

MIG-MAG SYNERGIES EXPLAINED



ULTIMATE
COLLISION EQUIPMENT

Sales, Service, and Training
240-749-9042
sales@ultimatecollisionequipment.com

Synergic mode

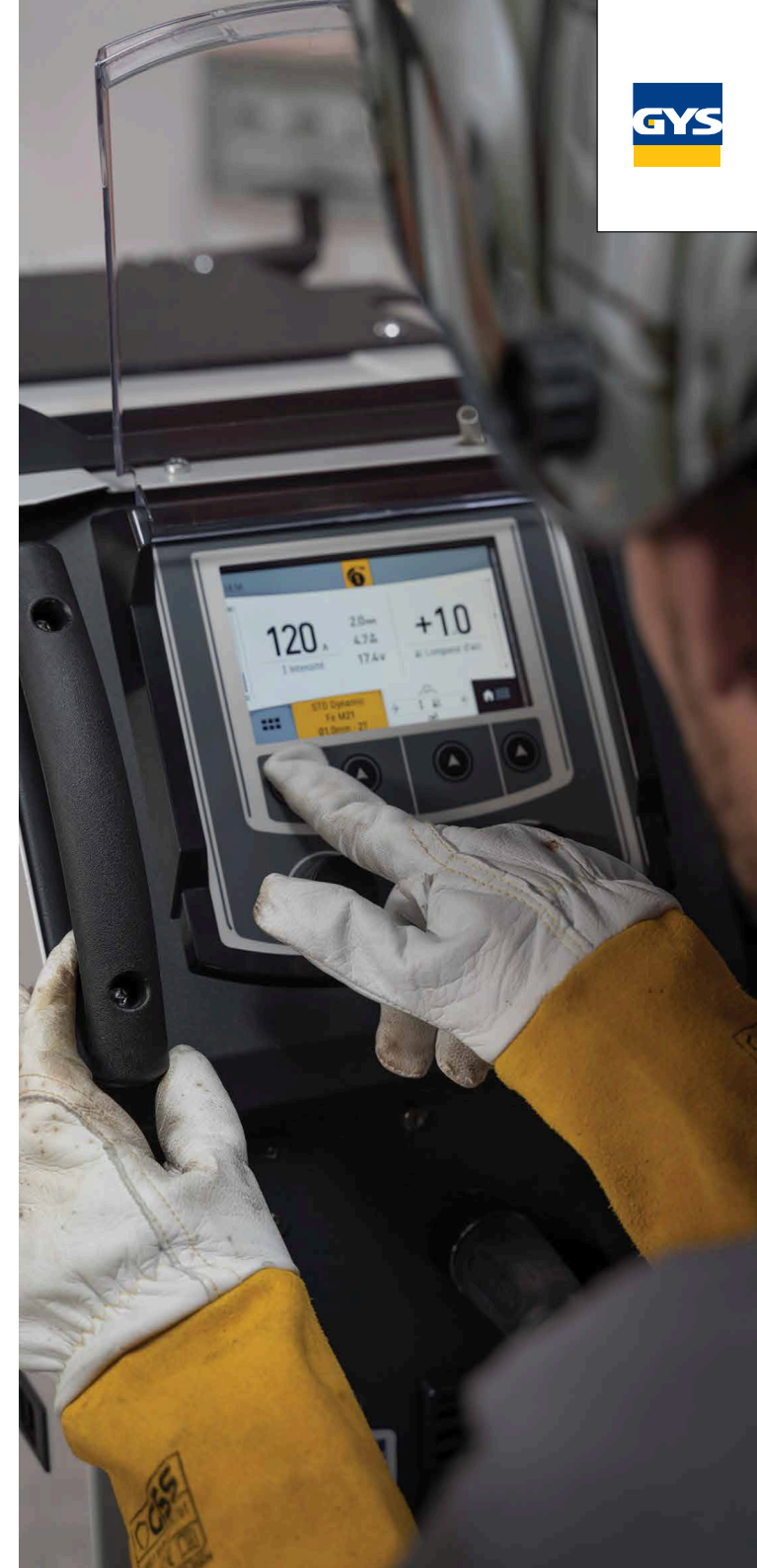
Asynergy is a welding aid that facilitates the adjustment of welding power sources.

After entering 4 pieces of data:

- 1 Material/gas
- 2 Wire diameter
- 3 Welding mode
- 4 Thickness

The product automatically determines the ideal welding parameters and allows you to adjust the settings (wire feed speed, voltage, current, arc length).

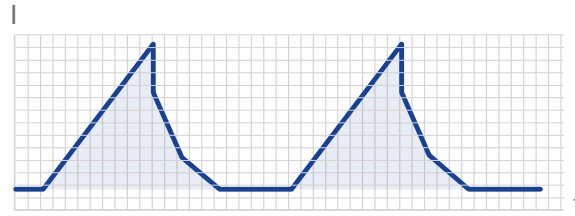
This eliminates time-consuming adjustments, and optimises the welding process.



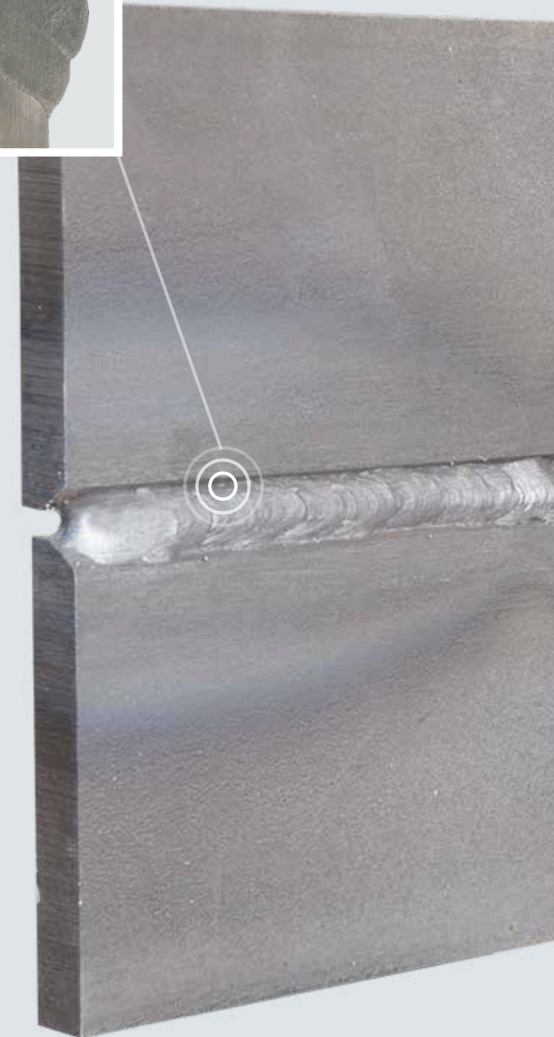
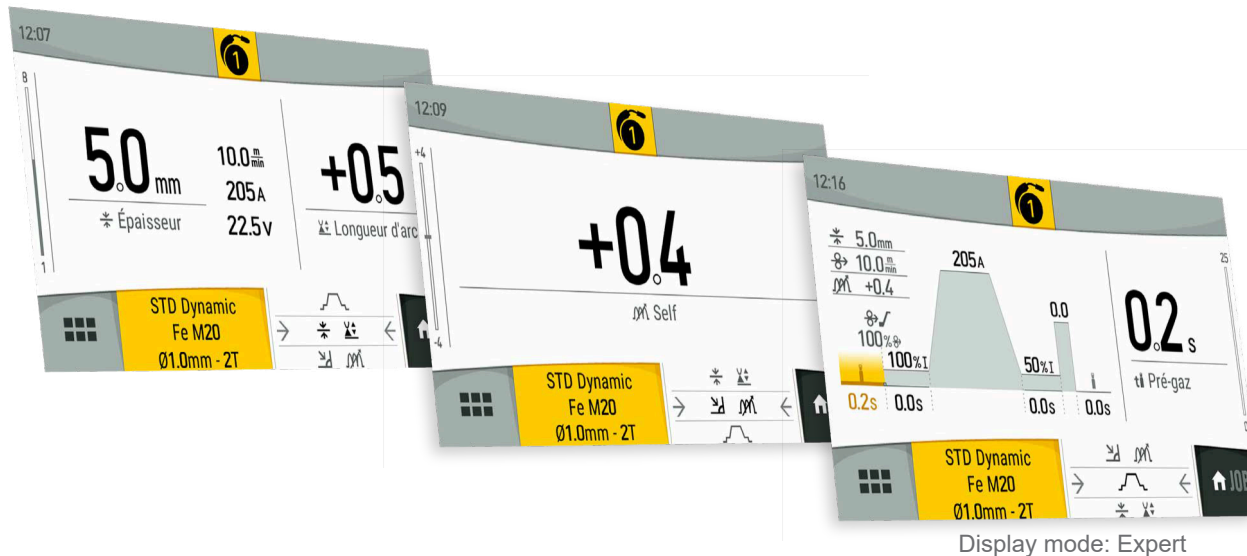
Welding mode #1

DYNAMIC STANDARD

Universal mode, high speed,
very compact



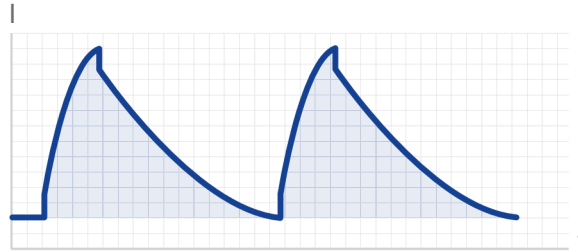
- Fully controlled and adaptive short circuit speed for easy welding
- Reduces globular phase and increases speed
- Quality weld in all positions
- Ideal for root passes on carbon and stainless steels
- Low spatter rate
- Excellent arc stability
- Range of use: 0.8 mm to 30 mm and more



Welding mode #2

STANDARD IMPACT

Concentrated electric arc,
deep penetration



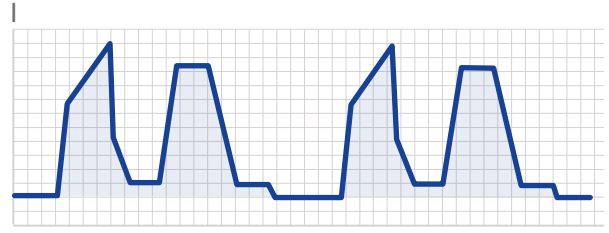
- Ideal for carbon steels
- High productivity, high welding speed
- Stable arc, low spatter, high deposition rate
- Ideal for multi-pass welding applications
- High heat transfer to the metal for a wide, smooth weld pool
- Application range: 1.5 mm to 30 mm and more



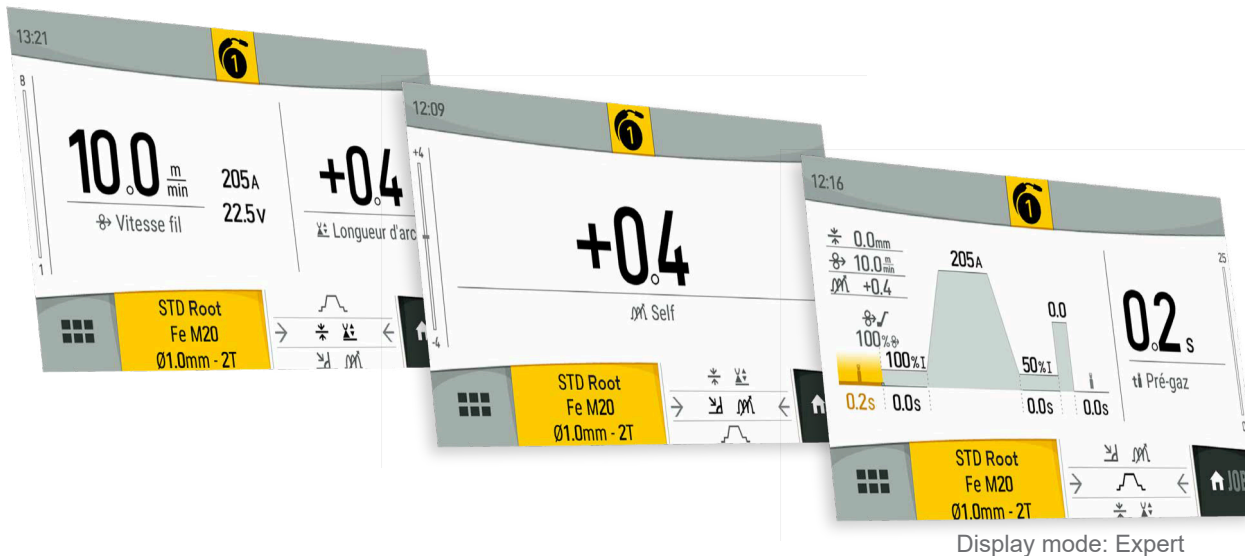
Welding mode #3

STANDARD ROOT

Bevel/chamfer root pass



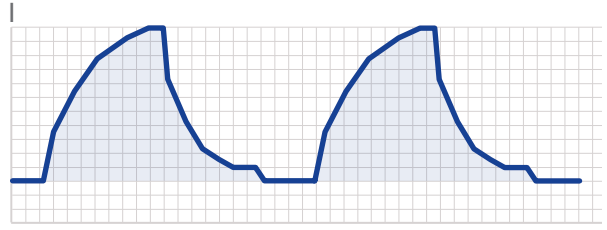
- Welding with penetration control
- Simplified welding of a root pass, without support, in all positions.
- Wider bead, flat root, superior fusion
- Used for pipeline welding
- Range of use: 0.5 mm to 5 mm



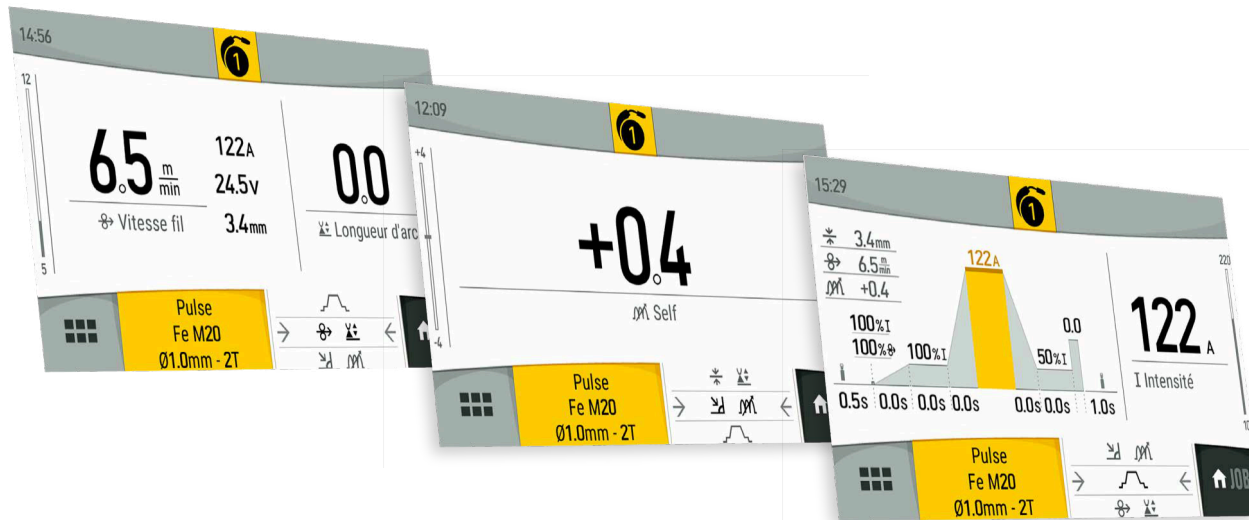
Welding mode #4

PULSE

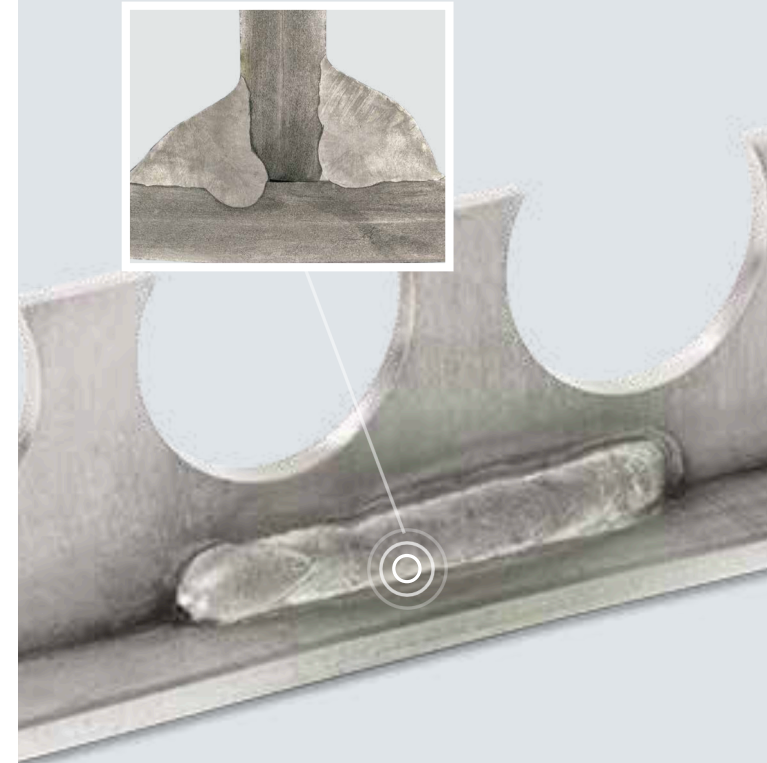
Easy to control in all positions,
low spatter



- High quality joints with minimal finishing
- More concentrated, lower heat input into the workpiece
- Less distortion
- No final bead crater and no cold weld
- TIG appearance weld beads with 5 times higher productivity
- Excellent arc stability
- Application range: 0.8 mm to 30 mm and more



Display mode: Expert



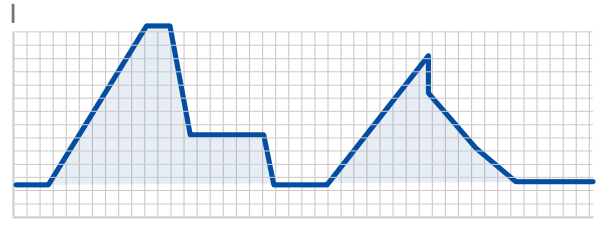
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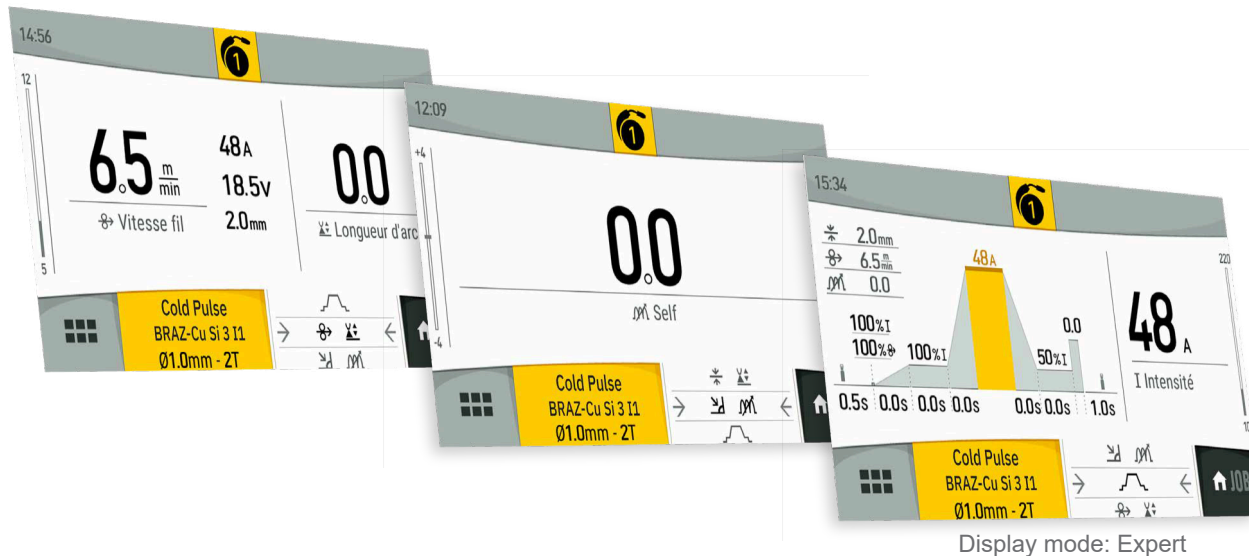
Welding mode #5

COLD PULSE

Very low heat input, spatter-free brazing



- Mode developed specifically for automotive manufacturers
- Extremely stable arc, ideal for thin sheets in all positions
- For brazing galvanised sheet metal with copper-silicon alloy filler wire
- Extremely low sheet deformation
- Compliance with manufacturer approvals
- Application range: 0.5 mm to 3 mm

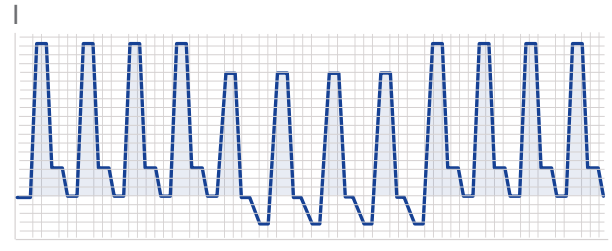


Welding mode #6

MODUL ARC

TIG appearance

MIG productivity



- Excellent welding quality in all positions
- Aesthetically superior weld beads
- Excellent control of heat input
- High productivity on aluminium
- Improved weld pool control for better operator comfort
- Range of use: 0.8 mm to 30 mm and more

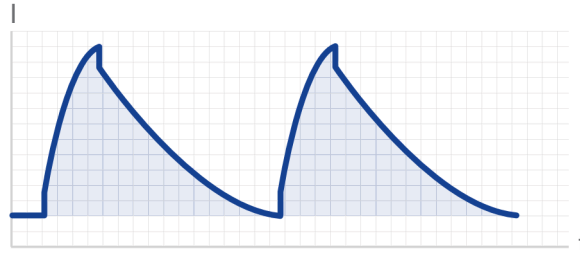


Welding mode #7

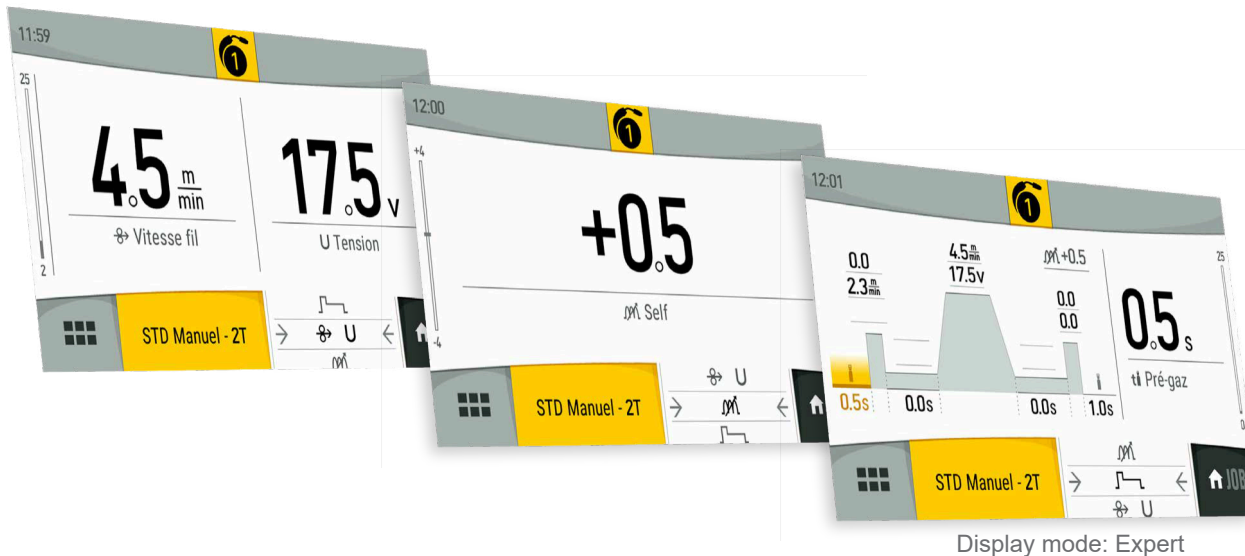
MANUAL

Simple and effective

Suitable for all wire



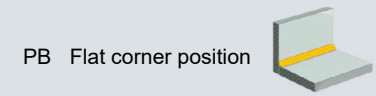
- Suitable for most welding applications
- Manual adjustment of wire voltage/speed and choke if required
- Ideal for welding on carbon steel
- Suitable for experienced welders and DMOS welding
- Operating range: 1mm to 30mm



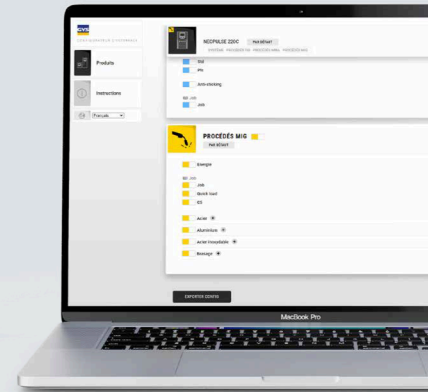
		Welding mode	DYNAMIC STANDARD				STANDARD IMPACT		STANDARD ROOT		PULSE			COLD PULSE	
		Wire diameter	0,6	0,8	1,0	1,2	0,8	1,0	0,8	1,0	0,8	1,0	1,2	0,8	1,0
		Welding position	PB				PB		PB		PB			PB	
		Code synergie	006	008	010	012	708	710	108	110	508	510	512	608	610
STEEL	101	Fe Ar 15-20%Co2 M21	✓	✓	✓		✓	✓	✓	✓	✓				
	102	Fe Ar 8-10%Co2 M20	✓	✓	✓				✓	✓	✓	✓			
	103	Fe 100%Co2 C1	✓	✓	✓				✓	✓					
	107	Mn4Ni3CrMo Ar 15-20%Co2 M21		✓							✓				
	108	Fe Ar 25%Co2 M21	✓	✓	✓						✓	✓			
ALUMINIUM	201	Al Mg 5 Ar 100% I1		✓	✓	✓					✓	✓	✓		
	202	Al Mg 3 Ar 100% I1		✓	✓	✓					✓	✓	✓		
	203	Al Si 5 Ar 100% I1		✓	✓	✓					✓	✓	✓		
	204	Al Si 12 Ar 100% I1		✓	✓	✓					✓	✓	✓		
	206	Al Mg 2,7 Mn Ar100% I1				✓							✓		
	207	Al Si 10 Cu 4 100% I1				✓							✓		
	208	AlMg 4,5Mn 10-20%He AlMg I3			✓	✓									
	209	4,5Mn 100% Ar I1			✓	✓									
	210	Al Mg 5 Ar 10-20%He I3			✓	✓									
	211	Al Mg 3 Ar 10-20%He I3			✓	✓									
	STAINLESS STEEL	301	Cr Ni 308 Ar 2%Co2 M12		✓	✓						✓	✓		
302		Cr Ni 316 Ar 2%Co2 M12		✓	✓						✓	✓			
303		Cr Ni 307 Ar 2%Co2 1%H Cr M11			✓							✓			
304		Ni 309 Ar 2% Co2 M12		✓	✓						✓	✓			
305		Cr Ni 310 Ar 2%Co2 M12			✓							✓			
306		Cr Ni 307 Ar 2%Co2 M12			✓							✓			
308		DUPLEX 2209 Ar 2%Co2 M12										✓			
BRAZING		701	Cu Si 3 Ar 100% I1		✓	✓						✓	✓		✓
	702	Cu Al 8 Ar 100% I1		✓	✓						✓	✓			

Legend

- ✓ Synergy available for the product
- ✓ Synergy available for download via the interface configurator



PB Flat corner position



Interface configurator

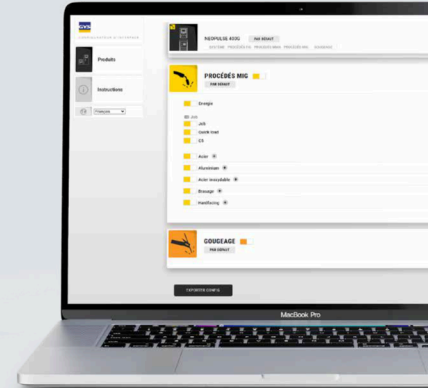
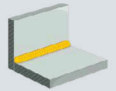
This tool, accessible via the Internet, allows you to customise the interface: activate or deactivate synergies, limit access to certain welding processes, hide functions, etc. A [GYS account](#) is required.

	Welding mode	Wire diameter	Welding position	Synergy code	DYNAMIC STANDARD					STANDARD IMPACT			STANDARD ROOT			PULSE				COLD PULSE	
					0,8	1,0	1,2	1,6*	2,4*	0,8	1,0	1,2	0,8	1,0	1,2	0,8	1,0	1,2	1,6*	0,8	1,0
			PB		008	010	012	016	024	708	710	712	108	110	112	508	510	512	516	608	610
STEEL	101	Fe Ar 15-20%Co2	M21		✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
	102	Fe Ar 8-10%Co2	M20		✓	✓	✓	✓					✓	✓	✓	✓	✓	✓	✓		
	103	Fe 100%Co2	C1		✓	✓	✓	✓					✓	✓	✓						
	104	FCW M Ar 15-20%Co2	M21				✓	✓													
	105	FCW R Ar 15-20%Co2	M21				✓	✓													
	106	FCW B Ar 15-20%Co2	M21				✓	✓													
	108	Fe Ar 25%Co2	M21		✓	✓	✓	✓								✓	✓	✓	✓		
	ALUMINIUM	201	Al Mg 5 Ar 100%	I1		✓	✓	✓	✓								✓	✓	✓	✓	
202		Al Mg 3 Ar 100%	I1		✓	✓	✓	✓								✓	✓	✓	✓		
203		Al Si 5 Ar 100%	I1		✓	✓	✓	✓								✓	✓	✓	✓		
204		Al Si 12 Ar 100%	I1		✓	✓	✓	✓								✓	✓	✓	✓		
206		Al Mg 2,7 Mn Ar100%	I1				✓											✓			
207		Al Si 10 Cu 4 100%	I1				✓											✓			
208		AlMg 4,5Mn 10-20%He	I3			✓	✓										✓	✓			
209		AlMg 4,5Mn 100% Ar	I1			✓	✓										✓	✓			
210		Al Mg 5 Ar 10-20%He	I3			✓	✓										✓	✓			
211		Al Mg 3 Ar 10-20%He	I3			✓	✓										✓	✓			
STAINLESS		301	Cr Ni 308 Ar 2%Co2	M12		✓	✓	✓	✓								✓	✓	✓	✓	
	302	Cr Ni 316 Ar 2%Co2	M12		✓	✓	✓	✓								✓	✓	✓	✓		
	303	Cr Ni 307 Ar 2%Co2 1%H	M11			✓	✓										✓	✓			
	304	Cr Ni 309 Ar 2% Co2	M12		✓	✓	✓										✓	✓			
	305	Cr Ni 310 Ar 2%Co2	M12			✓											✓				
	306	Cr Ni 307 Ar 2%Co2	M12			✓	✓										✓	✓			
	308	DUPLEx 2209 Ar 2%Co2	M12			✓	✓										✓	✓			
	BRAZING	701	Cu Si 3 Ar 100%	I1		✓	✓	✓									✓	✓	✓		✓
702		Cu Al 8 Ar 100%	I1		✓	✓	✓									✓	✓	✓			
HARDFACING	501	HARDFACE Metal	O				✓	✓	✓												
	502	HARDFACE Basic	O				✓	✓	✓												
	503	HARDFACE Rutil	O				✓	✓	✓												
	504	HARDFACE COBALT Ar	I1				✓											✓			
	505	HARDFACE Cr Co2 2,5%	M12				✓											✓			
	507	FCW 308L ArCo2 2,5%	M12				✓											✓			
	506	HARDFACE Tool Co2 18%	M21				✓											✓			
	508	FCW ROBO Rutil 18%Co2	M21				✓														
	509	FCW 308L Rutil 18%Co2	M21				✓														
	510	FCW NiCr Basic 18%Co2	M21				✓														
	511	HARDFACE 60 HRC	M21				✓												✓		

Legend

- ✓ Synergy available for the product
- ✓ Synergy available for download via the interface configurator
- * Not available for NEOPULSE 320 C

PB Flat corner position



Interface configurator

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GALAXY 220 / 250 / 320

GALAXY 400

Welding mode
Wire diameter
Welding position
Synergy code

	10	1	10	2	10	3	216	10	4	11	3	301	302	701
STEEL	Fe Ar Co2 15-20%	Fe Ar Co2 8-12%	Fe Co2 100%	FCW M Ar Co2 15-20%	Fe No Gas	ALUMINIUM	Al Mg Ar 100%	Al Si Ar 100%	STAINLESS STEEL	Cr Ni 308 Ar 2%Co2	Cr Ni 316 Ar 2%Co2	BRAZING	Cu Si Ar 100%	
	M21	M20	C1	M21	O		I1						I1	M12

STANDARD				PULSE		
0,8	1,0	1,2	1,6*	0,8	1,0	1,2
PB				PB		
708	710	712	716	508	510	512
✓	✓	✓		✓	✓	
✓	✓	✓		✓	✓	
✓	✓	✓				
		✓	✓			
		✓	✓			
✓	✓	✓		✓	✓	✓
	✓	✓			✓	✓
✓	✓	✓		✓	✓	
✓	✓	✓		✓	✓	
✓	✓			✓	✓	

STANDARD				PULSE			
0,8	1,0	1,2	1,6	0,8	1,0	1,2	1,6
PB				PB			
708	710	712	716	508	510	512	516
✓	✓	✓		✓	✓	✓	
✓	✓	✓		✓	✓	✓	
✓	✓	✓					
		✓	✓			✓	✓
		✓	✓				
✓	✓	✓		✓	✓	✓	
	✓	✓			✓	✓	
✓	✓	✓		✓	✓	✓	
✓	✓			✓	✓		

Legend

- ✓ Synergy available for the product
- * Not available for GALAXY 220/250

PB Flat corner position

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	Welding mode	Wire diameter	Welding position	Synergy code
STEEL	10	Fe Ar Co2 15-20%	M21	
	1	Fe Ar Co2 8-12%	M20	
	10	Fe Co2 100%	C1	
	2	FCW M Ar Co2 15-20%	M21	
	10	Fe No Gas	O	
ALUMINIUM	3 216 10	Al Mg Ar 100%	I1	
	4 217 11	Al Si Ar 100%	I1	
	3 301	Cr Ni 308 Ar 2%Co2	M12	
STAINLESS STEEL	302	Cr Ni 316 Ar 2%Co2	M12	
	701	Cu Si Ar 100%	I1	

KRONOS STANDARD

0,8	1,0	1,2	1,6*
PB			
708	710	712	716
✓	✓	✓	
✓	✓	✓	
✓	✓	✓	
		✓	✓
		✓	✓
✓	✓	✓	
	✓	✓	
✓	✓	✓	
✓	✓	✓	
✓	✓		

NEOMIG STANDARD

0,8	1,0	1,2	1,6
PB			
708	710	712	716
✓	✓	✓	✓
✓	✓	✓	✓
✓	✓	✓	
✓	✓	✓	
	✓	✓	
✓	✓	✓	
✓	✓	✓	
✓	✓		

Legend

- ✓ Synergy available for the product
- * Not available for KRONOS 250/320



Synergies

AUTOPULSE

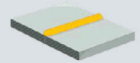


		Welding mode	IMPACT STANDARD				PULSE			COLD PULSE	
			0,6	0,8	1,0	1,2	0,8	1,0	1,2	0,8	1,0
		Wire diameter	PA				PA			PA	
		Welding position	PA				PA			PA	
		Synergy code	006	008	010	012	508	510	512	608	610
STEEL	101	Fe Ar Co2 15-20%	M21	✓	✓	✓		✓	✓		
	102	Fe Ar Co2 8-10%	M20	✓	✓	✓		✓	✓		
	103	Fe Co2 100%	C1	✓	✓	✓					
	107	Mn4Ni2,5CrMo	M21		✓			✓			
	108	Fe Ar 25% Co2	M21	✓	✓	✓		✓	✓		
ALUMINIUM	201	Al Mg 5 Ar 100%	I1		✓	✓	✓	✓	✓	✓	
	202	Al Mg 3 Ar 100%	I1		✓	✓	✓	✓	✓	✓	
	206	Ford 5554	I1				✓			✓	
	203	Al Si 5 Ar 100%	I1		✓	✓	✓	✓	✓	✓	
	204	Al Si 12 100%	I1		✓	✓	✓	✓	✓	✓	
	206	Al Mg 2,7 Mn Ar100%	I1		✓	✓	✓	✓	✓	✓	
	207	Al Si 10 Cu 4 100%	I1				✓			✓	
						✓				✓	
BRAZING STAINLESS STEEL	301	Cr Ni 308 Ar 2%Co2	M12		✓	✓		✓	✓		
	302	Cr Ni 316 Ar 2%Co2	M12		✓	✓		✓	✓		
BRAZING	701	Cu Si 3 Ar 100%	I1		✓	✓		✓	✓	✓	✓
	702	Cu Al 8 Ar 100%	I1		✓	✓		✓	✓		

Legend

✓ Synergy available for the product

PA Flat position



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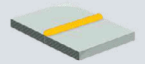
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				P GYS AUTO				E GYS AUTO							
				STANDARD				PULSE				STANDARD			
Welding mode				0,6	0,8	1,0	1,2	0,8	1,0	1,2	0,6	0,8	1,0	1,2	
Wire diameter				PA				PA				PA			
Welding position				006	008	010	012	508	510	512	706	708	710	712	
Synergy code															
STEEL	10	Fe Co2 100%	C1	✓	✓	✓					✓	✓	✓		
	3	Mn4Ni3CrMo Co2 8-12%	M20		✓			✓							
	10	Fe Ar Co2 8-25%	M21	✓	✓	✓		✓	✓		✓	✓	✓		
ALUMINIUM	7	Al Mg 2,7 Mn	I1			✓	✓		✓	✓					
	11	TESLA Al Si 10 Cu4	I1				✓			✓					
	2	Al Mg Ar 100%	I1		✓	✓	✓	✓	✓	✓		✓	✓	✓	
	20	Al Si Ar 100%	I1		✓	✓	✓		✓	✓		✓	✓	✓	
STAINLESS STEEL	6														
	20														
	309	Cr Ni Ar 2%Co2	M12		✓	✓		✓	✓			✓	✓		
	21														
BRAZING	6														
	701	Cu Si Ar 100%	I1		✓	✓		✓	✓			✓	✓		
	7														
	702	Cu Al Ar 100%	I1		✓	✓		✓	✓			✓	✓		

Legend

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PA Flat position



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