



REBELTM



THE **REBELLION** KEEPS GROWING.

EM 215ic

EMP 215ic

EMP 235ic

EMP 255ic

EMP 320ic

REBEL: THE TRUE MULTI-PROCESS INDUSTRIAL MACHINES YOU HAVE TO SEE TO BELIEVE.

Whether you choose the portable-single phase EMP 215ic or a three-phase industrial unit like the EMP 320ic, you will be amazed by the arc stability and reliability - guaranteeing you the highest performance. There are three truths to every Rebel - outperforming the competition, standing up to whatever comes your way in the shop or out in the field and making your job easier.



HIGH PERFORMANCE

Many machines claim they are multi-process but are little more than MIG units in disguise. Not Rebel. These are true multi-process welders, which means whether you are welding MIG, Flux-Cored, Stick – even those tricky 6010 electrodes – or TIG, these welders perform like they were born to run that process.

NEXT-LEVEL TECHNOLOGY

Whether you have been welding for two years or 20, Rebel's exclusive sMIG (smartMIG) technology is sure to impress. For the novice, there is basic mode, which makes setup a breeze. For the professional, (the built-in dynamic arc control constantly monitors your weld and adapts to your technique, providing a smooth, stable arc and superior, repeatable welds.

UNMATCHED TOUGHNESS

You are on-site, out in the field, and in the shop. You need a machine that can go where you go and withstand the harsh environments you face. Rebel can. With a sturdy multi-handle roll cage, steel unibody construction, and IP23S-level protection, Rebel's rugged exterior gives you the confidence to go where you need to go without fear.

SMART MIG TECHNOLOGY.

This technology we call sMIG (smartMIG) produces less spatter, minimises weld defects, and adapts to your technique to provide a smooth, stable arc and repeatable welds. Simply set wire diameter and plate thickness and you are ready to weld. No matter what your skill level, setup is quick and easy with basic mode for the novice and advanced mode for the experienced.

SELECT sMIG FROM THE MENU



SELECT WIRE DIAMETER



SELECT MATERIAL TYPE



SET MATERIAL THICKNESS



START WELDING AND sMIG DOES THE REST



SELECT THE IDEAL **REBEL** TO SUIT YOUR **APPLICATION.**

This selection guide will assist in choosing the right machine to meet your requirements. Consider the questions below and find the corresponding information next to each machine.

What input voltage is available at the job site?

Single phase (1ph) works well for 0.8 – 1.0 mm wire applications and short welds with 1.2 mm flux-cored wire. For 1.2 mm wire applications and higher duty cycles, a three phase system would be more suitable.

Where will the machine predominantly be used?

For field work, consider one of the machines designed for 5 kg spools (200 mm). For workshops with higher wire consumption choose a machine capable of 18 kg spools (300 mm).

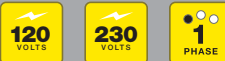
What output power level is required?

Choosing a machine with higher output power will allow the use of thicker wires and flux-cored wires in a production environment.

REBEL EM 215ic / EMP 215ic

For maximum portability

Input voltage	Single phase (1ph) 110V - 230V	
Output power	205A @ 25%	
Spool size	200mm	
Weight	18.6 kg (portable)	
Drive system	2-wheel, 12.6 m/min wire feed speed	
Wire type and dimensions	Mild steel	0.6 - 1.0 mm
	Stainless steel	0.8 - 1.0 mm
	FCW	0.8 - 1.2 mm
	Aluminium	1.0 - 1.2 mm



REBEL EMP 235ic

For workshops with single phase power

Input voltage	Single phase (1ph) 110V - 230V	
Output power	230A @ 25%	
Spool size	200 - 300 mm	
Weight	28.6 kg	
Drive system	2-wheel, 17.8 m/min wire feed speed	
Wire type and dimensions	Mild steel	0.6 - 1.0 mm
	Stainless steel	0.8 - 1.0 mm
	FCW	0.8 - 1.2 mm
	Aluminium	1.0 - 1.2 mm



REBEL EMP 255ic

For production welding with solid wires

Input voltage	Three phase (3ph) 360V - 440V	
Output power	255A @ 40%	
Spool size	200 - 300 mm	
Weight	31.4 kg	
Drive system	4-wheel, 20.3 m/min wire feed speed	
Wire type and dimensions	Mild steel	0.8 - 1.2 mm
	Stainless steel	0.8 - 1.2 mm
	FCW	0.8 - 1.2 mm
	Aluminium	1.0 - 1.2 mm



REBEL EMP 320ic

For production welding with solid and flux-cored wires

Input voltage	Three phase (3ph) 360V - 440V	
Output power	320A @ 40%	
Spool size	200 - 300 mm	
Weight	31.4 kg	
Drive system	4-wheel, 20.3 m/min wire feed speed	
Wire type and dimensions	Mild steel	0.8 - 1.4 mm
	Stainless steel	0.8 - 1.4 mm
	FCW	0.8 - 1.6 mm
	Aluminium	1.0 - 1.4 mm



EVERYTHING YOU NEED TO KNOW ABOUT **REBEL**.

Rebel - the result of years of end-user research - combines the latest welding technology with an intuitive user interface, making it quick and easy to get started.

TFT DISPLAY / USER INTERFACE

All EMP (ESAB Multi-Process) variants are fitted with a 4.3” colour TFT display. The panel can display information in **22 different languages** making it very easy to set regardless of user nationality. The panel also includes:

- Spare and ware part lists and exploded views of the wire feed mechanism and MIG torch
- Weld parameter guides for all processes
- Maintenance recommendations



4-WHEEL DRIVE SYSTEM WITH GAS PURGING AND WIRE INCHING

For quick and convenient changes of wires/bobbin the EMP 255ic and EMP 320ic feature wire inching and gas purging functionality. The wire can be fed through the torch, and gas can be flushed through the system without activating the MIG torch. The 4-wheel drive system ensures accurate and consistent feeding of wire regardless of material and type. The drive rolls and wire guides can easily be taken out and replaced without the use of tools. The high wire feed speed increases the material thicknesses that can be welded with thinner wires such as 0.8 mm Stainless Steel and Aluminium.



DUAL GAS INLET VALVES AND TIG GAS OUTLET VALVE

The dual gas inlet valves allow for two different gases to be connected simultaneously (or individually). In combination with the gas outlet valve located on the front panel of the machine, both a MIG and TIG torch can be connected and operational using different types of gases. The start of the gas flow is automatically controlled, and there is no need for a manual gas valve on the TIG torch.

CREEP START

When activated, the wire feed speed is reduced at the start of the weld the same time gas starts to flow. The wire feed speed accelerates to the set value when the wire gets in contact with the work piece. This ensures a smooth, spatter-free weld.

FEATURES GUIDE	EM 215ic	EMP 215ic	EMP 235ic	EMP 255ic	EMP 320ic
MIG/MAG functionality	X	X	X	X	X
MMA functionality		X	X	X	X
LiftTIG functionality		X	X	X	X
sMIG	X	X	X	X	X
Multi lingual TFT-display		X	X	X	X
200 mm bobbin capability	X	X	X	X	X
300 mm bobbin capability			X	X	X
2-wheel drive mechanism	X	X	X		
4-wheel drive mechanism				X	X
Weld setting storage (memories)		X	X	X	X
Inductance control		X	X	X	X
2t and 4t trigger functionality		X	X	X	X
Voltage trim adjustment		X	X	X	X
SCT (Short Circuit Termination)		X	X	X	X
Adjustable burn-back time		X	X	X	X
Pre and Post gas flow (TIG & MIG/MAG)		X	X	X	X
Spot welding (MIG/MAG)		X	X	X	X
Gas purging				X	X
Wire inching				X	X
Creep start				X	X
Adjustable Hot start and Arc force (MMA)		X	X	X	X
Adjustable slope up/down (TIG)		X	X	X	X
Dual gas inlet valve			X	X	X
TIG gas outlet valve			X	X	X

UNIVERSAL TROLLEY

The 2-wheel trolley features toolless attachment and detachment of the power source, and is designed to carry both small and large gas cylinders (up to 50 l). The compact format and small footprint make it easy to maneuver through doorways and narrow spaces.



REBEL EM 215ic & EMP 215ic

Rebel 215 is available with two different panel options. The EMP 215ic multi-process machine is ideal for smaller workshops, service and repair and field installation work. It is truly a “Go anywhere, Weld anything” machine capable of running MIG/MAG, MMA and TIG on any input power between 120V and 230V. The EM 215ic is a single-process MIG/MAG machine that features the same multi-voltage capability.



EM 215ic

The EM 215ic feature a digital direct panel where all the settings are controlled by knobs. The machine can be run in manual mode, where the wire feed speed and voltage is set individually, or in sMIG mode where wire diameter and material thickness are set. The machine will automatically set the correct wire feed speed and voltage and adapt to the welders technique. The perfect combination of simplicity and performance for MIG/MAG applications.



EMP 215ic

The EMP 215ic features a multi-lingual colour TFT-display where the welder can customise the content and choose what is being presented. Use basic mode for simplicity and advanced mode for almost unlimited fine tuning of the weld performance. When choosing the EMP variant, the additional capabilities of the machine are unlocked, offering superior MIG/MAG, MMA and TIG performance.

TECHNICAL DATA	EM 215ic / EMP 215ic
Setting range (MIG/MAG)	15A/14.8V - 230A/25.5V
Setting range (TIG) - EMP 215ic only	5A/10.2V – 200A/18V
Setting range (MMA) - EMP 215ic only	16A/20.6V – 180A/27.7V
Welding Output (MIG/MAG)	
25% duty cycle	205A/24.3V
60% duty cycle	125A/20.3V
100% duty cycle	110A/19.5V
Supply voltage range	120 - 230 VAC (1ph)
Wire feed speed range	1.5 - 12.1 m/min
Weight	18.2 kg
Power Source Dimensions, L x W x H	584 x 229 x 406 mm
Supply plug	230 V, Schuko 16A plug

For ordering information see back page.

REBEL EMP 235ic

Rebel EMP 235ic with the 15kg spool capacity, is the most mobile welder in its class and has the power and performance to crush even the most demanding jobs. The multi-process capabilities of the EMP 235ic, combined with low weight and a compact format, make this a truly versatile machine.

UNPARALLELED PORTABILITY.

Weighing in at only 28.6 kg, Rebel EMP 235ic is the lightest machine in its class. With four perfectly placed handles and the ability to detach the power source from its trolley, you are able to tackle any job, anywhere, with dual voltage capability from 90 V to 270 V.

THE POWER TO PERFORM.

Rebel EMP 235ic is packed with power and ideal for any application requiring 0.6 to 1.0 mm welding wires. With a maximum welding output of 250A / 30V and a rated output of 230A @ 25% when connected to a 16A mains fuse, this machine is capable of tackling tough jobs where only single phase power is available.

VERSATILITY THAT CANNOT BE BEAT.

Rebel EMP 235ic is three machines in one – MIG, TIG, and MMA. Weld a wide range of metal thicknesses and applications, including the full range of 1.0 mm wires in short arc and up to 1.2 mm solid wires and flux cored wires. Plus, Rebel EMP 235ic can weld Stick electrodes up to 4.0 mm and TIG rods up to 5.0 mm.

TECHNICAL DATA	EMP 235ic
Setting range (MIG/MAG)	15A/14.8V - 235A/26.0V
Setting range (TIG)	5A/10.2V – 240A/19.6V
Setting range (MMA)	16A/20.6V – 210A/28.4V
Welding Output (MIG/MAG)	
25% duty cycle	230A/25.5V
40% duty cycle	195A/23.8V
60% duty cycle	170A/22.5V
Supply voltage range	120 - 230 VAC (1ph)
Wire feed speed range	2.0 - 17.8 m/min
Weight	28.6 kg
Power Source Dimensions, L x W x H	686 x 292 x 495 mm
Supply plug	230 V, Schuko 16A plug

For ordering information see back page.

FOR WELDING ALUMINIUM - EM 215ic / EMP 215ic / EMP 235ic ESAB recommend OK Autrod 5183 with 100% Argon shielding gas. It is important to set the system up correctly and to use appropriate accessories when welding Aluminium.

OPERATION	Part No.	Description
Replace the steel liner with a low friction PTFE line	0700200091	3 meter PTFE liner for 0.8 - 1.0 mm wire
Replace the feed rollers with the U-grooved alternative	0367556004	U-grooved drive roll for 1,0/1,2 mm wire
Replace the outlet guide tube with the PTFE alternative	0464598880	PTFE outlet guide tube for AL

FOR WELDING DUAL SHIELDED FLUX CORED WIRE - EM 215ic / EMP 215ic / EMP 235ic ESAB recommend the use of 1.2 mm OK Tubrod 15.14 in combination with a PSF 305 MIG/MAG torch

OPERATION	Part No.	Description
The PSF 305 is set up for 1.2 mm wire when delivered	0458401880	PSF 305, 3 meter welding torch
Replace the feed roller with a V-groove for 1.2 mm wire	0367556003	V-grooved drive roll for 1,0/1,2 mm wire

REBEL EMP 255ic & EMP 320ic

The industrial, true multi-process machines that combine power and mobility. These compact and lightweight systems offer flexibility in any fabrication environment. Designed for productivity and reliability, the 4-wheel wire feed system provides high and consistent weld quality regardless of the material being welded.

The EMP 320ic, with a maximum output of 350 Amps is the ideal universal welding system capable of running all 1.2 mm solid and flux-cored wires with a high duty cycle. EMP 255ic has a maximum output of 300 Amps.

START PARAMETERS

Automatically adaptive start parameters provide distinct and precise starts every time, regardless of wire type and dimension.

USER FRIENDLY

An extremely user-friendly and multilingual TFT display incorporates spare parts lists and weld parameter guides for all processes.

MOBILITY

Weighing in at 31.4 kg, the machine can be lifted manually or transported on a trolley to provide unmatched mobility.

POWER

A high duty cycle combined with a robust 4-wheel wire feed system offers both high speed and torque, makes it the perfect tool for the most demanding jobs.

SMIG TECHNOLOGY

The innovative smart-MIG feature dynamically monitors the arc characteristics by adapting to your technique, resulting in a smooth, stable arc. Just set wire diameter, material and plate thickness, and you are ready to weld.

PERFORMANCE

Achieve full MMA performance with electrodes up to 5 mm and excellent Lift TIG performance with adjustable pre/post gas flow and weld current ramp up/down.

GAS CONTROL

Two gas inlets, one for MIG and one for TIG, can be connected simultaneously. A built-in TIG gas solenoid valve on the front of the machine eliminates the need for a manual valve on the TIG torch.

EMP 255ic rated at 255 Amps @ 40% duty cycle, ideal for 1.0 and 1.2 mm solid wires



EMP 320ic rated at 320 Amps @ 40% duty cycle, ideal for 1.0 and 1.2 mm solid wires and up to 1.6 mm Flux cored wires



TECHNICAL DATA	EMP 255ic	EMP 320ic
Setting range (MIG/MAG)	15A/14.8V - 300A/34V	15A/14.8V - 320A/34V
Setting range (TIG)	5A/10.2V – 300A/22V	5A/10.2V – 320A/22.8V
Setting range (MMA)	16A/20.6V – 255A/30.2V	16A/20.6V – 300A/32.0V
Welding Output (MIG/MAG)		
40% duty cycle	255A/26.8V	320A/30V
60% duty cycle	200A/24V	265A/27.3V
100% duty cycle	160A/22V	200A/24V
Supply voltage range	360 - 480 VAC (3ph)	360 - 480 VAC (3ph)
Wire feed speed range	2.0 - 20.3 m/min	2.0 - 20.3 m/min
Weight	31.4 kg	31.4 kg
Power Source Dimensions, L x W x H	686 x 292 x 495 mm	686 x 292 x 495 mm
Supply plug	CEE16A plug	CEE16A plug

For ordering information see back page.

FOR WELDING ALUMINIUM - ESAB recommend OK Autrod 5183 with 100% Argon shielding gas. It is important to set the system up correctly and to use appropriate accessories when welding Aluminium.

OPERATION	Part No.	Description
Replace the steel liner with a low friction PTFE line, use a 3 meter MIG torch	0366550884	3 meter PTFE liner for 1,0 mm wire
	0366550886	3 meter PTFE liner for 1,2 mm wire
Replace the feed rollers with the U-grooved alternative	0458824002	U-grooved drive roll for 1,0/1,2 mm wire
	0464659880	PTFE outlet guide tube for 1.0 mm wire
Replace the outlet guide tube with the PTFE alternative	0464660880	PTFE outlet guide tube for 1.2 mm wire
	0464661880	PTFE outlet guide tube for 1.4-1.6 mm wire

ORDER INFORMATION

Rebel EM 215ic with MXL 200 torch	EM 215ic power source with 3 meter mains cable and plug, 3 meter MXL 200 MIG/MAG torch, 5 kg Aristorod 12.50 0.8 mm wire, return cable and clamp 4.5 meter, gas hose with quick connector 4.5 meter, drive rolls, contact tips and guide tubes for 0.6, 0.8 and 1.0 mm wire, thickness gauge tool	0700300986
Rebel EMP 215ic with MXL 200 torch	EMP 215ic power source with 3 meter mains cable and plug, 3 meter MXL 200 MIG/MAG torch, 3 meter welding cable with electrode holder, 5 kg Aristorod 12.50, 0.8 mm wire, return cable and clamp 4.5 meter, gas hose with quick connector 4.5 meter, drive rolls, contact tips and guide tubes for 0.6, 0.8 and 1.0 mm wire, thickness gauge tool	0700300985
Rebel EMP 235ic with MXL 270 torch	EMP 235ic power source with 3 meter mains cable and plug, 3 meter MXL 270 MIG/MAG torch, 3 meter welding cable with electrode holder, return cable and clamp 4.5 meter, gas hose with quick connector 4.5 meter, drive rolls, contact tips and guide tubes for 0.6, 0.8 and 1.0 mm wire, thickness gauge tool	0700300989
Rebel EMP 255ic without torch	EMP 255ic power source with 3 meter mains cable and plug, return cable and clamp 4.5 meter, gas hose with quick connector 4.5 meter, drive rolls for 0.8, 1.0 and 1.2 mm wire, guide tubes for 0.8, 1.0 and 1.2 mm wire, thickness gauge tool	0700300992
Rebel EMP 320ic without torch	EMP 320ic power source with 3 meter mains cable and plug, return cable and clamp 4.5 meter, gas hose with quick connector 4.5 meter, drive rolls for 0.8, 1.0 and 1.2 mm wire, guide tubes for 0.8, 1.0 and 1.2 mm wire, thickness gauge tool	0700300991

ORDERING INFORMATION	CONTENT	Part No.
Rebel EMP 255ic with PSF 305 torch	EMP 255ic power source with 3 meter mains cable and plug, PSF 305 MIG/MAG torch, return cable and clamp 4.5 meter, gas hose with quick connector 4.5 meter, drive rolls for 0.8, 1.0 and 1.2 mm wire, guide tubes for 0.8, 1.0 and 1.2 mm wire, thickness gauge tool	with 3m torch
		0700303881
		with 4.5m torch
Rebel EMP 320ic with PSF 305 torch	EMP 320ic power source with 3 meter mains cable and plug, PSF 305 MIG/MAG torch, return cable and clamp 4.5 meter, gas hose with quick connector 4.5 meter, drive rolls for 0.8, 1.0 and 1.2 mm wire, guide tubes for 0.8, 1.0 and 1.2 mm wire, thickness gauge tool	0700303882
		with 3m torch
		0700303883
		with 4.5m torch
		0700303884

2-wheel trolley	0700300872
TXH 202 TIG torch, 4 meter	0700300857
Foot pedal, 4.5 meter	W4014450

When choosing a top-performing welding machine, you need top-performing ESAB Filler Metals. Learn more at esab.com/fillermetals today.



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