF™ WELDING TORCHES.**

The next generation of PSF has been completely redesigned with front-end wear parts that remain fully compatible with the time-proven heritage PSF wear parts. The modern look and feel, as well as improved performance, make this the right tool for even the most demanding industrial applications.

- 4 sizes of gas-cooled & 2 sizes of water-cooled models
- PSF 260 with rotatable neck
- PSF 520W with dual-circuit cooling system for optimal performance
- Threaded gas nozzles secures a firm fit and better heat dispersion
- Very durable wear part system with robust tip adapter and long tips for toughest applications
- CuCrZr contact tips for long life
- Optional remote control module on selected variants



Technical Data						
	PSF 260	PSF 315	PSF 415	PSF 515	PSF 420w	PSF 520w
Cooling	Gas	Gas	Gas	Gas	Water	Water dual-circuit *
Welding Output Mixed Gas	225 A at 60%	285 A at 60%	325 A at 60%	400 A at 60%	450 A at 100%	500 A at 100%
Welding Output CO <sub>2</sub>	250 A at 60%	315 A at 60%	380 A at 60%	450 A at 60%	450 A at 100%	500 A at 100%
Wire Diameter	0.6 –1.0 mm	0.8 –1.2 mm	0.8 –1.6 mm	1.0 –1.6 mm	0.8 –1.6 mm	1.0 –1.6 mm
Certification Mark (Standards)				CE		
Operating Temperature			-10	0 to +40 °C		
Cable Length			3 n	n, 4 m, 5 m		

<sup>\*</sup> Dual-circuit cooling system (520w) ensure the critical front-end stays cool even under extreme conditions. Less heat means better wire feedability and fewer production stops to change wear parts.

Ordering Informatio	n	
PSF Gas-cooled •	Length	
PSF 260	3,0 m	0700 025 020
PSF 260	4,0 m	0700 025 021
PSF 260	5,0 m	0700 025 022
PSF 315	3,0 m	0700 025 030
PSF 315	4,0 m	0700 025 031
PSF 315 RS3 *	4,0 m	0700 025 033
PSF 315	5,0 m	0700 025 032
PSF 415	3,0 m	0700 025 040
PSF 415 RS3 *	4,0 m	0700 025 043
PSF 415	4,0 m	0700 025 041
PSF 415	5,0 m	0700 025 042
PSF 515	3,0 m	0700 025 050
PSF 515	4,0 m	0700 025 051
PSF 515	5,0 m	0700 025 052

Ordering Information	l	
PSF Water-cooled •	Length	
PSF 420w	3,0 m	0700 025 060
PSF 420w RS3 *	3,0 m	0700 025 063
PSF 420w	4,0 m	0700 025 061
PSF 420w RS3 *	4,0 m	0700 025 064
PSF 420w	5,0 m	0700 025 062
PSF 520w	3,0 m	0700 025 070
PSF 520w RS3 *	3,0 m	0700 025 073
PSF 520w	4,0 m	0700 025 071
PSF 520w RS3 *	4,0 m	0700 025 074
PSF 520w	5,0 m	0700 025 072

<sup>\*</sup> RS3 is compatible with any ESAB machines with MA23-, MA24-, MA25-, U6-or U82 control panels.

For wear & spare parts and other swan necks please see the equipment product catalogue, manual or separate fact sheet.

### MXH™ WELDING TORCHES.

MXH push-pull (PP) welding torches are powered by any Aristo or Origo Feed, Warrior Feed or directly to the compact power sources Origo/Aristo Mig C3000i and Origo Mig C340/C420 PRO. Both gas and water-cooled torches are available.

The motor and gear ratios of both the MXH guns and the push feeder have been optimised to ensure an accurate push-pull feeding system.

- Ideal for feeding aluminium and other small diameter wires long distances
- Available with straight and 45° curved swan neck
- Allows 360° rotation of the swan neck to fit various welding positions
- Couples with ESAB feeding mechanisms to perform a high performance push-pull feeding system
- Wire feed speed control by potentiometer located in the gun handle



Technical Data			
	MXH 300 PP	MXH 400w PP	
Cooling	Gas	Water	
Welding Output Mixed Gas	260 A at 60%	350 A at 100%	
Welding Output CO <sub>2</sub>	290 A at 60%	400 A at 100%	
Wire Diameter	0.8 –1.2 mm	0.8 –1.6 mm	
Certification Mark (Standards)		CE	
Operating Temperature		-10 to +40 °C	
Cable Length		6 m, 10 m	

Ordering Information				
	PSF Gas-cooled •	Length		
	MXH 300 PP, straight	6,0 m		0700 20
	MXH 300 PP, straight	10,0 m		0700 20
	MXH 300 PP, 45°	10,0 m		0700 20

For wear & spare parts and other swan necks please see the equipment product catalogue, manual or separate fact sheet.

Ordering Information		
PSF Water-cooled •	Length	
MXH 400w PP, straight	6,0 m	0700 200
MXH 400w PP	10,0 m	0700 200
MXH 400w PP, 45°	10,0 m	0700 200

#### **DISCLAIMER**

Every effort is made to ensure the accuracy of information contained within this catalogue. In the interest of continuous improvement ESAB reserves the right to change the specifications given or design of any of its products without prior notice.

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With ESAB, you can be sure you purchased a product that will meet your needs today and in the future. Product and process training is also available. Ask your ESAB sales representative or distributor for a complete ESAB solution.

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