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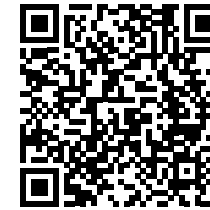
# MIG-MAG SYNERGIES

GYS expertise dedicated to welders



# NEOPULSE

220 C / 220 C XL



# NEOPULSE

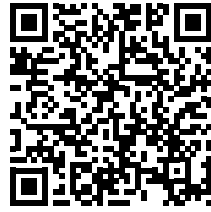
320 C / 400 G / 500 G



	Welding mode	STANDARD DYNAMIC				PULSE			STANDARD IMPACT	
		Wire diameter (mm)				0.8	1.0	1.2	0.8	1.0
		0.6	0.8	1.0	1.2	508	510	512	708	710
Synergy code		006	008	010	012					
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	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 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		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			✓			✓		
BRAZING	701 Cu Si 3 Ar 100%	I1		✓	✓		✓	✓		
	702 Cu Al 8 Ar 100%	I1		✓	✓		✓	✓		

	Welding mode	STANDARD DYNAMIC					PULSE				STANDARD IMPACT				
		Wire diameter (mm)					0.8	1.0	1.2	1.6*	2.4*	0.8	1.0	1.2	
		0.8	1.0	1.2	1.6*	2.4*	508	510	512	516	708	710	712		
Synergy code		008	010	012	016	024									
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	✓	✓	✓	✓		✓	✓	✓	✓				
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 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	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		✓	✓				✓	✓					
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			✓							✓			

\*1.6 and 2.4 not available for the NEOPULSE 320 C



# AUTOPULSE

220-M3 / 320-T3



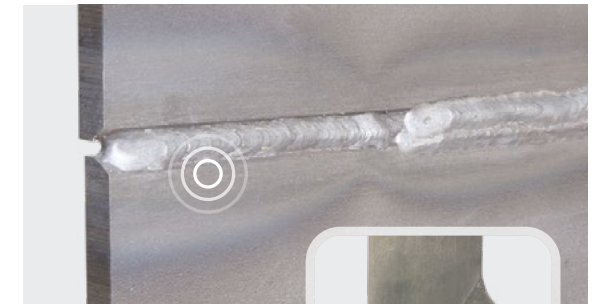
# MIG-MAG welding modes



Understand and choose the right welding mode for a perfect weld

## 1 STANDARD DYNAMIC

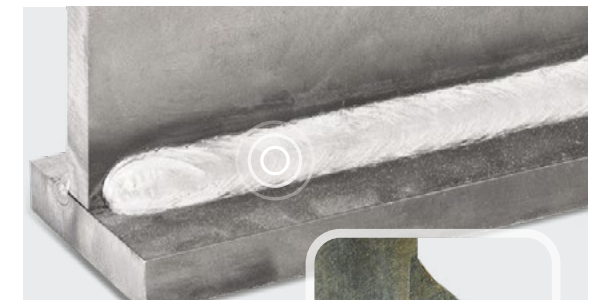
Universal mode, high travel speed, excellent density



- Controlled short-circuit transfer for an easy weld
- Reduce the globular transfer phase and increase the travel speed
- Good quality bead in all positions
- Ideal for root passes in carbon and stainless steels
- Low spatter
- Excellent arc stability
- Operating range : 0.8mm to 30mm & more

## 2 STANDARD IMPACT

Focused arc, deep penetration

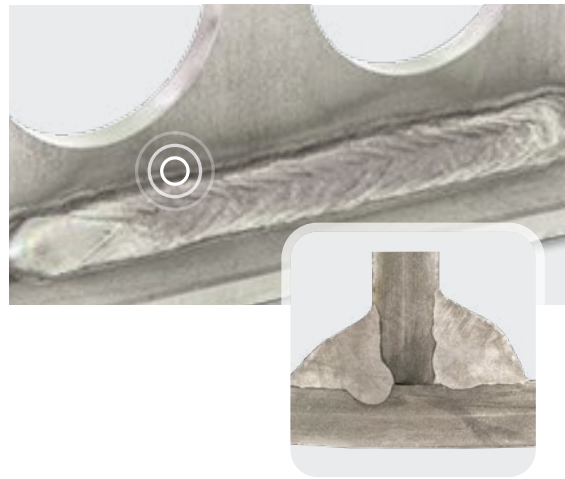
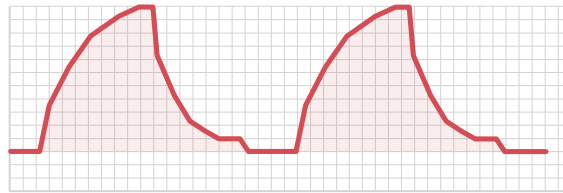


- Ideal for carbon steels
- High level of productivity, very high travel speed
- Good bead control, low spatters, high deposition rate
- Ideal for multi-passes welding jobs
- High heat transfer on the base material for a large and smooth weld pool
- Operating range : 1.5mm to 30mm & more

Welding mode			DYNAMIC STANDARD				PULSE			COLD PULSE	
Wire diameter (mm)			0.6	0.8	1.0	1.2	0.8	1.0	1.2	0.8	1.0
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				✓				✓
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		✓	✓		✓	✓		✓

### 3 PULSE

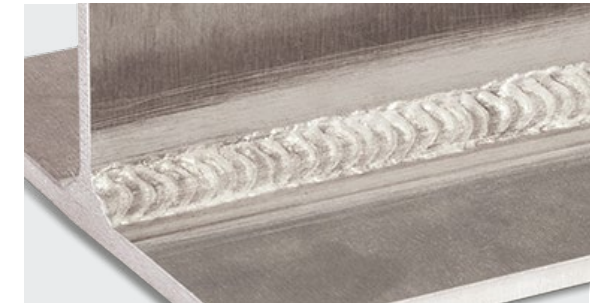
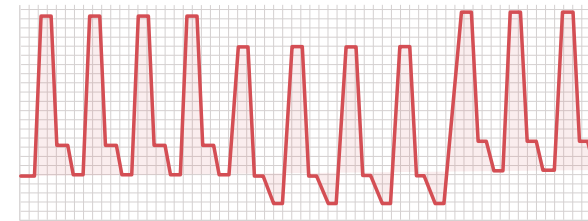
Easy to handle in all positions,  
low spatter



- Good quality bead with minimum post-welding work
- Lower heat input and more focused on the workpiece
- Less distortions
- No weld end crater and no risk of incomplete fusion
- Beads appearance similar to TIG welding with a productivity 5 times higher
- Excellent arc stability
- Operating range : 0.8 mm to 30 mm & more

### 5 MODULARC

TIG bead appearance  
MIG productivity



- Optimal weld quality in all positions
- Excellent bead appearance
- Outstanding heat input control
- High productivity on aluminium
- Improved weld pool control to optimise welder comfort
- Operating range : 0.8mm to 30mm & more

### 4 COLD PULSE

Reduced heat input, brazing with  
no spatter



- Developed especially for OEM car manufacturers
- Very stable arc, ideal for thin sheets in all positions
- Brazing galvanised sheets with copper-silicon alloy filler metal
- Distortions of the sheets extremely reduced
- Meet car manufacturers requirements & approvals
- Operating range : 0.5mm to 3mm

### 6 MANUAL

Simple and efficient  
Suitable for all welding wires



- Compatible with most of the welding applications
- Manual adjustment of the voltage/wire feed speed and self if needed
- Ideal for carbon steel welding
- Convenient for experienced welders and when following a WPS
- Operating range : 1mm to 30mm