

# Sigma Select

A high-performance, adaptable MIG/MAG welding machine, designed for devoted welders in professional industries.



Commit to welding.

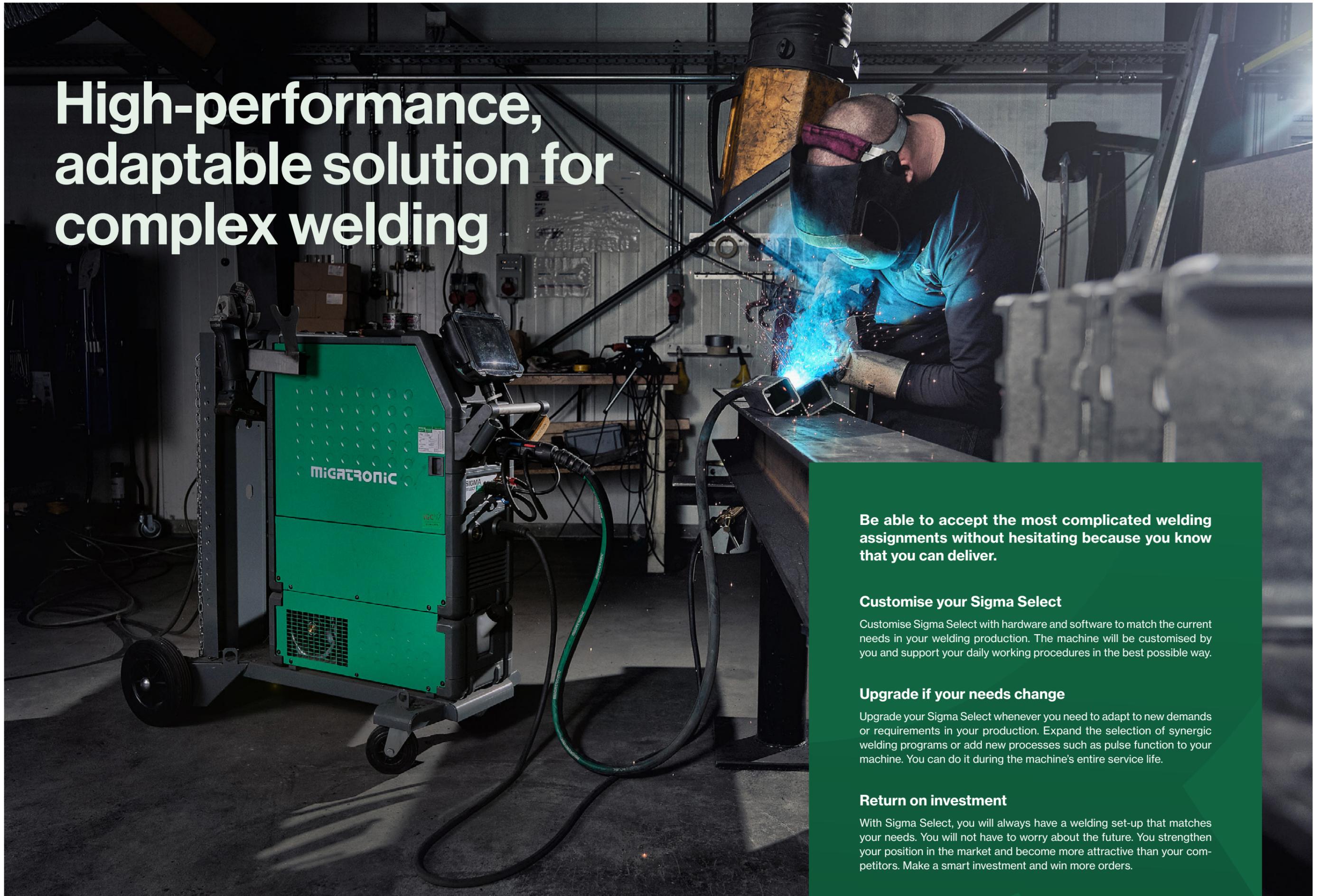
Make a smart investment.

Be prepared for the future.

**Raise your level.  
Weld Sigma Select.**

**MIGATRONIC**

# High-performance, adaptable solution for complex welding



**Be able to accept the most complicated welding assignments without hesitating because you know that you can deliver.**

#### **Customise your Sigma Select**

Customise Sigma Select with hardware and software to match the current needs in your welding production. The machine will be customised by you and support your daily working procedures in the best possible way.

#### **Upgrade if your needs change**

Upgrade your Sigma Select whenever you need to adapt to new demands or requirements in your production. Expand the selection of synergic welding programs or add new processes such as pulse function to your machine. You can do it during the machine's entire service life.

#### **Return on investment**

With Sigma Select, you will always have a welding set-up that matches your needs. You will not have to worry about the future. You strengthen your position in the market and become more attractive than your competitors. Make a smart investment and win more orders.

# Select air if you want to breathe.

Select this compact welding machine for your complex welding tasks in the booth. If you are supposed to be right next to your welding buddy at all times, go for Select compact. Keep cool through it all with top-of-the-line air cooled torches.



<b>Wire feeding</b> Compact design	<b>Cooling</b> Air
<b>Control</b> Manual setting, Synergic DC or Pulse	<b>Current range</b> 15-300/400/550 A

**Sigma Select C**  
Compact design

# Select to breathe air separately.

Select this welding machine if you need to physically separate welder and machine to carry out complex welding tasks. Weld as far away from the power source as the intermediary cables allow. Keep cool the whole time with top-of-the-line air cooled torches.



<b>Wire feeding</b> Separate unit	<b>Cooling</b> Air
<b>Control</b> Manual setting, Synergic DC or Pulse	<b>Current range</b> 15-300/400/550 A

**Sigma Select S**  
Separate wire feeder

# Select liquid cooling and be brilliant.

Select liquid cooling if you need to weld for hours and hours in the booth. The length of the torch controls the distance between welder and machine. Be able to turn in brilliant performances when having your Select compact close all the times.



<b>Wire feeding</b> Compact design	<b>Cooling</b> Water
<b>Control</b> Manual setting, Synergic DC or Pulse	<b>Current range</b> 15-300/400/550 A



<b>Wire feeding</b> Separate unit	<b>Cooling</b> Water
<b>Control</b> Manual setting, Synergic DC or Pulse	<b>Current range</b> 15-300/400/550 A

# Select to go far, far away to weld.

With a separate wire feeder, you can select to go far away and still finish magnificent welds. Move around easily, weld inside containers or narrow passages. Go as far away as the water cooled intermediary cables and torches allow. Raise your level by extending the distance.

# The ultimate welding experience

## Select your level of control

**Manual settings** give you freedom to set and adjust all key welding parameters. **Synergic DC** gives you a variety of predefined welding programs. **Pulse** gives you better control of the arc and increases the welding speed. Upgrade to the next level of control at any time.

## Select welding program packages

Expand your collection of welding programs by selecting one or more packages or a single program at a time. The standard package of 40+ programs for all materials is included when you upgrade to either Synergic DC or Pulse.

	Manual setting	Synergic DC	Pulse
<b>Welding programs</b>			
Standard package		<b>Included</b>	<b>Included</b>
Mild steel package		Optional	Optional
Stainless steel package		Optional	Optional
Aluminium package		Optional	Optional

## Select welding functions

The intelligent welding functions will simplify your otherwise complicated welds. Select the ones you need right now and add more whenever your needs change.

	Manual settings	Synergic DC	Pulse
<b>Welding functions</b>			
MigaLog	Optional	Optional	Optional
MigaJob Control	Optional	Optional	Optional
Sequence	Optional	Optional	Optional
Sequence Repeat	Optional	Optional	Optional
DUO Plus		Optional	Optional
PowerArc		Optional	Optional
Intelligent Gas Control		Optional	Optional
Intelligent Arc Control		Optional	Optional
Power Arc Pulse			Optional

### MigaLog

Keep track of your welding data and use it to analyse your welding production.

### Sequence

Save up to 9 personal sequences and quickly switch between them with just a tap on the torch.

### Sequence Repeat

Construct the ideal arc for specific welding jobs. Link individual sequences and customise welding cycles.

### Intelligent Gas Control (IGC®)

Use the right amount of gas for every weld, prevent over-consumption and get long term savings.

### Intelligent Arc Control

Get perfect fusion and a solid groundwork in the first joint, the root pass.

### Miga Job Control

Save your favourite settings for specific welding jobs and recall them anytime you want.

### DUO Plus

Get a perfect weld bead appearance - almost like TIG welding.

### PowerArc

Get maximum weld penetration in thick plates. Increase welding speed compared to ordinary DC welding.

### PowerArc Pulse

Increase pulse welding speed by up to 30% compared to ordinary pulse welding.

# Graphic control panel

The graphic control panel simplifies advanced welding thanks to the wide selection of programs and intelligent welding technologies. It is intuitive to navigate functions and adjust welding parameters. It is easy to use for both welders and supervisors. It will contribute to making your daily working procedures efficient.

## The interface



The interface is user-friendly for both experienced and less experienced users. Well-known symbols and visual presentations of settings show how your adjustments will affect the weld.

## Upgrade via SD-card



If you want to upgrade your welding set-up, it is carried out as a software update via SD-card. You can update your machine throughout its entire service life.

## Lock specific settings



Use a lock card to lock the control panel in two levels. It defines which settings the user has access to. This is specifically useful if you need to comply with WPS's. The lock card is an optional feature.



## Detachable

Select a detachable control panel if you want to be able to take it with you. It allows the welder to adjust settings without moving away from the welding spot.

## Built-in

Some working environments wear out welding equipment faster than others. Select a built-in control panel if you want it to be even more resistant to impacts and the chaos that unfolds in a production hall.



“It is important for us to invest in modern machines and the latest technology. That is why we primarily use Migatron welding equipment. Recently, we invested in five Sigma Select machines. They are user-friendly, easily adjustable and therefore ideal for the custom-designed components in our production.”

*Peter Iversen, Production Manager and Co-founder at Brimas, Denmark*

## What our customers are saying...

### ..about versatility

“A wide range of software can be applied to the Sigma Select, making it an extremely versatile machine. It gives our specialised welders more freedom to do their job, as it can be programmed to support all our welding certifications. We are very satisfied, and we consider it a benchmark for future investments in new welding machinery.”

*Nordic Steel*

### ..about the control panel

“Our flexibility and ability to supply top quality depend on our access to the latest technology. We have not had welding machines with graphic control panels before, but it was not difficult to get used to. It is easy to find the right settings.”

*B&E Stål*

### ..about Power Arc Pulse

“Power Arc Pulse has increased the welding speed with 25 percent -without compromising quality or fusion. The welding is now more focused and stable. It has reduced the frequency of plate deformations in finished components, and reduced the amount of weld spatter remarkably. That has cut down our time spent on post-treatment with 50 percent.”

*Fjordvejs Maskinfabrik*

### ..about DUO Plus function

“With the Sigma Select and DUO Plus, we achieve beautiful welds with a minimum of spatter. Consequently, we discussed it with our customer who did not consider it a problem to switch to MAG welding. As a result, we have reduced our welding time for some components by 22 percent, mind you without affecting our high welding quality.”

*Weissenborn*

### ..about mobility

“We have tested the Sigma Select, and we are very impressed with its versatility, durability and user-friendliness. The portable control panel is a particularly valuable feature for us, as it provides our welders with a high degree of mobility.”

*J.E.Juncker*

### ..about Intelligent Gas Control

“Since we got the new machines with Intelligent Gas Control, our gas consumption dropped by 30 percent. Our gas supplier could not understand why this happened, and they called to ask if there was some kind of mistake. The new machines have therefore really given us a boost”.

*Nordic Steel Force*

# Every welder's closest ally



## TWIST 30° Torch

The TWIST 30° torches are developed specifically for aluminium wires. The degree of the swan neck is reduced from the standard 45° to 30°. Welders will experience a smooth and stable wire feeding, less errors due to liner failure and less replacements of liners. Welding with aluminium becomes less risky and more reliable.

## Smart Torch Modules

Add a Smart Torch module to your torch and be able to adjust welding parameters at the handle. Welders can fine-tune settings precisely down to one amp without being right next to the welding machine. This gadget is for welders who require accuracy and precision of arc adjustments or if they weld in sequences.



## Push-Pull Torch

The 10 meter long water cooled Push-Pull torch ensures precise and stable wire feeding of the softest welding wires, including aluminium. It lowers the risk of the soft wires moving sideways out of the rollers inside the torch during welding. Welders will experience extremely high wire feeding quality.



## Intermediary Wire Feeder (IWF)

The water cooled IWF is a lightweight and durable alternative for carrying around heavy wire feeders. It extends the welders' working ranges, so they are free to work as far as 30 meters from the power source. Add a Smart Torch module to the torch so welders can be away for hours and hours.



# Technical specifications

	Sigma Select 300   300 IAC	Sigma Select 400   400 IAC	Sigma Select 550
Current range (MIG)	15-300 A	15-400 A	15-550 A
Mains voltage +/- 15%	3 x 400 V	3 x 400 V	3 x 400 V
Fuse	16 A	20 A	35 A
Mains current, effective	11.0 A   16.0 A	17.5 A   16.5 A	27.2 A
Mains current, max.	15.4 A   18.3 A	26 A   28.2 A	39.2 A
Power, 100%	9.0 kVA   11.1 kVA	12.1 kVA   11.5 kVA	18.9 kVA
Power, max.	10.7 kVA   12.7 kVA	18.0 kVA   19.5 kVA	27.1 kVA
Open circuit voltage	50-60   65-70	65-70	75-80
Efficiency	85 %	85 %   80 %	90 %
Power factor	0.90	0.90	0.90
Duty cycle 100% /20°C (MIG)	290 A/28.5 V   300 A/29.0 V	345 A/31.5 V   310 A/29.5 V	475/37.8
Duty cycle max. /20°C (MIG)	-	400 A/65%/34.0 V   400 A/60%/34.0 V	550 A/60%/41.5 V
Duty cycle 100% /40°C (MIG)	220 A/25.0 V   270 A/27.5 V	300 A/29.0 V   280 A/28.0 V	430 A/35.5 V
Duty cycle 60% /40°C (MIG)	240 A/26.0 V   -	370 A/32.5 V   350 A/31.5 V	510 A/39.5 V
Duty cycle max. /40°C (MIG)	300 A/25%/29.0 V   300 A/80%/29.0 V	400 A/50%/34.0 V   400 A/40%/34.0 V	550 A/50%/41.5 V
Application class	S/CE	S/CE	S/CE
Protection class	IP 23S   IP 23	IP 23	IP 23
Standards	IEC60974-1. IEC60974-10 Cl. A	IEC60974-1. IEC60974-10 Cl. A	IEC60974-1. IEC60974-10 Cl. A
Dimensions C (H x W x L)	700 mm x 260 mm x 735 mm	700 mm x 260 mm x 735 mm	700 mm x 260 mm x 735 mm
Dimensions S (H x W x L)	454 mm x 260 mm x 735 mm	454 mm x 260 mm x 735 mm	454 mm x 260 mm x 735 mm
Weight C	36.9 kg   53 kg	52 kg   53 kg	53 kg
Weight S	26 kg   36 kg	35 kg   36 kg	36 kg

We reserve the right to make changes.

	MWF 30 wire feeder	MWF 32   33 wire feeder
Wire feed speed	0.5-30.0 m/min	0.5-30.0 m/min
Wire spool diameter	300 mm	300 mm
Duty cycle 100% /40°C	430 A/100%	430 A/100%
Torch connection	EURO	EURO
Protection class	IP 23	IP 23
Standards	IEC60974-5. -10 CL. A	IEC60974-5. -10 CL. A
Dimensions (HxWxL)	413x310x750 mm	457x260x672.5 mm
Weight	11.6 kg	32 kg

We reserve the right to make changes.

	MCU 1300 cooling unit
Cooling capacity (l/min.)	1300 W
Tank capacity	5 l
Max. pressure	5 bar
Max. temperature	70 °C
Standards	IEC60974-2. -10 CL.A
Dimensions (HxWxL)	207x260x680 mm
Weight	20 kg

We reserve the right to make changes.

# Service

## Get serviced by our large service network

Our network of Authorized Service Partners across Europe is ready to support your welding production. Authorized Service Partners have educated service technicians who are certified to perform professional service and maintenance. They know your welding machine and their service vehicles are packed with original spare parts, calibration measuring- and testing equipment.

Visit [migatronic.com/service](http://migatronic.com/service) to find your nearby service partner.

## Extend the warranty on your Sigma Select

You can be sure of high-quality products when you buy Migatronic. In addition to the warranty period of 2 years for new welding machines, you can extend the warranty up to 5 years.

To maintain the extended warranty, a yearly service check is required, including validation, calibration and safety test.

Register your newly purchased Sigma Select on [migatronic.com/warranty](http://migatronic.com/warranty) no later than 30 days from the date of purchase. Then you get up to 5 years warranty on selected components.



# Sigma Select

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Explore more on [migatronik.com](https://migatronik.com)

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